

# STAGE 2 MOORSIDE CONSULTATION TECHNICAL RESPONSE

CUMBRIA COUNTY COUNCIL

JULY 2016



# STAGE 2 MOORSIDE CONSULTATION TECHNICAL RESPONSE

CUMBRIA COUNTY COUNCIL

Project no: 70017946  
Date: July 2016

**WSP | Parsons Brinckerhoff**

The Victoria  
150-182 The Quays  
Salford  
Manchester  
M50 3SP

Tel: +44 161 886 2400  
Fax: +44 161 886 2401  
[www.wsp-pb.com](http://www.wsp-pb.com)



# QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1	REVISION 2	REVISION 3
Remarks				
Date				
Prepared by				
Signature				
Checked by	Denice Gallen			
Signature	 <small>           Gallen, Denice            cn=Gallen, Denice, ou=Manchester,            email=Denice.Gallen@pwworld.com            Manchester            2016.07.29 17:05:05 +0100         </small>			
Authorised by	Marcus Wood			
Signature	Wood, Marcus <small>             Digitally signed by Wood, Marcus              DN: cn=Wood, Marcus, ou=Manchester,              email=WoodM@pwworld.com              Reason: I am approving this              document              Date: 2016.07.29 17:08:45 +0100           </small>			
Project number				
Report number				
File reference				



---

# PRODUCTION TEAM

## CLIENT

Cumbria County Council

## WSP | PARSONS BRINCKERHOFF

Strategic Transport	Vincent Holden, Regional Associate
Harbours	Hamish Hall , Director
Ports	Chris Lomax, Technical Director
Transport Planner – Rail	Graham James, Regional Associate
Historic Environment	Alison Plummer, Team Leader
Groundwater	Martin Lucass, Principal Hydro geologist
Surface Water	Joanna Goodwin, Principal Engineer
Environmental	Sarah Cotterill, Principal Environmental Consultant
Strategic Planning	Denice Gallen , Senior Town Planner

## SUBCONSULTANTS

DCO Specialist support	Alyn Jones
Socio-economic advisor	Gareth Jones



# TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.2	ADEQUACY OF CONSULTATION.....	1
<b>2</b>	<b>RESPONSE TO QUESTIONS POSED.....</b>	<b>3</b>
<b>3</b>	<b>TRANSPORT .....</b>	<b>9</b>
3.1	INTRODUCTION .....	9
3.2	KEY ISSUES .....	9
3.3	EVIDENCE AND DETAIL.....	10
<b>4</b>	<b>COUNTRYSIDE ACCESS .....</b>	<b>27</b>
4.1	INTRODUCTION .....	27
4.2	KEY ISSUES .....	27
4.3	EVIDENCE AND DETAIL.....	28
4.4	OVERARCHING COMMENTS.....	30
<b>5</b>	<b>SOCIO-ECONOMICS .....</b>	<b>35</b>
5.1	INTRODUCTION .....	35
5.2	KEY ISSUES .....	35
5.3	EVIDENCE AND DETAIL.....	36
5.4	OVERARCHING COMMENTS.....	50
<b>6</b>	<b>HISTORIC ENVIRONMENT.....</b>	<b>52</b>
6.1	INTRODUCTION .....	52
6.2	KEY ISSUES .....	52
6.3	EVIDENCE AND DETAIL.....	52
6.4	OVER ARCHING COMMENTS.....	55
<b>7</b>	<b>GROUNDWATER &amp; SURFACE WATER .....</b>	<b>58</b>
7.1	INTRODUCTION .....	58

7.2	KEY ISSUES .....	58
7.3	EVIDENCE AND DETAIL.....	58
7.4	OVER ARCHING COMMENT .....	60
<b>8</b>	<b>MINERALS AND WASTE.....</b>	<b>62</b>
8.1	INTRODUCTION .....	62
8.2	KEY ISSUES .....	62
8.3	EVIDENCE AND DETAIL.....	63
8.4	OVER ARCHING COMMENTS.....	63
<b>9</b>	<b>CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN .....</b>	<b>64</b>
9.1	INTRODUCTION .....	64
9.2	KEY ISSUES .....	64
9.3	EVIDENCE AND DETAIL.....	65
<b>10</b>	<b>DRAFT PROPERTY SUPPORT VOLUNTARY MITIGATION....</b>	<b>72</b>
10.1	INTRODUCTION .....	72
10.2	KEY ISSUES .....	72
10.3	EVIDENCE AND DETAIL.....	72
<b>11</b>	<b>SUMMARY OF COUNCIL CONCERNS.....</b>	<b>74</b>
11.1	INTRODUCTION .....	74
11.2	KEY ISSUES .....	74
11.3	EVIDENCE & DETAILED REVIEW OF STAGE 1 CONSULTATION FEEDBACK.....	75
11.4	REVIEW OF CONSULTATION FEEDBACK.....	75
11.5	EVIDENCE AND DETAILED REVIEW OF STAGE 2 CONSULTATION .....	79
11.6	PLANNING POLICY FRAMEWORK .....	81
11.7	SECURING LEGACY BENEFIT .....	81
11.8	TRANSPORT.....	82
11.9	ADDITIONAL CONSULTATION.....	83

REVIEW OF HIGHWAYS INFORMATION PRESENTED AS PART OF THE STAGE 2 MOORSIDE CONSULTATION .....	2
REVIEW OF RAIL INFORMATION PRESENTED AS PART OF THE STAGE 2 MOORSIDE CONSULTATION.....	15
REVIEW OF THE PORTS AND MARINE INFORMATION PRESENTED AS PART OF THE STAGE 2 CONSULTATION.....	27
REVIEW OF INFORMATION ON THE MOLF PRESENTED AT PART OF THE STAGE 2 CONSULTATION ON THE MOORSIDE PROJECT.....	30

---

## TABLES

TABLE 4-1 REVIEW OF DETAIL AND EVIDENCE PEIR CHAPTER 9 COUNTRYSIDE	28
TABLE 6-1 REVIEWING THE EVIDENCE PRESENTED IN CHAPTER 12 .....	52
TABLE 12-1 REVIEW OF DRAFT CEMP .....	65
TABLE 12-1 SUMMARY OF STAGE 1 ISSUES RAISED AND RESPONSES .....	76
TABLE 13-1 IDENTIFICATION OF IMPACTS TO CFRS AND THE LOCAL COMMUNITIES.....	3

---

## FIGURES

IMAGE 3-2 GOOGLE EARTH IMAGES OF FORESHORE.....	25
---	----

---

## APPENDICES

### **APPENDIX A          CCC LETTER TO NUGEN ON TRANSPORT**

APPENDIX A-1 HIGHWAYS DETAILED REVIEW

APPENDIX A-2 RAIL DETAILED REVIEW

APPENDIX A-3 PORTS AND MARINES EVIDENCE AND DETAIL

APPENDIX A-4 MOLF DETAILED REVIEW

### **APPENDIX B          FIRE& RESCUE IMPACT ASSESSMENT**



# 1 INTRODUCTION

- 1.1.1 This technical response to the Moorside Stage 2 consultation has been prepared on behalf of Cumbria County Council by WSP| Parsons Brinckerhoff. It provides detailed comments on the Stage 2 documents, as well as further information to support the comments made in the Council's main response. It has been undertaken in parallel with a response prepared by Copeland Borough Council and has sought to avoid duplicating comments made by Copeland Borough Council.
- 1.1.2 Whilst focusing mainly on the Preliminary Environmental Information Report (PEIR), the Council also provides comments and feedback on the following documents released as part of the Stage 2 consultation:
- Draft Outline Construction Environment Management Plan
  - Draft Outline Transport Strategy
  - Draft Property Support Scheme and Voluntary Local Mitigation Scheme
  - Interim Consultation Report
- 1.1.3 **It should be noted that the absence of comment does not infer agreement.**
- 1.1.4 The Council notes that many aspects of the proposed project remain to be refined and detailed and hence aspects of the PEIR similarly remain to be refined and agreed. Therefore the Council's comments are based on the scope of material received and may not include all the points or examples the Council would like to make. For these reasons, comments may be subject to change and addition once further detail is available.
- ## 1.2 ADEQUACY OF CONSULTATION
- 1.2.1 Whilst there is broad support for the over-arching objectives proposed by NuGen, the Council has significant concerns that will need to be adequately addressed in order for it to be able to support the proposed development at DCO Examination. The Council has major concerns about the substance, evidence and level of detail provided and is concerned that it, the public and other consultees, have not had a genuinely informed opportunity to comment on and help shape key aspects of the proposals prior to the submission of the DCO.
- 1.2.2 The Council does not consider that the Stage 2 consultation fulfils the requirements of the Planning Act 2008. Specifically, the Council does not consider that *the important issues have been sufficiently articulated and considered as far as possible in advance of submission* (Paragraph 15 of the DCLG's Guidance on the Pre-Application Process), across a range of matters but with particular reference to transport, health impacts, site design and materials management (for example the proposed landscape mounds) and socioeconomic matters arising from the influx of construction workforce.
- 1.2.3 Accordingly, the Council wishes NuGen to undertake a further, formal, round of consultation prior to the submission of the DCO application programmed for April 2017, in order to address the concerns highlighted here.



## 2 RESPONSE TO QUESTIONS POSED

2.1.1

The Council has concerns that none of the questions seeking views on the Moorside project are focused on the design or impacts of the proposed Marine Offloading Facility (MOLF). Considering the substantial impact this element of the proposal will have on the local environment, potential economic impacts and future legacy it is surprising and disappointing that NuGen has not sought specific comments from the public in relation to the MOLF. It is suggested that further details and a specific question should be included within further formal consultation prior to DCO submission.

### QUESTION 1 DESIGN ASPECTS OF SUPPORT BUILDINGS:

---

- Copeland Borough Council, in consultation with Cumbria County Council, has prepared a 'Legacy Master plan for Associated Development Sites.' It is considered that the design principles put forward through that and supplementary documents should be taken into consideration when designing and preparing site Masterplans for AD sites.
- Reference to a visitor centre within the landscaping mounds is mentioned, which may include conference facilities and a viewing platform / elevated walkway. Further detail on the visitor centre has not been provided, although NuGen does state that the precise location of this building has not yet been finalised. The Council considers that, if a visitor centre is sited in this location, it should integrate with the potential future use of the mounds for habitat creation, recreation and public open space. However, the Council would prefer to see the visitor centre located elsewhere for a number of reasons. Firstly, a visitor centre within a nearby settlement would encourage visitors into the town, bring visitor spend and support economic regeneration. Secondly, the Council has concerns about the logic of siting a visitor facility close to operational nuclear sites, which has implications for emergency planning. Lastly, a visitor centre here is likely to generate additional traffic, which would place further demand on the highway network and is not easily served by public transport.
- As the locations of facilities have not yet been determined it is superficial to consult on the materials and colours with which the buildings should be finished.

### QUESTION 2 VIEWS ABOUT THE MOUNDS:

---

- The consultation does not provide any supporting information on the justification for the proposed siting of the mounds, which are in close proximity to Beckermeth and Braystones. The proposed mounds will have a significant impact on the local area and surrounding landscape and without the supporting evidence as to why the proposed location has been chosen the Council cannot support the proposed scheme. The Council has previously called for a clear explanation of the design and layout strategy (discussion document to inform PEIR March 2016), setting out the assumptions and constraints influencing design decisions. This should include for example an explanation of why all the spoil must remain on site and (given the amount of spoil) why the site boundary was set in a way which seems to constrain optimal design solutions.
- Furthermore an outline programme giving indicative periods in years for the construction, operation and completion of the proposed mounds is required to assess the duration of the impact on the local community.
- The Council has requested on a number of occasions that a setting assessment be undertaken for the proposed development in respect of heritage assets. The current consultation refers to the need for a setting assessment but it is still unclear if this has been carried out. Within the PEIR it states that assets close to the site boundary have a higher potential for significant effects on setting.

- The magnitude of the effect is dependent upon the importance of the asset and the sensitivity of the setting i.e. its value to the significance of the asset. Furthermore, setting has no set limits or boundaries and so an asset some distance away can suffer the same level of harm as one close to the site.
- It is considered that the current assessment of the proposed mounds is incomplete and requires further clarity and should also include the duration of construction, on-going activity and associated impacts on sensitive receptors.
- The use of the mounds for recreation and public open space needs to be considered in the context of the location adjacent to operational nuclear sites, with implications for emergency planning. The scale and nature of such uses needs to be carefully considered and should not be designed to attract large numbers of visitors, which would also give rise to traffic concerns (see response to Question 1).

#### QUESTION 3 SELLAFIELD ROAD FROM A595:

---

- Moorside Site construction activity has major implications for site access and highways. The Council is not in a position to state a preference for one or other option for the A595 between Blackbeck Roundabout and Calder Bridge and the Sellafield Access based on the limited evidence provided by NuGen. The new Moorside and Sellafield site access arrangements and A595 realignment between Blackbeck Roundabout and Calder Bridge urgently requires further design and modelling work in conjunction with Highways England and the Council to determine the most appropriate solution. Given that appropriate highway access will be required before construction commences and in order to maintain access to the Sellafield site throughout, the Council believes a planning application needs to be submitted in advance of the DCO and the access completed in advance of site works commencing. The options identified do not deal with the pinch point at Calder Bridge, which constrains movements to the south that could be critical to effective evacuation plans.
- Lack of clarity in the approach to the transport strategy and mitigation design has the potential to adversely affect the accurate development of the transport model and scenarios. The Council's typical and preferred approach is for the developer to properly assess and identify their highway impacts, and to develop appropriate mitigation proposals which the developer can deliver directly.
- A further concern is that the public will not be given the formal opportunity to see the proposals, comment or influence the outcome prior to the DCO submission, and therefore impacts may not be examined as part of the DCO process. This could expose the DCO process to challenge.

#### QUESTION 5 NURSERY ROAD

---

- The current proposal for realignment of Nursery Road is not acceptable and will require detailed discussion with the Council prior to any agreement being reached.

#### QUESTION 6 SUBSTATION DESIGN

---

- The technical detail supporting the screening process and the reasoning behind how the proposed location was determined has not been shared as part of this consultation. Without the justification and rationale to explain why the proposed location and design has been selected it is not possible for Stakeholders to accept the rationale or argue against it. It is requested that the justification for the proposed siting and design of the nuclear island is made public and consulted upon.

#### QUESTION 8 & 9 VIEWS ON PROPOSED WORKER ACCOMMODATION SITE.

---

- There remains a lack of evidence underpinning workforce assumptions and therefore it is not possible to be certain on the number of bed spaces.

- NuGen should set out the design principles which underpin the arrangements of buildings on the worker accommodation sites. The layout seems to have come from earlier 'proving plans', which were only intended to demonstrate site capacity. A clear approach to design should be developed prior to DCO submission.
- It is considered that NuGen should commit to submitting planning applications for the worker sites that will deliver permanent development. Early planning applications (or applications twin-tracked with the DCO) will provide confidence that the ancillary development worker sites will be capable of long term use and demonstrate NuGen's commitment to the delivery of a planned after-use that is not possible through the DCO. Such planning applications need to be accompanied by design principles for the worker accommodation Associated Development sites such that the ability to retain and re-use serviced sites and/or built form can be fully understood and confirmed.

#### QUESTIONS 10 - 13 TWO PLATFORMS, HIGHWAY IMPROVEMENTS, PROPOSED CLOSURES

---

- Section 3 of the PEIR response report details the Council's comments on transport issues a detailed review of the PEIR and transport Strategy is included at Appendix A1 – A4. Furthermore, the Council's concerns regarding highways have been expressed directly to NuGen in correspondence. Please refer to Appendix A.

#### QUESTION 14 COMMON LAND

---

- The transfer of any lands to the guardianship of the Council would need to be supported by an upkeep and maintenance subsidy to cover the future costs of managing the proposed land.

#### QUESTION 15: SITE PREPARATION

---

- Any TCPA application for site preparation works must dovetail with the DCO to ensure that a delivery mechanism is in place to secure legacy benefits which are embedded in the project, i.e. planning conditions and S106 Obligations associated with any TCPA consent that may be granted need to be mirrored by the DCO for that element of the scheme. See comments above (Q8 and 9).
- Given that appropriate highway access will be required before construction commences and in order to maintain access to the Sellafield site throughout, the Council believes a planning application needs to be submitted in advance of the DCO and the access completed in advance of site works commencing.

#### Q16 & 17 LEGACY BENEFITS

---

- The Council has made a clear statement of its expectations in terms of legacy benefits that need to be realised from the project. These are set out in the legacy strategy, "Nationally Significant Infrastructure Investment, Maximising Project Legacy for Cumbria" (March 2016), which was prepared jointly with the Local Enterprise Partnership (LEP) and Copeland Borough Council.
- The provisional nature of the proposals at this stage is disappointing given the potential for further amendments and consequent lack of time to consider them fully within the current project plan and, in particular, the timescales for the DCO submission. The concern becomes compounded as a result of the Council being engaged in the development of proposals during pre-application engagement, with insufficient time for public consultation and feedback. The risk is that the public are 'left behind' whilst its representatives (the Council) are aware of alterations or progression to NuGen proposals. This ties in with the Council's concerns at the lack of detail to enable adequate and effective consultation.
- The construction of the main site and the associated development sites must be assessed in combination so that the true impacts can be identified and the appropriate mitigation can be

defined. This mitigation will range from the tangible impacts associated with the development proposals and those impacts which cannot be readily defined due to the nature and scale of the proposal to construct a new nuclear power station.

#### Q18 & 19 NATIONAL POLICY

---

- The National Policy Statement for Energy (EN-1) requires applicants to describe the existing socio-economic conditions in the areas surrounding the proposed development. Furthermore, the NPS indicates that the applicant should explain how the development's socio-economic impacts correlate with local planning policy frameworks. The NPS should be taken into consideration, but NuGen should also provide justification of how proposals accord with the local policy framework in place.
- This analysis was absent from the information presented in the Stage 1 documentation and it is reasonable to anticipate that this matter would have been addressed in the Stage 2 documentation. Only some of the relevant policies at a national level have been quoted and the analysis of their applicability to each element of the proposed development is not contained within the documentation provided.

#### Q 20 LANDSCAPE STRATEGY

---

- The rationale for locating the main mounds to the northeast of the main development is not clear. The Council assumes that this was the only available part of the site once the other elements of the scheme had been arranged.
- Cross sections of the mounds would be helpful to show their profile during construction and operation in relation to existing levels and the surrounding landscape. Early sight of, and consultation on, emerging landscape proposals on the mounds is required and the Council considers this needs to be consulted on formally in advance of DCO submission.
- The Council has concerns about the use of the mounds for recreation and public open space, as this needs to be considered in the context of the location adjacent to operational nuclear sites, with implications for emergency planning. The scale and nature of such uses needs to be carefully considered and should not be designed to attract large numbers of visitors, which would also give rise to traffic concerns (see response to Question 1). The mounds could provide valuable wildlife habitat as mitigation and enhancement. If public access was to be provided on the mounds, then it may be desirable to provide managed views into the development. The landscape design would also need to reflect the location and function of any Visitors Centre on the site; although the Council has concerns about this proposal (see response to Question 1).
- The Council requests clarification on the hierarchy of design decisions behind the size, shape and location of the northern mounds. The design of the mounds will respond to their function, i.e. whether they are required to accommodate spoil that would otherwise need to be removed from site, or whether they are intended principally as visual screening. Not only will this aid in the appreciation of their purpose and form, but will also help clarify their status in terms of mitigation.

#### Q21 LAND AND PROPERTY

---

- Whilst the draft property scheme is welcomed it should not detract from or be considered to replace other mitigation measures. The restrictions on assessment to 2008 prices have not been adequately explained. NuGen is urged to consider the EDF Energy model, used at Hinkley Point C, of two calculations before determining the final agreed calculations. The scope of the mitigation measures may also need to be widened to include transport routes and AD sites.

#### Q22 HEALTH IMPACTS

---

- Findings from the Health Impact Assessment (HIA) report need to be published and consulted on prior to the DCO submission in May 2017. This is a fundamental element of the proposal and its absence hinders the public and statutory stakeholders from influencing design and seeking appropriate mitigation measures particularly within education, health and community and social services.

#### QUESTION 23 POTENTIAL BENEFITS TO HEALTH

---

- The Council expects to see improvements to health, education, community facilities and transport infrastructure as set out in its legacy strategy (see response to Questions 16&17 above).
- NuGen's commitment to providing new cycle routes is welcomed. The Council would welcome the opportunity to work with NuGen in developing a clear strategy for the delivery of an improved network of footpaths and cycleways, which would provide clear benefits to the project as well as a legacy benefit, with associated health and well-being benefits.



# 3 TRANSPORT

## 3.1 INTRODUCTION

- 3.1.1 NuGen's Stage 2 consultation submission includes a draft transport strategy alongside PEIR information on highways, rail, MOLF and port activities. These raise a number of matters concerning in particular the transport networking West Cumbria, during both construction and operation. The Council has significant concerns over the impacts of the Moorside project on the local network by itself and in combination with other developments within the area and requires these impacts to be mitigated, and for that mitigation to embed legacy benefits into the Moorside project.
- 3.1.2 The Council's detailed review of the information provided in the 'Draft Transport Strategy' and PEIR is included as part of the appendices to this response. Please refer to appendix A1 – A4 for a detailed review of Highways, Rail, Ports and MOLF issues which in the Council's view remain unresolved.
- 3.1.3 The primary concern of the Council is that even at the Stage 2 consultation stage there remains a great deal of uncertainty over the substance and credibility of key aspects of the Moorside proposals in terms of transport during all phases of the scheme. This arises from shortcomings in the evidence and assumptions on which the transport proposals are based, and a lack of detail in some of the description of proposed transport arrangements including in respect of road, rail, marine infrastructure and use, and strategy in terms of worker movements, materials and emergency planning among other matters.

## 3.2 KEY ISSUES

- 3.2.1 The workforce predictions which underpin the transport strategy have not been justified and therefore the bases on which all of the transport assumptions have been made will be subject to review should the level of workforce change from what has been stated in the Stage 2 consultation.
- 3.2.2 Detailed modelling data has not been provided. How the workforce will be transported to the AD sites, the construction method and detailed freight movements have not been provided therefore at this stage of the project the Council cannot consider with any certainty the significance of effects on the transport network.
- 3.2.3 NuGen proposals for highway improvements focus on the minimum improvements expected to be needed. Given the lack of evidence on workforce and freight movements the Council considers that highway improvements need to be much more robust and must take account of worst-case scenarios and the need to accommodate emergency events.
- 3.2.4 Alignment with the Sellafield Transport Plan and Sellafield Emergency Plan is essential to ensure an effective transport network during both construction and operation and to ensure that in the event of an emergency the transport network would perform effectively. This alignment is not yet clear in the Stage 2 consultation material.
- 3.2.5 Whilst the emphasis on a rail-led strategy is welcomed, the available capacity on the railway to facilitate workforce and freight movements has not yet been demonstrated. In order for the Council to have comfort that the rail strategy is credible, evidence of the existing and future capacity of the rail network needs to be provided by NuGen together with how this capacity and resilience fits with the demand profile of the Moorside project.

- 3.2.6 The Stage 2 consultation documentation does not provide sufficient clarity on the intended role, if any, of the Port of Workington (PoW). It also lacks any detailed form and any operational aspects of the MOLF, including material handling strategy, detailed cargo demand, including the type, value and delivery profile, anticipated vessel types and sizes.
- 3.2.7 The overarching key themes which have not been adequately addressed and require further consultation are explored in detail below.

### 3.3 EVIDENCE AND DETAIL

ISSUE	COMMENT
<p><b>1. Highway Impacts</b></p>	<p>Within the PEIR the study area in terms of highways has been refined to include the following primary corridors, which are routes on the network that are trunk roads or considered most likely to be impacted upon by the Moorside Project due to movements of people and freight, and form a continuous route between two primary destinations, such as the Moorside Site and the Accommodation Sites:</p> <ul style="list-style-type: none"> <li>→ A66 from Junction 40 with the M6 to Workington for the A596;</li> <li>→ A595 from the A66 south as far as Gosforth;</li> <li>→ A5086 from the A595 to the A66 to the south of Cockermouth to the A595 at Egremont;</li> <li>→ A596 from the Port of Workington southwards to the A595;</li> <li>→ A595 from junction 44 with the M6 to the junction with the A66, west of Cockermouth;</li> <li>→ Mirehouse Road from the A595 to serve the Mirehouse Site;</li> <li>→ A5049 Inkerman Terrace (from the A595) and Coach Road in Whitehaven to serve the Corkickle Site; and</li> <li>→ Vale View from the A595 to serve the Egremont Site.</li> </ul>
<p><b>Councils Response:</b></p>	<p>The Council has expressed significant reservations about the approach NuGen appears to be taking to the identification of highways impacts and mitigation. Current highway improvement proposals in DCO Stage 2 Consultation cannot yet be considered as mitigation since they are speculative and, at best, derived from limited transport modelling of limited transport scenarios based on an incomplete project definition. As a result the proposals rely on a high level of assumption and clearly have some way to go before they can be regarded as final and robust.</p> <p>Appropriate highway access will be required before construction commences and, in order to maintain access to the Sellafield site throughout, the Council believes a planning application for access arrangements needs to be submitted in advance of the DCO and the access completed in advance of site works commencing.</p> <p>NuGen also needs to work with Sellafield to produce a joint travel plan to reduce car based journeys.</p> <p>There is little information provided on the Early Site Preparation phase, when potentially 500 workers will be on site. It is unclear whether this will be prior to the construction of the railway improvements and, if that is the case, how workers will travel to site. The Council questions whether this will be written into the DCO or whether it requires a separate planning application with associated conditions relating to travel needing to be agreed and discharged</p>

ISSUE	COMMENT
	<p>prior to commencement of works.</p> <p>NuGen's proposals rely heavily upon the use of the local rail network, in relation to the movement of the Moorside workforce for both the construction and operational phases, in order to minimise the impact on the local highway network. The Council has a number of concerns in relation to the proposals put forward in terms of Rail and NuGen have yet to demonstrate that the rail strategy is deliverable.</p>
Mitigation:	<p>The highway mitigation proposed in DCO2 needs to be comprehensively revisited. Proposals for highway infrastructure to mitigate the impacts of the Project needs to be evidenced based and must account for highway demand scenarios that could realistically occur on the road network. A phased infrastructure delivery plan needs to be prepared to ensure that the demand expected at the commencement of the Project through to operation can be mitigated at all stages.</p> <p>All concept highway designs are required to be subjected to a modelling, safety and deliverability assessment. A Stage 1 Road Safety Audit should be undertaken for final preliminary designs prior to submission of the DCO.</p>
<b>2. Transport Modelling</b>	<p>The PEIR States that: <i>"the quantities of movements for workers and freight is being determined and several scenarios for this being are assessed further through the transport modelling exercise, in order to understand the likely impact upon the highway network from the Moorside Project as a whole."</i></p>
Council Response:	<p>There is an urgent need to identify, agree and process refreshed / further transport modelling scenarios based on the best project definition available, including the most up to date Construction Freight Profile prepared by Westinghouse. The Profile the Council currently has which was provided at an earlier date by NuGen is out of date and cannot be used as the basis for refreshed / further scenarios without the risk of abortive or misleading work. The revised Profile should be provided to the Council well in advance of the detailed assessment work required for the Environmental Statement.</p> <p>Initial outputs from the transport modelling work that has been undertaken to date suggests that there are a number of other highway locations where the Moorside Project will result in impacts that will require mitigation. An exercise undertaken jointly by the Council and NuGen has identified a total of 77 junctions as potentially being 'in scope' for mitigation.</p> <p>The Council has also advised NuGen that further transport modelling work is required to test the performance of the highway network at other periods during the Moorside Project. It is considered likely that this will identify further highway impacts where mitigation works will be required. There appears to be an assumption that any other improvements identified would be capable of being undertaken within the existing highway boundary, which may not be the case.</p> <p>Despite the rail-based strategy, which the Council strongly supports, the Council also believes that there will inevitably be a significant impact on the already constrained local and strategic highway network. At present NuGen's proposals are focused on a small number of junction improvements which are not evidenced by reliable modelling. The Council has serious</p>

ISSUE	COMMENT
	reservations about NuGen's approach as highlighted in the letter sent to NuGen on the 26 <sup>th</sup> May (see Appendix A). The Council stresses the need for additional consultation on the above highway concerns which at the Stage 2 consultation remain unresolved and to agree the modelling scenarios to use in the West Cumbria Transport Modell (WCTM).
Mitigation:	Transport modelling is required to be completed using up to date demand information for both freight and people movements. The modelled scenarios should seek to assess realistic cumulative demand scenarios for key phases of the Project in conjunction with other major employment and housing developments planned to be delivered and operational in the same project timeline. The project should undertake sensitivity tests to understand the implications of a failure or reduced reliance of the rail led strategy.
<b>3. Proposed Highway Improvements</b>	<p>Within Chapter 2 of the PEIR, Table 2.4 provides a summary of the locations and the potential concept design solutions. The sites of the proposed Highway Improvements are shown in Figures 2.17 to 2.26 of the PEIR.</p> <p>It suggests concept designs for ten locations NuGen deem most likely to be affected based on the current understanding of the Moorside Project requirements and the findings from the initial predictive modelling</p>
Council Response:	<p>The 'red line' boundaries around a number of highway locations identified by NuGen as requiring improvement cannot be considered an adequate reflection of the location, scope and extent of highway works that may be required to mitigate the highway impacts of the Moorside Project. A further round of public consultation will be needed to consult on better evidenced highway mitigation proposals before the submission of the Environmental Statement.</p> <p>Once agreement has been reached with the Council and Highways England, as to the extent of the mitigation requirements, all concept designs should be subject to a modelling, safety and deliverability assessment. Additionally, a Stage 1 Road Safety Audit should be undertaken for final preliminary design, prior to submission of the DCO and the outcome of this should inform the design process.</p>
Mitigation:	<p>Highway mitigation proposed in DCO2 needs to be comprehensively revisited. Highway infrastructure to mitigate the impacts of the Project needs to be evidenced based and account for highway demand scenarios that could realistically occur on the road network. Red line boundaries may need to be expanded, or created where they currently do not exist, as further detail and assessment work is complete across a wider road and junction network. Adoption of a travel plan will be crucial to mitigating some existing operationally poor performing areas of the highway network, however, further capacity will be required on the road network to allow for the Moorside residual traffic.</p>
<b>4. Emergency resilience</b>	<p>Within the PEIR it states that: Site evacuation will primarily be based around the use of road (using coaches) to evacuate via the A595 in a Northerly direction (approx. 46 coaches total).</p> <p>During the construction phase (when the peak number of workers would be</p>

ISSUE	COMMENT
	<p>on site) it is currently anticipated that when not in use, one of the Charter Trains would be retained on the Moorside Site, whilst a second train would be located at either of the newly constructed platforms at Mirehouse or Corkickle and could be dispatched to site within 15 minutes of the alarm being raised (with drivers always on standby).</p>
<p>Council Response:</p>	<p>Proximity to the high risk Sellafield site, means resilience and emergency planning must be critical to consideration of the Moorside proposals. The Council does not support the current proposed approach to emergency planning and considers that NuGen's proposals for emergency preparedness are currently inadequate and the emergency response strategy is not robust. NuGen has not provided an assessment of infrastructure requirements in order to respond to an emergency. The proposed rail based evacuation has not been evidenced to show how it could work effectively and there is no explanation of how an evacuation to the south could be facilitated.</p> <p>The Council considers that there is a need to include further highway mitigation to ensure the effectiveness of an emergency evacuation; there also appears to be a presumption that evacuation would always be to the north, which may not be the case.</p> <p>Alignment with the Sellafield Emergency Plan needs to be demonstrated. There are a number of pinch points in the local transport network (e.g. Calder Bridge) where NuGen, as part of its approach to emergency preparedness, needs to demonstrate the most vulnerable parts of the transport network have been addressed in order to mitigate the risk of cumulative emergency incidents occurring at any one time. NuGen therefore needs to identify vulnerabilities in the transport network that may be required to support evacuation and must undertake to carry out infrastructure improvements to address those weaknesses and to ensure the effectiveness of evacuation in the context of cumulative impacts.</p> <p>Further detail is required to demonstrate the viability of the rail evacuation scenarios as proposed within the PEIR.</p> <p>There are limited proposals for resilience measures in the event of a flood and the Council as Emergency Planning Authority expects to see investment being provided to deliver flood defences. The approach to flood defence planning and delivery will need to be developed in dialogue and agreement with the EA, and with the Council as Lead Local Flood Authority.</p>
<p>Mitigation:</p>	<p>Alignment with the Sellafield Emergency Plan needs to be demonstrated.</p> <p>Mitigation for vulnerable parts of the transport network including Calder Bridge and access / egress into Moorside and Sellafield.</p> <p>Rail and Bus infrastructure and coordination plans for emergency situations.</p> <p>Flood defences for emergency flood events.</p>
<p><b>5. Rail passenger trips and freight volumes</b></p>	<p>Within the PEIR Chpt.4 it is stated that: "For freight movements, wherever possible, this will be transported to the Moorside Site by rail or sea. The quantities of movements for workers and freight is being determined and several scenarios for this being are assessed further through the transport modelling exercise, in order to understand the likely impact upon the highway</p>

ISSUE	COMMENT
Council Response:	<p data-bbox="521 280 1082 309">network from the Moorside Project as a whole.”</p> <p data-bbox="521 342 1442 645">The broad approach of using rail for freight, construction worker travel and permanent worker travel is strongly welcomed in principle by the Council but information on proposals is currently at a very early stage. The level of detail, including any ‘demand versus capacity’ assessment for rail passenger trips and freight volumes, is limited. Much more needs to be done to convert the approach into a specific, demonstrably feasible and effective plan, and hence to confirm the impacts and allow specific mitigations and legacy benefits to be identified and agreed. Given the scale and complexity of the rail issues and their centrality to the overall transport strategy, this must be completed before the DCO application is submitted.</p> <p data-bbox="521 678 1442 862">In particular, further definition and detail is needed on the key points below, to give confidence that the proposals are adequate and deliverable. This is in the context of other competing demands, timetabling constraints and rolling stock issues on the network, plus the cumulative impacts of forthcoming developments such as West Cumbria Mining which will also require train paths. Confirmation is needed of:</p> <ul data-bbox="521 896 1433 1787" style="list-style-type: none"> <li>→ The proposed infrastructure works, the paths they create for freight and charter services, and the elements that will be retained for legacy benefits.</li> <li>→ The rail infrastructure proposed at the Moorside site itself and how this will be secured in a way that benefits both the operational phase of Moorside and shared use with Sellafield.</li> <li>→ Whether the north spur is part of the proposal, and if not, what the alternative pattern of operations and worker platforms will be.</li> <li>→ The proposed new MOLF/railway level crossing, and whether an alternative solution exists.</li> <li>→ The proposed use of the existing level crossing at the north end of Sellafield station for deliveries in the early construction stages.</li> <li>→ The rail evacuation strategy.</li> <li>→ The enhancements and site layout at Corkickle, Mirehouse (proposed) and Sellafield stations, to accommodate new infrastructure, new travel volumes/patterns and interchange facilities.</li> <li>→ The legacy arrangements also need to be confirmed in respect of Corkickle, Mirehouse and Moorside.</li> <li>→ The proposed changes to scheduled passenger trains, and how they will be funded and secured.</li> <li>→ The additional demands on other coastal line stations serving construction workers, and mitigation measures for these.</li> <li>→ The impacts of additional train services and infrastructure changes on existing level crossings, and any mitigation required.</li> </ul>
Mitigation:	<p data-bbox="521 1841 1342 1899">All mitigation, both hard infrastructure and soft demand management planning, in relation to the above bullet points.</p> <p data-bbox="521 1933 1075 1962">Legacy Infrastructure to benefit West Cumbria.</p>

ISSUE	COMMENT
6. Rail Capacity	<p>Within the PEIR it states: "It is expected that there will be sufficient pathways and capacity on the rail network to accommodate the additional movements required. It is stated that this will ensure the magnitude of change is managed and kept low and has resulted in predicted low magnitude of change."</p> <p>"Spare paths exist on the line with sufficient availability to accommodate the Moorside Project requirements. This is being actively discussed with Network Rail alongside the requirements of the Moorside Site Railway, the Corkickle to Mirehouse Railway and the St. Bees Railway, which will provide improved opportunity for further spare capacity on the line."</p>
Council Response	<p>Inconsistencies between the information provided in the Draft Transport Strategy, and information provided in Chapter 4 of the PEIR, undermines the Council's confidence that NuGen has a firm grasp of its potential impacts on the railway, and the capacity required to deliver the proposals.</p> <p>NuGen's level of understanding as to the existing and future capacity of the rail network is currently unclear. Negotiations with the rail operators need to take place as soon as possible and the outcomes made available to the Council.</p> <p>The level of detail, and 'demand versus capacity' assessment for rail passenger trips and freight volumes, are limited compared to what would be expected at Stage 2. While the proposals are broadly welcome in principle, much remains to be done to demonstrate that they are sufficient and achievable. It particularly needs to be demonstrated that (a) the proposed infrastructure provides the required paths at the required times for public (passenger), freight and charter trains with an acceptable level of resilience, (b) the public passenger train timetable can in fact be adapted to suit NuGen's needs, and (c) the trips generated on public passenger services can be accommodated within the available capacity at all stages of the project.</p> <p>The sentence '<i>Spare paths exist on the line with sufficient availability to accommodate Moorside Project requirements</i>' contradicts the Cumbria LEP analysis<sup>1</sup> which states that the Sellafield-St Bees and St Bees-Whitehaven sections both reach 130% utilisation by 2020, rising to 139% utilisation by 2021, falling back to 135% utilisation in 2025 and 2026, based on Moorside Project demand only (i.e. no other developers demand) and with half of NuGen's freight demand assumed to be travelling from the south to Moorside (i.e. not travelling across these sections of the line). West Cumbria Mining's project demand will affect the railway north of Moorside from 2017 rising steeply to peak by 2021, significantly reducing the availability of train paths whilst NuGen's demand is also rising and peaking.</p> <p>The proposals are not sufficient to ensure that the Cumbrian Coastal Railway can support the development. The Council emphasises the importance of NuGen assisting in the provision of adequate train path capacity on the Cumbrian Coastal Railway to meet all rail demands arising in coming years particularly in the context of the other major developments also planned in</p>

<sup>1</sup> Cumbrian Coastal Railway Improvements Phase 1, Appendix A LEP Business Case, Annex 1 Trainpath Table v7, dated 24/05/16

ISSUE	COMMENT
	West Cumbria, both as part of its commitment to delivering legacy benefits through its transport investment, and to provide reassurance to all involved that the rail element of its transport strategy will be delivered in time and sustained throughout the construction of the Moorside Project and beyond. In order to do this NuGen will need to commit to investigating the cumulative impacts on the railway.
Mitigation:	Rail improvements are required to ensure rail capacity is constructed to allow for NuGen's Project in addition to other planned rail demand within the same Project timeframe.
<b>7. Sellafield Rail Infrastructure</b>	Disruptions to rail services from overnight short closures to accommodate track crossings at a level crossing point to access the proposed MOLF.
Council Response:	<p>The rail infrastructure proposed at the Moorside site has yet to be defined sufficiently.</p> <p>It is not yet clear whether the north spur is to be part of the proposal, or if not, what the alternative pattern of operations and worker platforms will be.</p> <p>The proposed new level crossing serving the MOLF carries deliverability and safety risks. The nature of the crossing, and the volume and type of road movements envisaged, are unclear. Alternative solutions should also be considered.</p> <p>The existing level crossing at the north end of Sellafield station is proposed for delivery use in the early construction stages; its suitability needs to be assessed and demonstrated.</p>
Mitigation:	Provision of a rail crossing that does not significantly impact on the operation and safety of the Cumbrian Coastal Railway
<b>8. Rail Infrastructure Improvements</b>	Within the PEIR it states that: "The rail assets are expected to be in a condition such that no major interventions will be required during construction activity. This should ensure the magnitude of change is managed and kept low."
Council Comment	<p>The Council does not agree with the assumption that there will be no acceleration in deterioration in the physical quality of rail network. The demands on Sellafield station will grow because of its role as a railhead for Moorside. This needs to be assessed and proposals developed to accommodate passenger growth and road shuttle operations. These will need to be delivered very early in the project.</p> <p>Demand on other stations is also expected to grow with footfall at some stations more than doubling existing capacity. The Council seeks additional investment in all stations demonstrated to be impacted by the Moorside project in table 3:1 below.</p> <p>The impacts of additional train services and infrastructure changes on existing level crossings, and any mitigation required, need to be demonstrated.</p> <p>The Corkickle-Mirehouse improvements are welcomed in principle and should be designed for conversion to part of the 'public' railway once no longer needed for charter trains, as a legacy benefit. A 'public' station as part of the facilities at Mirehouse would be valuable to workers and the wider public. The scope and layout of all these facilities, including car parking facilities and controls, at both Corkickle and Mirehouse will need further development ahead of the DCO application.</p>

ISSUE	COMMENT
	<p>The Council considers that there is a need for NuGen to commence more detailed discussion with local operators in regards to enhancements to key rail hubs between Barrow and Carlisle. It is also considered that there is likely to be a requirement for improvements at other stations; there is an identified need for NuGen to come forward with works proposed to accommodate NuGen passenger throughput.</p> <p>Limited information is provided regarding the construction period for dedicated rail platforms, and the resulting impact on the local network if this is not completed prior to the construction workforce being in place on the site. This needs to be provided so the impact, if any, can be understood.</p> <p>Further discussion is required around how potential S106 funding might be deployed to achieve station improvements. There has been no discussion to date on this issue or how it would work in practice.</p>
Mitigation:	<p>Maintenance to existing rail infrastructure improvements at Rail Stations where footfall will significantly increase.</p> <p>Public platform at Mirehouse</p> <p>Improvements at Rail Hubs on the Barrow to Carlisle line</p> <p>Construction management plan to limit the impact during railway construction.</p>
9. Rail Station Improvements	<p>Within the draft transport strategy it is stated:</p> <p>“NuGen will also work with the relevant planning and highways authorities to investigate opportunities to enhance the connectivity and accessibility of key rail stations.”</p>
Council Comment:	<p>Table 3:1 below demonstrates the increase in demand and footfall on surrounding rail stations and the need for additional mitigation at these stations. The Council considers that all stations listed below should be considered key rail stations.</p> <p>Enhancements are likely to be needed at a number of existing stations, to accommodate construction workers who will travel by scheduled (public) train services and to encourage them to do so rather than travel by road. Some of these stations have very limited facilities and will need upgrading to support these significant numbers of commuters. This mitigation will need to be secured through a Section 106 agreement.</p> <p>Up to 2,500 construction workers could be home-based or live locally (Draft Transport Strategy, Figure 2). Based on figures provided by NuGen from a Sellafield staff travel survey, nearly 30% of these would be in rail-connected settlements and would be expected to travel by scheduled (public) train (Draft Transport Strategy, Figure 2). This amounts to approximately 335,000 trips annually (see table below). The actual figures might be higher than this as:</p> <p>→ It excludes workers in Whitehaven, some of whom living close to Whitehaven station may prefer to take a public train from that station rather than walk or cycle to Corkickle for the charter train.</p>

ISSUE	COMMENT
	<p>→ The combined scale of Sellafield, Moorside and other developments may lead to the local labour catchment and/ or private accommodation search area spilling over from the coastal strip into other rail-served locations e.g. Aspatria or Wigton.</p> <p>As shown in Table 3.1 later in this section, the increased ridership is very significant at some stations, particularly Workington and Seascale where ridership is expected to nearly double, and at Sellafield (as the destination from all these origins) where ridership will more than double. Even at other stations where the percentage increase is smaller, there may still be pressure on station facilities, particularly as the increased demand will be concentrated at shift-change times rather than spread throughout the day.</p> <p>Each of these stations will need to be attractive in order to support rail travel as part of the proposed transport strategy. This includes having sufficient car and cycle parking to accommodate those who will drive or cycle to their local station, as well as the quality of these and other facilities. The operational capability of the stations to accommodate the forecast numbers, and any enhancements required, will also need to be addressed.</p> <p>At Sellafield, enhancements and operational arrangements for handling the road shuttle operation to/from the Moorside site also need to be developed.</p> <p>Thus NuGen needs to begin more detailed discussion with Community Rail Cumbria and Northern Rail about enhancements to key rail hubs between Barrow and Carlisle. This needs to include an agreed planning estimate for the demand increase at each station, and an assessment of the enhancements required through a Section 106 agreement.</p> <p>The enhancements also need to cover Corkickle station. Although Corkickle residents (in the Accommodation Site or private accommodation) are expected to use the charter trains and their dedicated platform for travel to/from work, they will use the existing station for non-commuting trips. To support the strategy of restricting parking supply at the Accommodation Sites, this station needs to represent an attractive travel option. The Council has previously identified some required enhancements and developed a scheme that is in abeyance pending NuGen proposals. Enhancements will also support the legacy aims.</p> <p>These station enhancements are in addition to the need to demonstrate provision of adequate train capacity, which is covered by separate comments.</p>
Mitigation:	<p>Sufficient car and cycle parking to accommodate those who will drive or cycle to their local station.</p> <p>Improvements at rail stations to accommodate forecast footfall and pickup drop off trips.</p>
<b>10. Future use of Port of Workington (PoW)</b>	<p>In the PEIR it is stated: “This information, together with further discussions with the Port of Workington is being used to finalise the baseline for marine activities and operations at the port, against which change can be assessed.”</p> <p>“The Port of Workington could also be used as a sequencing / transshipment centre for materials arriving by rail and road to be shipped on to the Moorside</p>

ISSUE	COMMENT
	<p>Site via the Marine Off-Loading Facility (MOLF) or transported from the Port to the Moorside Site by rail.”</p> <p>The draft transport strategy states:</p> <p>“Consider the potential for provision of off-site storage and sequencing to site using Port of Workington for barge, rail and off-peak road transfers; and consider the potential for Carlisle for off-site storage and sequencing by rail;”</p>
Council Comment:	<p>The Port of Workington is a key transport facility in Cumbria which has significant employment potential and is integrated with the rail network. The Council wishes to see opportunities realised for the use of the Port as part of the Moorside project and for investment needed to support that use retained in the form of a legacy benefit.</p> <p>References to the Port of Workington in the DCO Stage 2 Consultation relate to the consideration of potential, which does not provide an adequate basis for understanding what investment may be required to enable the Port to support the Moorside Project.</p> <p>There is a lack of commitment by NuGen for use of Port of Workington and associated delivery of a legacy benefit, which is a major concern to the Council. The Council would expect to see use of the port starting in 2019 at the same time as the MOLF; not several years later. Without the use of the port for consolidation and sequencing of deliveries (from all modes), it is unclear how NuGen intends to effect its rail-led strategy and avoid direct deliveries to site by road. Use of the port and associated improvements to its infrastructure would provide greater flexibility for NuGen and reduce risks to deliverability. Such improvements would be strongly favoured by the Council and would make a lasting and beneficial contribution to local infrastructure. It may be noted that Port of Workington is identified in the Cumbria Strategic Economic Plan as a key location with potential for economic growth.</p> <p>The PEIR initially suggests that the largest loads (assumed to just be the Abnormal Indivisible Loads (AILs) would be delivered directly to the MOLF, and that the Port of Workington, if used at all, would be for smaller vessels of aggregates and construction materials, and as an interim storage location for transshipment (imported by road/ rail, exported by rail or sea). However, having elsewhere suggested that NuGen could collaborate with Port of Workington, the PEIR states that “NuGen’s strategy is not predicated on its [the Port’s] use”. In addition, the PEIR at 2.3.50 makes the statement that “the assessment work has assumed that the port is not to be utilised”. This paragraph then goes on to clarify potential uses of Port of Workington, IF it was actually used. This level of ambiguity regarding the potential for the Port of Workington to be used prevents meaningful comment. The size and layout of the proposed MOLF, being larger than anticipated based on other new nuclear projects, suggests that it is NuGen’s intention to focus all port operations here rather than involving Port of Workington. This would have a significant adverse impact on the Port of Workington and the wider Cumbrian maritime and industrial economy both during the construction period and beyond and would represent a major lost opportunity to invest in the existing port facility and associated rail freight links in particular. Work has been completed by the LEP on an Outline Business Case for the North Workington Gateway Development Access – a plan to deliver rail freight access improvements at Port of Workington, integrated with capacity improvements on the Cumbria Coast Line which NuGen already supports. There is</p>

ISSUE	COMMENT
	<p>therefore a good degree of certainty on what is needed to increase the capacity of Port of Workington and how it can be delivered. This needs to be evaluated against the risks and impacts of a MOLF-only strategy.</p> <p>The real opportunities and constraints at the Port of Workington, whether physical, commercial or otherwise need to be explored by NuGen, in dialogue with the Port of Workington itself and Cumbria County Council, so that an appropriate level of understanding is shared between all parties about how best to proceed in using the existing asset and securing appropriate investment. NuGen states in the Consultation documents that discussions are on-going with the Port – however, no evidence of this has been provided.</p> <p>Potential cargo / vessel movements are described in PEIR 4.5.12, yet it is unclear whether these will be through Port of Workington, Port of Liverpool or directly to the MOLF. This is critical in understanding the impact of the MOLF and also for validating the Moorside transport strategy. PEIR 4.7.6 states that the “varying uses of port and MOLF options may require different modes...Based on this, the assessment of the impacts from the preferred options will be based upon ... identifying the available capacity of the preferred marine access options by load type; and the ability for supporting multi-modal connections, such as with rail.”</p> <p>Similarly, the inter-relationship between the MOLF, Port of Workington and Port of Liverpool needs further clarification. Port of Liverpool is rarely mentioned, other than that it may support the Port of Workington, and also, perhaps, in PEIR 2.4.12 where “a large port” is referred to regarding AILs. As described above, Port of Workington is contradictorily identified as being used, whilst a number of caveats being added that its use is not assumed in any ongoing strategy.</p> <p>PEIR 4.8.30 states that information has been collated with regard to the baseline operation at the Port of Workington. However, this appears to be a simple statement of the existing infrastructure and reported overall throughput, rather than an assessment of its current and potential capacity in relation to the construction demands of Moorside. The PEIR indicates that “baseline information is being captured based on the current operation of ... notable ports”. This information is not available yet, but is critical to the assessment of the impact on Port of Workington (and Port of Liverpool). Reference is also made to a Navigational Risk Assessment and Navigation Plan but the PEIR goes on to state that the “Port of Liverpool ... has therefore not been subject to any further assessment”. Similarly, it is stated that the “PEIR does not include an assessment of the potential likely significant environmental effects of the potential Port of Workington Development” – it is unclear whether this is that the Port of Workington is not considered, or whether this relates to undefined development works on behalf of NuGen that would be needed at Port of Workington.</p> <p>The PEIR identifies that the project is likely to have a moderate to potentially significant impact on the Port of Workington during construction. The nature of this impact determines whether it is a positive or negative impact, but insufficient information is available in the documentation to assess this. Positive impacts would be increased business and investment in infrastructure, whilst negative impacts could include loss of business and deterioration in assets through use (this deterioration is identified in relation to road and rail assets but not port assets).</p>

ISSUE	COMMENT
	<p>The Council has substantial concerns that the proposed MOLF will be used to the detriment of potential traffic through Port of Workington, denying existing port facilities investment that would otherwise deliver legacy benefit for the wider economy. This fails to meet the Council's and Cumbria LEP aspirations for Port of Workington and the Council wishes to see an evidenced basis for the marine transport strategy adopted by NuGen.</p> <p>It is considered that NuGen needs to enter into meaningful discussion with the Port of Workington and the Council, regarding its intentions in relation to the port, in order to allow appropriate mitigation to be incorporated into the proposals.</p>
Mitigation:	<p>Due to the lack of information mitigation measures cannot be estimated at this stage.</p> <p>NuGen to provide more detailed information regarding proposals in relation to proposed logistics strategy (what cargo to be moved, volumes, frequencies, programme, vessel types, etc) and plans to utilise PoW. The delivery programme needs to consider what this use is, and when needed by, such that any infrastructure or other investment can be programmed in advance</p>
11.The intended use of the MOLF	<p>The draft transport strategy states that it intends to utilise a MOLF for delivery of large plant and equipment and for other materials and the potential use of beach landing facilities for deliveries to the Moorside Site prior to the rail or MOLF access becoming available;</p> <p>Whilst NuGen will invest in both road and rail improvements for the benefit of the Moorside Project, the MOLF will be a fundamental part of NuGen's freight movement strategy.</p> <p>NOTE: Separate from the MOLF, NuGen is considering the use of an early beach landing facility, including a solid concrete offloading berth which may be required for certain materials and equipment.</p>
Council comment:	<p>There is insufficient explanation of the intended uses of the MOLF at various points in the Moorside project programme, the phasing of its construction and resulting availability for those intended uses, and the inter-relationship with rail.</p> <p>CCC is concerned that, whilst a MOLF is fully understood to be necessary in order to handle abnormal indivisible loads that are too large to be transported any other way, it may be used by NuGen to minimise its need to use other established transport infrastructure, thereby undermining the case for investment in rail and other infrastructure for freight movement.</p> <p>The Stage 2 documents identify that further information is being developed and it is essential that this is made available prior to the submission of the Environmental Statement to ensure realistic consultation is possible.</p> <p>There is little information relating to how much material will be handled from the MOLF and how it will be transported safely. The structure appears to be relatively narrow and the at-grade crossing of the footpath and level crossing has potential health and safety and operational impacts that will affect the MOLF operations. These operational and health and safety considerations</p>

ISSUE	COMMENT
	<p>should be addressed at the earliest opportunity as they will have a bearing on what is developed.</p>
<p>Mitigation:</p>	<p>Due to the lack of information mitigation measures cannot be estimated at this stage.</p> <p>NuGen to provide more detailed information regarding proposals in relation to proposed logistics strategy (what cargo to be moved, volumes, frequencies, programme, vessel types, etc.). The MOLF and at-grade crossing should be reviewed in light of the logistics plan and operational railways constraints.</p>
<p><b>12. Size and scale of the MOLF</b></p>	<p>The MOLF is a key element in the construction proposals for Moorside and its role is central to the wider transport strategy. At present the MOLF configuration is not clear; Plan 5 of the PEIR depicts a MOLF over 700m long – i.e. neither the 500m nor 1600m referred to in the text. The general descriptions refer to the MOLF, with the fact that there are two MOLFs, two breakwaters and a beach landing facility, only referred to in the text and not shown on Plan 5 or elsewhere. This leads to a much larger structure than shown on the plan, and it is not clear whether this is taken into account when discussing landscape and seascape character. The detail of the MOLF arrangements is key to understanding its relationship to PoW both during construction and in the longer term, and is currently inadequate.</p> <p>Features of the MOLF such as the breakwaters are vague and non-descriptive, Chapter 2 of the PEIR states that “the MOLF will be supplied with breakwaters to enable the MOLF to be operated during an increased range of weather conditions.”</p> <p>The MOLF (see Figure 2.28 of the PEIR) will be founded on steel piles. The piling grid for the structure will consist of rows of four piles driven to create piers on which the structure is founded. It is estimated that there will be between 100-200 piers, made up of approximately 500-1000 piles. This is a substantive range in approximate use of piles and therefore size of the MOLF.</p> <p>The PEIR also alludes to the MOLF being reduced in size post construction but this is not clarified.</p>
<p>Council comment:</p>	<p>The structure shown in Figure 2.28 of the PEIR appears to be well developed, indicating a MOLF some 1,700m from the shore and a closer inland beach offloading facility. Inspection of the documents, however, provides negligible justification for the length and features of the MOLF. There is no discussion over target vessels, wave climate, downtime, extreme sea levels, nor any quantitative assessment of the impacts of imposing some 700 linear meters of impermeable breakwater across the designated intertidal zone. Based upon a review of readily available information the Council is concerned that there could be adverse impacts of the provision of the MOLF, not least through flood and erosion risk to the already vulnerable railway and changed coastal processes. This increased risk may need mitigation, with associated impacts.</p>

ISSUE	COMMENT
	<p>The interaction between the MOLF structure and the marine / coastal environment is vague. PEIR NTS 5.1.16 indicates that the “design of the marine infrastructure, in particular the MOLF, will consider the need to minimise effects on water and sediment movement in the marine environment. At present, it is planned that the MOLF would be built on piles that will allow water to move under the deck of the structure.” Similar inferences regarding minimal impact on longshore sediment transport are made by PEIR NTS 5.13.14. However, PEIR NTS 5.13.1 recognises that the “proposed Moorside Project has the potential to change existing patterns of coastal sediment transport, resulting in related changes to the coastal environment, as a consequence of the construction (and part-presence during operation), of marine infrastructure including the MOLF (which includes a jetty and breakwaters), Beach Landing Facility (BLF), Circulating Water System (CWS) and other coastal and shoreline features. There will be no effects on marine and coastal physical processes from any of the Moorside Project Sites other than the Moorside Site”. The description of how the coastal process impacts will be assessed (PEIR NTS 5.13.21) need explaining better so that the Council can be satisfied that these will be understood. Further review is needed regarding coastal processes, erosion and geomorphology before informed comment can be made. This is likely to require further stage of formal consultation.</p> <p>A greater level of design dialogue is required to support the information presented in the PEIR and there is insufficient evidence to support the MOLF as currently presented.</p> <p>The size and layout of the proposed Marine Off-Loading Facility (MOLF), is larger than anticipated based on other new nuclear projects, which suggests that it is NuGen’s intention to focus port operations here rather than Port of Workington. This would have a significant adverse impact on the Port and wider Cumbrian maritime and industrial economy both during the construction period and beyond, and would represent a major lost opportunity to invest in the existing port facility and associated rail freight links in particular.</p>
Mitigation:	<p>Before mitigation measures can be considered NuGen need to provide more detailed information regarding proposals in relation to proposed logistics strategy (what cargo to be moved, volumes, frequencies, programme, vessel types, etc) and plans to utilise Port of Workington. The delivery programme needs to consider what this use is, and when needed by, such that any infrastructure or other investment can be programmed in advance. The MOLF and at-grade crossing should be reviewed in light of the logistics plan and operational railways constraints.</p>
<b>13.Impacts of MOLF on coast line and Flooding</b>	<p>Within the project description it details the construction of the MOLF structure and inner and outer breakwater features. The two breakwater features are to protect the MOLF from heavy seas however there is limited information on the impact of sediment and coastal impacts of these. The breakwater features include:</p> <p>An inner breakwater constructed using either rock from on site or more likely imported material. For the outer breakwater the sea bed will be prepared for the installation of caissons and this will require a limited amount of dredging. The dredged material will then be disposed of at an appropriate offshore</p>

ISSUE	COMMENT
	<p>disposal location.</p> <p>Caissons will be pre-fabricated and floated via barge to their location where they will be sunk. Appropriate levels of scour protection will be provided if necessary in the form of tetrapods or similar.</p>
Council Comments	<p>In view of the lack of quantitative assessment of sediment behaviour or any details over the design and operation of the MOLF, the Council is not able to conclude that the proposals will not have adverse impacts - particularly in relation to accelerated erosion of the shore platform and increased pressure on the narrow coastline and the immediately adjacent railway. A breach would lead to impacts on transport and protection would lead to further environmental impacts. The impacts of the MOLF must be better quantified in order that a more informed and fully developed proposal can be considered.</p> <p>There is little evidence that flood and erosion risk have been considered beyond the recurring statement that a Flood Risk Assessment will be undertaken and submitted with the DCO Application in 2017. The Council's investigations indicate that development is planned in High Risk Flood Zones. Flooding from all sources is a key planning consideration, as is mitigation for development in flood prone areas. Information is required relating to the platform level and how flood risk will be managed. As emphasised by the recent flooding that has blighted Cumbria, flood risk must be robustly addressed and managed from project inception – not deferred. The Council seeks that the scope for assessment of flood risk and coastal processes is confirmed and agreed with statutory consultees to ensure that their requirements are met prior to undertaking the EIA.</p> <p>Design decisions relating to MOLF operations, coastal processes and flood risk are not visible. It appears that judgement alone has been used to design (in outline) this critical infrastructure. This could result in a substantial change to the project considered in the forthcoming EIA and a deviation from that presented in the PEIR.</p> <p>Within the PEIR it states that the sands are stable but image 3:2 below shows that there has been a substantive change on the foreshore between 2003 – 2008. The potential coastal morphology effects of the MOLF and associated infrastructure</p>
Mitigation	<p>Based on the information provided it is not possible at this time to predict the level or extent of mitigation required to protect the coast line from flooding and minimise impacts from the proposed MOLF on the coast line.</p> <p>In order to justify that the concept design is robust and will not significantly change during further design development and assessments the following should be provided and consulted on in advance of the application for Development Consent being submitted in 2017:</p> <ul style="list-style-type: none"> <li>– Further details of the proposed layout and operation of the MOLF</li> <li>– Further information on coastal processes and flood risk impacts for construction and operation of the MOLF</li> </ul>

ISSUE	COMMENT
	– Proposed mitigation and enhancement measures to reduce flood risk and the risk of coastal erosion should be provided.

TABLE 3:1 THE NEED FOR RAIL STATION IMPROVEMENTS

LOCATION	TOTAL WORKERS	DAILY WORKERS*	DAILY TRIPS **	ANNUAL TRIPS ***	EXISTING ANNUAL TRIPS AT STATION ****	INCREASE OVER EXISTING
Maryport	34	23	45	15,867	99,726	16%
Workington	367	245	489	171,267	197,204	87%
St Bees	32	21	43	14,933	61,174	24%
Seascale	76	51	101	35,467	36,410	97%
Millom	145	97	193	67,667	213,346	32%
Askam	18	12	24	8,400	63,652	13%
Barrow	45	30	60	21,000	649,824	3%
<b>Total (origins above)</b>	<b>717</b>	<b>478</b>	<b>956</b>	<b>334,600</b>	<b>1,321,336</b>	<b>25%</b>
Sellafield (destination)	717	478	956	334,600	242,990	138%

Source: Draft Transport Strategy, Figure 11; ORR station entry/exit data; calculations per notes below.

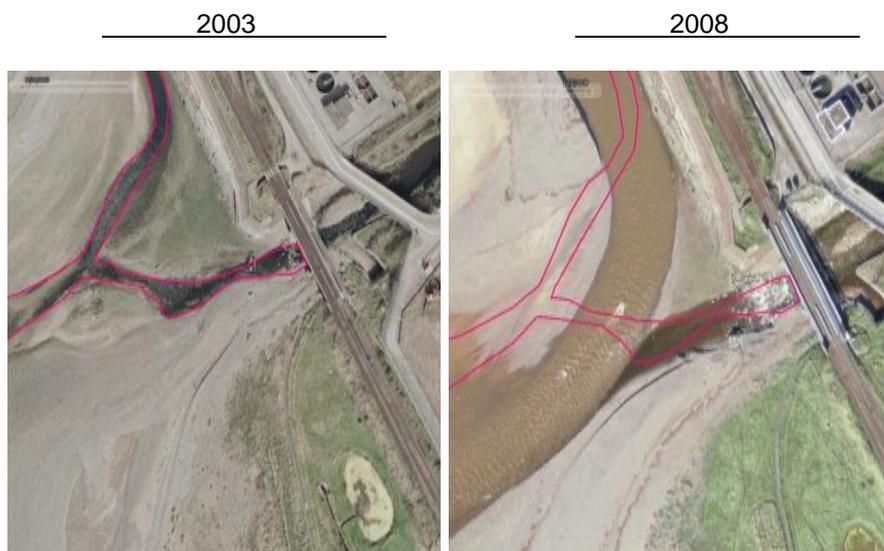
\* Based on 1/3 of workers being on leave or days off at any given time (Draft Transport Strategy, Page 7)

\*\* Two trips per daily worker (out and back)

\*\*\* assume 350 working days per year, based on 24/7 working in main construction period (Draft Transport Strategy, Page 7)

\*\*\*\* ORR 2014/5 estimates of station usage. Note that these figures include estimated journeys on Cumbrian Coast Day Ranger tickets (see 2014/15 methodological report, paragraph A14). Figures shown are entries/exits. Barrow station had an additional 14,521 interchanges recorded, and Sellafield had an additional 7 interchanges recorded.

IMAGE 3-1 GOOGLE EARTH IMAGES OF FORESHORE





# 4 COUNTRYSIDE ACCESS

## 4.1 INTRODUCTION

- 4.1.1 The following review is based on the information within the 'Countryside Access and Recreation' chapter of the PEIR. The Council welcomes the recognition that modification of long distance cycle paths due to construction of Moorside project and that the assessment will have relevance to transport in particular but also noise, air quality, landscape, visual, socioeconomics amongst others. It is expected that the Environmental Statement chapter on inter-relationships will pick up on the relevance and cumulative impact between two or more of these environmental topics and apply appropriate mitigation. The likely significant effects of modification to route alignments can only truly be considered when all in combination effects have been taken into consideration.
- 4.1.2 It is stated that 'Countryside Access' will include the use of countryside for both recreation and commuters accessing places of work. The Council welcomes the recognition that many of the permissive paths maybe used as a means of commuting to work as well as for recreational purposes. A strategic approach, which considers the routes connecting different elements of the project and nearby settlements, may offer sustainable transport solutions for travel to/from Moorside and the accommodation sites. The Council would encourage the exploration of mitigation measures that take a holistic approach with the transport section and would maximise the legacy benefits to the local area. This would align with the joint Council's objectives set out in the "Nationally Significant Infrastructure Investment Maximising Project Legacy for Cumbria 2016" (outcome 1d Cycling and Walking improvements and 1e Travel Plans).
- 4.1.3 The Council welcomes the inclusion of potential impacts on people's enjoyment of and experience of using the countryside and how this may impact on mental health and well-being, within a Health Impact Assessment (HIA). The HIA must be made available in a timely manner in order to allow for adequate consultation and to provide appropriate information to influence design decisions within the project. As the document has not been consulted upon it is not possible to assess if it adequately addresses these issues.
- 4.1.4 NuGen's has stated its commitment to providing new cycle routes. This needs to be set out strategically to show the integration of countryside footpaths, cycle paths and public rights of way with transport proposals. The Council would welcome the opportunity to work with NuGen in developing a clear plan for the delivery of an improved network of footpaths and cycleways. This should aim to improve connectivity between settlements, Accommodation Sites and the Moorside site, to create options for sustainable travel, recreational enjoyment by workers and a legacy benefit for the local community and visitors.

## 4.2 KEY ISSUES

- 4.2.1 The key issues of concern for the Council are:
- Opportunities for creating multimodal recreational and commuter routes have not been recognised.
  - Proposed measures do not consider overall negative impact on Sustrans route 72 – further mitigation and investment is required providing additional enhancements and routes to ensure overall the route remains attractive to tourists and feasible to commuters.
  - Countryside routes need to be considered alongside transport and socioeconomics aspects to ensure that footpath and cycle routes can fulfil a range of objectives relating to recreational use, long distance routes for visitors, commuting and local travel.
  - HIA on peace and tranquillity is required to assess intangible impacts.

## 4.3 EVIDENCE AND DETAIL

- 4.3.1 Within the limitations section, NuGen states that the decommissioning activity will not have any greater impact than construction. Whilst the impacts on noise, air quality and transport movements maybe similar to that during construction, due consideration must be given to those impacts which are less tangible such as perceptions, community cohesion, tranquillity and potential socio-economic impacts from the removal of significant pieces of infrastructure which will have been a significant part of the environment for a substantial period of time. Furthermore it is assumed that any decommissioning plan includes an end state that has been agreed in consultation with the Council and key stakeholders.
- 4.3.2 NuGen should take into consideration the Cumbria Cycling Strategy in developing plans for route diversions, sustainable transport, mitigation and legacy provision.

**TABLE 4-1 REVIEW OF DETAIL AND EVIDENCE PEIR CHAPTER 9 COUNTRYSIDE**

SECTION	COMMENT
Section 9.4.2	States that the Moorside Project Sites must be taken as a whole, which create opportunities for the enhanced linkage for walkers and cyclists within the area. This holistic approach to the Moorside Project is welcomed, but does not seem to have been taken forward in a strategic way, e.g. by linking Accommodation sites into adjacent settlements, connecting sites together or providing attractive opportunities for commuting to Moorside. This approach also needs to apply to the area to the south of the site to ensure that linkage from the north to south of the site is enhanced for walkers, cyclists, recreational users and commuters.
Section 9.4.3	States that the Zone Of Influence was agreed by stakeholders at a meeting on the 8 <sup>th</sup> April 2016. For the avoidance of doubt the name of the meeting and stakeholders who attended and agreed should be included and any minutes of the meeting made available.
Section 9.6.2	The area of land for replacement of the registered common land needs to be of an equivalent size and quality, provided in a timely manner and agreed in consultation with the land owner and interested stakeholders. NuGen will need to clarify who owns the existing Common land. If the replacement Common Land is to be vested in the Council, appropriate resources will be required to fund its on-going management.
Section 9.4.17	States that walkover surveys consider each site in the local context. Whilst this is not disputed, each area needs to be considered in combination with the overall impacts of the Moorside project and their impact at a spatial level, e.g. the Sustrans route running through the Corkickle and Moorside AD sites is at the start of the Coast to Coast which is a national cycle route. Whilst the impact in the Associated Development site is a small section of the overall route, it is a popular tourist attraction and the overall perception of the area and the appeal of the route will be influenced by this section.
Section 9.9.4 / 9.4.20	Proposed diversion of Sustrans route 72 would lengthen the overall journey, which should be taken into consideration and compensatory alignment improvements offered as mitigation. The appeal of the route should be mitigated by enhancements elsewhere and the Council will support NuGen by identifying suitable measures.

SECTION	COMMENT
9.4.26	It was agreed at the quarterly EIA meeting on the 15 <sup>th</sup> February 2016 that, as the data sets are expected to show that the Sustrans routes which cross the Moorside Site or Other sites are likely to be heavily used, and are important countryside access resources for both recreation and utilisation purposes, gathering data via counters was not necessary. However, if these datasets are not acquired or a trend other than 'heavily used' is the outcome then this will require further justification and the Council reserve the right to amend its position based on the receipt of full and final information.
9.4.31	It is suggested that an additional objective of the user survey could be to ascertain potential enhancements to routes that users might seek to mitigate any impacts of the effects of the Moorside project on usage of the routes
9.4.33	The proposed 5 locations appear appropriate; it is suggested that an additional location is added to capture those affected by the diversion to the south of Sellafield indicated as X –R & N on Figure 9.11 also the proposed locations should be shown on the relevant figures for clarity. The time of year when the survey is undertaken should also be agreed in consultation with key stakeholders.
Table 9.2	It is noted that Cumbria County Council (the Council), Copeland Borough Council (CBC) and the Lake District National Park (LDNP) all identified the need to demonstrate what enhancements can be made (over and above mitigation) flowing from the Moorside Project. NuGen state that opportunities for enhancement were identified through the workshop on the 8 <sup>th</sup> April report. It is not possible to comment on the adequacy of these outputs as they have not been included.
Table 9.10	As demonstrated through the visitor survey, the main reasons for use of the trail include enjoyment of scenery, to relax and unwind, and for the peace and quiet. It is considered that tranquillity and setting need to be given due consideration when providing mitigation on proposed diversion routes.
Table 9.16	MS10 (Sustrans Route 72): significance of effect judged to be 'moderate' (significant). It is considered that this should be 'major', as the embedded mitigation doesn't address the longer route along roads.
Table 9.17	States in relation to a Sustrans Route 71\72 (line1) that the route will remain available during construction, e.g. use of banks men. This does not take into consideration the attraction to users of a route which is diverted, noisy and potentially affected by dust and air pollution. It is considered that further mitigation is required to make the route remain appealing and a feasible option during construction.
Table 9.18 (row 1)	Acknowledges that while alternative routes will be provided users may be deterred from using the route. It is suggested that additional enhancements are required to other aspects of the route to improve the overall usability of the route for long distance users. Additional measures should be made proposed for the overall enhancement of the route to mitigate impacts.

The proposed mitigation suggested in PEIR Appendix 9B: Mitigation/Enhancement of Countryside Access Resources at Moorside is reviewed below.

REF	SUGGESTED MITIGATION	RESPONSE
MS07	Improvements to access infrastructure	This statement does not go far enough. The diversion will require investment to improve and create an alternative route.
MS10	L-M funding for signage	Additional funding required for creation and enhancement of cycle paths – suggested extension on multi-use track to include the entire length of the proposed diversion.
MS15	Additional signage, improvements to surface, removal of vegetation	Suggested mitigation is limited, inadequate and does not address the inconvenience caused by diversion of route. Suggested mitigation needs to enhance the appeal of the route to compensate for increased length and more industrial setting of the route.
ADA 03	Use of bank men signage, optional diversion to coach road	Improved ambience is suggested as a possible enhancement, but has not been demonstrated. It is considered the proposed diversion will have a negative impact on ambience. Diverting the user from an off-road route to a much longer on-road route increases interaction with car users and no mitigation has been provided. The introduction of a multi-use track along the diversion would be required to mitigate the impact or the introduction of an alternative off-road route.
ADB 09	Control in CEMP	Control needs to take into consideration the loss of tranquillity and cumulative impacts.
TS09	Avoid closing the underpass	If underpass is closed, an alternative adequate safe route needs to be provided
TS02	Avoid deny access to the park	If access to the park is affected, alternative adequate safe access to the park is required.

## 4.4 OVERARCHING COMMENTS

- 4.4.1 In order to maximise the benefits of its proposals for cycleways and public rights of way (PROW), NuGen should ensure that:

- Cycleways and PROW are continuous and convenient and provide high quality links into the Moorside site for worker journeys and around the site for members of the public.
- Where existing footpaths and cycleways are currently permissive, NuGen should use its powers under the DCO to secure permanent rights of way status.
- A commuted sum will need to be provided towards the upkeep of the cycleway and PROW network, in particular to cover the cost of maintaining major infrastructure such as bridge crossings, lighting, signage, etc.

4.4.2 The Council requests that NuGen gives consideration to inclusion of the following additional mitigation:

- Moorside Power Station site

4.4.3 Consider provision of a cycleway along the sea front (in addition to a footpath), following the coastal spit across a new bridge. Extend red line boundary to ensure that dedicated cycleway linkage is provided between Moorside and the Egremont Accommodation site (past Thornhill). Ensure that there is provision of a cycle crossing of the A595 north of Calder Bridge to create a safe link to routes east of the A595. Provide for surfacing of the stone cycle path between Seascale and Gosforth. Ensure that bridleways, which are subject to diversions or improvement, are constructed with a surface suitable for both horse-riders and cyclists. Coastal routes should take into account the need to protect against wind-blown sand. A cycleway should be provided between points A and C on NuGen plan no. 38.

- Egremont Accommodation site

4.4.4 Need temporary routes whilst construction is taking place on the Egremont Accommodation site. The temporary route should enable cyclists to avoid using the roundabout at Vale View, which would be potentially dangerous.

- Mirehouse Accommodation Site

4.4.5 Consider the potential for provision of a cycle route linking the site to St Bees (along the Pow Beck valley). Coupled with the use of existing coastal roads, this would provide a good flat route to the Moorside site for worker commuting. National Cycle Network Route 71 (NCN 71) runs through the site and its continuity and levels must not be adversely affected by the Mirehouse development. The access ramp to NCN 71 should be retained and maintained. The Mirehouse development should include cycleways, with suitable connections into NCN 71. Consideration should be given as to whether the new access road opposite West Lakes Science Park is well located. In deciding the location, the impact on cycle routes and PROW should be considered, as well as the long term potential for a Whitehaven Eastern Relief Road.

- Corkickle Accommodation Site

4.4.6 NuGen should consider if the railway loop work could also include an upgrade to the NCN 71 cycleway which runs parallel to the railway. There is a need to improve NCN 71 to the north of Coach Road to improve links into Whitehaven town centre. Ideally this would include improvements along Preston Street as far as Albion Square. There is a need for a proper pedestrian and cycle crossing of Coach Road to provide a safe and attractive route from Corkickle Station to Whitehaven Town Centre through the Corkickle site. NuGen should give consideration to the realignment and improvement of NCN 71 from Asda to the railway underpass. This could include provision of a link into St Begh's School to improve walking and cycling to school (reducing parking and traffic on Coach Road). Improved fencing of the cycle route should be considered to improve the attractiveness of the route for users.

## → Workington

- 4.4.7 The C2C cycle route within Workington has some difficult sections along busy roads and involving a crossing of Hall Brow (A596). The provision of a cycle crossing facility on Hall Brow would improve safety for cyclists and the continuity of the C2C cycle route. NuGen should look at this alongside the measures already proposed for Hall Brow. If new railway sidings are built to the west of the Cumbrian Coast Railway, the public footpath next to the railway will need diverting. The Port development would also impact upon the England Coast Path National Trail. Any development should take into account the importance of this route and the need to maintain an attractive route for users.
- 4.4.8 NuGen is requested to identify which routes are being considered for temporary, and which routes are being considered for permanent, diversion. An indication of the duration of temporary diversion would also help to assess the potential impact on users.
- 4.4.9 Limited information has been provided in relation to the design of the MOLF, so it is not possible at this stage to consider the impacts on public access. The Council will make further comment when this information is made available.
- 4.4.10 The cumulative impact of closing the Sustrans route 72 and providing an alternative route at the Moorside site, Corkickle site, Mirehouse site and Egremont site must be examined in combination. The proposed mitigation suggested in Appendix 9B does not ensure that overall the route remains appealing to both recreational users and commuters and the alterations do not have a detrimental impact on the overall usability of the route. Emphasis needs to be placed on the quality of the experience for the user during the construction phase and during operation.
- 4.4.11 Upgrading the public footpath from Mirehouse to St. Bees to a cycle route and exploring the possibility of running alongside the railway is a potential measure to mitigate the impact of diversions on the route from Whitehaven to Sellafield and through the Moorside site. A cycle route from Mirehouse to St. Bees would create a potential opportunity for commuting to Moorside. At present the proposed mitigation does not consider the route holistically. Consideration should be given to making funding available to improve the Sustrans route beyond the specified impacted areas which could be used to improve the users' overall experience and mitigate for the wider impact.
- 4.4.12 Consideration needs to be given to improving cycling and walking routes from accommodation sites to give workers access to services and leisure opportunities.
- 4.4.13 The inclusion of a bike loan or rental hub or bike pool in the accommodation sites to give workers cycle access to services and leisure opportunities should also be considered.
- 4.4.14 It is noted that the predicted residual effects on countryside access and recreation across the whole project for the Sustrans routes and England coast path national trail is *potentially significant*. It is considered that the cumulative effect of this has not been adequately addressed in the proposed mitigation.
- 4.4.15 Of the list of developments scoped out it is considered that the DONG Walney wind farm has the potential for cumulative visual impact and effects on overall tranquillity and enjoyment from trails including the coastal trail and especially St. Bees Head. The Council wishes to see this considered in the EIA.
- 4.4.16 Additional mitigation measures are required to compensate for the inconvenience caused due to diversion routes otherwise users and commuters may be deterred from using the proposed diverted route.

- 4.4.17 The analysis has not considered the potential impacts of the proposed rail head in the Pow Beck valley West Cumbria Mining. This should be taken into future consideration due to its size, scale, industrial setting and close proximity to the Mirehouse AD site and the cumulative impacts considered.
- 4.4.18 The consideration of additional mitigation is welcomed and in particular the potential to open up dismantled railways as multi-user routes. The introduction of further enhancement to other areas of the Sustrans route is considered necessary to mitigate the overall impact on the trail during construction.
- 4.4.19 As a minimum requirement, NuGen should mitigate against negative impacts on the rights of way network. The Council wishes NuGen to consider how the development can provide an opportunity to improve the network for modern use and compensate for any loss of length to the rights of way network. To adequately mitigate for negative impacts and to ensure a more comprehensive approach to route provision, taking in to account transport and socioeconomic aspects, NuGen should consider the additional mitigation set out above.
- 4.4.20 The Council seeks clarity on how improvements to walking and cycling measures will be improved and secured and how it will be delivered. It is considered that the proposed mitigation does not address the direct and indirect cumulative impacts of the Moorside project, nor is it fully aligned with transport objectives.



# 5 SOCIO-ECONOMICS

## 5.1 INTRODUCTION

- 5.1.1 The Stage 2 consultation considers the construction and the operation of Moorside separately, the main accommodation sites separately, and then predicted residual effects. The issues covered under each of these phases are common, and so the issues for all aspects of the overall Moorside development are considered in this section of the Council's response. It is noted that the impact of some sites has not yet been considered, but will be considered in the full Environmental Statement.

## 5.2 KEY ISSUES

- 5.2.1 The method of construction of the proposed Moorside power station has not yet been set out in any detail. Without this critical information, the significance of effects throughout the Cumbria economy cannot be considered with any degree of certainty. The workforce requirements are not yet known. The potential impact on the local supply chain has also not been finalised.
- 5.2.2 Because of the uncertainty about the construction process and the scale and nature of the workforce, there is uncertainty about all socio-economic and human population impacts of the construction of Moorside, including the impacts on:
- The local economy
  - Local businesses and supply chain opportunities
  - Visitor economy
  - Commercial fishing
  - Local labour market – employment and unemployment
  - Population
  - Demand for worker accommodation
  - Housing and accommodation
  - Healthcare and health infrastructure
  - Education and training
  - Local communities and social and community infrastructure
  - Community cohesion
- 5.2.3 There is also uncertainty about the contribution that the development of Moorside will make to meeting local policies.

### 5.3 EVIDENCE AND DETAIL

ISSUE	COMMENT
<p><b>The local economy</b></p>	<p>The PEIR suggests that potentially significant effects will be felt on:</p> <ul style="list-style-type: none"> <li>→ The size, diversity and prosperity of the local economies of Copeland, Allerdale and Cumbria</li> <li>→ People in employment or seeking employment in Cumbria</li> <li>→ The residential population of Copeland and Allerdale</li> <li>→ Home owners and occupants of rented accommodation in Allerdale and Copeland</li> <li>→ Users of social and community infrastructure in Allerdale and Copeland</li> <li>→ Residents of Allerdale and Copeland who could be affected by changes in the vitality of communities</li> </ul> <p>Baseline conditions are set out for each of these areas, but there is no quantification of the likely level of impact. A qualitative assessment of potential residual impacts has been made.</p>
<p><b>Council Response</b></p>	<p>The assessment of the significance of the socio-economic effects has been made without quantitative supporting analysis and is dependent on expert judgement (PEIR para 10.2.3). It is expected that quantitative analysis will be undertaken during 2016, so there is a risk that the assessments of the significance of effects could change. PEIR table 10.1 sets out sources of data, but does not actually present any data, nor any interpretation of the data.</p> <p>A number of baseline indicators have not been considered, including: the number of local businesses; net growth rate in businesses; GVA by sector; employment by sector; overall competitiveness; innovation; earnings; economic activity rate; occupational profile; full-time and part-time working; unemployment benefit claimants; qualifications; education results; and apprenticeships. These baseline indicators should be considered.</p> <p>There is no reference to consultations with: Allerdale Borough Council; emergency service providers; local colleges; Chambers of Commerce; or Cumbria LEP. If these consultations have not been undertaken, then they should be carried out.</p> <p>There is a risk of 'boom and bust' in the local economy – with significant positive economic impacts during the construction period, followed by negative impacts once the construction is completed. This has been alluded to in parts of Chapter 10 of the PEIR, but is not explicitly considered. Strong legacy planning would help mitigate against this.</p> <p>There is a risk that by measuring effects against a static baseline the impacts of the project could be confused with general changes in the economy or the effects of other projects. A dynamic baseline assessment is important because of:</p> <ul style="list-style-type: none"> <li>→ Competition with other local and UK nuclear new build sites for labour, supplies, services etc</li> </ul>

ISSUE	COMMENT
	<ul style="list-style-type: none"> <li>→ Changes in pensionable age and therefore size of the working age population</li> <li>→ Change in minimum/living wage</li> <li>→ Change in nature and rates of housing delivery</li> <li>→ Possible changes in social housing policy</li> <li>→ Change in availability of social housing following extension of right-to-buy</li> <li>→ Changes in education and training policies and delivery in the local area</li> </ul> <p>The uncertainties of leaving the EU and the impact that this will have on the local, national and global economies should now be considered.</p> <p>The PEIR Chapter 10 does not consider the wider implications of the project on the supply of, and demand for employment land.</p> <p>The report assumes that migrant workers will spend around £448 per week in the local economy, based on the expenditure level for a single person household set out in the Family Expenditure Survey. However, migrant workers in accommodation campuses are unlikely to have spending patterns that are typical of single person households. Migrant workers are likely to spend less per week, and save or send money back home. Assumptions should be made using data from other projects where migrant workers have been employed.</p>
Mitigation	<p>All of the above issues need to be considered fully before this can be considered a robust assessment of the impact on the Cumbria economy. Once the method of construction is known and accurate workforce estimates are made, then a quantitative assessment of impacts needs to be made. This can then guide a far more accurate assessment of potential mitigation and the residual effects after mitigation.</p> <p>There is a need for NuGen to consider how it might incentivise companies in its supply chain to expand or relocate to Cumbria.</p>
<b>Local businesses and supply chain opportunities</b>	<p>The PEIR claims that there could be a major beneficial change in the size and diversity of the local business base</p>
Council Response	<p>There is no detailed information set out on the supply chain opportunities for Cumbria's businesses, so little evidence to support this claim. No supply chain strategy is yet available. There is a need for a supply chain development strategy, to identify opportunities for local businesses to engage in the Moorside construction and operation supply chains, and to provide support to help them to do so. The supply chain development strategy has not been provided yet, and the assessment of the residual socio-economic effects of Moorside is dependent on the effective design and delivery of this strategy. This reliance should be noted clearly in the PEIR, and the consequences of the failure to deliver this strategy should be considered and set out.</p> <p>Road congestion caused by the construction process could be a significant problem for local farmers and has a negative economic impact</p>

ISSUE	COMMENT
	<p>for a range of users. The economic costs of delay should be evaluated.</p> <p>A document has been produced by Regeneris (February 2016) <i>Cumbria's Business Base: Supply Chain Potential</i>. This document is not a supply chain development or legacy strategy (and does not claim to be one). It is a helpful early stage in the process of developing a supply chain development or legacy strategy. It attempts to define the potential population of businesses in Cumbria that could engage in the supply chain, although there are significant limitations to this analysis, which are recognised throughout the report and discussed in more detail below.</p> <p>At this early stage in the planning process for Moorside the construction and delivery process are not known, and so the supply chain and workforce requirement is not known. Therefore there are a number of assumptions about the potential supply chain and workforce demand, based either on generic models or on plans for Hinkley Point C (HPC). Whilst they provide the best assessment of demand at this point in time, the review will need to be carried out again once the exact construction and delivery process and supply chain and workforce demand for Moorside is known.</p> <p>Local businesses seeking to participate in many parts of the supply chain for Moorside will need to meet the highest quality and safety standards in the nuclear supply chain. Achieving accreditation to these standards can take many years, so businesses with a desire to participate in the supply chain will need to start the accreditation process well in advance. However, there is significant uncertainty about when the development of the Moorside power station will take place, which means that local businesses are unlikely to be willing to invest in the skills, capacity and accreditation needed until they have a clearer idea of when they will be needed. There is scope for early intervention to tackle by NuGen to help local business prepare themselves for supply chain opportunities.</p> <p>It is also worth noting that upper-tier suppliers are very risk averse (as are most businesses in the nuclear supply chain), so unlikely to engage directly with unproven suppliers, NuGen should seek to address this through a range of measures.</p>
Mitigation	<p>An assessment of the potential local supply chain opportunities needs to be made. Then a supply chain development strategy should be put in place that covers:</p> <ul style="list-style-type: none"> <li>→ The local procurement and supply chain requirements for the construction and operation of the Moorside development</li> <li>→ The potential opportunities for local businesses</li> <li>→ The state and capacity of the current business community (perhaps an audit of local business supply chain readiness)</li> <li>→ The ability of local businesses to meet the Moorside project's supply chain requirements</li> <li>→ The gaps between the supply chain requirements and the ability of local businesses to supply these</li> <li>→ The measures that are needed to close the gaps: including training,</li> </ul>

ISSUE	COMMENT
	<p>development, accreditation etc</p> <ul style="list-style-type: none"> <li>→ A service to match local businesses with supply chain opportunities</li> <li>→ A procurement strategy that requires upper tier suppliers to engage with local suppliers.</li> </ul>
<b>Visitor Economy</b>	<p>The PEIR suggests that there could be a low negative effect on the economies of Copeland, Allerdale and the rest of Cumbria.</p>
<b>Council Response</b>	<p>The baseline and evidence of impacts on the tourism sector are not set out in any detail. More detail is required to undertake an effective assessment of these.</p> <p>The assessment of the impact on the tourism sector does not appear to have placed much weight on potential negative impacts such as road congestion, perceptions of congestion and perceptions of disruption, which could all have an impact on the tourism sector. The evidence used to undertake the assessment on the tourism sector is not set out, and the baseline conditions set out at the beginning of section 10.8 of the PEIR do not consider the tourism sector. The report notes that the assessment will be updated once further surveys have been undertaken.</p>
<b>Mitigation</b>	<p>A full quantitative assessment of the potential impacts of the Moorside project on the tourism sector needs to be undertaken. If any significant negative impacts are identified then effective mitigation should be put in place. A regular survey of tourism businesses should be undertaken, to identify any problems arising over the course of the Moorside development.</p>
<b>Commercial Fisheries</b>	<p>This is included in the socio-economic chapter of the current PEIR, but will be a separate chapter in the final Environmental Statement. A separate baseline report has been prepared. A number of consultations have been undertaken and the responses are summarised in Chapter 10 of the PEIR.</p>
<b>Council Response</b>	<p>It is noted that future work will be undertaken on the impact of the Moorside development project on the fishing industry. This may affect the economic impact assessment.</p>
<b>Mitigation</b>	<p>If any adverse effects on local commercial fishing are identified then adequate mitigation needs to be put in place.</p>
<b>Local Labour Market and Skills</b>	<p>The workforce requirements are not yet known. Although high level estimates have been made that 6,500 workers may be required at peak, the length of this peak period is not specified. This projection is based on other projects that are not necessarily directly comparable. The PEIR suggests that 4,000 of these workers will be resident in accommodation campuses, 1,500 will be temporary workers that will become resident in the local community, and 1,000 will be existing residents of Cumbria. These estimates are derived from modelling that is in part based on the labour requirements for HPC. Given that this is a different type of nuclear power station in a different part of the country, this assumption may be of limited value.</p> <p>In addition to uncertainty about the size of the workforce, there is also no</p>

ISSUE	COMMENT
	<p>information about the skills that will be required for the construction of Moorside. In particular, this has an impact on the potential involvement of existing residents of Cumbria.</p>
Council Response	<p>If the actual workforce requirements (in terms of numbers and/or skills required) are different to the estimates currently being used, then this could have a large effect on the economic impact on local communities, the mitigations required, and the residual effects. This should be recognised in the PEIR, and the implications of different workforce requirements should be considered.</p> <p>The baseline assessment shows a shrinking working age population and low levels of unemployment. No information on the levels of qualifications is provided. Bearing these factors in mind, the Council questions how realistic the assumption that 1,000 of the construction workforce will be recruited from the local population is? This assumption places significant weight on the importance of a skills and employment strategy that has not yet been produced.</p> <p>Evidence set out in the baseline assessment shows that the local labour market is very tight. However, the workforce and accommodation plans assume that 1,000 local residents will be employed in the construction process. The implications of these local workers not being employed need to be considered, and the effects on the project, accommodation plans and local economy need to be fully considered. The report states that support will be needed from other local and national agencies to help local unemployed people access construction employment opportunities.</p> <p>There is a need for a skills and employment strategy, to equip local residents with the necessary skills to access employment opportunities in the construction and operation of Moorside Power Station and associated developments. The skills and employment plan is required that sets out the interventions and actions that are needed to support under and unemployed people into work. The workforce development strategy has not yet been provided, and the assessment of the residual socio-economic effects of the Moorside project is dependent on the effective design and delivery of this strategy. This reliance should be noted clearly in the PEIR, and the consequences of the failure to deliver this strategy should be considered and set out.</p> <p>The Cumbria LEP and NuGen have begun work on a strategy for skills development which will bring project duration and legacy benefits to the local labour force while helping enable the local labour market to support the demands of the project this process has been titled Towards an Action Plan for Employment. The Council strongly supports this work and wishes to see this continue to progress towards a clear plan which can deliver the skills development required. This will include the need for capital investment in skills training facilities. It is intended that the Action Plan will form part of the DCO application content and the Council wishes to be consulted on its development in advance of the DCO application being made.</p> <p>Regeneris in 2016 produced a Moorside Development Labour Market Working Paper: Final Report. The purpose of the paper (Para 1.1) is to “provide an initial analysis of the workforce requirement for the Moorside Project, with specific reference to the construction of the power station,</p>

ISSUE	COMMENT
	<p>and to test the reasonableness of the working assumptions about the geographical sourcing of workers and the likely need for additional worker accommodation.” This objective is not met by the paper.</p> <p>The paper sets out a demand analysis that is heavily based on the labour demand analysis undertaken for the proposed Hinkley Point C (HPC) development in Somerset. The HPC development is different to that proposed at Moorside, in terms of scale and construction methods, so any assumptions made about HPC cannot be directly transferred to Moorside (and this is recognised in the paper). Therefore the demand assumptions in the Regeneris paper are subject to a high level of uncertainty, and very likely to change.</p> <p>The analysis is based on an assumption of 2,000 home-based workers and 4,000 non-home-based workers, whereas more recent reports suggest 1,000 home-based workers and up to 5,500 non-home-based workers. This difference in geographical sourcing of workers will lead to a different level of impact on the local labour market; and also on the worker accommodation strategy, transport strategy, and other aspects associated with non-home-based workers.</p> <p>Chapter 3 on labour supply presents a lot of information but does not reach any conclusions on whether the supply can help to meet the demand (albeit that there are concerns about the accuracy of the demand analysis, stated in the previous paragraphs).</p> <p>The Council has made previous comments on the Labour Market paper.</p>
Mitigation	<p>Once the construction process is known, then a workforce requirement can be developed. From this, the opportunities for local residents can be identified. The Employment and Skills Action Plan is expected to include:</p> <ul style="list-style-type: none"> <li>→ The workforce requirements for the construction and operation of the Moorside development, and the requirement for local workers</li> <li>→ The state of the current local resident workforce, including the unemployed</li> <li>→ The skills and experience that are needed to access employment opportunities at the Moorside project</li> <li>→ The gaps between the demand for and supply of skills</li> <li>→ The measures that are needed to fill the gaps, including the potential need for new training facilities and the need to work with local schools and colleges</li> </ul> <p>An effective local training programme is needed to ensure that local people are sufficiently qualified to access the employment opportunities.</p> <p>As part of the overall skills development/mitigation package the Council is concerned to ensure that funding for supply chain development is maintained. This has previously been delivered through ERDF and Regional Growth Fund Programme and forward funding through these sources is currently uncertain post-Brexit and under a new government. As a result the Council will seek to ensure that any funding gap that emerges is addressed as part of NuGen’s overall mitigation package. Without this it will not be possible to deliver against the legacy commitment for skills and supply chain development.</p>

ISSUE	COMMENT
<b>Population</b>	There is potential for significant effects on the residential population. The working age population will be boosted by temporary workers during the construction period. Some baseline data is provided on recent population change and the decline in working age population.
Council Response	<p>Low population growth, a loss of young adults, and decline in the working age population will all exacerbate the difficulty in recruiting local workers in the future, which could alter the nature of the local economic benefit of the development of Moorside.</p> <p>It is estimated that 400 family members will accompany non-home-based workers who will come to the local area, but there is no evidence to underpin the workforce assumptions. How has this number been worked out? What are the implications if the actual number is higher than this?</p>
Mitigation	Population issues will affect the potential to recruit local workers, and this is dealt with in the workforce section. Population issues also affect accommodation, and this is dealt with below.
<b>Demand for worker accommodation</b>	NuGen has plans in place to provide accommodation for 4,000 temporary workers. It also has the potential to increase the capacity by a further 2,000 workers across the three main accommodation sites if needed.
Council Response	If these plans for further temporary worker accommodation are realistic and deliverable (presumably subject to further planning permissions), then NuGen has an effective solution to accommodating additional temporary workers that might be brought into the local area. However, this assumes that all additional temporary workers will reside in NuGen's accommodation campuses rather than in the local community. If additional temporary workers want to reside in the local community then this could place additional strain on the local housing market – both rented and owner occupied.
Mitigation	If NuGen can demonstrate that additional temporary accommodation capacity can be delivered and that all additional temporary workers will use this accommodation then no further mitigation is required. However, if this is not the case then additional mitigation will be required. This is discussed below.
<b>Housing and Accommodation</b>	<p>Baseline data on the housing market in the local area is set out in the PEIR. The Local Plan housing target for future completions is significantly higher than historic completion rates.</p> <p>As stated above, there will be 6,500 workers at peak. The PEIR suggests that 4,000 of these workers will be resident in accommodation campuses, 1,500 will be temporary workers that are resident in the local community, and 1,000 will be existing residents of Cumbria.</p>
Council Response	There is very limited information on an accommodation strategy for those temporary workers who are not resident at home or in the accommodation campuses. More information should be provided on this, including consideration of different scenarios and the implications of these.

ISSUE	COMMENT
	<p>The impact on home owners and occupants of rented accommodation will include impacts on the affordability of owned and rented property. This should be properly considered.</p> <p>Housing growth targets should not be relied on as a future measure of housing supply. These should be contrasted with the low level of historic completions.</p> <p>In 2015 Regeneris prepared a <i>Moorside Development Housing Market Analysis</i> (Draft Report). This was based on an assumption of 2,000 home-based workers so is not consistent with the latest assumptions on home-based workers – which are 1,000, with 1,500 temporary workers resident in the local community. All quantitative work in this report needs to be revisited. This confirms that there has been an under-delivery of housing completions against historic targets. In general this paper sets out data but does not carry out an analysis of what this data actually means.</p> <p>The Council responded to the ‘Housing Market Analysis: Draft Report’ and due to the lack of detail on housing within the Stage 2 consultation the comments in that document are reiterated. The key points are as follows:</p> <ul style="list-style-type: none"> <li>→ The balance of home-based workers to non-home-based workers has changed since the <i>Discussion Document to Inform the Preliminary Environmental Information Report</i> (January 2016), therefore any assumptions based on the former set of figures will need to be revised.</li> <li>→ The reference to Hinkley Point C (HPC) in the context of workforce planning and pre-assembly of reactor components has limited relevance, as NuGen will use a different construction process, and local circumstances are different.</li> <li>→ The travel-to-work time for non-home-based workers should take account of their travel time to the park and ride locations, and then from there to the main site.</li> <li>→ Figure 2.1 shows dwelling stock by tenure type. It would be helpful if private housing could be broken down into owner occupied housing and private rented housing.</li> <li>→ In relation to under-delivery against target housing completions, it would be helpful to consider data on house prices and rental levels, which may help to inform the question of whether the reason is supply-led or demand-led.</li> <li>→ The issue of high demand for housing from non-home-based workers should also consider whether local residents might purchase additional properties to rent out, or may rent out their existing homes and move out of the local area.</li> <li>→ Reference to house prices and vacancy rates should also include changes over time and comparisons with the UK as a whole.</li> <li>→ Housing analysis should consider the Strategic Housing Market Assessments (SHMAs).</li> <li>→ NuGen should consider how barriers to housing site delivery could</li> </ul>

ISSUE	COMMENT
	<p>be overcome.</p> <ul style="list-style-type: none"> <li>→ In addition to local plan housing targets accommodating a greater level of household growth than that set out in sub-national population projections., consideration should be given to other factors such as smaller household sizes, backlog of demand for housing, and latent demand.</li> <li>→ The delivery of housing growth targets has consistently seen shortfalls and there no evidence to show that this will change.</li> <li>→ In general, it is unlikely that all allocations will be built out unless there is evident demand for local housing.</li> <li>→ The modelling of local demand for housing to allow for the temporary and permanent workforce for Moorside needs to take account of the demand caused by other planned major development projects in the area and must be based on an accurate estimate of the likely workforce.</li> <li>→</li> </ul>
Mitigation	<p>A thorough assessment of the local housing market and the likely future supply of both owner occupied and private rented accommodation needs to be carried out. If this suggests that there will be negative impacts on the local housing market then mitigation measures need to be put in place. These could include investments to help renovate empty properties and stimulate the delivery of new homes.</p> <p>There is limited mention of the need to support local services such as housing advice services during the construction period. There will also be a need to support the monitoring of mitigation measures and to resource local services, such as housing support, should the need arise in the future. For example, whilst there are references to latent accommodation there is a need to show how this will be monitored and managed to ensure impacts are kept to a minimum</p>
<b>Healthcare and health infrastructure</b>	<p>The baseline analysis shows that there are challenges being faced by the local hospital and clinical commissioning group. The PEIR recognises that an influx of temporary workers could increase pressure on existing health services and reduce the quality of care available to existing communities. However, it goes on to state that NuGen will appoint a specialist healthcare provider to minimise the potential effects on local health services. It will also undertake pre-employment health screening of staff, and will carry out health promotion activity with temporary workers, to reduce the impact on the local NHS health service provision. Evidence on the impact of similar construction projects on local health services shows that it has been low. A health impact assessment (HIA) is being carried out, but has not yet been completed.</p>
Council Response	<p>The PEIR sets out some baseline information on local healthcare provision and a potential mitigation action. The results of the HIA must be taken into account. It must be shown that the mitigation is sufficient to address the potential problems.</p>
Mitigation	<p>Mitigation will be needed to avoid the Moorside development project putting more pressure on the local primary and secondary health care services. The provision of a specialist healthcare provider for temporary workers, and associated activity, will help to mitigate a lot of this effect if it is provided at a suitable scale. There will also be a need for NuGen to</p>

ISSUE	COMMENT
	support the provision of social and community services.
<b>Education</b>	<p>There is some limited baseline information on education in the PEIR, including a statement about capacity constraints and the <i>particular challenges in Whitehaven and Workington, where the primary schools are collectively operating at 105% capacity</i>. The PEIR states that there is a potential moderate adverse effect that the Moorside project could lead to a shortfall in local school places.</p> <p>Figures on current school capacity and operation are given, but not projections of future capacity and student numbers. The PEIR states that the working age population is declining, so this might impact on fertility rates and future student levels. This does not appear to have been considered.</p>
<b>Council Response:</b>	<p>An agreed model needs to be confirmed that will be able to measure the impacts directly attributable to NuGen upon children's services, such as school place provision and academic support, together with associated provision such as school transport. Once the impacts are fully established, NuGen can then define the level of funding to mitigate impact in the area of need with respect to educational building space, teaching capacity and educational transport needs.</p> <p>Below is a list of possible priorities:</p> <ol style="list-style-type: none"> <li>a. To provide timely information on the workforce and their families, to support the management on any increase in the pupil population.</li> <li>b. To invest in education initiatives which will raise the aspirations of the young people to improve retention and increase participation.</li> <li>c. To ensure the NuGen development maximises employment and skills opportunities for local people whilst inspiring young people to achieve and seek to follow careers in the science, technology, engineering and manufacturing sectors.</li> <li>d. To create a future workforce through the provision of apprenticeships and training opportunities in the construction supply chain.</li> </ol> <p>Little information has been provided in the PEIR on the likely impact on school places in the area. NuGen assumes that there will be little impact and, whilst the Council would agree that those construction workers accommodated at Mirehouse and Corkickle are unlikely to arrive with children, there is nothing to suggest that those seeking housing in existing accommodation will not. If, for example, only 20% of the 1,500 workers expected to seek other accommodation locally bring families, and assuming average household size, the Council will be responsible for accommodating over 560 additional children in local educational facilities.</p> <p>There uncertainty at this stage given the multitude of variables at play, but it is almost certain that there will be some level of impact on local schools and this must be acknowledged by NuGen and mitigation proposals made. Many of the local primary schools, as NuGen has previously acknowledged, are operating at or above their existing capacity, and with little 'natural' change in numbers forecast over the</p>

ISSUE	COMMENT
	<p>coming years, it is likely that the Council will need to provide additional places to deal with a growth in population during and, perhaps, beyond the construction phase.</p> <p>The Council is keen to work with both NuGen and local schools to ensure that any additional capacity required can be provided at the right time and in the right locations in order to ensure that neither schools, indigenous or workers' children are disadvantaged or disrupted. Whilst it is acknowledged that there remains so much uncertainty over numbers and location, it seems reasonable to assume that families will largely live in the more urban areas of the county within travelling distance of Moorside rather than the rural villages. It is these urban areas where, there is expected to be additional pressure on education services, and the mitigation of negative impacts on the indigenous population will require prudent management.</p> <p>The Council is flexible in how it would approach delivering additional schools capacity. This could be achieved largely in the form of temporary accommodation, which could be provided at shorter notice than permanent build, and which would be removed when no longer needed; this would support the sustainability of schools in the area by ensuring there is no long-term overprovision of places. Provision of a relatively low level of additional accommodation could be funded by an up-front payment, with a further bond made available by NuGen, to be drawn-down if and when required to accommodate further inward migration. Commitment is needed from NuGen that increased education capacity will be needed, and that this must form part of the package of DCO obligations that NuGen is developing.</p> <p>Equally, however, the Council considers that making improvements to the facilities currently available at local schools should form an integral part of the NuGen legacy for the communities affected. Some of the local schools are in poor condition, with little prospect of significant improvement via traditional funding routes in the foreseeable future; providing new, high-quality buildings would undoubtedly improve the quality of life and education provision in areas which suffer from high levels of deprivation. Where such improvements need to be focused will require detailed discussion with local school representatives, but this approach could provide lasting and substantial benefits. Whilst the investment required would undoubtedly be substantial, it could provide lasting benefits for the wider local community and for many thousands of children for a generation or more.</p> <p>Additional early years (pre-school) places are also likely to be required in the area, particularly given existing levels of deprivation and, therefore, the likely level of entitlement to 30 hours of free early-years provision. This could be provided in school nurseries in some cases, but also via the private or voluntary sector. The Local Authority is required by statute to ensure there are sufficient places available and, where a shortfall is identified as a result of the Moorside project, contributions will be sought in order to ensure the statutory duty is met.</p> <p>As well as improvements to school buildings, it will be crucial for schools to have access to the appropriate levels of teaching support for additional children accessing education in Cumbria during the construction phase. The Council will, therefore, seek the provision of bonds which can be used to offset the additional revenue costs faced by schools in providing</p>

ISSUE	COMMENT
	<p>additional teachers and teaching assistants and, specifically, for the provision of support for children with English as an Additional Language (EAL) and/or Special Educational Needs (SEN). It is unlikely that significant numbers of additional children will require access to school transport given that the majority are likely to live within two miles (for children aged below eight) or three miles (children aged eight and over) of their school. It is possible, however, that children moving into the area outside of the main admissions round may be unable to access a place at their local school, resulting in them having to be transported to an alternative school at the Council's expense. The Council will seek a further bond to be provided in the event that transport is required.</p>
Mitigation	<p>The Council is keen to work with both NuGen and local schools to ensure that any additional capacity required can be provided at the right time and in the right locations in order to ensure that neither schools, indigenous or workers' children are disadvantaged or disrupted. Funding is needed to cover costs including (for example):</p> <ul style="list-style-type: none"> <li>→ Improvement and expansion in school capacity and buildings, with a likely requirement for a new school in south Whitehaven</li> <li>→ Additional early years provision</li> <li>→ Temporary accommodation at some schools</li> <li>→ Additional staffing</li> <li>→ School transport</li> </ul>
<b>Local communities and social and community infrastructure</b>	<p>Baseline data on policing, sports, leisure facilities and places of worship are set out in the PEIR. The likely impact on these receptors caused by the Moorside development and the temporary workforce are thought to be minor. An influx of workers could increase pressure on existing sports and recreation services and reduce the quality of care available to existing communities. It could increase pressure on places of worship. However, the PEIR states that there is sufficient capacity in these facilities to accommodate the likely level of use from temporary workers and their families.</p>
Council Response	<p>Cumbria Fire and Rescue Service (CFRS) has prepared an assessment on the impact of the proposed Moorside development (see Appendix B). It believes that the main works involved in the Moorside development go beyond the "normal" requirements that it is statutorily obliged to meet, and raise risks that will place additional resource demands on the Service. The Service further believes that these additional demands will be of such a scale that, unless the developer can provide additional funding and/or make alternative provision to mitigate them, there will inevitably be increased costs.</p> <p>Payments for the CFRS resources required to support the development are yet to be agreed. Costs should take account of potential inflationary increases, increases in CFRS staffing costs, and the potential for unforeseen changes to the development such as an increase in the number of migrant workers, and adjusted accordingly.</p> <p>CFRS has identified several ways in which the development of Moorside will impact on its service:</p>

ISSUE	COMMENT
	<ul style="list-style-type: none"> <li>→ Increased need for community safety activities</li> <li>→ An increase in population, leading to an increase in incidents</li> <li>→ Traffic congestion affecting response times</li> <li>→ Increase in the number of road traffic collisions</li> <li>→ A large number of calls to the Moorside site</li> <li>→ Maritime incidents, and the cost of necessary training to deal with these</li> <li>→ Cost of familiarisation with the Moorside site</li> <li>→ Cost of liaison with NuGen</li> <li>→ Cost of an enhanced communications network</li> <li>→ The issues and additional costs faced by the CFRS will also be faced by the police and ambulance services in Cumbria.</li> </ul>
Mitigation	<p>There is a need for funding of the CFRS, police and ambulance services to help address these issues. The Council welcomes NuGen's proposal to provide sports facilities for temporary workers in the accommodation campuses, and make these available to the local community.</p>
Health Impact Assessment (HIA)	<p>An HIA of the project is being undertaken which will examine not only the impacts to health services but also the impacts on the broader determinants of health such as, education, employment opportunities, housing, social support, crime, community safety, living and working conditions etc. The HIA will seek the insight and views of a wide range of stakeholders in order to make recommendations as to how the positive impacts of the project might be maximised and will identify ways to mitigate the negative aspects. However the findings of the HIA will not be published before the end of November 2016. As NuGen's Stage 2 Consultation closes on 30<sup>th</sup> July 2016, the HIA will not be able to feed into the consultation.</p>
Council Response	<p>It is anticipated that the HIA will identify that the project is likely to have a significant impact on both primary and secondary health care services. It is well documented that North Cumbria Acute Hospitals NHS Trust have for some considerable time been experiencing difficulties in recruiting qualified nurses. Furthermore, the projected increase in population, particularly during the construction phase, will place significant pressures on primary care services at a time when the Cumbria Clinical Commissioning Group is recognising that between 25% and 40% of Cumbrian GPs are due to retire within the next five years and West Cumbria Primary Care services are struggling to recruit young GPs to replace those retiring. The PEIR states that NuGen will be "looking at supporting local health services rather than including separate facilities within the worker accommodation". This does not provide any assurance that NuGen has understood the implications the project will have on local health services.</p> <p>There are significant changes expected to the organisation of health and social care services in North and West Cumbria over the next five years as a result of the plans being put in place by the Success Regime. The changing shape of services needs to be a consideration for NuGen and</p>

ISSUE	COMMENT
	<p>there needs to be full consultation with both the Success Regime and the North Cumbria University Hospitals Trust in relation to the proposed development. The West, North and East Cumbria health system is moving rapidly towards the establishment of a number of Integrated Care Communities and ultimately in the general direction of an Accountable Care System/Organisation based around these geographies. So health and care services will be changing even outside of this programme and it will be important to include the population increases expected as a result of the Moorside project into the planning for these service changes.</p> <p>There is no mention within the PEIR consultation of the impact the project will have on the provision of emergency ambulance services. The ambulance service in Cumbria is provided by North West Ambulance Service (NWAS). The current target set for ambulance response to the most life threatening emergency calls is 75% within 8 minutes of the call connecting to the service. These are classed as Red 1 calls and refer to the most time critical cases such as cardiac or respiratory arrest. The latest published data shows that Cumbria has the poorest response times across the NWAS footprint in achieving just 65% response within 8 minutes. In relation to Red 2 calls which are serious cases but not as immediately time critical as Red 1 the target is 75% response within 8 minutes of the chief complaint being identified. Again Cumbria has the poorest response performance across the Trust, achieving just 65.5% response within the target timescale. Given that the construction phase of the project will see a population increase of around 5,000 in West Cumbria during construction, this will inevitably impact on ambulance services and response times.</p>
Mitigation	<p>NuGen should provide a further opportunity for consultation following publication of the HIA, so that the public and other stakeholders have the chance to understand the issues and comment upon NuGen's mitigation proposals.</p> <p>There needs to be a detailed explanation from NuGen of how health impacts will be addressed and clear proposals for investment in health services in terms of financial resource, human resource capacity and infrastructure</p> <p>There will need to be a significant investment in ambulance services to address the issues raised. NuGen will need to provide a clear outline of how they are proposing to work with NWAS and the investment they are proposing to put into the ambulance service.</p>
Community cohesion	<p>The PEIR suggests that an influx of workers could increase rates of crime or increase the fear of crime among existing communities. NuGen states that it will work with Cumbria Constabulary to develop a community safety management plan.</p>
Mitigation	<p>Funding will be needed to deliver the community safety management plan.</p>
Contribution to meeting local policies	<p>The PEIR sets out a list of policies and legislation that are relevant to the socio-economic aspects of the Moorside development. These are described, but there is no analysis of how these policies and legislation will affect the Moorside development.</p>

ISSUE	COMMENT
Council Response	There is very little explicit linkage of the policies and legislation set out in section 10.3 of the PEIR with the rest of the socio-economic analysis in Chapter 10 of the PEIR.
Mitigation	The PEIR needs to show how the development and operation of Moorside and the associated development sites will contribute to meeting local policies. The development of Moorside should be undertaken in a way that maximises its contribution to local policies and the local economy.
Cumulative impacts	Some initial work has been carried out on the cumulative impacts of the Moorside project, alongside other major projects planned in the local area.
Response	Chapter 10 of the PEIR states, "Sellafield is approximately 60km north-west of the nominated site at Heysham. The possible, positive regional economic effects discussed above could be enhanced if both the nominated sites in the region were developed." However, any negative impacts associated with the two projects may also be exacerbated if both are developed.
Mitigation	A full and comprehensive assessment of the cumulative impacts of Moorside and other projects, along with a dynamic assessment needs to be carried out.
Residual effects	Paragraph 10.8.42 of the PEIR states that the predicted residual effects set out in the rest of the paper are dependent on the environmental (mitigation) measures set out in Table 10.3. However, large parts of the approach to mitigation (e.g. a supply chain strategy and a workforce development strategy) have not yet been developed, so it is not possible to consider whether they provide adequate mitigation or not.
Mitigation	Until a set of detailed mitigation proposals are in place, the residual effects cannot be considered

## 5.4 OVERARCHING COMMENTS

- 5.4.1 Cumbria will be hosting a new-nuclear NSIP with significant adverse impacts on local communities; the Council's priority is to secure a sustainable legacy. Whilst there is a commitment made to providing a legacy, the Council has a fundamental concern over how this will be delivered due to the absence of any community legacy proposals in any of the consultation documentation. This must be addressed with the provision of evidenced proposals for legacy outcomes.
- 5.4.2 The detailed workforce requirements data which underpins the assumptions being made has not been shared with the Council despite regular requests. It has therefore not been possible to evaluate the assumptions behind the geographical sourcing of employment which will lead to different levels of impact on the local labour market and also on the worker accommodation strategy, transport strategy and other aspects.



# 6 HISTORIC ENVIRONMENT

## 6.1 INTRODUCTION

6.1.1 Within the PEIR it states that the chapter presents the potential for effects as a result of direct disturbance to features of historic interest and effects as a result of changes to the settings of assets. No assessment of setting is presented in the chapter so is unclear as to the basis for the effects.

6.1.2 A preliminary setting assessment has been added to the baseline text.

## 6.2 KEY ISSUES

6.2.1 Reference is made to a setting assessment in the text but, it is unclear whether a setting assessment has been carried out

6.2.2 Disagree that assets close to the site boundary are more liable to significant effect on setting

## 6.3 EVIDENCE AND DETAIL

TABLE 6-1 REVIEWING THE EVIDENCE PRESENTED IN CHAPTER 12

SECTION	COMMENT
12.2.1 Limitation of PEIR	This is a very general statement which allows for everything relating to the baseline to change. This should be expanded to state what particular further key baseline is being collected. Expanded as per comments.
12.3 policy & legislation	Nothing to add to this section it appears comprehensive.
12.4 Data Gathering	Study areas: were these agreed with Historic England for setting and the Council Planning Archaeologist for archaeological remains. If so this needs to be stated.  The text has been added to but the question on setting remains unanswered.  Additional Sites: were the study areas agreed with Historic England for setting and the Council Planning Archaeologist for archaeological remains. If so this needs to be stated.  Survey work: Need to clarify which particular ClfA guidance and add to Section 12.3.3
Section 12.5.3	Suggests the setting assessment has been done but this does not appear to be the case.  A preliminary Setting assessment has been added to baseline.
Section 12.5.4	States all effects involving direct loss or disturbance to heritage assets are anticipated to occur within the development footprint and will be contained within Moorside. Is this correct? Need to confirm that no direct loss of heritage assets will occur within the Accommodation and

SECTION	COMMENT
	Additional Sites.
Section 12.5.5	No change to text so have to assume this is correct. A sentence to this effect i.e. no direct loss of heritage assets will occur within the Accommodation and Additional Sites could have been added for clarity.
Section 12.5.7	Disagree that assets close to the site boundary are more liable to significant effect on setting. The magnitude of the effect is dependent upon the importance of the asset and the sensitivity of the setting i.e. its value to the significance of the asset. Furthermore, setting has no set limits or boundaries and so an asset some distance away can suffer the same level of harm as one close to the site. Refer to HE GPA 3.
Section 12.5.7	No response to this comment is presented.
Table 12.4	As referenced in 12.5.7 does not include the list of assets to be included in the setting assessment. This information remains unseen in this chapter.
Section 12.7.5	There is a noted reliance on the ZTV for setting assessment. Care needs to be taken when quoting this as the experience of the scheme from the setting of an asset may be linked to sound and other sensory pollutants that are not ZTV dependent.
Table 12.1	There is an inconsistent approach between the levels of detail of incorporated measures presented for below-ground archaeology and built heritage – the latter has more detail. Perhaps a definition of recorded for below-ground archaeology would be appropriate here.
Table 12.1	No change has been made to the text to reflect the comments above. No definition of recorded is offered. The Council would suggest 'preservation by record'. It is suggested that archaeological assets will be excavated but it would be more appropriate to state that the significance of the assets would be determined through evaluation techniques.
Table 12.1	The measures for limiting impacts on setting are restricted to during construction. There is no mention of during operation. This needs to be considered <i>at design stage</i>
Section 12.7	This is very outline and lacks any specific detail as to the application of the methodology. The methodology remains very outline with the emphasis being on correlation but no further explanation of this approach.
Tables 12.3	The tables are useful but the numbering needs attention (Table 12.2 in text but caption reads 122.2 and so on). Tables should be referenced to their source or as derived from a source. No methodology is presented for the setting assessment other than a reference to guidance.

SECTION	COMMENT
Section 12.7.3	A setting assessment methodology is included in the text. Section 12.7.3 states that the assessment of effects on the settings of heritage assets has been completed in accordance with HE guidance and goes on to list the five steps to completion. However, 12.7.7 outlines three factors that need to be considered as step 2 of the process. 12.7.8 goes on to suggest that this will appear in the ES which indicates that step 2 has not been undertaken and so the statement in 12.7.3 is incorrect – either the assessment has not been completed or the incorrect wording has been applied in the text. This is very confusing.
Table 122.2	Presents levels of heritage significance but the information provided in the table is more commonly referred to as the heritage importance or sensitivity. The significance of a heritage asset relates to its cultural heritage interest based on the National Planning Policy Framework (NPPF) prescribed values. That interest may be archaeological, architectural, artistic or historic. Significance is not therefore a reflection of the levels shown in the table. This table is also inconsistent with Table 12.2 in the Discussion Document (January 2016) which applies the terms sensitivity and value.
Table 122.3	Presents the definition of magnitude of change to the assets but the consideration of harm to the significance of the assets is not mentioned here as it should be (NPPF paragraphs 132-134).
	No consideration of harm as per NPPF included in the text.
Section 12.8	Would benefit from an introductory paragraph explaining that the actual assessment is presented in Tables 12.7 to 12.10 at the very end of the section and following the baseline.
Section 12.8 Baseline	It needs to be made clear whether or not this is a summarised version of the baseline and if so where the full baseline appears.
Section 12.8 Baseline	There is inconsistent use of historic periods for sub-headings. Where present the baseline sub-headings for historic periods should present the date range for that period. It would be useful to state what historic periods are not represented i.e. Iron Age and Romano-British rather than no entries appearing. It is more usual to present Industrial Period rather than Industrial Remains.
Section 12.8 Baseline	A definition and explanation of findspot should be provided. It needs to be made clear that these are indicative of potential but have no actual heritage value as the asset has been removed.
Table 12.4	Table reference 12.4 does not tally with caption 122.4.
Section 12.8.1	Medieval and Later Period - definition of later period is needed. More than one period is represented so it should read in the plural. Following the reference to medieval assets, one Post-medieval Period (1540 to 1750) asset is present with the majority dating to the Industrial Period (1750 to 1901). A number of Modern Period (1901-present) assets are also present.

SECTION	COMMENT
Table 12.5	is a useful quick reference tool. Why is the table restricted to the prehistoric activity. Should it not include HER entries across all relevant periods. This is an inconsistent approach.
Table 12.5	Designated Assets: 12.8.11 This states that a number of assets could be affected through changes to their setting. Firstly, it is the significance of the asset that will be affected not the asset. Secondly, why is there an assessment in this section of the baseline but not in the other baseline sections? Are to understand that there will be harm to the significance of all of the assets in this section or just those in 12.8.11.
Section 12.8.17	The approach to this section remains unclear despite some improvements to the layout. Designated assets included in the setting assessment are described, as are the settings and heritage significance of these assets. What needs to be made clear is whether this is the full text from the setting assessment or a summary. This needs to reflect Section 12.7.8 which suggests the setting assessment has not been completed?
Section 12.8.17 - onwards	Generally, the description of the setting is very localised and no attempt is made to relate the assets to the wider historical landscape within which they sit and the importance of that association. Similarly, the setting of the assets appears to be described in isolation with no attempt at historical associations between assets.
Tables 12.7 to 12.10	would benefit from a clearer caption which should include both construction and operational phases of the scheme. Similarly, within the tables it is quite difficult to find the operational sub-section.
Section 12.9.1	states 'due to the limitations set out above'. Please provide a reference to these i.e. section number
Section 12.10	A draft scope is presented but appears incomplete.

## 6.4 OVER ARCHING COMMENTS

- 6.4.1 Consideration needs be given to enhancement as a means of mitigation. This could include improving the setting of assets by opening up lost views between related assets for instance, or the enhancement of heritage interest of individual assets such as the restoration of historic features. There is a key opportunity to develop an enhancement programme that takes in the Beckermat Conservation Area and St Bridget's Church. This in turn offers opportunities for community participation and interpretation.
- 6.4.2 The visual impact of the power station and the associated landscaping mounds is likely to be compounded by the pylons from the National Grid project. The impact of the vertical structures alongside the Moorside project requires further assessment including the potential for mitigation of the cumulative impact by undergrounding the cables under the spoil mounds.

- 6.4.3 The Council has fundamental concerns over the size of the power station structure and its proximity and impact upon the communities of Beckermeth, Braystones and Calder Bridge. The proximity of the power station to the existing residents gives rise to potential for considerable construction related disturbance, including noise, light pollution and air quality. NuGen needs to be very clear why the power station is proposed so close to Beckermeth and demonstrate conclusively that it could not be located further to the south to lessen the impact on local residents.



# 7 GROUNDWATER & SURFACE WATER

## 7.1 INTRODUCTION

- 7.1.1 This review is based upon the information presented within the PEIR Chapters 13 Groundwater and Chapter 14 Surface water as part of the Moorside Stage 2 consultation. It focuses upon the potential impacts on groundwater levels through dewatering activities and deterioration of groundwater quality through construction activities.
- 7.1.2 Furthermore within the introduction to chapter 14 clearly states the aspects of the water environment that will be considered within this chapter and how these relate to water environment aspects that will be considered in other chapters as well as the supporting Water Framework Directive (WFD) and Flood Risk Assessment (FRA) reports that will be prepared to support the ES. This clarification is beneficial and is continued throughout the report.

## 7.2 KEY ISSUES

- 7.2.1 Additional information being collected as part of the baseline will inform the groundwater and contaminant models for the area and specifically the Low Church Moss SSSI but currently means that there is a lack of information in the PEIR upon which detailed groundwater commentary can be made. It is expected that additional information will be presented within the draft Environmental Statement.
- 7.2.2 The Surface Water chapter provides a comprehensive summary of potential risks to the surface water environment associated with the construction and operation of the project. It is of a standard that is considered appropriate for the PEIR and no further assessment is deemed to be required at this stage. The Council's review has highlighted a number of areas that will need further exploration and assessment within the subsequent ES and supporting Flood Risk Assessment (FRA). This includes, but is not limited to, a more detailed explanation of the proposed mitigation measures; assessment of residual risks following the inclusion of proposed mitigation; and assessment of potential cumulative effects.
- 7.2.3 The PEIR has been informed by a robust monitoring programme of surface water receptors. No monitoring has been undertaken to date of the Accommodation Sites, the Corkickle to Mirehouse Railway Site and the St. Bees Railway Site. Current monitoring is considered satisfactory to inform the PEIR, but the Council requests that monitoring is undertaken of water quality during the construction phase of the project for those works in close proximity to surface water features.

## 7.3 EVIDENCE AND DETAIL

SECTION	REVIEW
Chapter 13 limitations	This section has been broken down into general and technical. The limitations have been expanded to specify the Moorside, accommodation sites and now the Corkickle to Mirehouse Railway Site and the St. Bees Railway Site as covered within the scope.
Chpt.13 13.2.4	It is noted that abstraction for the operational phase of the project will be required and information is likely to be delayed. This abstraction has the potential to impact groundwater levels within the target aquifer (presumably sandstone bedrock) and depending on its scale could be significant. The Council understands that this work will be developed in the ES with specific reference to freshwater abstraction and will review

SECTION	REVIEW
	this once the information is available
Chpt13 13.2.5	It is noted that all assessment is limited to technical judgements at this time as site data and numerical modelling is still being developed. The right to change these judgements has been expressed which is considered reasonable although four quarters of monitoring information is now available. Assessments should now be made on the available data.
Chpt13 13.3	Environmental Permitting Regulations have been removed from the list. It is assumed that this is because it does not have bearing on the actual assessment itself.
Chpt13 13.4.5	<i>Desk Study:</i> Additional paragraphs have been added here justifying the collection of data beyond published sources. Notable information for which data collection is required covers groundwater level, including the Low Church Moss SSSI. It is also noted that this covers the Moorside site only and should be expanded to include the other project sites.
Chpt13 4.5&6	There is no reference as to whether or not historical mapping has been used to identify groundwater features (springs, wells, sinks etc.) that either are still present or have been removed.
13.14.10	<i>Survey Work:</i> Section 13.4.10 states that further survey work is likely to comprise a series of surveys. Is there a reason why this scope is not yet defined?
Chpt13 13.4.12	<i>Consultation:</i> Additional consultation has been received from Sellafield Ltd, National Trust and Lake District National Park Authority. Additional information on how these comments have been addressed and considered in the PEIR is then provided. Principal concern is around the Church Moss SSSI and the requirement for adequate monitoring. Reference is also made to 'Site Specific Safety Cases' – No information appears to be provided about what these will contain and where they are found. The other key area that does not appear to be covered is the potential requirement for a groundwater abstraction.
Chpt13 13.5.1 -5	As per comments previously - potentially significant effects could also include changes in groundwater level from permanent groundwater abstractions used in the operation of the Moorside site. Changes in groundwater quality could also include mobilisation of existing contamination in subsurface soils or groundwater due to changes in groundwater level.  Changes in groundwater quality could also occur during the decommissioning stage although it is noted from earlier comments that this will be addressed at a later date.
Chpt13 13.6	As per comments previously - Table 13.2 could be updated in light of the comments on scope above. Incorporated measures could also include soakaways where relevant and more detail on incorporated measures could be provided. The phases of construction of each of the potential effects could also be incorporated into this table. There may also be benefit to listing all receptors in Table 13.2 for clarity and to confirm

SECTION	REVIEW
	they have all been considered. This should then be pulled through in to the summary chapter.
Chpt13 13.8	Good summary provided of groundwater status for the site and descriptions of strata, their extent and aquifer and Water Framework Directive (WFD) status included. Only limited groundwater elevation information provided. No information on groundwater quality provided. This is still presumably awaiting all of the baseline monitoring information before it can be completed and it is assumed that this section will be expanded on at a later date. At this stage, there will need to be an opportunity for comment and review.
Chpt13 13.8.4	As per previous comments - 13.8.14. To address the unknown with respect to private and unlicensed abstractions the Council suggests that a private abstraction survey involving a site survey of private landowners is undertaken as part of the baseline. These could also be incorporated into any subsequent monitoring programme for groundwater quality and groundwater elevations where relevant.
Chpt13 13.8.15	Predicted Residual Effects – It would be beneficial to separate out quality and groundwater levels as suggested.
Chpt13 13.9	A number of deregulated supplies have been listed as specific receptors. It is not clear whether this is exhaustive, i.e. has a landowner/groundwater abstraction survey been completed, as the information suggests this is the case. A radius of around 500 m would be more than sufficient as a conservative approach. Otherwise all receptors appear to be considered at this stage based on evidence provided earlier in the chapter.
Chpt. 14, 14.7	The proposed assessment methodology adopts a standardised approach appropriate for projects of this nature. The Council notes the wording of 'undeveloped land' as a receptor that is considered to have 'low' importance. Whilst the Assessor's intentions are understood, the Council suggests that that the sensitivity of 'undeveloped land' must take into consideration the potential use or intended use of that land, for example land that may be currently undeveloped, but which has been allocated for residential development within the local plan.

## 7.4 OVER ARCHING COMMENT

- 7.4.1 Where appropriate the Council will rely on the EA's response when reviewing the FRA which has not yet been provided. The absence of flood modelling data to prepare a Flood Risk Assessment of the Moorside site is disappointing and therefore it is not possible to comment on the current proposals. The Council requests that further formal consultation is undertaken following completion of the Flood Risk Assessment. This will need to take account of all forms of flood risk, including surface water and flooding from ordinary watercourses. Any Flood Risk Assessment should take account of the Council's Flood Risk Management Strategy (dated April 2015) and NuGen should comply with best practice in relation to sustainable drainage.



# 8

## MINERALS AND WASTE

### 8.1 INTRODUCTION

- 8.1.1 In response to the draft PEIR, the Council suggested that an additional chapter on Minerals and Waste be added to the report to discuss where aggregates will be sourced from and covering the management of waste material generated on site. It is noted that this suggestion has not been incorporated into the PEIR, therefore it is not possible to assess the adequacy of the Moorside minerals and waste strategy.
- 8.1.2 The statement about adhering to the waste hierarchy is noted and supported. However, the specific objective of retaining excavated materials on site needs to be balanced carefully against other objectives in respect of landscape and amenity impacts. The Council acknowledges that definitive statements about construction waste arisings are difficult to make at this stage. However, it is still considered that further information and detail on how conventional waste will be managed once off-site is required in order to assess whether capacity in the waste management sector is sufficient to meet the needs of the project at both the construction and operational phases. The proximity principle is referred to as forming part of the approach to waste management but there is little reference to waste in the Transport chapter of the PEIR and the draft Transport Strategy to indicate what this means in practice.
- 8.1.3 With regard to construction minerals – notably aggregates – there is no mention of the sourcing or transport of construction aggregates other than collectively as ‘materials’ in the context of the sea-borne import of construction materials being the preferred approach.
- 8.1.4 It is not clear how much, or whether any, construction aggregates will need to be sourced from onshore UK locations and therefore whether any will be sourced in Cumbria. Similarly there is no information in the Transport chapter of the PEIR or draft Transport Strategy as to the road or longer distance rail implications for construction materials other than between Port of Workington and Moorside.
- 8.1.5 It has not been made clear in what year will radioactive waste first arise; what activity level(s) will it be; what volume and what level(s) of radwaste will arise annually and what is the proposed method of storage, treatment and disposal
- 8.1.6 The Council expects to see more detail on the sourcing of construction aggregates.
- 8.1.7 Overall, the Council’s comments raised at the previous PEIR draft stage remain.

### 8.2 KEY ISSUES

- 8.2.1 This consultation is premature in terms of the certainty of what will be built for most of the elements of the project and the waste implications are unclear. The vagueness of the project makes it difficult to comment on.

## 8.3 EVIDENCE AND DETAIL

### ASSOCIATED DEVELOPMENT SITES

---

- 8.3.1 Development constraints need to be evidenced in the approach to planning the Associated Development sites. For example, in addition to the Derwent-Marchon Northern Gas Network cutting across the Mirehouse accommodation site, which is shown by NuGen; the whole area has surface coal resources (according to BGS) which need to be taken into account, and there are 2001 Foot & Mouth infected areas to the north east. Burials associated with that event will need to be checked and confirmed.
- 8.3.2 In developing the materials strategy for the project the Council wishes to see the synergy (if any) explored between inert waste arisings and aggregates required for all the major projects in West Cumbria (Moorside, North West Coast Connections (NWCC), United Utilities pipeline, BAE shipyard upgrade, Walney windfarm extension, West Cumbria Mining). NuGen should explore the opportunities for re-use of aggregates and excavated materials in connection with the developers of these other major projects.

### MOORSIDE SITE

---

- 8.3.3 Apart from being a Marine Conservation Zone, the site suggested for the MOLF has one of the highest incidence of finds of nuclear particles (due to the former discharge pipes from Sellafield – and potentially depleted uranium from test firings into the sea at Eskmeals). The disturbance of the sediments and sands could pose a risk to residents, workers and the environment. NuGen has not stipulated how the movement of sediment and materials will be monitored, managed and mitigated.

## 8.4 OVER ARCHING COMMENTS

- 8.4.1 There is no information at present on the sourcing of construction aggregates for the Moorside project. As a result no comments can be made on the merits of the transport strategy in this regard or in respect of the environmental, economic or health impacts that mining and transporting of aggregates might have, particularly if any are to be sourced in Cumbria. This needs to be considered as part of a coherent approach to the way the project is proposed to be delivered. NuGen should consider the synergies between inert waste arising and aggregates required for other major projects in West Cumbria to minimise the need for transport or disposal of waste and to maximise the beneficial use of materials.

# 9 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

## 9.1 INTRODUCTION

- 9.1.1 A number of additional technical documents have been released for consultation alongside the PEIR, including the Construction Environmental Management Plan (CEMP). The following is a review of the draft CEMP (May 2016).
- 9.1.2 The CEMP has not been informed by environmental assessment work. The draft outline CEMP should identify the environmental aspects with likely construction impacts and provide a template/framework for controls/procedures to mitigate impacts and manage risks.

## 9.2 KEY ISSUES

- 9.2.1 CEMP does not go far enough in setting the principles and parameters for environmental management.
- 9.2.2 This draft Outline CEMP should be more than just a description of what will be included in a CEMP. More detail is required particularly in regard to:
- environmental policies, legislation, regulations and standards
  - the environmental aspects to be covered by the CEMP (air, noise, water, soils/land, biodiversity and vegetation etc.) and identification of the high level environmental risks or impacts for each aspect (recognising the Outline CEMP will act as an overarching document that governs all CEMPs for the Moorside Project).
  - likely construction activities described, i.e. earthworks/excavation, piling, transportation, structure erection etc.
- 9.2.3 The structure of the draft Outline CEMP does not flow and needs re-ordering. The Council suggests the following as a CEMP template:
1. Introduction
    - a. Purpose of CEMP
    - b. Structure of CEMP and environmental management framework
  2. Project Scope
    - a. Site location(s)
    - b. Project summary description (phases)
    - c. Construction programme
    - d. Construction activities
    - e. Scope of CEMP
  3. Environmental Management Framework
    - a. Environmental Policy
    - b. Environmental Objectives and Targets
    - c. Environmental Aspects and Impacts Register
    - d. Roles and Responsibilities
    - e. Training and Competence
    - f. Environmental Control Procedures
  4. Operational Management

- a. Communication and Awareness
  - b. Complaints and Enquiries
  - c. Non-Conformance and Corrective Action
  - d. Control of Records
  - e. Monitoring, Audits and Reporting
5. CEMP Review

## 9.3 EVIDENCE AND DETAIL

- 9.3.1 The table below provides a summary of comments per section and sub-section of the draft Outline CEMP.

TABLE 12-1 REVIEW OF DRAFT CEMP

SECTION	COMMENTS	RECOMMENDATIONS
<b>1.0: INTRODUCTION</b>		
1.1.1	Referring to the marine off-loading facility, highway improvements and worker accommodation in the context of “amongst other development” is dismissive of these key aspects of the project.	This section should be worded to acknowledge all the ‘phases’ or elements that form the package of the Moorside Project rather than alluding to the marine off-loading facility, highway improvements and worker accommodation as though they are minor elements only.
1.1.2	Only the <i>Power Station</i> component of the ‘Moorside Project’ is referred to in the location; this should cover the project not just the power station. No reference is made to the scale or setting of the ‘Moorside Project’ site.	A summary is needed to provide clarification of the area each of the components of the Moorside Project (approx. ha) and the geographical and environmental setting (for example coastal / flat / flanked by hills / watercourses / previous and current use of the site(s)). This should be succinct and relevant to environmental management.
1.2.2	Refers to the “ <i>Moorside Site</i> ” without any context as to what the site constitutes.	S.1.1.1 needs expanded information that defines the ‘site’ with an indication of scale and setting.
1.3.1	First bullet point – what is meant by the CEMP covering “initial” parts of the construction period – this doesn’t make sense and the CEMP should cover <u>all</u> construction work for the duration of the construction programme. It also refers to an undefined “Site”. Second bullet point – one outline CEMP for all of the works in addition to the power station is not sufficient and would not provide enough detail to manage environmental risks and impacts.	Reword this section to show the CEMP framework of documents that will be prepared and implemented (i.e. one Outline CEMP for entire ‘Moorside Project’ and detailed CEMPs for each aspect of the project (i.e. power station, railway, marine off-loading facility etc.). A detailed CEMP for each ‘phase’ should be site and environmental specific.
1.3.3	The CEMP should do more than “take account of...”, it should translate environmental mitigation required by the ES into practical and controlled measures requiring implementation.	
1.3.5	The document does not achieve what is described in this paragraph.	The document should go beyond proposing content and structure and needs to set some ‘standard’ parameters for environmental management.
1.3.6	Expand on the nature of strategies and plans –	

	state known ones (e.g. construction traffic management plan, waste management plan etc.) Second sentence, should say “ <i>These will be read.....</i> ”, <i>not may</i> .	
1.4	The content of this section relates to CEMP objectives, not requirements.	Change the title to read ‘Outline Construction Environmental Management Plan <b>Objectives</b> ’
1.4.1	Paragraph is unnecessary and misleading. In particular, it says the first section of the CEMP will provide a “ <i>project specific tool</i> ” – this section does not provide a tool as it is not project or environment specific and does not set out what the specific requirements of the CEMP are. The bullet points listed are objectives, not requirements.	Remove first four lines of paragraph.
1.5.1	The order of chapters/contents listed here is unusual and does not allow the process of environmental management to flow to the reader. Chapter 5 is vague as the entire document relates to “Construction environmental management” not just that chapter. Critical items required to be addressed by the CEMP are missing, such as; environmental procedures and controls, monitoring, compliance and audits, incident reporting and management and CEMP review.	Re-order the chapters to allow the process of environmental management to be more apparent; see above under ‘Overall Comments’ for more information.
<b>2.0: ENVIRONMENTAL POLICIES, RESPONSIBILITIES AND EMERGENCY PROCEDURES</b>		
2	“ <i>Environmental Policies, Responsibilities and Emergency Procedures</i> ” are three unrelated items and not usually grouped together.	Refer to notes on content reordering and chapters.
2.1.1	Should be able to provide many of the relevant legislation, regulations and standards to be complied with now, such as relating to pollution prevention, hazardous substances and fuel storage and handling, dust control, noise levels, habitats and biodiversity etc.	
2.1.3	Unnecessary paragraph.	Remove
2.2	Title misleading as this Section relates to Environment Policy, not broader corporate policies. The current Section content is predominantly about contractors’ environment policies, with only a couple of sentences about NuGen’s policy.	Reword title to “Environmental Policy”.
2.2.1	States that NuGen’s Environmental and Sustainability policy outlines the company’s commitment to environmental management but does not say how it relates to construction environmental management. How does the policy provide governance at the construction level, what is the framework that comes out of the policy and where does the CEMP sit?	State the relevance of the policy to the CEMP. i.e. pollution prevention, legal compliance etc.
2.2.2 – 2.2.5	These paragraphs relate to contractors’ policies, not NuGen’s.	
2.2.2	What is meant by a “suitable” environmental policy statement? It does not state what is suitable or who will determine whether a policy is suitable or not.	Clarification needed.
2.2.3	This paragraph is confusing. Unusual for a policy to provide the framework for reviewing	Review and reword paragraph to provide clarification of the contractors’

	targets.	environmental policy requirements.
2.3.1	Needs to state that the CEMPs will be prepared in accordance with the EMS and will implement its requirements.	
2.3.2	States that contracting companies “..... <i>may not necessarily have certification in place.</i> ” There is no explanation provided as to how NuGen will determine whether a contractor’s EMS is satisfactory and complies with the requirements of ISO 14001 should not certification be available.	Need to set out how NuGen will determine that contractors’ EMS are satisfactory.
2.4	Not sure why this is in this section as it is not a policy, responsibility or emergency procedure.	Move to a new section on environmental aspects, controls and procedures?
2.4.1	A PIER has been prepared to date so why is that not referenced and used here to set the scene for environmental likely environmental effects and commitments.	Given that environmental assessment work has already been carried out, it would be useful for this draft Outline CEMP to include some ‘headlines’ about environmental effects.
2.5		See Overall Comments above about reordering the CEMP contents and structure.
2.5.1 – 2.5.3	Vague and non-specific. Does not state the key roles and their responsibilities.	List key roles such as; contract manager, site manager, environment manager, principal contractor, site engineers, contracting staff etc. and what their responsibilities will be.
2.6	‘Community Relations’ – why is this in the chapter entitled <i>Environmental Policies, Responsibilities and Emergency Procedures</i> ?	Move to new chapter covering Communication.
2.7	‘Procedures’ – why is this in the chapter entitled <i>Environmental Policies, Responsibilities and Emergency Procedures</i> ?	Reword to ‘Site Inspections’ and move to new chapter covering compliance and checking (see Overall Comments above).
2.7.1	Second sentence does not make sense – what are the receptors being referred to? Paragraph includes information on the role of an environmental clerk of works but states inspections would only occur “..... <i>as necessary</i> ”. No explanation is given as to what is deemed to be necessary.	
2.7.2	Contradicts previous paragraph because this para. states that environmental inspection will be carried out by contractors or appointed personnel on site.	Environmental site inspections should be carried out by an environmental clerk of works or construction environment manager.
2.7.3 – 2.7.5	Vague and no parameters provided regarding incident and emergency procedures.	Clearly state the key procedure and relate it to roles.
2.7.6	Why are these paragraphs separated from the preceding paragraphs? List of possible incidents here is insufficient, does not include matters such as spills, leaks, dust/noise level exceedance, non-approved removal of vegetation etc.	This document should be able to set out types of incidents and the general procedure for reporting and responding for emergency and non-emergency situations.
2.7.7	Refers to a role here that is not listed under the earlier Roles and Responsibilities section.	Move to new chapter for non-conformance and emergency response.
2.7.8	More clarity needed.	
2.7.9	Complaints matter, not for section on ‘policies, responsibilities....’	
2.7.10 – 2.7.12	This does not make sense. The content seems confused with regular site inspections and environmental compliance during construction.	State that the Audit will be carried out by a third-party and not a member of the project team. The Audits should check the conformance of the CEMP by auditing records of incidents and responses etc as well as carrying out a

site check.

### 3.0: PROJECT SPECIFIC ENVIRONMENTAL OBJECTIVES AND TARGETS

3.1.1	States that objectives and targets are established but later in 3.1.3 is says the objectives are 'expected to be'. Inconsistent and uncertain.	Explain the status of project environmental objectives and targets.
3.1.2	Does not make sense as the CEMP will be an approved DCO document.	Remove paragraph and replace with statement that conformance with CEMP by all contractors is required to achieve the objectives.
3.1.3	The CEMP sets controls and procedures to meet the objectives and targets. Therefore this sentence is incorrect.	Reword.
3.1.4	First sentence states the objectives are "expected to be....." which is contradicting 3.1.1 where is says the objectives and targets are established. First bullet point – is 'avoiding' adverse impacts achievable/realistic? Second bullet point – objective should go further than "promoting". Third bullet point – it is the intention to "enhance" the historic environment?	Determine whether there are project environmental objectives and reword.
3.1.5	First sentence states the targets are "expected to be....." which is contradicting 3.1.1 where is says the objectives and targets are established. Targets listed do not cover all of the objectives stated in previous paragraph.	Determine whether there are project environmental targets and reword.  Using the objectives listed, targets relating to; landscape, local community and air, water and land are required.
3.1.6	Not clear what this means.	Explanation needed or remove sentence.
3.1.7	This paragraph does not fit in the objectives and targets section – better suited to have KPIs in a 'Monitoring and Auditing' section where implementation of the CEMP will be checked.	

### 4.0: GENERAL OPERATIONAL CONTROLS

4.1.1	No general arrangements included for the points listed. Construction traffic and access should be included in here.	Include general principles / parameters for construction site operation, e.g. standards governing hours of working, contractor compounds, access etc.
4.2	Emergency Preparedness perhaps better suited to a separate chapter. Section 2 of draft Outline CEMP also includes Emergency Procedures – why is this covered in detail in two separate chapters?	Move 'Emergency Preparedness' to form one section.
4.2.1	Term "EPC Contractor" appears here for the first time in the document.	Consistency needed over the terms used for 'contractors'.
4.2.2	Not all the points listed are likely to constitute "emergency" situations. Some of the items listed relate to non-emergency incident/non-conformance management.	Check list for likely emergency situations so that Emergency Response Procedure is focused appropriately.
4.2.3	This sentence does not relate specifically to emergency response.	Move to section where environmental aspects and risks are identified.
4.2.5	Will the nominated personnel receive the training described in the previous paragraph also?	
4.2.6	Vague. Not clear what this paragraph is saying.	Clarify of remove.
4.2.8	What document is being referred to as "This document....."? The CEMP?	Reword.
4.2.9	None	

4.2.10	Some of the detail may be more appropriate under a 'Materials Handling and Storage' or 'Pollution Prevention' section? Seventh bullet point – what is periodic testing referring to? Does this mean practice drills?	
4.2.11	Materials Handling and Storage section.	
4.3.1	Too brief.	Include standard refuelling practice principles/parameters, e.g. dedicated area of site for refuelling, spill kits / drip trays, trained operatives etc.
4.4	Why only limited to oil and fuel and not all substances? Also why only limited to storage and not handling as well?	Include relevant Regulations and Standards here and state good practice requirements for storage and handling.
4.4.2	Managing refuelling is referred to here but previous section (4.3) covers refuelling activities.	
4.5	Content currently Health and Safety focus not environmental.	Needs to be related to environmental management; e.g. fire is a potential risk regarding habitat destruction, substance spills, pollution of land and water etc.
4.5.1	As above	
4.5.2	As above	
4.5.3	As above	
4.5.4	As above	
4.6	Community Safety – how does this relate to environmental management?	
4.6.1	Insufficient. Needs context such as the environmental aspects or risks that could affect community safety, e.g. materials storage and handling, dust and noise emissions, construction traffic?	Expand and provide context.
4.7.1	Insufficient.	Expand and provide an outline covering likely sources and types of waste and the principles of waste management to be used (materials use to minimise waste produced, reuse, recycling, disposal etc.)
<b>5.0: CONSTRUCTION ENVIRONMENTAL MANAGEMENT</b>		
5.1.1	Insufficient. This section should form the <b>key part</b> of the CEMP. Environmental Aspect, Impacts and Control Measures should form this section and a clear template is required in the draft Outline CEMP to be worked up following the Environmental Statement. Currently this section is a list with no explanation of how the construction activities present environmental risk to different environmental aspects. There are no control measures for the specific environmental aspects.	This should provide a framework for developing a section on 'Environmental Aspects and Impacts' which provides a schedule of potential significant effects relating to each construction activity. Include provision for control measures for each environmental aspect to manage the identified impacts.
<b>6.0: RECORDS MANAGEMENT</b>		
6.1.1	Very vague. What do the documents referred to relate to in terms of the CEMP, environmental risks/controls etc?	
6.1.1 – 6.1.5	This section reads like a description of the principles of a document management system or QMS and it does not address the recording of environmental management matters.	Reword section to relate to environmental records such as waste management records, complaints recorded, monitoring/auditing checks recorded, corrective actions, training

		etc. Retain a succinct description of document management (being identifiable retrievable, protected) and authorisation of issue/disposal.
6.1.4	Typo in last sentence. What are the regulatory standards and industry best practice being referred to?	
<b>7.0 TRAINING, AWARENESS AND COMPETENCE</b>		
7.1	States that this is “ <i>one of NuGen’s primary objectives</i> ” but there is no mention of this in sections 1.4 or 3.1.4 which currently describe objectives.	This section should give a preliminary schedule of competences relating to environmental management, types of training / communication to be used (e.g. machinery operatives require spill response training).
7.2.1 – 7.2.3	Unclear	Relate this section to construction activities (e.g. excavation) and CEMP control measures (e.g. dust suppression).
7.3.1	No definition of what a SQEP is.	
7.4.1	The content of this should link with / incorporate the requirements of section 7.3.	
7.4.2	First bullet point – should be all sensitive area, no definition as to what constitutes a “significant” environmentally sensitive area. Second bullet point – What is the Environmental Protection Plan? Third bullet point – does not make sense. Not sure why there is a remark about “ <i>environmental benefit of personal performance</i> ”. Fourth bullet point – should not refer to EMS.	Remove word ‘significant’.  Explain what the Environmental Protection Plan is or remove this term.  Reword / explain or remove text.
7.4.3	Check consistency with sections 7.2 and 7.3.	Change ‘EMS’ to say ‘CEMP’.
7.4.4	Relate to ‘roles and responsibilities’ section. No explanation as to how it will be determined who the competent person is for delivering training. Bullet points – training in all of these will not be appropriate for all. No draft framework provided here for who (roles) these topics relate to.	Need to prepare a draft framework for competence need and training, which relates to separate section on roles and responsibilities. E.g. Environment Manager to give Tool Box Talks on specific environmental topics and control measures, Lead Contractor / EPC Contractor / Site Manager incorporate CEMP awareness and requirements into site inductions.
7.5	This section on awareness is unnecessary and the content should be incorporated into Section 7.4 or 7.6 as appropriate.	Move content.
7.6.1 – 7.6.5	Too vague. There is no specific communication requirement outlined. It is not clear what will be communicated, who will communicate it (i.e. NuGen / Contractor) or who the parties are to receive communications (construction personnel, managers, stakeholders).	A clear structure for developing a CEMP Communication Plan and its requirements should be set out here.
7.6.2	The role of ‘Environmental Sustainability Manager’ is referred to here – earlier in the document there is a HSSE / Environment Manager referred to.	Define roles and make consistent through document.
7.6.6	Second bullet point – What is the ‘Environment Plan’ that is referred to? These bullet points provide a philosophy or agreement to communication but do not provide	Set out a communication framework to be finalised when details are known. It should contain; topics for communication and messages, parties

	a framework for what communication is required about in the context of the CEMP (checking, monitoring, recording, reporting etc).	to provide and receive communication etc.
--	---	---

## 8.0: REGISTER FOR ENVIRONMENTAL NUISANCE COMPLAINTS

8.1.1	No information about what complaints could be received about (dust, noise, traffic), by who (regulators, public, residents) or how complaints will be reported and recorded.	Expand section and combine with sections such as communication, reporting etc to form one chapter.
-------	--	--

## 9.0: PROJECT COMPLETION REQUIREMENTS

9.1.1	This feels out of context as a stand-alone chapter. Need to clarify the scope of the CEMP and construction activities to be covered by CEMP, including post-construction reinstatement works.	Move text to an early chapter covering scope of CEMP.
9.1.2	No sure what this is meaning. What type of audit, a CEMP audit?	Clarification needed.

# 10 DRAFT PROPERTY SUPPORT VOLUNTARY MITIGATION

## 10.1 INTRODUCTION

- 10.1.1 As part of the stage 2 Consultation NuGen have released a 'draft property support scheme and voluntary local mitigation scheme', the following is a review of the draft document:

## 10.2 KEY ISSUES

- 10.2.1 Whilst the scheme is to be welcomed it must not detract from, or be considered as replacement to, other mitigation measures. In the case of Hinkley Point C the legal analysis noted that 'there is an interesting section of the Secretary of State's decision letter where the Inspector hedges his bets whether a "Property Price Support Scheme" offered by the applicant is a material planning consideration or not. It states that while it recognises that it "is not usual to reckon adverse impacts on property values as a planning consideration" and whilst he has not reached a "concluded view" on the "relevance and importance (i.e. materiality)" of such a scheme, "it may not be appropriate to include a scheme designed to mitigate the effect of such impacts on residents as a planning consideration". In effect, this side-steps the issue by saying that in any event other mitigation measures provided sufficient mitigation anyway, even if the Property Price Support Scheme is disregarded. However, this apparent lack of certainty on the Secretary of State's part as to whether such a Property Price Support Scheme is a material planning consideration needs to be borne in mind for other DCO projects'.

## 10.3 EVIDENCE AND DETAIL

- 10.3.1 There is a need to consider whether the restrictions placed on the scheme are appropriate – for example is the 2008 date for assessment appropriate, were prices depressed at the point or could it be considered as 'normal'.
- 10.3.2 It would be preferable for NuGen to follow the EDF Energy model of two valuations before determining the final agreed valuation. One valuation will inevitably be challenged and the process for resolving this will be complex and could result in the authority being brought in as arbiter.



# 11 SUMMARY OF COUNCIL CONCERNS

## 11.1 INTRODUCTION

- 11.1.1 This concluding section considers the Moorside consultation process to date and is based on the applicant's Interim Consultation Report which provides commentary on how NuGen has taken into consideration stakeholder comments provided at Stage 1.
- 11.1.2 On reviewing the response to issues raised at the Stage 1 consultation, the Council continues to have concerns raised at Stage 1 that have not been adequately addressed in the Stage 2 submissions by NuGen. For this reason the Council seeks a further formal public consultation prior to DCO submission.
- 11.1.3 It should be noted that NuGen carried out informal consultation on the detail of the PEIR in Jan 2016 and March 2016 titled 'Discussion Document to inform the Preliminary Environmental Information Report' with statutory key stakeholders. Whilst this was not a formal stage in the consultation process it was none the less an important step and the feedback should have been taken into consideration in informing the Stage 2 consultation.
- 11.1.4 At present it is not clear how the responses to this consultation were taken into consideration. Any future consultation feedback report should demonstrate how the concerns raised prior to Stage 2 consultation were addressed and if not a justification should be provided.

## 11.2 KEY ISSUES

- 11.2.1 In response to the "PEIR Discussion Document March 2016" the Council stated that "*if the following information is not provided at Stage 2 then it may result in objections due to insufficient information. At the Stage 2 Consultation the Council expects to be consulted on:*
- Work Force Development Strategy
  - Moorside Workforce Requirements
  - Phasing of Development Plan
  - Procurement Strategy
  - Supply Chain Strategy
  - Transport Strategy including the utilisation of the Port of Workington and the Marine Off-loading Facility (MOLF)
  - Draft Transport Assessment
  - Heritage assets setting assessment – including all heritage assets within Beckermeth and
  - Health Impact Assessment,
- 11.2.2 The above information which was requested to be included as part of the Stage 2 consultation process has not been provided.

- 11.2.3 The level of detail and project definition available at Stage 2 is considered insufficient to allow the Council or local communities to understand the proposals fully and make informed comment. The absence of consultation on community legacy and on infrastructure required to support the project, particularly in relation to railway improvements, and clarity on highway mitigation measures confirms that the current consultation has not provided information in a timely manner and that the detail of the current consultation is inadequate to allow stakeholders to make an informed and meaningful response. This also applies in respect of the HIA, which has not yet been carried out.
- 11.2.4 The Council has concerns that the time frame between the current consultation stage and DCO submission will not allow the opportunity to challenge where stakeholders believe that concerns they have raised during the consultation process have not been fully addressed. Furthermore the challenging timeframe does not allow NuGen the opportunity to address any significant deviations from the proposed plan. It is unclear at this time how NuGen proposes to address these issues prior to DCO submission and therefore there is a significant risk that many aspects may not be agreed upon and will have to be dealt with during the Examination period.

### 11.3 EVIDENCE & DETAILED REVIEW OF STAGE 1 CONSULTATION FEEDBACK

- 11.3.1 The Council acknowledges NuGen offered to carry out presentations to any organisation when requested, keeping local organisations involved in the process is vital.
- 11.3.2 Within the interim consultation feedback it is stated “*NuGen actively involved young people and engaged them.*” Whilst the Council acknowledges that NuGen did invite local schools to view the project it is considered that engagement with the local education system should be much more strategic and engaging. The approach to date appears more of a token exercise e.g. the local primary school visited the exhibition and was able to ask questions.
- 11.3.3 NuGen is encouraged to work with local education providers to identify potential skills needs and to develop apprenticeship for young people, including higher and degree apprenticeships. It is also recommended that NuGen follows the approach adopted at Hinkley Point C (HPC) where the applicant agreed to fund an officer to work directly with the local education providers to facilitate access to work.
- 11.3.4 As part of the consultation NuGen ran a workshop with nuclear apprentices and graduates. It would be useful to know what the workshop focused on and how feedback has influenced NuGen’s approach to education, skills and employment in order to assess the quality of the level of engagement with schools and training providers. Based on the information currently provided this is currently not possible.
- 11.3.5 The 2008 Planning Act provides guidelines on consultation process Section 68 of the Planning Act 2008 states that “To realise the benefits of consultation on a project, it must take place at a sufficiently early stage to allow consultees a real opportunity to influence the proposal. At the same time, consultees will need sufficient information on a project to be able to recognise and understand the impacts”. It is considered that the absence of elements of the proposed scheme from the Stage 1 consultation, including highways proposals and the proposed passing loop at St. Bees, has not given consultees adequate opportunity to influence the proposed scheme.
- 11.3.6 The justification and screening process used to determine the need and location of road and rail improvements has not been provided. The Council requests that NuGen carry out further consultation to justify the rationale underpinning these elements of the proposal.

### 11.4 REVIEW OF CONSULTATION FEEDBACK

- 11.4.1 The Interim Consultation Report appendices include 352 pages of analysis and supporting information. For the purposes of this Council response at Stage 2, attention is focused on Appendix 7: NuGen Responses to Stage One Consultation Feedback. Where it is considered that NuGen has not addressed the concerns raised at Stage 1 through Stage 2 this is shown in red and where it has been partially addressed this is shown as amber.

**TABLE 12-1 SUMMARY OF STAGE 1 ISSUES RAISED AND RESPONSES**

REF	SUMMARY OF ISSUES RAISED AT STAGE 1 CONSULTATION	NUGEN RESPONSE	COUNTY COUNCIL FEEDBACK	AGREED
36	Concern for increase in road congestion and its impact on local communities. Inter relationship between road, rail and sea to be fully explored including the implications for the road network, should the objective of using sea and rail not to be as deliverable as proposed	NuGen will consider all potential scenarios as part of its Transport Assessment and will deal with mitigation required on the road network. A series of Highway Improvements are proposed as part of the Moorside Project in order to address anticipated road network issues.	The Council has continually challenged the extent and robustness of the proposed highway improvements; it is considered that not all potential scenarios have been considered as part of NuGen's transport strategy. It is considered that the current consultation has not adequately addressed this issue. Information and justification for size and scale of the MOLF impacts on Port of Workington (PoW) and how the PoW will be utilised as part of the project. Rail evacuation strategy not yet demonstrated.	
37	Need to develop a worst case scenario for roads in order to understand the impacts, constraints and mitigation measures required should road transport have to play a greater role than envisaged	NuGen has developed initial realistic worst case scenarios which assume a reliance on road based transport. These scenarios are and continue to be actively discussed with Cumbria County Council and Highways England. These are explained further in the PEIR and NuGen has included its draft Transport Strategy as one of the Stage Two Consultation Documents.	The Council has reviewed the information provided in the transport strategy and has expressed concerns regarding the level of detail. Since no final transport modelling scenarios have been agreed, the worst case scenario for roads has not been identified. Please refer to transport review for full details.	
38	Welcome the use of the ports and sea, with rail as the preferred mode of onward transport – road and rail network to/from Port of Workington already constrained. NuGen to show understanding of this.	NuGen is in the process of finalising the extent of its use at the Port of Workington. NuGen is aware of the existing road constraints into the Port – primarily those at Ramsay Brow and Hall Brow. The Highways Improvements include works at these locations and therefore form part of	Although this has been recognised as an issue on completion of Stage 1 consultation, NuGen has not clarified the proposed intended future use of the PoW. Refer to MOLF / PEIR section for detailed response on Stage 2 consultations and additional information required.	

REF	SUMMARY OF ISSUES RAISED AT STAGE 1 CONSULTATION	NUGEN RESPONSE	COUNTY COUNCIL FEEDBACK	AGREED
		the Moorside Project.		
43	Consideration should also be given to the potential impact on the local road network by workers using private cars to complete the first part of their journey by car.	Noted. NuGen is seeking to agree the final scope of its Transport Assessment with relevant statutory consultees, including local authorities. The draft Transport Strategy included within the Stage Two Consultation Documents sets out NuGen's position regarding the use of private cars by workers.	The Council has called for further justification to the proposed strategy which is yet to be provided. The draft transport strategy does not adequately address the issue of private car use.	
45	NuGen should undertake a HIA to inform the Stage 2 consultation for this project.	Noted. A Health Impact Assessment is being undertaken and will form part of the application for a DCO that is submitted in 2017. Chapter 2 of the PEIR and the Proposed Scheme document provide further information in this regard.	While it is acknowledged that NuGen is undertaking a HIA the information has not been consulted on at Stage 2. The delay in releasing this information causes concern relating to the public's opportunity to comment on key issues and potential mitigation measures.	
51	EIA - Consideration of cumulative, in-combination, and inter-disciplinary effects.	The PEIR that forms part of the Stage Two Consultation Documents explains the approach that is being taken in the EIA to cumulative, in-combination and inter-disciplinary effects. These are matters that will also be reported on in the ES that is submitted as part of the DCO application in 2017.	The current consultation is based on on-going studies and findings are incomplete the lack of progress and in-combination effects consulted upon at Stage 2 make it difficult to make meaningful response. The Council has concerns regarding the timing and release of this information.	
285	Resilience. There is concern about the capacity of local infrastructure to cope in the event of an emergency and therefore further work will be required to ensure appropriate levels of resilience are provided.	Information on Emergency Planning is included in the Proposed Scheme document. NuGen is looking at how it can help deliver local legacy benefits for the	The Council has highlighted to NuGen that it has significant reservations about the approach NuGen has taken to identification of highway impacts and mitigation for the Moorside project. The Council has also raised	

REF	SUMMARY OF ISSUES RAISED AT STAGE 1 CONSULTATION	NUGEN RESPONSE	COUNTY COUNCIL FEEDBACK	AGREED
		<p>future and information on this is included in the Proposed Scheme document.</p> <p>Information regarding the Highways Improvements is included in the Stage Two Consultation Documents.</p>	<p>concerns about the robust and credibility of NuGen's approach to Emergency Preparedness.</p>	
286	<p>Minerals and waste. The Council needs to understand NuGen's proposals for minerals and waste management, what impacts there may be on waste infrastructure and the implications of materials sourcing/management in respect of transport and hard rock sources in Cumbria. The increased demands on the Council's waste disposal operations will need to be assessed and resourced and robust data provided on quantities and sources of construction aggregates.</p>	<p>Information regarding waste matters is included in the PEIR and the Proposed Scheme documents. These documents also contain information regarding NuGen's proposals to retain excavated material on the Moorside Site and its proposed Landscape Strategy.</p>	<p>This does not address the concerns raised by the Council regarding the lack of detail on minerals and waste. As detailed in the response to the draft PEIR in Jan 2016 clarity is sought on the volumes of material that may be moved off site or a definitive statement that no excavated materials will need to be removed from the site. No information is presented on the volumes and sources of construction materials. Quantified information was requested about predicted waste arisings at each stage of the project, broken down into waste streams with a comprehensive strategy for managing these arisings. This has not been presented.</p>	
287	<p>Landscape and other environmental issues. Visual impacts will need to be assessed cumulatively with the adjacent Sellafield site and photomontages should be provided. The associated impacts of spoil disposal and aggregate requirements (potentially from local quarries) will need to be assessed. Siting of buildings, landscaping and planting will be important in mitigating impact, but cannot be properly assessed until detailed design information is available.</p>	<p>NuGen can confirm that cumulative effects are being considered as part of the EIA process. Information regarding cumulative effects is set out in the PEIR.</p> <p>Regarding the use of waste heat, NuGen will seek to comply with relevant government policy on this including that set out in the National Policy Statement suite of documents.</p>	<p>The chapter on interrelationships sets out how combined impacts may be assessed in the EIA for air and noise only. It is not clear at this stage the weighting and criteria to be applied to each topic and the methodology used to identify cumulative impacts, their significance and suggested mitigation. Considering the timescales this may be challenging. Given the importance of the surplus site material bunds that are proposed near to Beckermethere is a worrying absence of information on the engineering design principles for these structures. This must include sections through, composition and stability, construction methodology surface treatment to manage drainage</p>	

REF	SUMMARY OF ISSUES RAISED AT STAGE 1 CONSULTATION	NUGEN RESPONSE	COUNTY COUNCIL FEEDBACK	AGREED
			and prevent erosion.	
288	Health. An independent Health Impact Assessment should be prepared to assess the impact on health services, the ability of the current transport infrastructure to cope with the increased activity, and the impact on the local population, environment and local services once the Project is completed and when the population returns to normal levels. The effects of the development on the local hospital and its ability to provide support in an emergency planning situation will require detailed consideration.	NuGen recognises and understands the need to assess the effects of the Moorside Project on these issues and they will continue to be addressed as part of the EIA and HIA processes. This will be reported on in the application for a DCO that is submitted in 2017.	The Council is very concerned that there will not be an adequate opportunity to comment on the HIA and hence for NuGen to amend the scheme before it is submitted for examination. The HIA needs to be consulted on formally before submission.	
290	Major concern will be with the potential impact of the proposed development upon the historic environment generally in and around the Moorside site.	NuGen can confirm that the historic environment is being considered as part of the ongoing EIA process. A preliminary assessment of effects on the historic environment is included in the PEIR.	NuGen has acknowledged that a setting assessment is required however it is not clear from the current consultation if this has now been carried out. The Council has outstanding concerns regarding impact on setting of mounds on local village and church still to be addressed.	

11.4.11 In order to demonstrate that NuGen has carried out an adequate consultation it must demonstrate due regard for the issues raised and how these have been addressed. As highlighted above NuGen has not yet demonstrated how it has addressed a number of key issues raised by the Council, not least the impacts on highways, extent of improvements and the need to quantify the levels of waste arising's and volumes of materials.

11.4.12 In order to adequately consult on the outstanding issues a 3<sup>rd</sup> round of consultation is likely to be required when further information is available.

## 11.5 EVIDENCE AND DETAILED REVIEW OF STAGE 2 CONSULTATION

11.5.1 The provisional nature of the proposals at this stage is disappointing given the potential for further amendments and consequent lack of time to consider them fully within the current project plan and, in particular, the timescales in which to submit a DCO application. The concern is compounded as a result of the Council being engaged in the development of proposals during pre-app engagement without sufficient time for public consultation and feedback. The risk is that the public are 'left behind' whilst representatives (the Council) are aware of alterations to or progression of NuGen's proposals.

- 11.5.2 Given the stated timescale for the DCO submission, there is a concern that the DCO application will be submitted without due consideration to the requirements of the locality and the consequential impacts of decisions in one topic area affecting another. For example, when considering impacts, the transport impact of any revised accommodation strategy or socio-economic strategy will need to be assessed and any material change must be consulted upon. The cumulative impacts cannot properly be assessed if they are subject to separate, incremental consultations.
- 11.5.3 There are information and evidence gaps, which make it difficult to properly consider impacts; assumptions are made that temporary impacts are not significant without this being justified. This is not based on robust technical assessment and impact definitions do not reflect the length of time associated with the construction of a new nuclear power station.
- 11.5.4 The construction phase will represent a very significant period of time to the residents, businesses and environment of Cumbria. As a further point of note, any impact that is currently considered as 'temporary' would be exacerbated should the delivery phase be extended in anyway.
- 11.5.5 The table of proposed accommodation is too vague and suggests that resilience is built into the shuttle bus facilities should the railway be unavailable. What are the proposals for construction materials, operational movements, decommissioning movements if the rail line is unavailable for months (e.g. washed out in a storm)?
- 11.5.6 In-combination and cumulative impacts are not fully described both for the development proposed by NuGen and other developments that are proposed in and around Cumbria. The construction of the main site and the associated development sites must be assessed in combination so that the true impacts can be identified and the appropriate mitigation can be defined. This mitigation will include tangible impacts associated with the development proposals and those impacts which cannot be readily defined due to the nature and scale of the proposal to construct a new nuclear power station.
- 11.5.7 Given the scale of the proposals, there is a need to undertake a thorough assessment of other cumulative and related impacts, including displacement effects. As an example, economic impacts on the labour market will have consequences for both transport and the housing market. In addition, there is a need to undertake sensitivity analysis to understand how mitigation and compensation measures will play out in different combinations and under different scenarios where variables exist, including worst case scenarios. This analysis would then ensure that mitigation and compensation measures are robust enough to cover a range of eventualities.
- 11.5.8 All outstanding information/ data/ evidence needs to be provided as soon as possible to enable proper analysis prior to submission of the DCO application. For example, an Environmental Management and Monitoring Plan (EMMP) may include detail for measures to limit the potential impacts of the proposals and to ensure quality monitoring.
- 11.5.9 If it is assumed that ultimately NuGen and the Council agrees on the nature and scope of impacts from the development; the Council then needs to be satisfied that the mitigation can be delivered in an appropriate form and in a timely manner. The documentation presented by NuGen does not indicate when and how mitigation measures will be delivered during the construction programme. If mitigation is to be embedded in the proposal then there is a need to define when and how it will be secured and how impacts will be limited until the mitigation is put in place e.g. transport improvements.

## 11.6 PLANNING POLICY FRAMEWORK

- 11.6.1 The National Policy Statement (NPS) for Energy (EN-1) requires applicants to describe the existing socio-economic conditions in the areas surrounding the proposed development. Furthermore, the NPS indicates that the applicant should explain how the development's socio-economic impacts correlate with local planning policy frameworks. The NPS is an overarching document to take into consideration, further assessment and justification of how proposals accord with the local policy framework in place. This analysis was absent from the information presented in the Stage 1 documentation and it is reasonable to anticipate that this matter would have been addressed in the Stage 2 documentation. Only some of the relevant policies at a National level have been quoted and the analysis of their applicability to each element of the proposed development is not contained within the documentation provided.
- 11.6.2 The information presented as part of the Stage 2 consultation does not take full account of the local policy framework, or interpret how the proposals could contribute towards the aspirations and objectives of relevant policy documents. Relevant local policy documents provide a detailed context from which a coherent approach could be developed that shows how the NuGen proposals will integrate into the locality.

## 11.7 SECURING LEGACY BENEFIT

- 11.7.1 The Council welcomes NuGen's pledge to provide development that has a lasting legacy within the local community and welcomes the ethos that building and infrastructure used in the development of the scheme can in principle be reused and retained post construction.
- 11.7.2 Statements such as 'NuGen also intends, as far as possible and applicable to the Moorside Project, to coordinate proposals and potential benefits, working jointly with Cumbria County Council, Cumbria Local Economic (should be *Enterprise*) Partnership, Copeland Council, Allerdale Council and the Centre of Nuclear Excellence' indicates intent to secure legacy benefits. However, there is a lack of clarity as to how these benefits will be secured. For example, the Council wishes to see the worker accommodation centres made available for legacy uses but is unclear about how this will be achieved and seeks information from NuGen on this.
- 11.7.3 If this is to be secured through the DCO then the impacts would need to be assessed and included in any assessment and ultimately included in the DCO. If, as has been suggested, this is not going to be through the DCO then NuGen should indicate how this matter is likely to be addressed (i.e. through separate planning applications either by NuGen or a third party). The PEIR notes future aspirations and opportunities for legacy and specifies that these cannot be delivered as part of the DCO application since the DCO must be limited to the Nationally Significant Infrastructure Project (NSIP) elements of the proposals. If legacy aspirations are to be considered as part of embedded mitigation for the scheme there needs to be a clear mechanism for how they will be delivered outside the DCO process.
- 11.7.4 It is envisaged that this can be achieved through the Town and Country Planning Act (TCPA) but this needs to be articulated within the DCO and a dovetailed approach adopted to bringing forward TCPA applications to deliver the legacy discussed within the DCO application.
- 11.7.5 Legacy proposals need to be defined and consulted on with future operators to confirm that the proposed legacy is feasible. Where this cannot be demonstrated then alternative community benefits will need to be provided.
- 11.7.6 The potential short term economic benefits that a new nuclear development could bring are acknowledged. However, the information presented as part of the Stage 2 consultation does not provide adequate evidence of a lasting economic legacy beyond the construction phase. The Council set out the range of activities as part of its previous response and these have not been addressed in the consultation response.

- 11.7.7 As set out in previous responses, there is a clear need for completed strategies and action plans, which include;
- a. Construction and Operations Workforce Development Strategies
  - b. Local Business Engagement Strategy
  - c. Supply Chain Procurement Strategy
- 11.7.8 The Construction and Operations Workforce Development Strategies should be completed (including action plans detailing resource commitments and delivery mechanisms) prior to the DCO submission as this would enable stakeholders to assess whether sufficient resources are in place to deliver the required strategy and assess how best to integrate activities and initiatives.
- 11.7.9 The Local Business Engagement Strategy should be completed prior to the DCO submission. This should clearly set out how local businesses will be engaged and supported to be a part of the supply chain, as well as the contract clauses that will be used to ensure supply chain contractors contribute to the Workforce Development Strategies. This Strategy should also set out how Cumbria businesses will be supported to effectively meet economic displacement impacts through the construction phase.
- 11.7.10 A clear offer is needed to show how NuGen will support the delivery a long term economic legacy. The strategies for business engagement and construction workforce development must detail how the project will provide employment for local people (particularly in deprived areas) and contracts for local firms as part of the supply chain. It is not yet clear how NuGen will work with others to attract and permanently locate elements of the supply chain near to the new build.

## 11.8 TRANSPORT

- 11.8.1 The Council has queries as to why none of the questions seeking views on the Moorside project are focused on the design or impacts of the MOLF. Considering the substantial impact this element of the proposal will have on the local environment, potential economic impacts and future legacy, it is surprising and disappointing that NuGen has not sought specific comments from the public in relation to the MOLF. The Council requests that further details on the MOLF should be included in a further formal consultation stage prior to DCO submission.
- 11.8.2 NuGen should be clear which impacts need to be the subject of further work. There is a need for greater clarity to be included as to how NuGen will secure mitigation works on the local highway network and capacity improvements with rail operators.
- 11.8.3 S106 requirements need to be based on a suitable evidential basis on which to discuss and agree appropriate transport mitigation. Possible transport mitigation measures could include:
- a. Transport and Highway Improvements: no clear mechanism has been presented to determine the precise nature of the required improvements.
  - b. Road Safety Improvements: Costs to be determined through the transport assessment.
  - c. Travel Plan Bond: Linked to delivery of modal share targets: Value of bond to be agreed.
  - d. Monitoring equipment for traffic volumes and journey times (automatic number plate recognition cameras and associated ICT equipment).
  - e. Car Parking Management costs (creation of traffic orders, automatic or manual enforcement costs, ICT equipment/ personnel costs etc).
  - f. Highways and Structures Maintenance costs: Costs to be determined through technical appraisal yet to be undertaken.
  - g. Traffic Incident management plan: Costs associated with setting up and deploying this activity. Alongside S106 requirements a Community Fund should be made available to address any unexpected and unforeseen impacts of the development,

this is particularly important as the Health Impact Assessment (HIA) has not yet been undertaken and therefore the S106 and all potential mitigation measures associated with the HIA have not yet been identified.

- 11.8.4 NuGen should seek to create an enhanced footpath & cycleway network that enables its employees and construction workers to use these sustainable modes for travel to the Moorside site, between accommodation sites and to local facilities, Whitehaven town centre and to provide a legacy which supports sustainable travel in the locality.
- 11.8.5 NuGen should seek to mitigate against negative impacts on the rights of way network as a minimum requirement and consider the additional measures set out above in the Countryside chapter. The Council urges NuGen to consider how the development can provide an opportunity to improve the network for modern use and compensate for any loss of length to the rights of way network. The Council is currently producing a strategic document which examines cycle way, footpaths and rights of way. NuGen should consider the emerging document in its future development of the project.
- 11.8.6 Linked to this, NuGen make several references to improving walking and cycling measures as part of its transport and accommodation strategies. It will be increasingly important that the Council has clarity as to how these improvements will be secured, how they will be delivered and who will fund them.
- 11.8.7 Impacts on, and mitigation proposals for, public rights of way and other cycle provision need to be considered and presented in the context of both the transport role of this network, and the important tourism and economic resource that it provides in Cumbria.

## 11.9 ADDITIONAL CONSULTATION

- 11.9.1 As set out, the Council considers that many of the issues raised at Stage 1 consultation have not yet been addressed. In order to ensure an adequate consultation NuGen will need to provide a further detailed consultation when the design has been progressed to the extent which allows adequate consideration and consequential impacts of the project.
- 11.9.2 The Council notes that NuGen has specified it is not consulting on the “*site layout of the nuclear island themselves*”. In the Stage 1 consultation the exact location and proposed layout had not yet been determined, it was accepted that the exact location would be determined further to detailed technical evidence which the Council had assumed would be shared as part of the Stage 2 consultation. The rationale and evidence to support the justification for the proposed siting of the nuclear island has not been shared or consulted upon therefore it is not possible for consultees to comment on the merits or otherwise of the proposed location.
- 11.9.3 If it is considered that NuGen has not adequately demonstrated the need for the nuclear island’s proposed location. The Council request that the justification for the proposed location is consulted upon. This is important due to the potential effects of the development on nearby settlements as a result of the reactor buildings themselves, the substation and the spoil mounding. The NPS identifies the Moorside location as appropriate for new nuclear development but does not attempt to provide detail on the disposition of development within the general location. As a result, it is entirely appropriate that the site layout of the nuclear island is consulted on insofar as it influences the positioning of development and associated works in relation to nearby settlements.
- 11.9.4 The following table presents a high level summary of areas where the Council seeks clarity on design aspects of the Moorside scheme and considers that a further formal consultation stage is needed which must clarify these.

**Table12-2 Elements of project requiring additional consultation**

ELEMENT	CURRENT PROPOSAL	ADDITIONAL CONSULTATION REQUIRED
NuGen's aspirations	Potential to reuse some construction infrastructure and facilities e.g. Sellafield	The economic impact of potential future use of the MOLF by Sellafield needs to be assessed. The overall feasibility of aspiration needs to be proven. Mechanisms for controlling the post-construction scope of the MOLF's use need to be confirmed.
Mirehouse / Corkickle / Egremont Associated Development (AD) sites	Land and buildings for potential re-use / development (subject to planning)	In order to realise this aspiration, planning applications will need to be consented prior to DCO Examination.
Highway Improvements	Improved to highway infrastructure	As detailed in Appendix A the highways measure do not consider the full scope of highway improvements necessary. Further consultation is needed with the inclusion of all highway improvements, with identification of all land required to deliver proposals. Potential highway improvements will need to be future proofed so that they align with Council aspirations to enable delivery of future highway improvements.
Corkickle – Mirehouse Railway	Use of new rail infrastructure.	The intention to work with the Northern franchisee is welcome and supported, but it may not be easy to adapt baseline (planned post-2017 and post-2019) service patterns to Moorside's needs given other competing demands, timetabling constraints and rolling stock issues. Further detail on proposed changes, and how they will be funded and secured, will be needed to understand the proposals and give confidence that they are deliverable.
Cumulative impacts on the Railway	Not currently considered	Cumulative impacts of forthcoming developments need to be considered. West Cumbria Mining's project demand will fall on the railway north of Moorside from 2017, rising steeply to peak by 2021, significantly reducing the availability of train paths when NuGen's demand is also rising and peaking.
Design of MOLF	Construction of new 1700m long MOLF	Justification for the length and features of the MOLF is not provided. The design philosophy and potential impacts need to be understood to give confidence that the proposed concept design will not significantly change during detailed design. The design of the MOLF needs to be clarified and consulted on.
Sellafield Access Road and Calder Bridge.	Maybe a requirement to close the northern section of the Sellafield Access road to provide additional land for earth mounds.	Ambiguity in the design process has direct impacts on the transport model and scenarios. Impacts on resilience and emergency planning.
Emergency Planning	Rail based evacuation, with coach back-up	The Sellafield Off-Site Emergency Plan needs an assessment of potential infrastructure improvements necessary to enable implementation of emergency scenarios relating to Moorside. Any proposed infrastructure improvements associated with the emergency plan should be the subject of formal consultation.
Port of Workington (PoW)	Potential AD Site.	The scope of the PoW role in the Moorside Project is not specified. The consultation implies that negotiations in relation to its potential

ELEMENT	CURRENT PROPOSAL	ADDITIONAL CONSULTATION REQUIRED
		incorporation are being pursued with the PoW which is misleading. NuGen should now enter substantive discussions with the Council and PoW management about NuGen's intentions regarding the PoW. The PoW role and MOLF future role needs to be considered within the Socio-economic chapter.
Nursery Wood / design of mounds	Since there would be a significant impact from these works on Nursery Wood, NuGen is actively considering potential earth works solutions within the Moorside site to minimise significant adverse effects on the ancient woodland.	The design of the mounds is uncertain and the impact on the Ancient Woodland and potential mitigation needs to be clarified and consulted upon. A programme in years for the duration of the construction of the mounds and the impacts of their continued use as an operational area during construction on the local community has not been undertaken.
Nuclear Island	The site layout of the nuclear islands themselves are fixed and not being consulted upon.	The mounds' location and size are determined by the siting of the nuclear island, the need for large scale excavation and the constrained nature of the site. The site layout and location should also form part of the consultation process.
Freshwater supply	Supply of freshwater is expected to be from UU in addition NuGen is assessing impacts of sinking their own water holes to identify if they can provide the necessary water supplies.	The provisional nature of the proposals at this stage is disappointing given the potential for further amendments and consequent lack of time to consider them.
Flood risk and coastal erosion	There is limited discussion of flood risk and coastal erosion in the PEIR. It is proposed to undertake an FRA at the next stage, ready for submission with the DCO Application in 2017	Flood risk and coastal erosion has the potential to influence the design of the MOLF and wider Moorside site. Further details of the assessments that have been undertaken to date are required and should be consulted on to demonstrate that there has been adequate consideration of these issues and that the outline designs are robust.
Worker profiles	It is assumed that approximately 2500 workers will be resident in the local community... NuGen will need to provide 4000 bed spaces.	The Council has repeatedly requested clarification on assumptions relating to worker profiles, which has not to date been evidenced. In general the socio-economic analysis is contingent on knowing the likely workforce demand of the Moorside project. There may need to be revisions to the socio-economic analysis once this information is provided.

ELEMENT	CURRENT PROPOSAL	ADDITIONAL CONSULTATION REQUIRED
Education	The assessment has identified a number of residual, significant adverse effects, including capacity in the private rented housing sector, local health services and education. At this stage there is insufficient information available to determine the most appropriate mitigation measures however these will be assessed and set out in detail in the ES.	A dynamic baseline which assesses the potential impacts has repeatedly been requested by the Council; which has not been presented. Workforce requirements are intrinsically linked to education, health care and housing. The lack of clarity further compounds the uncertainty within each of these topics. A robust evidence base and mitigation requirements need to be set out and consulted on prior to submission.
Health Impact Assessment	The outcome of the HIA will be presented in a Health Impact Assessment Report (HIAR) that will be submitted with the DCO application in 2017.	Outcomes of the HIA need to be consulted upon with statutory consultees and the local community. The current proposal does not allow for appropriate engagement and response to findings or mitigation within the HIA Report.

- 11.9.5 Overall, there are information and evidence gaps, which make it difficult to properly consider impacts; assumptions are made that temporary impacts are not significant without full justification. This is not based upon robust technical assessment and impact definitions do not reflect the length of time associated with the construction of a new nuclear station.
- 11.9.6 The in-combination and cumulative impacts are not sufficiently described both for the development proposed by NuGen and other developments that are proposed in and around Cumbria, which is particularly relevant to the rail aspects of the project. The requirements placed on the railway, construction of the main site and the associated development sites must be assessed in combination so that the true impacts can be identified and the appropriate mitigation can be defined. This mitigation will range from the tangible impacts associated with the development proposals and those impacts which cannot be readily defined due to the nature and scale of the proposal to construct a new nuclear power station.
- 11.9.7 Given the scale of the proposals, there is a need to undertake a thorough assessment of other cumulative and related impacts, including impacts on the railway and displacement effects. As an example, economic impacts on the labour market will have consequences for both transport and the housing market. In addition, there is a need to undertake sensitivity analysis to understand how mitigation and compensation measures will play out in different combinations and under different scenarios where variables exist, including worse case scenarios. This analysis would then ensure that mitigation and compensation measures are robust enough to cover a range of eventualities.
- 11.9.8 The current document does not indicate when and how mitigation measures will be delivered during the construction programme. If mitigation is to be embedded, there is a need to define when and how it will be secured and how impacts will be limited until the mitigation is put in place e.g. transport infrastructure. The gaps in the information and the provisional nature of the proposals at this stage are disappointing given the limited potential for future consultation. The proposed assumptions which underpin the design and layout of the Moorside site need to be clearly explained. In particular, the justification and rationale is sought for the design and scale of the proposed landscape mounds and the siting of the nuclear island.
- 11.9.9 In order to reach a position where the nature and scope of impacts from the development can be agreed upon, further information needs to be provided; the current consultation has not yet demonstrated that the impacts can be delivered in an appropriate form and in a timely manner





# Appendix A

**CCC LETTER TO NUGEN ON TRANSPORT**

Environment and Community Services • The Courts • Carlisle • Cumbria • CA3 8NA  
T: 01228 226263 • F: 01228 227108 • e-mail: [dominic.donnini@cumbria.gov.uk](mailto:dominic.donnini@cumbria.gov.uk)

Mr G Shuttleworth  
Director of Corporate Affairs  
NuGeneration Ltd  
7<sup>th</sup> Floor  
3 Piccadilly Place  
MANCHESTER  
M1 3BN

Dear Gary

### **NuGen Moorside Project Highway Impacts and Mitigation**

As you know, infrastructure and more specifically transport infrastructure, is the most significant area of concern for Cumbria County Council and local partners in relation to the proposed Moorside development. At this early stage of your S.42 consultation, we feel it is important to highlight that the County Council has significant reservations about the approach NuGen appears to be taking to the identification of highway impacts and mitigation for the Moorside Project.

The NuGen plans for highway improvements, currently the subject of consultation, only identify those highway mitigation locations that have been the subject of land referencing letters and 'red-line' plans issued by Persona Associates. This implies that NuGen will only undertake mitigation works directly at these locations; any other locations being the subject of S.106 / S.278 / S.38 agreements.

The highway locations with issued 'red-line' plans are:

- Junction – A66 Ramsay Brow / A596 Bridge Street, Workington
- Link – A596 Hall Brow, Workington
- Junction – A5094 Flatt Walks / Coach Road / Station Road, Corkickle
- Junction – A595 / The Crescent, Thornhill
- Junction – A595 / B5295 Ribton Moorside, Whitehaven
- Junction – A595 / B5094 Inkerman Terrace, Whitehaven
- Link / Junctions – A595 from north of Parton Brow to south of Bransty Road, Whitehaven
- Junction – A66 / A595 Fitz Roundabout, Cockermouth
- Link / Junctions – A595 from north of Scalegill Road to south of High House Road, Moor Row
- Junction – A595 / B5295 Egremont Road / Homewood Road (Hospital Roundabout), Whitehaven

This approach presents a number of concerns for the Council:

- The highway locations listed above derive from initial discussions with Cumbria County Council and Highways England to identify existing pressure points on the road network. Subsequent speculative conceptual design work was undertaken by NuGen's project team before any transport modelling output was available, with a minimal land-take 'red-line' applied at each location by NuGen. Cumbria County Council cautioned against this

approach at the time, and remains concerned that the 'red-line' which has been captured in the land referencing plans issued by Persona Associates may not be extensive enough to cover the area of highway and surrounding land required to deliver mitigation.

- For some of the junctions NuGen has identified, the notation on the plans (eg. "opportunity for 'x' improvements to be explored") implies that the required improvements may not be achievable within the identified red line boundary.
- Initial outputs from the transport modelling work undertaken to date suggests there are a number of other highway locations where the Moorside Project will generate impacts that require mitigation. A total of 77 junctions have been jointly identified by NuGen and Cumbria County Council as in scope for assessment, and therefore in scope for potential mitigation. The list of junctions which have previously been provided to NuGen are attached as an appendix to my letter.
- Cumbria County Council has also advised that further transport modelling work to test highway network performance at other periods during the Moorside Project is required. This modelling work will help to identify highway impacts and the mitigation required. Furthermore, the project information (particularly the Westinghouse Freight Profile) on which present transport modelling work is based is out of date and should not be relied upon.
- It is implied that for other areas where highway improvements are required, NuGen would seek to make financial contributions by way of a S.106 with other bodies responsible for delivery. There has been no discussion to date on this issue or how that might work in practice. Our typical approach is for the developer to properly assess and identify their highway impacts and to develop appropriate mitigation proposals which they can deliver directly.
- There is an assumption that any other improvements would be capable of being undertaken within the existing highway boundary, which may not be the case. It is essential that NuGen's red lines include all land where compulsory acquisition may be necessary to achieve the required mitigation.
- A further concern about using the S.106 approach is that it prevents adequate consultation from taking place. The public will not be given the formal opportunity to see the proposals, comment or influence the outcome prior to DCO submission and the impacts may not be examined as part of the DCO process.
- As yet the emergency preparedness and evacuation scenarios are still in development and the evacuation response procedure is dependent upon the final decision of the regulators. There may be a need to include further highway mitigation to ensure the effectiveness of an evacuation. There is a presumption that evacuation would always be to the north, which may not be the case.

Based on the above, we would like to meet with you to discuss this further in advance of making our formal response to the consultation.

Of course, Cumbria County Council wishes to continue to work as closely as it can with NuGen and its project team to resolve these issues and to be able to support the Moorside Project. I look forward to hearing from you.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Dominic Donnini', with a horizontal line extending to the right.

Dominic Donnini  
Corporate Director – Environment and Community Services

Copy to: Angela Jones, Assistant Director – Community Services

APPENDIX A-1

**HIGHWAYS  
DETAILED  
REVIEW**

---

## REVIEW OF HIGHWAYS INFORMATION PRESENTED AS PART OF THE STAGE 2 MOORSIDE CONSULTATION

The table below presents a detailed review of the highway issues contained within the Stage 2 consultation. The reference to 'Legacy Link' refers to the joint Legacy document "Nationally Significant Infrastructure Investment Maximising Project Legacy for Cumbria" which sets out the legacy opportunities that the LEP, the Council and Copeland Borough Council wish to see realised in return for hosting nationally significant infrastructure.

SECTION	ISSUE	COMMENT	LEGACY LINK
PEIR Chpt 2 Table 2.2	New Moorside and Sellafield Access Road	There is a need to ensure that any proposals relating to the A595 and Sellafield Site Access Road are designed in accordance with DMRB and take account of the vulnerability of Calder Bridge as the only route south of Moorside. A bypass of Calder Bridge should be considered a vital part of the redesign of the access to Moorside and Sellafield. Detailed discussions are required with the Council before any options are progressed to ensure they align with the Council and Highways England studies currently being undertaken. A Town and Country Planning Act application will be required for proposals that precede the DCO and a separate Transport Assessment will be required for the application.	1b Highway improvements
PEIR Chpt 2 Table 2.2	Realignment of Nursery Road	The current proposal for realignment of Nursery Road is not acceptable and will require detailed discussion with the Council prior to any agreement being reached.	1b Highway improvements
PEIR Chpt 2 Table 2.2	Internal Roads and Car Parks	Operational car parking allocation needs to be consistent with the figures outlined in the Transport Strategy (visitors, regulators, VIPs v visitors, contract staff and deliveries).  The Council require evidence to justify the 300 spaces proposed for outage workforce and a method statement of how demand on the road network will be managed during this time to provide confidence that during this period, the road network will not be detrimentally affected. Unless NuGen can give clear reasons for a different approach, the outage workforce should be expected to travel to the site by train or coach as per the construction and operational workforce.	1b Highway improvements  1e Travel plans
PEIR Chpt 2 2.3.5	Highway Improvements	Concerns have been raised by the Council in a letter to NuGen (26 <sup>th</sup> May 2016) in respect of approach taken to identifying junction mitigation locations. These concerns should be addressed and NuGen should undertake further formal consultation if necessary once the full extent of mitigation is clear.	1b Highway improvements
PEIR Chpt 2 Table 2.3	Corkickle	In previous consultations, the Council expressed concerns about the proposed access roads at the Corkickle Site and how these form junctions with the existing highway network at the southern end (Meadow Road) and the northern end (Coach Road and Preston Street).  The proposed junctions within the existing network are considered highly likely to create bottlenecks. If the proposed access road is intended to function as an avoiding route for the narrow section of Meadow View, where residential on-street parking reduces the available carriageway width for passing vehicles, it is	1b Highway improvements  1d Cycling and Walking improvements

SECTION	ISSUE	COMMENT	LEGACY LINK
		<p>likely to create two or three new unintended problems. It may be better to widen Meadow View on-line and design any north-south access corridor through the Corkickle Site as a walking speed shared space for vehicle and pedestrian access.</p> <p>Coach Road requires comprehensive improvement to address safety, capacity and access issues and NuGen needs to consider how this can be achieved.</p> <p>The Council request discussion on this matter to reach agreement on the most appropriate form of access highway capacity and safety.</p>	
PEIR Chpt 2 Table 2.4 & Table 2.5	Junctions - All Designs	The Council has already expressed concerns as to the junction assessment and associated mitigation approach, in a letter to NuGen on 26 <sup>th</sup> May 2016 (refer to Appendix A).	1b Highway improvements
PEIR Chpt 2 Table 2.4	<p>Junction Improvements:</p> <p>Fitz Roundabout, Brigham &amp; Broughton, Ramsay Brow, Hall Brow, Workington Gyrotory, Southern Link Road, Five Parton Junctions, Pelican Garage, Coach Road / Station Road Coach Road / B5345, A595 / A5094 Inkerman Terrace / B5295 Ribton Moorside, A595 Homewood Road Roundabout, A595 / Moor Row, Mirehouse Road to Bigrigg, Junction on A595</p>	<p>A number of potential road junction improvements have been omitted since previous consultation. NuGen should explain why. All concept designs are required to be submitted to a modelling safety and deliverability assessment. A stage 1 Road Safety Audit should be undertaken for final preliminary designs prior to submission of the DCO.</p> <p>Any additional improvements should not prejudice the access and improvements required for the Port of Workington, nor must they prejudice the alignment of the proposed Whitehaven Relief Road.</p>	1b Highway Improvements
PEIR Chpt 2 Table 2.4	Rosehill / Low Moresby	<p>There are a number of locations that have been excluded from the consultation proposals where the Council would expect to see further consideration.</p> <p>The Highways England scheme is to maintain the current provision offered by reinforcing the embankment at Low Moresby. A diversion scheme is proposed during the maintenance, however, once the scheme is complete, it is unknown what impacts future Moorside</p>	1b Highway improvements

SECTION	ISSUE	COMMENT	LEGACY LINK
		<p>traffic will have on the area. On this basis, further work should be undertaken, including liaison with Highways England, to ascertain the scheme objectives and whether Moorside traffic will have significant impact at this location.</p> <p>Additionally, improvements should not prejudice the alignment of the proposed Whitehaven Relief Road .</p>	
PEIR Chpt 2, Table 2.4	Whitehaven Town Centre	The Whitehaven town centre scheme offers regeneration benefits and will contribute to enhancement of linkages between, and integration of, the proposed Corkickle Site and the town centre. As part of creating a legacy and better places to live, NuGen should seek to explore the potential to enhance areas where their workers will live. This potential should be discussed with the Council.	5d Town centre regeneration
PEIR Chpt 2 Table 2.4 and 2.3.42	Calder Bridge	An alternative river crossing at Calder Bridge for permanent general use should remain a consideration within the Moorside Project so long as details on worker and freight movement and emergency evacuation requirements which may affect this part of the highway network remain to be resolved. The river crossing is a key point of vulnerability in the highway network in this area.	1b Highway improvements
The Draft Transport Strategy, 6 Emergency Evacuation Strategy	General	The scenarios outlined in this section may not align with the transport capabilities / provision of vehicles / means of travel to work employed at the Moorside Site during construction and / or operation, and therefore may not be valid. Further work / discussion is required to understand the interrelationship and interdependencies between emergency evacuation procedures and transport capabilities embedded in the Transport Strategy.	2a Emergency services
The Draft Transport Strategy, 6.1.1	Evacuation	<p>There is an assumption that evacuation will be to the north if the prevailing weather makes evacuation to the south the safer option.</p> <p>It is proposed that coaches will be brought back to the Moorside site however this strategy is unclear and needs further development. Once a driver has evacuated with the coach the current proposal suggests they will return however it is not clear if a driver would be permitted to re-enter the 'evacuation zone' to collect more evacuees. The same issue applies to any evacuation scenario which requires coaches that have already left, or are outside, the 'evacuation zone' to (re)enter the 'evacuation zone'.</p>	2a Emergency services

SECTION	ISSUE	COMMENT	LEGACY LINK
Draft Outline Transport Strategy 3.5 Strategy for transporting workers to the Moorside site (Figures 6, 7)	Fig 6 - Travel to work options	<p>Non-home based workers living in other accommodation and home-based workers in Whitehaven are very likely to require NuGen coach transport to Moorside Site for entire duration of construction (not just Years 1 and 2) since not all residents of Whitehaven can conveniently reach Corkickle Station without car travel. Any public park and ride capability at Corkickle Station ought to be targeted at those travelling from settlements which are 'beyond the reasonable reach' of NuGen coach provision. For example, residents of Bransty and parts of Whitehaven east of A595 would require NuGen coach transport from local pick up points designed to serve these areas.</p> <p>Some workers living close to train stations may prefer to walk to that station and take a public train to Sellafield station.</p> <p>Other than the charter trains that will serve Corkickle and Mirehouse AD sites, the Moorside site is only reached by a road shuttle from Sellafield station rather than directly. This does not provide confidence that there will not be overspill of parking at rail stations due to lack of coach routes.</p>	
The Draft Transport Strategy 1.3	Figure 1: Transportation documentation	The Council agrees that it makes sense to capture the Bus / Coach, Rail (Worker) and Parking Strategies within the Framework TPs, but there will be other similar sub-Strategies not covered by these – to be clear, will they sit within the 'Transport Strategy' or within the Construction & Operation TMPs – maybe best in the latter?	
The Draft Transport Strategy, 3.5.5 A dedicated coach / bus collection from (non-rail linked) settlements	Pick up / drop off points  Coach Provision	<p>Further discussion needed on potential locations for collection / drop off points within the settlements.</p> <p>What, if any, parking issues would be created at pick up and drop off points.</p> <p>What is the planned provision for collection points for those outside key settlements?</p> <p>How many coaches / laybys would be required?</p>	1b Highway Improvements
The Draft Transport Strategy, 3.6.2 Potential enhancement of existing bus services	Existing bus service	The Council welcome further discussion about potential for enhanced scheduled bus services to meet Moorside Project requirements. This could also form part of a valuable legacy benefit for West Cumbria.	2b Resilient transport infrastructure
The Draft Transport Strategy, 3.6.4 Potential use of car pool /	Car pool	The Council Welcome further discussion about these proposals in conjunction with discussion about parking standards / allocations at Accommodation Sites	1e travel plans

SECTION	ISSUE	COMMENT	LEGACY LINK
electric cars			
The Draft Transport Strategy, 4.1 Construction Freight Movement Strategy Objectives	Objectives Route Management Strategy	Discussions required with the Council regarding proposed approach to highway improvements in relation to the objective of undertaking appropriate improvements to the strategic highway network where the TA identifies a need for mitigation.  If a Route Management Strategy is to be produced, the Council will expect to agree a Strategy in conjunction with Highways England for routing of large goods vehicles and AILs	
5.2 Operational Workforce and Passenger Movements	Shift Patterns	Lack of evidence to support the assumptions on split of nominal 1000 operational workers across the shift patterns.	1e travel plans
The Draft Transport Strategy, 5.2.1 Restrict parking at the MPS	Parking at Moorside	Further detail needed on how the proposed 300 car parking spaces are managed so as not to undermine intentions for sustainable travel to work.  Lack of evidence and rationale behind proposed 300 number of spaces at the MPS. There is a risk that operational travel to work becomes progressively car-focussed if parking is not strictly controlled. Why are there 200 spaces required for visitors, regulators and VIPs? To address this risk capacity will need to be carefully managed under a Car Park Management Strategy.	1e Travel plans 2b Resilient transport infrastructure
The Draft Transport Strategy, 5.2.2 Encourage workers to use NuGen and / or local shuttle (coach / bus) service from key collection points within various settlements	Bus Service Enhancements	It would be preferable if investment of resources in road based mass transit was focussed on scheduled bus service enhancements rather than free / subsidised dedicated services for NuGen workers, since the beneficiaries would be all those making journeys (both existing users and those induced to use bus because of the enhanced service) rather than just NuGen permanent workforce	
Draft Outline Transport Strategy 3.5.6 Enhancement of Walking and Cycling opportunities	Cycling Infrastructure	Council is supportive of proposals for improved cycling infrastructure from Corkickle site serving Mirehouse, via St Bees en route to Moorside Site. This would directly serve Moorside Project requirements and be a much-valued legacy benefit for West Cumbria.  Need to manage access on foot to Moorside Site carefully to avoid access on foot forming the last leg of an unmanaged car-based journey.	1d Cycling and Walking improvements
Draft Outline Transport Strategy 4.1 Construction Freight Movement Strategy Objectives	Objectives Route Management Strategy	The proposed approach to highway improvements in relation to the objective of undertaking appropriate improvements to the strategic highway network, where the transport assessment identifies a need for mitigation, has not been clarified.  If a Route Management Strategy is to be produced, the Council will expect to agree a Strategy in conjunction with Highways England for routing of large goods vehicles and abnormal indivisible loads (AILs).	

SECTION	ISSUE	COMMENT	LEGACY LINK
Draft Outline Transport Strategy 4.1 Construction Freight Movement Strategy Objectives	Concrete freight on HGVs	<p>Materials for concrete have the biggest impact requirement for freight trains. Site preparation (early years) is expected to require concrete delivery before the rail line is constructed and operation.</p> <p>Freight profile data is essential to be able to model the impacts of this to identify the appropriate mitigation.</p>	2b Resilient transport infrastructure
Draft Outline Transport Strategy 5.3 Operational Logistics Movements	Operations scenario for transport modelling	<p>Further information needed to enable development of a credible operations scenario for transport modelling, and transport and other assessments as required.</p> <p>Need to agree modelling scenarios.</p>	2b Resilient transport infrastructure
Draft Outline Transport Strategy 5.3.3	Logistics	P.33 of 39 'NuGen considers ... the impacts of daily logistics movements on the highway network are not, at this stage, anticipated to be significant' This statement needs to be qualified / evidenced before DCO Application	
Draft Outline Transport Strategy 5.4 Outages - Transport Strategy	Transport Impacts	<p>Figure 12 'Duration of Outage' refers to each unit – stated earlier that this will be undertaken over a two month period (Refuelling and Maintenance) running in parallel. It is unclear whether the 10 yearly Outage will also coincide with this two month period.</p> <p>It is considered that there is the potential for a significant increase in traffic generation at the site during the outage periods given the parallel operation of the refuelling and maintenance outages over a two month period. This will be impacted further if the 10-yearly outage also coincides with this period of activity. It is suggested that 300 additional temporary spaces will be made available for each outage. Also need to assess the impact on the local network at these peak times.</p>	2b Resilient transport infrastructure
PEIR Chpt4, 4.4.3	Highway study area	<p>The highway study area cannot be finalised until all necessary transport modelling is completed and the results analysed and interpreted. The agreement between NuGen and the Council and Highways England (August 2015) is that 'primary' highway routes are those that, without other influences (including mitigation), would be most likely to carry any additional road traffic generated by the Moorside Project – the 'primary' definition should not be taken to indicate the acceptability of additional road traffic on these routes, only an acceptance that these are the routes that in the absence of other influences (including mitigation) would be most likely to carry it. The bullets should therefore also include, in addition to the routes listed, and by analogy with the inclusion of A5086, the following routes until they can be ruled out as not being impacted upon by the Moorside Project:</p> <ul style="list-style-type: none"> <li>→ A597 between A596 Northside Roundabout and A595 Distington</li> <li>→ A596 between Northside Roundabout and A595 Thursby.</li> </ul> <p>Concerns regarding the identified highway study area</p>	1b Highway improvements

SECTION	ISSUE	COMMENT	LEGACY LINK
		have been raised separately and are included in Appendix A.	
PEIR Chpt4, 4.4.6	Highway study area	A review of the designated secondary routes should be undertaken following the first round of transport modelling is completed and the results analysed and interpreted.	1b Highway improvements
PEIR Chpt4, 4.4.7 – 4.4.9	Specific Routes	<p>Specific routes need to be considered further following the outcome of further modelling.</p> <p>Corkickle Site - highway access for all movements will also be via A5094 through Whitehaven town centre (including Strand Street) and through A595 Pelican Garage as a result of the one-way system and driver choice. Drivers are unlikely to use A595 Inkerman Terrace if then travelling north on A595, and vice versa. The mapping of primary routes in Fig 4.1 reflects the A5094 through Whitehaven town centre in its entirety.</p> <p>Mirehouse Site - highway access for all movements is detailed via 'A595 / Mirehouse Road junction'. Emphasis on this junction for access is placed ahead of the link to West Lakes junction. Any junction improvements or new junctions should not prejudice the alignment of the proposed Whitehaven Relief Road which is currently in design by the Council.</p> <p>Port of Workington highway connection – 'Access towards the Moorside Project Site would be via Northside Bridge and A597 to A595 Distington Bypass' needs to be agreed with the Council. The A597 is identified as a sensitive route, so the Council would question why goods vehicles are to be routed here? Fig 4.7 Sensitive Receptors does not show A597. Discussions between CCC and NuGen's team have indicated NuGen's working assumption is that goods vehicles travelling between Port of Workington and Moorside would be routed via A66 and A595, not via A597.</p>	1b Highway improvements
PEIR Chpt4, 4.4.11	Cycle Facilities	Off-road cycle facilities should be covered in Chapter 4 if they could be used for commuter cycling, in order that correct receptors / impacts are identified.	1d Cycling and Walking improvements
PEIR Chpt4, 4.4.14	West Cumbria Traffic Model	WCTM extents are less than described and do not include all highway network west of M6, rather, the highway network coded in simulation is approximately half-way along each main route heading north, east and south from West Cumbria.	1b Highway improvements
PEIR Chpt4, 4.4.9	Cycle routes	Any off-highway cycle routes which are used for commuter cycling should be included in Chapter 4 Transport, along with on-highway cycle routes. Splitting cycle routes between 'transport' routes and 'leisure' routes on the basis of whether they are on or off highway is too simplistic. Only those cycle routes with no commuting potential should be treated out with Chapter 4 Transport.	1d Cycling and Walking improvements
PEIR Chpt4, 4.5.1	Highway routes	Early consultation on secondary routes, as they come forward, should take place with the Council.	1b Highway improvements
PEIR Chpt4, 4.5.7	Sensitive Areas	The Council and NuGen to confirm agreement of areas as set out.	N/A
PEIR Chpt4, 4.5.8	Assessment thresholds	There is a change to the agreed HGV threshold – the Council to confirm appropriate criterion through	N/A

SECTION	ISSUE	COMMENT	LEGACY LINK
		discussion with NuGen at earliest convenience.  Thresholds for non-sensitive [highway] locations: 'Any junctions which have less than 15% capacity remaining' – strictly speaking this is not correct, it should be any junction where the ratio of flow-capacity is 85% or more, 85% conventionally being deemed the threshold beyond which a junction or link at a junction can be considered to be overcapacity	
PEIR Chpt4, 4.5.13	Ports Assessment	Proposed approach to the assessment of the Port of Liverpool to be evidenced in the Transport Assessment.	N/A
PEIR Chpt4, 4.5.16	Peak hours of assessment	The peak hour for each 4 hour period can only be determined once appropriate transport modelling has been undertaken for that four hour period to understand how any excess demand in any given hour impacts on the following hour's performance.	N/A
PEIR Chpt4, 4.5.17	Assessment of weekend flows	The Council needs to see evidence to be content that weekend peak flows are lower than weekday peak flows across all parts of the study area.	N/A
PEIR Chpt4, 4.5.19	Transport modelling scenarios	<p>The Council requires further justification regarding scenarios to be developed for transport modelling across representative periods during the Moorside Project. There has been previous general agreement that there are six scenarios to be considered, as outlined at a meeting attended by the Council, Highways England and Mott McDonald on 18/2/16:</p> <ul style="list-style-type: none"> <li>→ Scenario 1 – Construction - Site preparation</li> <li>→ Scenario 2 – Construction - Peak workforce</li> <li>→ Scenario 3 – Construction - Peak workforce (no rail)</li> <li>→ Scenario 4 – Operation – all 3 units online</li> <li>→ Scenario 5 – Emergency situation (of scenario 2)</li> <li>→ Scenario 6 – Outage (potentially to be layered onto other scenarios)</li> </ul> <p>Scenarios will need to assess cumulative impacts of other concurrent developments in the area, including the impact of competition for rail paths, and increased road use for the on-going development / growth at Sellafield among other major developments.</p> <p>NuGen should refer also to the Council qualification of 9/3/16 regarding transport modelling work being undertaken prior to DCO Stage 2 Consultation:</p> <p><i>'it should be a matter of record that the two modelled scenarios cannot be relied upon by NuGen for anything more than a broad indication of the potential highway impacts of the Moorside Project and therefore of the likely scale of mitigation required for the purposes of its DCO Stage 2 Consultation, due to the high level of assumption which underpins the scenarios – the result of lack of definition of the Project and therefore lack of ability to define the six assessment scenarios outlined collectively on 18/2/16. There remains the need for much more modelling of evidenced scenarios to inform NuGen's DCO Application in Spring 2017.'</i></p> <p>CCC set out some key principles for further transport modelling scenarios to NuGen and its team in May 2016</p>	N/A

SECTION	ISSUE	COMMENT	LEGACY LINK
		– the scenarios should represent (at least) the time of peak combined construction / operational workforce (the basis for the limited transport modelling work carried out to date), the time of peak highway demand, and the time of peak rail demand, all tested with and without rail to assess highway network performance in the event of failure of the railway for whatever reason.	
PEIR Chpt4, 4.5.20	Modelling scenarios – decommissioning	With this assumption, any infrastructure needed for the construction phase, will therefore also need to be in situ to manage the impacts of decommissioning. Therefore there will be a legacy benefit for the interim before being used again for decommissioning.	All
PEIR Chpt4, 4.7	Assessment methodology	Clarity is sought around the assessment of road to be undertaken against agreed thresholds. Assessment of rail impacts (including disruption during construction) requires discussion and agreement. Assessment of marine impacts needs to include land based connectivity.	NA
PEIR Chpt4, 4.8	Assessment methodology	The Council accepts the basic principles set out, but further detailed discussion is required to refine these.  For Highways, the transport modelling approach relies on the demand calculations to be undertaken for peak years of assessment including: <ul style="list-style-type: none"> <li>→ Construction workers</li> <li>→ HGV traffic</li> <li>→ Rail freight traffic</li> <li>→ Operational workers</li> <li>→ Origin of workers (permanent / temporary)</li> </ul> These demand scenarios are currently in draft and will require further scrutiny / justification to be relied upon for use in the Transport Assessment  The Microsim model is to be used for operational assessment in the local area with the Strategic West Cumbria Transport Model to be used to assess wider re-routing and capacity impacts. This is agreed by the Council.  Walking and Cycling needs to be considered in the Transport Assessment, especially the cycle infrastructure that will need to be developed for a coherent end to end journey, which may include rail.	NA
PEIR Chpt4, 4.8.35	Residual effects	Mitigation measures have been proposed and are not accepted. This will also be required for cumulative impact assessment.	NA

SECTION	ISSUE	COMMENT	LEGACY LINK
The Draft Transport Strategy, 2.1 Construction	Workforce numbers	Current workforce numbers included in an early round of Transport Modelling by the Council (using information provided by NuGen) suggest that a worst case scenario is when Reactor 1 is operational (2026). This is when operational staff and construction staff are on site. NuGen should confirm if more than 6,500 construction and operational workers could be employed on the site at any one time.	3a Employment for local people 3b Recruitment and retention of talent 5e Delivering permanent high quality housing
The Draft Transport Strategy, 2.1 Construction	Construction Workforce Accommodation	How have the estimated number of workers utilising local accommodation been calculated? The Council require more substantive evidence to ensure a worst case scenario is appropriately tested.	1e Travel Plans
The Draft Transport Strategy, 2.1.1 Shift Patterns	Shift Patterns	<p>Further clarity around proposed shift times is sought in relation to the paragraph - 'NuGen is yet to finalise the shift patterns ...'</p> <p>References are made to Chapter 2 about shift assumptions (see Ch 2 2.6.24 p2-47 for Hours of Working) but this does not seem to state what the shift patterns are. Table 2.9 Summary of proposed hours of working at each construction site i.e. 24h x 7d) – further clarity is required.</p> <p>Previous consultation with the Council suggested that avoidance with Sellafield shift patterns is an objective. Is this no longer the case? What is the impact of this? There is a need to understand the impact this would have on traffic generation in order to represent a new worst case for modelling purposes.</p> <p>In relation to the main construction period after site preparation stage, 'NuGen is yet to finalise shift patterns, but would anticipate between two and three shifts would be provided across a 24 hour period'. The Council is concerned at the lack of certainty upon which to base further transport modelling.</p> <p>Fig 3 - Workers on shift by residential location – there is a difference of 250 workers from Accommodation Sites to numbers presented on p.6 of 39 'Fig 2 Estimated distribution of workforce accommodation types' which is 1,250. Should this be 1,500 to make up total 6,500 and align with Fig 2?</p> <p>1/3 of the workforce on leave on an average is a surprising assumption and evidence for this should be provided. If achieved, this would help to minimise trips on the network.</p> <p>The weekend working patterns / shifts need to be confirmed.</p> <p>Are there any Sellafield Outage peaks / or similar spikes</p>	

SECTION	ISSUE	COMMENT	LEGACY LINK
		<p>in traffic anticipated during the construction or operational phases? There should be co-ordination with Sellafield to avoid coincidence with Moorside Outages.?</p> <p>The potential for management of working weeks within Accommodation sites is noted; NuGen should provide confirmation when the feasibility review is complete.</p> <p>It is acknowledged that shift patterns are being recalculated to ensure matching with provision of trains and coaches and this needs to inform the assessment of impacts</p> <p>It is acknowledged that proposals for Early Site Preparation include for the workforce to be transported via coach shuttles from urban areas and shuttles from Sellafield rail station please confirm the Sellafield shuttle is a coach service.</p>	
PEIR Chpt4, Table 4.4	Moorside Site: Predicted Residual Effects - Construction	<p>The residual effects will require reassessment as road traffic demand is confirmed. It is considered critical by the Council that the identified and recommended Transport Strategies are robust and realistic; and encourage ongoing consultation with the Council and Highways England in their development.</p> <p>Journey Delays – Rail: further information is required on the current capacity assessment in order to determine if potential impact is realistic.</p> <p>Disruption to Port of Workington (PoW) Operations: early discussion is required with PoW to accurately predict and agree impacts.</p>	N/A
PEIR Chpt4, Table 4.4	Moorside Site: Predicted Residual Effects – Operation	<p>The Transport Strategy needs to be much more detailed in regard to the Outages and how the additional workforce will be managed. Noted that forthcoming traffic demand data will inform further assessment.</p> <p>Deterioration in Highway Network will be largely dependent upon the robustness of the Transport Strategy, Car Park Management Strategy and Travel Plan.</p>	N/A
PEIR Chpt4, Table 4.7	Highway Improvements: Predicted Residual Effects - Construction	<p>Further information on the number of construction and delivery vehicles and further assessment is required in order to determine impact.</p> <p>The Council requires discussion regarding scale and scope of highway improvements.</p>	N/A
PEIR Chpt4, Table 4.7	Highway Improvements: Predicted Residual Effects – Operation	The Council require discussion regarding scale and scope of highway improvements.	N/A
PEIR Chpt4, 4.9.6	Quantities of Movement	Information on this welcomed as it becomes available in integral to the Transport Assessment (TA).	N/A
PEIR Chpt4, Table 4.8, 4.9	Summary of Predicted Effects	Will be considered subject to further information as it comes forward.	N/A
PEIR Chpt4, 4.10	Cumulative Impacts	The transport model scenarios (Scenarios 1 and 2) do not include any information to assess cumulative impacts see 4.5.19. Further assessment will be absolutely essential to incorporate cumulative impacts into the mitigation requirements.	N/A
PEIR Chpt4,	Cumulative Effects	4.10.2 BAE systems have submitted a planning	N/A

SECTION	ISSUE	COMMENT	LEGACY LINK
4.10	with Other Developments	<p>application and details of their transport impacts should be considered from the TA. If other developments have demands on the rail / port / road network in the ZOI, then they need to be considered appropriately.</p> <p>Limited information provided as to the sites where a cumulative impact is anticipated. Require further discussion and assessment.</p> <p>4.10.7 Cumulative road <u>and rail</u> impacts with National Grid NWCC need to be considered</p>	
The Draft Transport Strategy, 1.4 Transport Strategy Objectives	Travel Plans	<p>“Work with Sellafield Ltd to try to ensure Moorside and Sellafield travel plans and objectives area aligned as far as reasonably practicable”. This is a big project / operational risks to both Sellafield and NuGen, and also to Highways England and the Council if impacts are not properly identified and mitigated / managed. the Council request detail of the deliverability of a complimentary Travel Plans</p>	1e Travel Plans
The Draft Transport Strategy, 5.2.4 Development of a Travel Plan encouraging the use of sustainable transport	Working with Sellafield on Travel Planning	<p>Further justification required to explore / understand / exploit potential synergies with Sellafield travel to work activity – ‘combination’ may produce a better outcome than ‘avoidance’. There is currently little information provided to provide confidence of a coherent approach.</p>	<p>1e Travel plans</p> <p>2a Emergency services</p>

APPENDIX A-2

**RAIL DETAILED  
REVIEW**

---



<p>The Draft Transport Strategy 3.2 The Key Considerations of the Workforce Movement Strategy</p>	<p>Objectives</p>	<p>There is a need for NuGen to commence more detailed discussion with Community Rail Cumbria / Arriva Rail North / Northern about enhancements to key rail hubs between Barrow and Carlisle. See p19 of 39 “Fig 7 Publically available transport to Moorside Site within Cumbria” which indicates potential for inter-modal journeys potentially requiring park and ride capability at rail stations in Workington and Whitehaven. There is likely to be some need at other stations including (but not necessarily limited to) Wigton, Maryport (the Council Rail Station Hub scheme progressing), Workington (the Council Rail Station Hub scheme progressing), Corkickle (the Council Rail Station Hub scheme in abeyance pending NuGen proposals), St Bees, Askam-in-Furness.</p> <p>NuGen need to come forward with clear definition of proposed usage of Sellafield Station for receiving / dispatching construction workers at appropriate times during project lifetime and works required at Sellafield Station to facilitate this.</p> <p>The tabulation of transport strategy approaches (p11 of 39) – reads rather like a reverse-engineered appraisal to justify a strategy which includes a bit of everything to provide flexibility for any approach. This could be read as an indication that NuGen remains unclear exactly how it will deliver its rail-led strategy for workforce movement.</p>	
<p>The Draft Transport Strategy, 3.2 The Key Considerations of the Workforce Movement Strategy</p>	<p>Objectives</p>	<p>There is a need to assess impact of operational shift patterns when assessing cumulatively with that of Sellafield shift patterns.</p> <p>Shift patterns remain of critical importance to manage demand vs capacity, both for Moorside as an individual project and in relation to Sellafield demand vs capacity.</p>	
<p>The Draft Transport Strategy 3.4.2 Coach shuttle transfers</p>	<p>Capacity at rail stations</p>	<p>Additional information on shuttle coach services is welcomed. However text states demand for this service will be monitored – implying that its provision may be removed or reduced. It is important to avoid over-generous car parking at Accommodation Sites which could result in poor take-up, and removal of the shuttle service.</p> <p>It is acknowledged that UK-based workers will be likely to use the shuttle service provided the day / evening prior to the start of the working week. How is this to be managed as it potentially impacts significantly on the rail mode share? Noted that rail capacity discussions will continue to be held over spring / summer 2016.</p> <p>Noted that Upper Viaduct car park, Carlisle railway station forecourt and Taxi rank on Court Square Brow have been removed from previous consultation with the Council. Station car park and Town Dyke Orchard car park still included – further discussion required as to practicality of these sites. Both very challenging for coach access and manoeuvring.</p> <p>Reference is made (p16) to a <i>potential</i> public station at Mirehouse. Other documentation suggests this is part of the project. This should be clarified. The presence of a public station would be helpful for workers’ leisure/leave travel as well as providing legacy benefits.</p>	<p>1a Rail improvements  2b Resilient transport infrastructure</p>
<p>The Draft</p>	<p>Parking provision</p>		<p>1e Travel</p>

<p>Transport Strategy,</p> <p>3.4.1 Provide Limited Parking within Accommodation Sites</p>		<p>The basis of limitations / restrictions around parking at Accommodation Sites need to be reasoned and controlled as the Transport Strategy is developed.</p> <p>Further discussion needed on parking standards / allocation of parking spaces per bed space to achieve optimum balance between provision to meet reasonable demand which, if not met creates a problem, and encouraging unwanted car travel.</p> <p>These allocations will still generate large car park requirements at Accommodation Sites, totalling some 1,115 long stay spaces, effectively 1 space per 2 UK based workers residing temporarily in UK (whom it is argued will be most likely to have access to a car unlike non UK based workers who will presumably fly into the UK). This seems very high, and cannot fairly be described as 'limited parking provision'. An allocation closer to that expected for residential colleges might be more appropriate and requires justification and evidence of the impacts and benefits. The proposed level of provision will encourage a greater proportion of UK based workers to travel to Cumbria by private car than might otherwise be the case. Reference to applying a charge for use of car park space as incentive to car share, rather than the (limitation on) number of spaces provided is possibly a better incentive and should be given consideration in the parking provision strategy</p> <p>Overspill of cars at AD sites, it has not been explained how this will be prevented and managed. A robust Car Park Management Strategy is required.</p> <p>Incentives need to be proposed for use of existing public transport modes.</p> <p>Will spaces be allocated to individuals, as previously consulted, on or first come first served?</p> <p>There may be circumstances requiring use of car e.g. sickness, shared insurance / ownership. The principle of reducing car usage is accepted, but the practical undertaking requires further development and evidence.</p> <p>Previous consultation with the Council identified the potential for on-site (Accommodation Site) penalty charges for bringing a vehicle to site. Is this proposal now removed and, if so, what mechanisms will be used to regulate car use?</p>	<p>Plans</p>
<p>The Draft Transport Strategy,</p> <p>3.5.1 Restricted parking at the Moorside Site</p>	<p>Parking restrictions</p>	<p>Parking permits need to be very tightly managed, as experience at Sellafield suggests that if not, the number of passes in circulation will rapidly grow beyond what can be managed. Would the permits referred to be paid permits as this may be beneficial in discouraging use? A comprehensive Car Park Management Strategy is required. Space numbers stated at 200, although it is understood that this may grow to 300 and beyond – further information on control, arrival / departure profile / shift workers required as the site could have 200 cars arrive / depart (total 400) between 6-7.30am</p> <p>How has the 200 number of spaces been calculated for essential safety and security staff and blue badge holders and overnight vehicles? Is this number appropriate in the context of the overall strategy?</p> <p>Further justification is requested regarding local authority monitoring and enforcement of parking activity within potential S106 funding In</p>	<p>1e Travel plans</p> <p>2b Resilient transport infrastructure</p>

		addition to adequate resourcing, unless contractual controls can be employed by NuGen, enforcement is only practicable if there are defined parking regulations that are being contravened.	
The Draft Transport Strategy, 3.5.3 Dedicated coaches from Egremont to Moorside	Resilience Planning	<p>Previous consultation with the Council noted that Corkickle and Mirehouse coach facilities will need to be designed to accommodate maximum number of coaches required in the event of rail / charter train failure.</p> <p>Is this to be addressed as set out in 3.5.4 (timetable conflicts with shift times)?</p>	<p>1b Highway Improvements</p> <p>1e travel plans</p>
The Draft Transport Strategy, 2.2 Operation	Shift patterns	Will early shift workers be working for 12 hours? The Council request confirmation that these long hours are proposed. How does this align with Sellafield Shifts?	1e Travel Plans
The Draft Transport Strategy 3.5.2 Charter train from the Corkickle and Mirehouse Sites	<p>Rail construction phase</p> <p>Workforce numbers</p> <p>Worker rail transport contractual obligations</p>	<p>Workers who choose not to take up residence in the Accommodation Sites but who are located in the settlement of Whitehaven will be required to use the charter train – NOTE proposals for minibus / coach shuttle to transfer those living more than 1km from Corkickle or Mirehouse to the worker platforms for the charter train, compare with p18 of 39 Fig 6 comments above re need (?) for NuGen Coach from these areas direct to Moorside Site.</p> <p>The programme for construction of the railway / worker platforms needs to be provided.</p> <p>3,500 workers reduced to 2,400 since previous consultation; justification has not been provided.</p> <p>Reference to 10-carriage trains differs from references to 8-carriage trains elsewhere.</p> <p>Will workers living in Whitehaven be prohibited from using public trains from Whitehaven station to Sellafield station?</p>	<p>1a Rail improvements</p> <p>1e travel plans</p> <p>2b Resilient transport infrastructure</p>
	Enforcement	<p>Contractual obligations in respect of use of the charter train and 'clocking on' once on the platforms may be required in order to achieve the necessary mode share.</p> <p>IT has not been explained how zero use of cars amongst workers living in Whitehaven be managed. Further detail should be considered as part of a Car Park Management Plan.</p>	
	Cycle Incentives	In addition to cycle facilities at platforms consideration should be given to the provision of pool bikes to encourage those within 4km to travel by bike.	
The Draft Transport Strategy 3.5.4 Travelling to Moorside Site from rail-linked settlements between arrow and Carlisle	<p>Use of Sellafield Station</p> <p>Rail transport contractual obligations</p> <p>Existing passenger timetable</p>	<p>Train timetables would ideally align at Corkickle. Is this likely (coach option noted for where timetables don't align)? What is the journey time from arriving at Sellafield to Moorside (versus alighting and boarding (dwell time) at Corkickle).</p> <p>How will workers based to the south of the site access the site in the absence of dedicated trains? is it proposed to mitigate this by the use of coaches?</p> <p>The intention to work with the Northern franchisee is welcome and supported, but it may not be easy to adapt baseline (planned post-</p>	<p>1a Rail improvements</p> <p>2b Resilient transport infrastructure</p>

	realignment	2017 and post-2019) service patterns to Moorside's needs given other competing demands, timetabling constraints and rolling stock issues. Further detail on proposed changes, and how they will be funded and secured, will be needed to understand the proposals and give confidence that they are deliverable.	
	S106 Station improvements	<p>Investment in stations is required potential S106 funding might be deployed to achieve station improvements.</p> <p>Regarding "Work with the station operators..... and relevant planning and highway authorities..... re enhanced facilities. Stations where enhancements are required (based on the Council walkover survey 2013 for Cumbrian Coast Line Report 2014 to inform refranchising process):</p> <ul style="list-style-type: none"> <li>• Wigton – car / cycle parking, station connectivity, platform surface, station facilities</li> <li>• Maryport – car / cycle parking, station connectivity</li> <li>• Workington – car / cycle parking, station connectivity, DDA compliant platform access</li> <li>• Harrington – station facilities</li> <li>• Parton – underpass, platform surface</li> <li>• Whitehaven – station connectivity</li> <li>• Corkickle – car / cycle parking, station connectivity, station facilities</li> <li>• St Bees – car / cycle parking,</li> <li>• Sellafield, station capacity and facilities</li> <li>• Seascale, station facilities</li> <li>• Drigg, station facilities</li> <li>• Millom– station connectivity</li> <li>• Askam car / cycle parking</li> </ul>	
The Draft Transport Strategy 3.6	Transportation of workers outside of shift patterns	Rail is not mentioned but can have a part to play for workers at Corkickle and Mirehouse accommodation sites making trips to rail-served locations. See comments elsewhere re Mirehouse public platform. A free or discounted rail travel pass should be considered as part of the overall strategy to discourage car use.	1a. Rail Improvements
PEIR Chpt 4, 4.1 Construction Freight Movement Strategy Objectives	Rail Freight Accessibility	Regarding Seeking to develop early temporary rail freight accessibility at the Moorside Site at the earliest possible opportunity, where would this be located? via Sellafield North Siding?	
PEIR Chpt 4, 4.1.2 Early temporary rail freight terminal	Rail terminal	This is welcome in principle as a way of securing early rail freight access. However, this needs to be developed in more detail to confirm its feasibility and deliverability in the time available, and also to show that it can continue operating during construction of the main rail terminal.	
The Draft Transport Strategy 5.2 Operational Workforce and Passenger	Rail Facilities	<p>Will platforms and rail loops be retained once the site becomes operational. This would provide legacy benefits to all rail users.</p> <p>NuGen is currently considering the requirement for the dedicated NuGen charter trains during operation. It would be preferable if investment of resources could be focussed for operational phase on</p>	2b Resilient transport infrastructure

Movements		the provision of appropriate scheduled passenger services at the right time and with the right passenger capacity to serve Moorside since the beneficiaries of any such service improvements will be all rail users, not just Moorside permanent workforce	
The Draft Transport Strategy 5.2.1 Encourage workers to use local train connections along the Cumbrian Coast Railway line to arrive into Sellafield Station for transfer into the Moorside Site	Rail station improvements  Aligning scheduled rail services with NuGen trip patterns	Measures proposed to encourage greater use of rail travel include enhanced car and cycle parking facilities at key rail stations – see comments re station improvements at the end of this table.	1a. Rail Improvements
The Draft Transport Strategy, 6.1.2	Evacuation	P36 of 39 Bullet (g) it is unclear how the train be brought back to the Moorside Site or if a train driver / train would be permitted to re-enter the 'evacuation zone'.	2a Emergency Services
The Draft Transport Strategy, 6.1.4	Evacuation	P37/38 of 39 all paragraphs - is it certain the passing loops (presumably Corkickle to Mirehouse) will be available during construction or operation for storing NuGen Charter Trains? Other demands on the Cumbrian Coast Line may result (for example) in the Corkickle to Mirehouse loop being utilised by other services in future, precluding its use for train storage. If (assuming it is permitted to enter the 'evacuation zone') a second train is dispatched south from Corkickle or Mirehouse within 15 minutes of the alarm being raised , what guarantee is there that it will be able to pass a first train from the Moorside Site at St Bees Loop. Re returning trains, see p36 of 39 6.1.2 bullet (g) comment	2a Emergency Services
The Draft Transport Strategy 6.1.4	Evacuation	P37/38 of if the passing loops are not available during construction or operation for storing NuGen Charter Trains this will impact evacuation procedures.  Other demands on the Cumbrian Coast Line may result (for example) in the Corkickle to Mirehouse loop being utilised by other services in future, precluding its use for train storage.  If (assuming it is permitted to enter the 'evacuation zone') a second train is dispatched south from Corkickle or Mirehouse within 15 minutes of the alarm being raised , it is not certain that it will be able to pass a first train from the Moorside Site at St Bees Loop. Re returning trains, see p36 of 39 6.1.2 bullet (g) comment	

SECTION	ISSUE	COMMENT	LEGACY LINK
PEIR. Chpt 4, 4.4.10	Rail Assessment	Discussions with the rail operators need to take place as soon as possible to provide evidence of existing and future capacity on the network.	1a Rail improvements
PEIR. Chpt 4, 4.5.5	Rail Receptors	Access and capacity for all modes to and from rail stations, requires assessment. Please see response to the Transport Strategy document highlighting concerns about station capacity at 2.6 below.	N/A
PEIR. Chpt 4, 4.7.10	Rail / Marine Thresholds	Evidence of consultation with Network Rail, MMO and other relevant stakeholders required to demonstrate appropriate impacts are being assessed and mitigated against	N/A
PEIR. Chpt 4,	Preliminary	4.8.14 – What is the justification for assumption that the vast	N/A

SECTION	ISSUE	COMMENT	LEGACY LINK
4.8.10 -4.8.27	Assessment – Rail	<p>majority of rail freight will come from a northerly direction? the Council require further evidence to support this assumption.</p> <p>4.8.17 – Require additional evidence of ‘low levels of passenger demand’ and associated assessment of how this will be impacted given the rail-heavy proposals set out in the draft Transport Strategy.</p> <p>4.8.21 – Does the reduced Sunday service impact on the proposals for movement of the workforce?</p> <p>4.8.23 – Require more detail / assessment on how these level crossings are likely to be impacted.</p> <p>4.8.25 –Disruption due to weather; needs to be considered in terms of the resilience planning. Evidence required to support impact assessment and appropriate mitigation.</p>	
PEIR. Chpt 4, 4.8.27	Capacity on the Line	<p>The sentence ‘Spare paths exist on the line with sufficient availability to accommodate Moorside Project requirements’ contradicts the Cumbria LEP analysis (source: Cumbrian Coastal Railway Improvements Phase 1, Appendix A LEP Business Case, Annex 1 Trainpath Table v7, dated 24/05/16). This states that the Sellafield-St Bees and St Bees-Whitehaven sections both reach 130% utilisation by 2020, rising to 139% utilisation by 2021, falling back to 135% utilisation in 2025 and 2026, based on Moorside Project demand only (i.e. no other developers demand) and with half of NuGen’s freight demand assumed to be travelling from the south to Moorside (i.e. not travelling across these sections of the line). West Cumbria Mining’s project demand will fall on the railway north of Moorside from 2017 rising steeply to peak by 2021, significantly reducing the availability of train paths whilst NuGen’s demand is rising and peaking.</p>	
PEIR. Chpt 4, Table 4.4	Moorside Site: Predicted Residual Effects - Construction	<p>This will require reassessment as road traffic demand is confirmed. Considered critical that the identified and recommended Transport Strategies are robust and realistic; encourage ongoing consultation with the Council and HE in their development.</p> <p>Journey Delays – Rail: Request further information on current capacity assessment in order to determine if potential impact is realistic.</p> <p>Disruption to PoW Operations: Discussions with PoW at earliest opportunity vital in order to accurately predict impact.</p>	N/A
PEIR. Chpt 4, Table 4.4	Moorside Site: Predicted Residual Effects – Operation	<p>Transport Strategy needs to be much more detailed in regard to the Outages and how the additional workforce will be managed. Noted that forthcoming traffic demand data will inform further assessment.</p>	N/A
The Draft Transport Strategy, 2.3 Outage	Outage description	<p>Further information is required on a worse case of trips to / from site be in 2027 / 2028 / 2029 when outage overlaps with construction.</p> <p>The need for parking during outages needs to be clarified and justified.</p> <p>Potential for significant additional workers on site – up to 1,500 for two months per year (Refuelling and Maintenance running in parallel). Is the 10 year maintenance outage also proposed to coincide with this 2 month period? NuGen should confirm the</p>	2b Resilient transport infrastructure

SECTION	ISSUE	COMMENT	LEGACY LINK
		<p>worst case scenario to establish the impact on the road network and parking.</p> <p>Request clarification as to proposed accommodation of Outage workforce as it is stated that they are unlikely to be home based. Are AD sites an option during operational phase or will local accommodation be required? There should be appropriate provision of transport shuttles and services for the Outage workforce to minimise car travel.</p>	
PEIR. Chpt 4, Table 4.5	Accommodation Sites: Predicted Residual Effects – Construction	<p>Statement that 'Times of access to the highway network will be controlled and managed' needs to be supported by detailed proposals in the Transport Strategy.</p> <p>Reference in relation to the Mirehouse and Corkickle sites that rail is unlikely to be available from the beginning. The impact of the mitigating strategy in relation to coaches needs to be qualified.</p>	N/A
PEIR. Chpt 4, Table 4.5	Accommodation Sites: Predicted Residual Effects – Operation	<p>Reference to non-work car trips being controlled to off-peak period requires robust measures in the Transport Strategy. Further justification required as this is cited as being the factor which 'should' ensure the magnitude of change is managed and kept low.</p> <p>Further discussion and assessment of the rail network capacity is also required as it is only stated that it is 'expected' to be sufficient which is cited as being the factor which 'should' ensure the magnitude of change is managed and kept low.</p>	N/A
PEIR. Chpt 4, 4.9.6	Quantities of Movement	Information on this welcomed as it becomes available.	N/A
PEIR. Chpt 4, Table 4.8, 4.9	Summary of Predicted Effects	The Council will respond when further information becomes available.	N/A
PEIR. Chpt 4, 4.10	Cumulative Effects with Other Developments	<p>4.10.2 BAE systems have submitted a planning application and details of their transport impacts should be considered from the TA. If other developments have demands on the rail / port / road network in the ZOI, then they need to be considered appropriately.</p> <p>Limited information provided as to the sites where a cumulative impact is anticipated. Require agreement on method for assessing cumulative impact.</p> <p>4.10.7 Cumulative road <u>and rail</u> impacts with National Grid NWCC need to be considered</p>	

SECTION	ISSUE	COMMENT	LEGACY LINK
PEIR Chpt2, Table 2.2	Heavy Haul Road Bridge and Enclosed Walkway	The Council will require evidence of the impact of rail crossings and disruption to the Cumbrian Coast Railway Line.	1a Rail improvements 1b Highway improvements
PEIR Chpt2, Table 2.2	Corkickle to Mirehouse railway	The entire infrastructure at Corkickle and Mirehouse should be designed so that after the construction period it can become part of the ongoing public railway (e.g. as two-platform stations) if required.  The proposal to provide both a public and a worker platform at Mirehouse is welcomed in principle. However, this being a complete new station, further detail will be required on the design and layout. It also needs to be confirmed that the train operator is supportive.	1a. Rail Improvements
PEIR Chpt2, 2.2.9	Moorside site railway	It remains to be confirmed whether the North Spur will be provided, and if not, how the alternative would work for freight to/from the north  The information in the PEIR aspires to have the worker platform close to the power station. This appears sensible as it reflects the heart of the construction site. The fall-back location (if the north spur cannot be provided), alongside the existing railway, would be 1km or more from key areas of the site. However, Plan 5 shows both the north spur and the fall-back location. NuGen should confirm what is proposed; demonstrate why it is not practical to have the worker platform in a more central location; and describe whether/how this affects the duration of a rail-based evacuation.  The capacity required and provided by the on-site rail facilities is not yet demonstrated.  Given the need to maximise use of each path, NuGen should confirm the train length around which the proposed freight reception and unloading sidings are designed, and confirm that the length of these sidings will not be a limiting factor..	1a Rail improvements
PEIR Chpt2, 2.2.9	MOLF/railway level crossing	The proposed new MOLF/railway level crossing is an unusual approach and has safety and deliverability risks. NuGen should engage with Network Rail, and with the Office of Rail Regulation as the relevant safety regulator, to understand whether they are likely to be content with this solution, especially in the context of use by AILs and hence long and slow vehicles. It has not been demonstrated that no feasible alternative exists. A solution which avoids permanent adverse impacts on the operation of the railway is preferred.  Although described as a level crossing, PEIR para 4.7.5 refers to disruptions to overnight rail services from short closures of the railway, which is not how a level crossing normally works. It needs to be clarified whether the intention is for it to be a conventional level crossing (of what type?) with private (occupation) rights, or for it to operate in effect as a work site by taking blockages of the line.  The Council's expectation is that significant rail freight volumes may need to be accommodated at night for Moorside and other developments and that the line may no longer be routinely closed at night. NuGen should clearly demonstrate that operational decisions taken now will not preclude reasonable changes in railway operation in future. The apparent intention is to keep the reduced MOLF, heavy haul road and level crossing permanently rather than just for the construction period, which adds to the case for having a grade-separated or other alternative solution. See also comments under Draft Transport Strategy section 4.1.3 re fall-back use for bulk materials.	1a Rail improvements 2b Resilient transport infrastructure
PEIR Chpt2, 2.2.10	Existing level crossing north of Sellafield station	Use of this for deliveries in the early construction stages may be a significant change in the nature and volume of its use. Its geometric and operational suitability, and acceptability in safety terms, have not yet been demonstrated and need to be evidenced.	
PEIR Chpt2, 2.2.22 – 2.2.31	Evacuation Strategy	Continued joint working will be required to provide a coherent Evacuation Strategy which is presented at a high level of detail in the PEIR.  Further detail is required to demonstrate the viability of the rail evacuation scenarios. These scenarios include a charter train being parked permanently on-site, and drivers being available, in both constructional and operational phases. Are there examples of this	2b Resilient transport infrastructure

		<p>approach in use elsewhere?</p> <p>For the construction phase, it needs to be demonstrated that a charter train would always be available on site rather than en-route during shift changeover, or alternatively that use of an en-route train would be acceptable.</p> <p>For the operational phase, it is understood that the current worker transport plan does not involve charter trains, so is the intention to maintain a permanent dedicated “evacuation train” (with consequential requirements to maintain ongoing serviceability)? What is the definition of drivers being available – is this permanently on site, or ‘on call’ from a train crew depot elsewhere?</p> <p>NuGen should provide a worked example of a ‘worst case scenario’ (e.g. with public trains occupying the single line sections) and the likely control response, to demonstrate that the resulting evacuation times, and any need for trains to enter or re-enter the evacuation area, are acceptable.</p>	
PEIR Chpt2, 2.3.5	Train Services	Clarify ‘without interruption’ – this presumably means without interruption to either NuGen charter and freight trains <u>and /or</u> scheduled services?	1a Rail improvements
PEIR Chpt2, 2.3.20, 2.3.40	Corkickle to Mirehouse Railway, St Bees Railway	Not clear why the track is stated as being 1.2m in width as this is less than the track gauge and much less than the actual footprint which will be required to be improved and the area that would be needed for construction. The Council request confirmation of definition.	1a Rail improvements
PEIR Chpt2, 2.3.40	St. Bees Railway	An area of land to the south west of St. Bees station has been identified for use as a construction compound and lay down area. This is in close vicinity to sensitive receptors and it is considered that the negative environmental impacts on nearby residents has not been given due consideration in the siting process. The Council requests further justification for the site selection and clear evidence that the most suitable location has been chosen.	
PEIR Chpt2, 2.3.21	Corkickle to Mirehouse Rail use during construction and operation	The Council welcomes the commitment that the Corkickle to Mirehouse Railway is proposed for use for both construction and operation of the Moorside Power Station. Clarification is needed that this is a commitment / agreement with Network Rail for its retention as part of the public railway after construction, or that NuGen will retain it as part of its asset.	1a Rail improvements
PEIR Chpt2, 2.3.23	Corkickle to Mirehouse Railway - resilience	This strategy means Mirehouse is at risk of not being served during disruption. NuGen need to consider the value in constructing the ‘public’ platform there to a length that allows fall-back use by charter trains.	1a Rail improvements
PEIR Chpt2, 2.3.26, 2.3.33	Worker platforms	The Council require clarification on whether it is the intention that the track alongside the platform would be part of the secure area and how this would be achieved operationally.	1a Rail improvements
PEIR Chpt2, 2.3.25-2.3.32	Corkickle Worker Rail Platform	<p>It would be preferable for workers to be able to reach the new worker rail platform directly from the Corkickle site provided this delivers a more direct / convenient pedestrian link than would leaving the site and does not preclude future public access to the worker platform should this be required (whether to support operation of the Moorside Project or another purpose).</p> <p>Consideration must also be given to the long-term use of the railway post construction. For example if the railway will in the future be operated as a twin track public railway, there will be a need for platforms on both sides of the railway serving each track. This would be essential to make full use of the extra capacity and provide a legacy benefit.</p>	1d Cycling and Walking improvements
PEIR Chpt2,	Platform	The turnstile facilities should account for safe passage of workers /	1a Rail

2.3.27	access and egress	operators to avoid crush situations or overspill on the platforms	improvements
PEIR Chpt2, 2.3.30-2.3.33	Mirehouse Worker Rail Platform	<p>Further clarity is required about proposed Mirehouse worker rail platform and public passenger platform. Need detail on the new worker rail platform and proposed public passenger platform be located in relation to the Mirehouse Site boundary and the Mirehouse Road bridge over the Cumbrian Coast Line. There are highway safety implications that need to be explored with the Council.</p> <p>It is essential to consider the long-term use of the railway post construction.</p>	<p>1a Rail improvements</p> <p>1b Highway improvements</p>
PEIR Chpt2, 2.3.34	Road Access to Mirehouse rail Platform	The location of an interchange site for coaches could be considered near the new station.	1a Rail improvements
PEIR Chpt2, 2.3.35	Public Platform at Mirehouse	A platform is proposed for the public on the western side of the railway. This will provide benefits for the public in nearby estates. The demand for public parking should be assessed in more detail so as to prevent overspill and safety risks of parking on nearby streets. Cycle parking provision should also be considered.	1a Rail improvements
PEIR Chpt2, Table 2.10	Rail legacy	<p>NuGen should provide information as to current thinking in respect of Corkickle to Mirehouse Railway and St Bees Railway retention during decommissioning.</p> <p>It is essential to consideration must also be given to the long-term use of the railway post construction, with a view to maximising the legacy benefit. This should include dialogue with Sellafield to support their emerging Transport and Movement Strategy</p>	1a Rail improvements
PEIR Chpt2, 2.4.25	Moorside Project Railway	An assessment of the retention / combination of public / worker platforms should be undertaken to avoid building and demolishing separate platforms that could be combined and managed during construction and retained as public platforms post construction. It is essential to consider the long-term use of the railway post construction.	1a Rail improvements

## APPENDIX A-3

### **PORTS AND MARINES EVIDENCE AND DETAIL**

---

## REVIEW OF THE PORTS AND MARINE INFORMATION PRESENTED AS PART OF THE STAGE 2 CONSULTATION

SECTION	ISSUE	COMMENT	LEGACY LINK
1.3 The Draft Transport Strategy	MOLF	Para 'the MOLF will be a fundamental part of NuGen's Freight movement strategy' this raises / reiterates concerns that the MOLF will be utilised to the detriment of potential traffic through existing Ports, denying existing Port facilities of investment that would deliver legacy benefit for the wider economy. May suit NuGen's project requirements but fails to meet the Council / Cumbria LEP requirements	
PEIR Chpt 4, 4.1 Construction Freight Movement Strategy Objectives	MOLF	Regarding the use of a MOLF for delivery of large plant and equipment and for other materials to provide contingency for rail, there is insufficient explanation of the intended uses of the MOLF at various points in the Moorside Project programme, the phasing of its construction and therefore its availability for those intended uses, and its interrelationship with rail. The text implies it is there as a backstop for rail, but could it be used as an alternative? The Council is concerned that, whilst a MOLF is fully understood to be necessary to handle AILs too large to be transported any other way, it may be used by NuGen to minimise its need to use other transport infrastructure thereby undermining the case for investment in rail and other infrastructure for freight movement? A MOLF as it is understood delivers no legacy benefit for the wider economy in Cumbria.	
PEIR Chpt 4, 4.1 Construction Freight Movement Strategy Objectives	Port of Workington	Regarding the potential use of off-site storage / sequencing to site using Port of Workington for barge, rail and off-peak road transfers, NuGen needs to enter into meaningful discussion with Port of Workington / the Council about its intentions re the Port, to allow appropriate mitigation to be incorporated into the DCO.	
PEIR Chpt 4, 4.1.3 Use of MOLF	Fall-back use for bulk materials	How, in the fall-back situation, would bulk materials delivered to the MOLF cross the railway? In particular, would they be carried in vehicles over the proposed level crossing, or via a conveyor or similar?	
PEIR Chpt 2, 2.3 The Accommodation Sites and Additional Sites	Port of Workington	NuGen needs to enter into meaningful discussion with Port of Workington / the Council about its intentions re the Port, to allow appropriate mitigation to be incorporated into the DCO.	1c Port improvements
PEIR Chpt 2, 2.3.48-2.3.50	Port of Workington	Update to the proposals in relation to the PoW need to be provided.	1c Port improvements
PEIR Chpt 2, 2.4.5	Transport Strategy – Freight and Materials	Need a commitment to be made regarding intended use of Port of Workington. A specific Delivery Management Strategy should be developed.	1a Rail improvements 1b Highway improvements 1c Port improvements 1e Travel plans
PEIR Chpt 2, 2.4.10 – 2.4.13	MOLF	The Council requests further discussion on proposals for phased MOLF construction and therefore availability of barge and RoRo facilities relative to other Moorside Project construction activities, to understand interrelationships with other freight modes. Relates to comments on Table 2.2 and	1c Port improvements

SECTION	ISSUE	COMMENT	LEGACY LINK
PEIR Chpt 2, 2.4.11	Port of Workington	<p>outline programme above and section 2.4 below.</p> <p>Whilst a welcomed AD site there is a lack of commitment by NuGen for use of the Port of Workington (PoW) and associated delivery of a legacy benefit, which is a major concern to the Council. The Council would expect to see use of the port starting in 2019 at the same time as the MOLF; not several years later. Without the use of the port for consolidation and sequencing of deliveries (from all modes), it is unclear how NuGen intends to effect its rail-led strategy and avoid direct deliveries to site by road. Use of the port and associated improvements to its infrastructure would provide greater flexibility for NuGen and reduce risks to deliverability. Such improvements would be strongly favoured by the Council and would make a lasting and beneficial contribution to local infrastructure. It should be noted that PoW is identified in the Cumbria Strategic Economic Plan as a key location with potential for economic growth.</p>	1c Port improvements

## APPENDIX A-4

### **MOLF DETAILED REVIEW**

---

## REVIEW OF INFORMATION ON THE MOLF PRESENTED AT PART OF THE STAGE 2 CONSULTATION ON THE MOORSIDE PROJECT.

REF	THEME	COMMENT	SOURCE
1	Drawings	Plan 5 (Plans & Drawing pdf) does not include the longer MOLF noted in Fig 2.48 (PEIR Figures)	NuGen
2	Drawings	There are few details and no drawings of the proposed cooling water outfall and inlet structures	
3	Drawings	Description of breakwaters is minimal - how have these been sized and what downtime/wave assessment has informed their selection.	
4	Design Parameters	Are there any additional reports available that discuss wave climate, still water levels, bathymetry, ground conditions etc?	
5	Project Description	Description of dredging is minimal - how has this been calculated, will there need to be maintenance dredging? Figure 2.28 indicates a deeper dredge pocket, however the jetty is in approximately 8m - 10m Chart Datum water depth. No details of vessels has been provided, but this is a significant depth and is it unlikely that this depth would be required. How would this be maintained, what frequency of dredging is anticipated and how will the arisings be managed?	Figure 2.28
6	Coastal Processes	The statement that localised dredging may be required is too weak an assessment. Such a statement infers that there is a lack of understanding over coastal processes, MOLF design and material handling operations. The location of dredging and an estimate of frequency and quantities is important at this stage - particularly in relation to Licensing and impacts including flora/fauna, coastal processes, contamination, disposal and MOLF operations.	PEIR Chapter 15
7	Target Vessels	The MOLF and associated structures and operations (including any dredging) will be based on a range of target vessels. The vessels' characteristics (draft, manoeuvrability, motion under a variety of wave climates) will be key factors in the design of the MOLF and any measures to reduce wave activity to limit down time. Information about vessels, drafts or downtime in relation to wave climate (protected or unprotected) is required in order to assess the proposals.	
8	Target Vessels	It is suggested that PoW could be used for smaller vessels, but there is no information on the size and number of vessels, is the PoW viable to receive freight? (For information the dock gates are opened up to 2.5hrs before high water and close up to 2hrs after high water. Maximum vessel size is 12,000t deadweight tonnage (i.e. carrying capacity), 137.2m LOA and 20.4m beam, draft 8.5m)	
9	Target Vessels	An understanding of target vessels could enable rationalisation of the MOLF and Beach Loading Facility (BLF) in terms of length of jetty and size of pierhead. A structure of some 1,700m will be costly and time consuming to build. Has there been consideration of 'sometimes aground' berthing that would make use of the some 4 to 7m tidal range.	
10	Coastal Processes	The report states that work has been undertaken in the absence of project specific numerical modelling, but rather relies on ' <i>expert professional judgement</i> '. This approach usually requires the expert's credentials to be demonstrated, but there are no details in the report of these experts or the processes used to make judgements.	PEIR 15.2.2

REF	THEME	COMMENT	SOURCE
11	Flood Risk	The report states that a flood risk assessment will be undertaken as part of the DCO in 2017. Flood risk (coastal, surface water, fluvial and groundwater) and morphological will be key factors in the design and operation of the proposed station and associated infrastructure - and as such the issue needs to be better understood for all locations where new development is planned or modifications are proposed to existing infrastructure.	15.5.4
12	Flood Risk	There has only been an initial assessment of flood risk. The EA online flood maps show part of the site being in Flood Zone 3 (1:100 chance of flooding today from the River Ehen) and a flood warning area. The PEIR states that a flood risk assessment will be undertaken, but this is a critical component of confirming the suitability of the site and any engineering works required to ensure its resilience now and until decommissioning.	Section 15, Page 11
13	Flood Risk	There are no descriptions of the design extreme Safe Weight Limits and river flows today and accounting for climate change. How have these been derived and how do they relate to proposed ground levels across the site. These to be determined it is critical to know these levels both today and in the future to enable design of the cooling water inlets and outlets. Appendix 8A - Visualisations, suggests that the station will be located on a raised platform?	As above, and Appendix 8A - Visualisations
14	Coastal Processes	There are numerous references to a piled MOLF structure that will <i>'greatly reduce the direct blockage of sediment transport in comparison to an enclosed structure'</i> - however there are also significant breakwaters proposed that will block sediment transport, block wave energy, create locally different bed shear stresses and result in wave reflection. The potential impacts of these structures is not addressed either qualitatively or quantitatively. It is the Council's opinion that open piled structures invariably do have an impact of coastal processes - often creating sediment sinks which both starve sediment down drift and change wave shoaling and reflection; which in turn can accelerate erosion near shore.	Table 15.2

REF	THEME	COMMENT	SOURCE
15	Foreshore stability	The PEIR states, ' <i>The beach and near shore areas within the Moorside Site are generally found to be stable with limited intra- and inter-annual change observed.</i> ' No evidence is presented to back this assertion. A check of 2003 & 2008 Google Earth images suggests a stable foreshore at the site of the MOLF, but instability directly south east. Referring to images 5.2 below, comparison of 2003 (left) and 2008 (right) suggests that the Moorside/Sellafield frontage has a dynamic foreshore.	15.8.1
16	Coastal Processes	Evolution of River Ehen outfall and Ehen spit. There is no discussion of the potential for shoreline recession. The SMP2 notes that the Ehen Spit is likely to recede relatively slowly: 2 - 5m over 100 years but immediately to the south between Seascale and Sellafield predicted the erosion band is high with 50 - 100m erosion over 100 years. What will happen at the boundary of these two zones in the long term?	SMP 2 Appendix C, Section Q4
17	Coastal Processes	The management policy to 2030 for this stretch of coast is managed realignment (EA Coastal Erosion Mapping)	SMP 2
18	Coastal Processes	It is stated that the BLF will lead to temporary localised disturbance of the foreshore, however this is a solid structure approx. 800m long that will effectively act as a groyne across the foreshore with potentially significant impact on longshore transport. The Council has significant concerns relating to the impacts of the BLF and associated breakwater	PEIR Table 15.6
19	Coastal Processes	There should be consideration of the impact of an extreme geomorphological event i.e. damage to Ehen Spit, modification to the river outfall	
20	Coastal Processes	There should be consideration of the potential for long term geomorphological change, particularly in relation to climate change. Wider discussion on coastal processes is needed.	
21	Coastal Processes	The MOLF has the potential to directly alter the hydrodynamic wave regime. This section states that additional mitigation will be proposed if required following modelling. It is very likely that the proposed structures will affect coastal processes and the structures should be designed to minimise this / proposals should be developed to mitigate this, these works could be quite significant.	PEIR Chapter 15 Page 31 and Section 15.11.1.

REF	THEME	COMMENT	SOURCE
22	Coastal Processes	In view of the lack of quantitative assessment of sediment behaviour or any details over the design and operation of the MOLF, the Council is not convinced that the proposals will not have adverse impacts - particularly in relation to accelerated erosion of the shore platform and increased pressure on the narrow coastline and the immediately adjacent railway. A breach would lead to impacts on transport and protection would lead to further environmental impacts. The impacts of the MOLF need to be better quantified in order that a better developed proposal can be discussed.	
23	Coastal Processes	Can lessons be learnt or information be shared from nearby sites at Sellafield And Drigg? Where numerous flood and geomorphological studies have been carried out.	
24	Operation	What is the plan for materials handling? The Council has some concerns over the safe operation of the MOLF due to the relative narrowness of the structure.	
25	Operation	The Council would expect to see information relating to the safe operation of the <i>at grade</i> crossing in view of the public access and the railway?	



# Appendix B

**FIRE& RESCUE IMPACT ASSESSMENT**

## CUMBRIA FIRE AND RESCUE SERVICE IMPACT ASSESSMENT

---

### **Introduction**

On the basis of the information provided by NuGen to date, Cumbria Fire & Rescue Service (CFRS or 'the Service') believes that the main works involved in the Moorside development go beyond the "normal" requirements that it is statutorily obliged to meet, and raise risks that will place additional resource demands on the Service. The Service further believes that these additional demands will be of such a scale that, unless the developer can provide additional funding and/or make alternative provision to mitigate them, there will inevitably be increased costs.

### **Key Issues**

Potential risks include:

1. An increase in fire safety enforcement, as a direct result of both the number and types of accommodation that will be inhabited by the migrant workforce.
2. An increase in proactive community and prevention safety work, to ensure that both the existing and migrant communities are fully conversant with fire safety requirements
3. An increase in traffic that will have an adverse impact on the response times, as well as the mobilising of resources, to incidents in and around the developments.
4. An increase in the number of incidents it attends as a direct result of all the new developments.
5. New risks that CFRS staff may have to be trained for, such as maritime/tunnel incidents.
6. A significant impact on time and resources in order to provide effective liaison with NuGen and manage the consultation process effectively.

The impact of the proposed development will need to be considered over the lifetime of the development; the construction phase, the housing of Moorside construction workers, and ultimately the conversion of those areas used to accommodate construction workers into a legacy use.

Payments for the CFRS resources required to support the development are yet to be agreed. Costs should take account of potential inflationary increases, increases in CFRS staffing costs, and the potential for unforeseen changes to the development such as an increase in the number of migrant workers, and adjusted accordingly.

CFRS has a single response standard across the County of ten minutes to all primary property fires, and a second standard of fifteen minutes for all other incidents, with the target standard of achieving this level of performance on 80% of occasions. Prevention and Protection arrangements are focussed on higher risk communities.

The concerns that CFRS has identified based on the Stage 2 consultation are set out in the following table.

TABLE 13-2 IDENTIFICATION OF IMPACTS TO CFRS AND THE LOCAL COMMUNITIES

IMPACT	COMMENT
Impact 1. Community and Fire Safety	<p>CFRS expects that its community safety activities will increase dramatically during the build period of the Moorside development. As noted above, there is likely to be a marked increase in areas concerning the management of road risk. Of the estimated 6,500 peak workforce, approximately 4,000 will be housed in purpose-built accommodation at Corkickle, Mirehouse and Egremont, with the rest either residing locally or living in local accommodation.</p>
Impact 2. Increase in Migrant Population	<p>The Service is unable to make any allowance for the fire safety behaviours of incoming migrant workers that may be different to that of the local population. The provision of additional Home Fire Safety Visits and Road Awareness Training will not be possible with the current number of Community Safety staff currently employed by CFRS.</p> <p>The Moorside development, including the all the associated accommodation and transport development, would necessitate the following:</p> <ul style="list-style-type: none"> <li>→ Expansion on the community safety work achieved through the preliminary stage of the development, to help reduce the expected increase of fire incidents as a result of the build.</li> <li>→ Provision of additional support and education to the affected communities in an attempt to mitigate the risks that the above impacts are likely to have.</li> <li>→ Proactive work with other agencies to promote road safety education to try and reduce the expected increase in accidents.</li> <li>→ The expansion and promotion of legislative fire safety education and enforcement to target not only the migrant workforce, but those providing accommodation to them.</li> <li>→ Proactive work with the migrant workforce and families in promoting community fire safety education.</li> <li>→ Dealing with the increase workloads in Fire Safety legislation as a direct result of additional consultations and enforcement resulting from any associated development builds. CFRS is the enforcing authority for the Regulatory Reform (Fire Safety) Order 2005 (RRO) and undertakes planned audits of premises based on risk. In addition to a risk based approach audit process CFRS will also undertake post incident audits as well as auditing following complaints of potential breaches of fire safety regulations.</li> <li>→ Working collaboratively with NuGen and other partner agencies in identifying and proactively dealing with community safety issues, within the Service remit, that arise as a result of the main build.</li> </ul>
Impact 3. Potential Increase in On Call Attendance Times to Fire Stations	<p>Fire Stations in Cumbria are predominantly either fully On Call (part time) or Regular (Full time) supported by On Call Firefighters, which require them to respond to Stations by use of an alerter. These Firefighters have no dispensations from traffic regulations, and therefore have to proceed under normal driving conditions. CFRS has concerns that the increase in site traffic and the resulting traffic congestion within the vicinity of the construction sites will have a severe detrimental effect on the ability of staff to be able to respond to their Station within the allotted time (5 mins). The current Service policy is to alert the next nearest station after this time period, causing further delays and additional cost.</p> <p>This will potentially result in increased risk to the public and to Firefighters - possibly more response and 'blue light' journeys, failure to meet response times for</p>

IMPACT	COMMENT
	the local community, loss of public confidence and increased cost of additional mobilising.
Impact 4. Potential Increase in Attendance/Response Times to Emergency Calls	CFRS has concerns that additional traffic – especially LGVs – will potentially have an adverse influence on the attendance/response times of appliances responding to emergency calls. This may have the following impacts – increased risk to the public, increased risk to CFRS staff, failure to meet response times, loss of public confidence, and increased cost of additional mobilising.
Impact 5. Potential Increase in the number of Road Traffic Collisions (RTCs)	<p>Any increase in the number of incidents attended by CFRS due to the increased traffic will have resource and cost implications i.e. increased cost to the Service, increased risk to members of the public, risk to staff, impact on local resources and increased response times into the local community.</p> <p>It should also be noted that as most of the traffic increase will be LGVs, the likelihood is that the potential increase in accidents may result in incidents of a more serious nature, placing a greater demand on emergency service resources.</p> <p>Also, a migrant workforce/foreign workers unfamiliar with the local road network and with a poor understanding of traffic legislation may have a detrimental impact on the number of incidents.</p>
Impact 6. Potential for a large number of Calls to the Moorside Site.	<p>With the nature and size of the proposed development, CFRS expects that there will be an increase in the number of emergency incidents they attend as a result of the new build and associated developments, and the potential for a large number of incidents on the build site itself.</p> <p>CFRS is also concerned that the impact that any large number of on-site incidents will have on the local communities. The nearest station to Moorside, and the first to be mobilised to any incident is Egremont, a small station attending approximately 40 fire calls per year, and crewed by On Call staff. The potential for an increase in this number of calls could have consequences such as:</p> <ul style="list-style-type: none"> <li>→ Leaving the local community with an increase in time for fire cover, resulting in a higher risk. Response to any incidents within the community would increase as appliances would have to be mobilised from the next nearest resource.</li> <li>→ Increased pressure on local employers such as Sellafield Ltd. to release staff to attend incidents. The goodwill of employers is heavily relied upon to enable On Call stations to maintain operational readiness; employers may not be as receptive if the expectation of releasing Firefighters is increased.</li> <li>→ Increased expectations placed on local Firefighters.</li> <li>→ Increased risk to staff in responding to additional incidents.</li> </ul>

IMPACT	COMMENT
	→ In addition to this, it is also proposed to provide accommodation on-site
Impact 7. Maritime Incidents	<p>The proposal to construct a Marine Offloading Facility will necessitate additional on-going training requirements for staff from surrounding Stations that would respond to incidents on/offshore. Currently there is little requirement for these Stations to have any great knowledge in maritime firefighting techniques.</p> <p>On Call Firefighters typically train for two hours each week. There would inevitably be costs incurred to the Service of providing and maintaining this additional training for staff.</p> <p>Little detail is provided on the tunnels to carry water for the Circulating Water System. This may also necessitate additional training for crews in the event of a tunnel-specific incident during the construction phase.</p>
Impact 8. Site Familiarisation	<p>Based on the experiences of other Fire and Rescue Services, one of the significant issues encountered was the ever changing environmental and geographical landscape. Due to the nature of the build, it is expected that the site layout, with regard to roads access and hazards will change on a frequent basis. This could result in delays in responding to incidents and may have a detrimental effect to workers and site infrastructure.</p> <p>This changing landscape will mean that local Fire crews and Managers will need to visit the site(s) on a regular basis in order to 1) familiarise themselves with site layout and 2) update site specific risk information.</p>
Impact 9. CFRS/Site Liaison	<p>Liaison between NuGen and CFRS will be vital throughout the lifetime of the project. Co-ordination of the work arising from the impacts highlighted above will be a necessity for CFRS to be able to carry out its legislative core functions as laid out in its Integrated Risk Management Plan (IRMP).</p> <p>This liaison role is integral to the provision of risk information to local crews, ensuring all the relevant mobilising action plans within North West Fire Control are updated and maintained, and the co-ordination of site visits and training for specific 'new' risks.</p> <p>Community liaison will also be required throughout the lifetime of the project and beyond, in order to provide assurances to the local communities concerning the safety of the site and the maintenance of suitable fire cover during the build phase and beyond.</p>

IMPACT	COMMENT
Impact 10. Emergency Services Network	<p>The Emergency Services Mobile Communications Programme (ESMCP) will provide the next generation communication system for the 3 emergency services (Police, Fire and Ambulance) and other public safety users. This system will be called the Emergency Services Network (ESN). ESN will provide the next generation integrated critical voice and broadband data services for the 3 emergency services. EE is the network operator who will provide a resilient 4G mobile network system with nationwide coverage.</p> <p>Mobile phone coverage, and indeed the current emergency services communication system Airwave, is poor in West Cumbria. CFRS and the Council are keen to explore any collaborative opportunities and support that may arise with NuGen concerning the enhancement of the ESN in and around the Moorside development.</p>

This is a preliminary consideration of the issues that will be faced by CFRS if the Moorside development goes ahead. Some of the issues identified have impacts not only on CFRS, but also on other partner agencies and local authorities. However, the legal requirements placed upon the Fire and Rescue Service mean that the very discharge of its responsibilities will be compromised due to capacity issues created by the extra workload of the development.

CFRS relies heavily on its On Call staff to provide the fire cover for the communities of Cumbria. The operational demands placed upon On Call staff are great in terms of training to maintain competence to provide a safe, effective and efficient Service. Investment in the On Call will be needed to meet the demands placed upon CFRS by a development of this magnitude.

It has not been possible at this stage to consider potential issues for CFRS arising from the developments proposed for the Corkickle to Mirehouse Railway and the St Bees Railway, and the Port of Workington, should this development be supported.

### **Overarching Comments**

A range of impacts have been identified resulting from the Moorside project that will increase the fire and rescue workload, areas of responsibility and service delivery. These have capacity and funding implications that will need to be mitigated by NuGen. They include an increase in community safety duties, issues relating to incoming workers, increased On Call attendance, an increase in response times due to traffic, increased road traffic collisions, potential calls to the Moorside site, potential maritime incident and local liaison work.

