

## 10. Socio-Economics and Human Population

### 10.1 Introduction

- 10.1.1 This chapter provides a preliminary assessment of the potential socio-economic effects arising from the Moorside Project. This includes potential effects on the economy, the labour market, availability of housing and accommodation, social and community infrastructure and the well-being of communities.
- 10.1.2 The assessment of socio-economic effects is relevant to a number of other environmental receptors, which are described in the following sections of the PEIR, notably:
- Transport (Chapter 4);
  - Landscape (Chapter 7);
  - Visual (Chapter 8);
  - Countryside Access and Recreation (Chapter 9).
- 10.1.3 The assessment has been based on the emerging workforce profile and accommodation strategy described in Chapter 2. During the peak construction period for the Moorside Power Station it is estimated that up to 6,500 construction workers may be required, with around 2,500 of these being sourced from within the local community and outside of the local community but who choose to find their own accommodation in the vicinity of the Moorside Project (referred to collectively in this Chapter as "**Existing Cumbria Home Based Workers and Temporary Workers in Existing Cumbria Accommodation**"). Of the 2,500 Existing Cumbria Home Based Workers and Temporary Workers in Existing Cumbria Accommodation, the Existing Cumbria Home Based Workers are estimated to be around 1,000 and the Temporary Workers in Existing Cumbria Accommodation are estimated to be around 1,500.
- 10.1.4 Accordingly, NuGen has estimated that it needs to provide accommodation for approximately 4,000 workers.
- 10.1.5 NuGen has identified three Accommodation Sites that together will provide the required number of bed spaces for the Moorside Project. This includes 2,500 bed spaces at Mirehouse, 1,000 bed spaces at Corkickle and 500 bed spaces at Egremont.
- 10.1.6 In addition, should NuGen need to provide more than 4,000 bed spaces out of the 6,500 bed spaces that are required, or if any of the Accommodation Sites do not deliver their proposed number of bed spaces, then there is potential ability to increase in capacity as follows:
- An additional 1,000 bed spaces at Mirehouse (amounting to a potential of 3,500 in total);

- An additional 500 bed spaces at Corkickle (amounting to a potential of 1,500 in total);
- An additional 500 bed spaces at Egremont (amounting to a potential of 1,000 in total).

## 10.2 Limitations of the PEIR

### General

10.2.1 The scale and complexity of the Moorside Project means that it is continuing to evolve at this preliminary stage, which presents limitations in terms of programme and phasing. In addition, survey work has yet to be undertaken or fully completed for certain sites. These limitations have meant that this PEIR chapter has focussed on the Moorside Site and the Accommodation Sites as there is greater information available for these to use in the preliminary assessment. As such the following sites are not considered in the PEIR, but will be included in the ES for DCO submission:

- Corkickle to Mirehouse Railway Site;
- St. Bees Railway Site;
- Highway Improvements.

10.2.2 In addition, the assessment has focussed on the construction and operational phases of the Moorside Site and the Accommodation Sites. Decommissioning has not been specifically assessed within the PEIR as it remains uncertain at this point which elements would be decommissioned and when. Each of the Moorside Project Sites may see some element of decommissioning activity undertaken once the construction phase of the MPS itself is complete (demolition and/or removal of certain features) and these will be assessed in the ES that will be submitted with the application for a DCO in 2017. It is likely that the socio-economic effects arising during decommissioning of the Accommodation Sites will be no greater than those experienced during construction. As discussed in **Chapter 2**, decommissioning of the MPS itself will also be included within the ES, but at a high level given that these activities will take place around 60 years after operations commence, and they will be covered by a separate EIA of the activities at that time.

### Technical

10.2.3 The assessments of significance contained within this chapter are made in the absence of quantitative supporting analysis (e.g. numerical modelling) as this work is being progressed over the course of 2016. Instead, the assessments rely on expert judgment, which have been justified based on the evidence available. These judgements may be revised within the Environmental Statement (to be submitted as part of the application for a DCO for the Moorside Project in 2017), following more detailed analysis and refinements in engineering design.

- 10.2.4 The precise workforce and supply chain requirements of the MPS are yet to be finalised and, as such, the impact assessment is still preliminary (with the preliminary assessment based on an estimated 6,500 construction workers during the peak construction period for the MPS). Once the precise workforce and supply chain information is finalised, this will be used to further develop the workforce development and supply chain strategies. These strategies will set out the measures which will be taken to ensure that job and supply chain opportunities created during construction of the Moorside Project will be accessible to local people and businesses.

## 10.3 Policy and legislative context

- 10.3.1 There are a very large number of policy, strategy and guidance documents relevant to socio-economics. The following planning policy and guidance has been used to inform the assessment as they are of most direct relevance to the Moorside Project:

### National policy

- National Policy Statements:

- NPS EN-1 Overarching Energy (Reference 1: DECC): Sections 4.2, 4.13, 5.12.

Section 4.2 advises that environmental statements must be detailed, covering aspects ranging from the environment to the social and economic impact of the development during construction, operation and decommissioning. An applicant should set out the potential effects, including benefits, of a proposal for the project. The likely significant, social and economic effects of the development should be set out and the applicant should show how any likely significant negative effects would be avoided or mitigated. This information could include matters such as employment, equality, community cohesion and well-being.

Section 4.13 emphasises the need for developments to sufficiently assess the impact the development can have on the health and well-being of the population. Where the proposed project has an effect on human beings, the ES should assess these effects for each element of the project, identifying any adverse health impacts as appropriate. Cumulative impacts on health should also be considered. Generally those aspects of energy infrastructure which are most likely to have a significantly detrimental impact on health are subject to separate regulation (for example air pollution) which will constitute effective mitigation of them so that it is unlikely that health concerns will either constitute a reason to refuse consent or require specific mitigation under the Planning Act 2008. However, to enable account to be taken of health concerns and for relevant requirements in the DCO to be set, NuGen intends to undertake a Health Impact Assessment.

Section 5.12 provides more insight into the breadth of factors at play when assessing socio-economic factors. This section confirms that where the project is likely to have socio-economic impacts at local and regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES. This assessment should consider all relevant socio-economic impacts, which may include:

- The creation of jobs and training opportunities;
- The provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities;
- Effects on tourism;
- The impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure;
- Cumulative effects.

The ES should not only highlight any relevant socio-economic impacts of the development but also establish a baseline for the socio-economic conditions in the areas surrounding the proposed development. Applicants should also refer to how the development's socio-economic impacts correlate with local planning policies. Socio-economic impacts which may be linked to other impacts (for example the visual impact of a development may also have an impact on tourism and local businesses) should also be considered.

Assertions of socio-economic impacts should be supported by evidence and any legacy benefits that may arise, as well as any phasing of development in relation to socio-economic impacts should also be set out.

- NPS EN-6 Nuclear Power Generation Volumes I & II (Reference 2: DECC): Sections 3.11 and 3.12.

Section 3.11 and 3.12 provide guidance on the importance of identifying at local and regional levels any socio-economic impacts associated with the construction, operation and decommissioning of the proposed new nuclear power station. This assessment should take account of, amongst other things, potential pressures on local and regional resources, demographic change and economic benefits.

The potential for impact on land that has recreational and amenity value should be considered in conjunction with Section 5.10 of EN-1 (land use including open space).

Section 3.12.6 explains that the construction, operation and decommissioning of new nuclear power stations could affect health care provision but that also positive effects for health and well-being could

result from the positive socio-economic benefits of new nuclear power stations.

Section 3.12.7 recommends that the applicant should work with the local authority public health teams to identify any potentially significant health impacts and appropriate mitigation measures.

- Appraisal of Sustainability of the Nuclear NPS (Reference 3: DECC)

The Appraisal of Sustainability (AoS) for NPS EN-6 sets out what the construction of new nationally significant energy infrastructure is expected to mean for the environment, society and the economy.

The AoS identifies the potential for significant positive effects on employment and the economy at the local and regional level during the construction phase and also economic benefits in the operational phase. There are possible short term negative effects on local labour supply and local communities and demand for public services from incoming workers although it is noted that these can be mitigated.

In relation to the potentially suitable site at Sellafield (the Moorside Site), the AoS concluded that the potential likely effects and key findings include:

- Positive effects associated with long-term employment and enhanced prosperity for local communities.
- Sellafield is approximately 60 km 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.

- National Planning Policy Framework (Reference 4: DCLG): paragraphs 9, 14, 17, 20, 73.
  - Paragraph 9 of the NPPF makes it clear that pursuing sustainable development involves seeking positive improvements in people's quality of life.
  - Paragraph 14 establishes that at the heart of the NPPF lies a presumption in favour of sustainable development, which is confirmed elsewhere in the NPPF as including social and economic matters.
  - Paragraph 17 requires local planning authorities and developers to be creative in finding ways to enhance and improve the areas people live and work in. In furthering this goal, local planning authorities and developers should proactively drive and support sustainable economic development, aim for developments with a high quality of design and take account of and support local strategies to improve health, social and cultural wellbeing, and deliver community and cultural facilities to meet local needs.

- Paragraph 20 highlights the need for local planning authorities to be forward thinking in its approach to planning, ensuring they are creating a system that supports a 21<sup>st</sup> century economy and society.
- Paragraph 73 emphasises the importance of open spaces and sports facilities. Assessment of an areas open spaces and sport facilities needs to be robust to ensure any quantitative or qualitative data accurately represents an area.

## Local policy

- Copeland Local Plan 2013-2028 Adopted Core Strategy and Development Management Policies (Reference 5: CBC). A large number of policies are relevant but particularly ST2, ST3, ER1, ER3, ER4, ER7, ER10, SS3, SS4:
  - Policy ST2 provides considerable support for the Moorside Project specifically. This is provided the Moorside Project is safe, located on sensible sites and strengthens the local/regional economy. Policy ST3 further emphasises the importance of the Moorside Project to the local and regional economy.
  - Policy ER1 outline the council's support of nuclear-energy related development so long as the proposed development is supported by National Policy. The council shall endeavour to maximise energy opportunities for the borough to push it towards becoming a centre for nuclear knowledge and skills.
  - Policy ER3 ensures the council supports energy developments when the developments infrastructure does not negatively impact the borough without sufficient justification. Adjacent to this, the council reaffirms its desire to make the borough a centre for training and skills related to the energy industry. Finally, developers should, with the council's aid, seek to try and create a supply chain that utilises local/regional sources to better benefit the borough.
  - Policy ER4 requires the council to maintain an adequate supply of land and floorspace for economic development by highlighting potential growth areas that could be expanded upon and safeguarding existing employment areas/industries.
  - Policy ER7 reaffirms the need for developments to not negatively impact the local area. This also encompasses the scale of the development, as developers should not try to expand their developments to the detriment of the local area.
  - Policy ER10 aims to support the tourist industry present within the local area, ensuring existing tourist attractions are maintained and providing opportunities for new tourist attractions to emerge.
  - Policy SS3 details the council's desire for developments to provide good quality, affordable homes at a range of sizes and locations. This policy

also showcases the council's support of housing that is established to support temporary workers.

- Policy SS4 highlights a requirement for developers to contribute to the maintenance/improvement of the local services they utilise. The council is committed to maintaining good quality services for the benefit of all.
- Allerdale Local Plan (Part 1): Strategic and Development Management Policies (Reference 6: ABC). A large number of policies are relevant but particularly S7, S12, S13, S15, S17.
  - Policy S7 affirms the council's desire for housing to not only be of high quality design but also be affordable and have a positive impact on the overall housing mix. The council also expresses a desire to support rural workers with homes close to their place of work.
  - Policy S12 further emphasises the council's desire to support development if it is of a scale suitable to the surrounding area. Existing employment areas or areas highlighted as growth areas, will be supported through the council trying to provide a range of quality site areas.
  - Policy S13 the council will support developments located within the Energy Coast Innervation Zone. Support will be provided through the implementation of infrastructure needed to make possible sites more viable, alongside trying to create sites that are appealing to potential energy developers.
  - Policy S15 is primarily concerned with training and skills:

*“The Local Plan has an important role in raising the quality of life of the current and future population within Allerdale. Raising educational attainment together with diversifying and increasing the skill base will help the area become a more attractive area to invest, locate and grow business. The Council will work with partners to support and encourage development that contributes towards raising the level of education, skills, opportunities and innovation.”*
  - Policy S17 concerns the importance of tourism to the local economy. Tourism supports the local economy and ensure many locations of natural beauty, especially along the coast, are maintained or protected. It is therefore paramount that developments do not, or if they do mitigate, negatively impact on these tourist spots and locations.

## Legislation

- The Lisbon Strategy (Reference 7: European Council) remains the EU's strategy for creating growth and jobs in a sustainable manner. This identifies the main dimensions of social sustainability as: education, employment policy (to create more and better jobs), modernising social protection and the promotion of equality to counter poverty and social

exclusion. It requires there to be a description of possible impacts on human beings.

## Guidance

- The Plan for Growth (Reference 8: HM Treasury and BIS);
- Nuclear Supply Chain Action Plan (Reference 9: HM Government);
- West Cumbria Economic Blueprint (Reference 10: Britain's Energy Coast);
- Britain's Energy Coast Masterplan (Reference 11: Britain's Energy Coast);
- Cumbria Strategic Economic Plan (Reference 12: Cumbria LEP).

## 10.4 Data gathering methodology

### Study areas

10.4.1 The geographical extent of the Study Areas for the socio economic assessment includes the Moorside Site and the Accommodation Sites and any surrounding area as required by each socio economic topic. The sources of the socio economic data evidence are shown in **Table 10.1** below.

10.4.2 The areas within which there is the potential for likely significant effects to occur vary depending upon the specific socio-economic effects being considered. For the Moorside Site and the Accommodation Sites, the following study areas have been defined:

- **Labour market and economy:** a 90 minute travel time zone from the Moorside Site has been used which equates approximately to the county of Cumbria. This is the area from within which home based workers are expected to travel. A more immediate area has been defined (which equates to 45 minute travel time zone), made up of Copeland and parts of Allerdale (see **Figure 10.1**) ("**More Immediate Area**"). This is the area from within which the non-home based workers are expected to travel (after they have moved in to the area). The definition of this Study Area has been informed by the residential locations of Sellafield workers, which have been matched to Lower Super Output Areas (LSOAs) as shown on **Figure 10.1**. This was the approach discussed and agreed with CBC and CCC at the Quarter 2 2015 Update Meeting on 18 August 2015. However this Study Area will be updated as the transport strategy develops, and there is a full understanding of potential travel times to the Moorside Site from different locations.
- **Population:** the focus is upon the More Immediate Area defined above (comprising Copeland and parts of Allerdale - see **Figure 10.1**), which has been informed by the residential locations of Sellafield workers. This area is used in the baseline because the majority of people who move to Cumbria to take job opportunities during construction are expected to live in this area.

- **Housing, social and community infrastructure and other community issues:** As for population above the focus is upon the More Immediate Area defined in **Figure 10.1**, which has been informed by the residential locations of Sellafield workers. This area is used in the baseline because the majority of people who move to Cumbria during construction are expected to live in this area and will increase demand for social and community services in this area.

10.4.3 The Additional Sites will also generate socio economic effects through their supply chain and workforce requirements. As the Study Areas will be reviewed and amended throughout the EIA (as further information on these sites becomes available) this chapter does not currently include any assessment of these Additional Sites.

### Desk study

10.4.4 A wide range of datasets and documents have informed the desk based study for the socio-economic assessment of the Moorside Project. These have been used to identify baseline conditions in the study areas outlined above and identify any particular socio-economic characteristics, opportunities or challenges relevant to the construction and operation of the Moorside Development which will need to inform the assessment. The data sources are listed in **Table 10.1**.

**Table 10.1 Sources of socio-economic baseline evidence**

Source	Scope of data/research
<b>Economy, sectors (including the visitor economy) and the business base</b>	
<b>Business Register Employment Survey (BRES) and Annual Business Inquiry (ABI) (source: Office for National Statistics (ONS))</b>	Current position and trends in: <ul style="list-style-type: none"> <li>) Total employment</li> <li>) Sectoral mix</li> <li>) Employment in relevant sectors</li> </ul>
<b>Mid-Year Population Estimates (ONS)</b>	Current position and trends in total and working age population in zone of influence
<b>Sub National Population Projections (ONS)</b>	Projected total and working age population in zone of influence
<b>Sub-national Gross Value Added (GVA) (ONS)</b>	Current position and trends in the following for measures: <ul style="list-style-type: none"> <li>) Total GVA</li> <li>) GVA in sectors of interest</li> <li>) GVA per head</li> <li>) GVA per worker</li> </ul>
<b>Annual Business Survey (ONS)</b>	Current position and trends in output and output per worker in the zone of influence and key sectors.
<b>Business Demography (ONS)</b>	Current position and trends in: <ul style="list-style-type: none"> <li>) Business survival</li> </ul>

Source	Scope of data/research
	<ul style="list-style-type: none"> <li>) Number of enterprises</li> <li>) New business starts (total and sectors of interest)</li> </ul>
Local tourism surveys (Cumbria Tourism)	Estimates of volume of visitors and value for Cumbria as a whole and for local authority districts
Marine Management Organisation and the Department for Environment, Food and Rural Affairs (Defra)	Information of commercial fishing landings for ports on Cumbrian coast
<b>Employment and skills</b>	
Census of Population (ONS)	Range of variables on the workforce status, including skills and occupational engagement of workers in relevant local authority areas; also commuting patterns into and out of the zone of influence
Annual Population Survey (ONS)	As above
Claimant Count (ONS and Department of Work and Pensions (DWP))	Number of claimants of various out of work benefits, including the Jobseeker's Allowance
Skills levels (ONS and Skills Funding Agency (SFA))	Funding of and achievement of national vocational qualifications amongst 16-21 year olds and adults, by vocational subject
<b>Housing, community infrastructure and community cohesion</b>	
House price/affordability data	House prices/affordability
Household forecasts (ONS)	Estimates of growth in the number of households
Sub-national population projections (ONS)	Estimates of growth in population
Copeland Adopted Core Strategy (Copeland Borough Council) and Allerdale Local Plan (Allerdale Borough Council). Some of the Other Sites may be outside these two areas.	Housing target over plan period
Strategic Housing Market Assessment (local authorities)	Future housing need and future affordable housing need
Schools' capacity (Cumbria County Council)	Current and planned schools' capacity
Pupil roll data and forecasts (Cumbria County Council)	Pupil roll at schools
Patient list sizes and forecasts (Cumbria Clinical Commissioning Group)	Patient list size by settlement
GPs (Cumbria Clinical Commissioning Group)	Number of GPs by settlement (split by full time (FT)/part time (PT))

Source	Scope of data/research
Police.gov.uk	Crimes and recorded police incidents

## Survey work

- 10.4.5 The only socio-economic survey work which has been undertaken to inform this preliminary assessment of effects is through the Cumbria Business Survey. The purpose of this was to assess business perceptions of the extent to which the construction and operation of the Moorside Project might impact upon the operation and performance of local businesses, through business opportunities, competition for labour or increased congestion. It also identifies the potential barriers that businesses may face in accessing supply chain opportunities.
- 10.4.6 The survey was undertaken in November and December 2015 and achieved nearly 750 responses. The results of the Cumbria Business Survey have informed the preliminary assessment of effects by providing an indication of the proportion of businesses which intend to pursue supply chain opportunities during construction of the Moorside Project. The results will also be used to inform the development of the supply chain strategy when the precise workforce and supply chain information needs of the Moorside Project has been finalised.
- 10.4.7 Further survey work will be undertaken with visitor accommodation businesses within the Study Areas. The purpose of this survey will be to establish the potential for the construction workforce to utilise visitor accommodation locally, the potential for accommodation supply to be restricted or increased as a consequence, and the potential for longer term impacts upon the sector. This survey work is being undertaken in April 2016.

## Consultation

- 10.4.8 Further to the details outlined in **Section 3.1** above regarding the consultation that has taken place to date, it should be noted that consultation with the following organisations has been used to inform the scope of the assessment and establish baseline conditions in the Study Areas. This consultation has included the responses to the regular meetings and discussions held on the Survey and Monitoring Plans, quarterly update meetings, EIA Scoping Report, and the discussions leading to this PEIR:
- Britain's Energy Coast;
  - Cogent (the UK's strategic body for skills in the science industries including the nuclear sector);
  - Centre for Nuclear Energy (CoNE);
  - Copeland District Council;
  - Cumbria County Council;

- Cumbria Tourist Board;
- Gen2 (a local training provider);
- Sellafield Limited;
- Cumbria Clinical Commissioning Group (the group responsible for the commissioning of GP services in Cumbria);
- Cumbria Constabulary;
- Cumbria Youth Alliance;
- Active Cumbria (a social enterprise which aims to increase the participation of communities through sport and physical activity to increase healthy living).

**Table 10.2 Consultation responses received**

Themes of Issues raised	Response
Insufficient information available on the workforce requirements of construction and operational phases of the Moorside Project, in particular employment opportunities for local residents	Initial information has been provided by Westinghouse on the number of employees required at peak during the construction and operational phases, although the detailed occupational breakdown is not currently available. This has been discussed with local stakeholders. Once this information is available, more detailed analysis will need to be undertaken of the ability to source these skills from within Cumbria, the rest of the UK or elsewhere. This will also inform the analysis by NuGen and Westinghouse of the specific measures and investment that will be required to enable local residents to access the available employment opportunities.
Insufficient information available on the procurement approach and implications for the supply chain of the construction of the Moorside Project, in particular business opportunities for local firms	The analysis in the chapter has been informed by initial analysis of the business base in Cumbria and the potential to form part of the supply chain during construction and operational phases, as well as the extent of retention of supply chain expenditure for other major nuclear new builds in the UK. This has been discussed with local stakeholders. More detailed analysis will be undertaken once the procurement strategy for Moorside has been completed by Westinghouse and measures developed to promote the potential for local sourcing amongst businesses.
Need to provide more information on the measures that NuGen will implement as part of its workforce development and supply chain strategies to ensure that local benefits are maximised.	As noted above, NuGen will be able to complete the workforce development and supply chain strategies as fuller information on the design, procurement and delivery of the MPS has been finalised. This will be an important part of the DCO Application.

Themes of Issues raised	Response
Concerns about the potential for skill shortages and the effect that this may have on existing businesses (including Sellafield) and potential inward investors.	An initial level analysis has been undertaken based on the high level information currently available on the workforce requirements and the availability of labour in the Study Areas. The analysis will need to be updated when more detailed workforce information for the construction and operational phases are available.
Concerns about the cumulative impact of the Moorside Project and other major projects, as well as the ongoing operations of Sellafield, on a range of socio-economic receptors	High level analysis has been undertaken on the basis of the available information and this has been discussed with local stakeholders. More detailed analysis will be undertaken when more detailed information is available on the workforce and supply requirements of both the Moorside project as well as other major infrastructure projects.
Concerns about the potential impact on health services and the capacity and quality of existing acute healthcare services in West Cumbria	The baseline includes information on the challenges being experienced at West Cumberland hospital and this has been factored in to the preliminary assessment of effects. NuGen will also appoint a specialist healthcare provider to minimise the potential effects on local health services.
Need for a Health Impact Assessment (HIA) to be carried out which assesses the range of social impacts on the health and wellbeing of residents in the Study Area	A steering group comprising a number of different public and community organisations has been established to oversee and manage the HIA. NuGen is in the process of identifying a lead organisation to undertake the HIA.
Concerns about the potential impact on crime and traffic associated with a large increase in the population of Whitehaven and Egremont and the demands on police resources that this will create	Additional data has been incorporated in to the baseline and the potential effects on police resources included in the assessment tables.

## 10.5 Scope of the assessment

### Potential receptors

10.5.1 The selection of the receptors that could change as a consequence of predicted significant effects has been informed by the baseline analysis and consultations set out above, as well as consideration of evidence on socio-economics effects associated with the construction and operation of existing nuclear power stations. The receptors that have been identified are as follows:

- size, diversity and prosperity of the local economies of Copeland, Allerdale and Cumbria;
- people in employment or seeking employment within Cumbria;

- the residential population in Copeland and Allerdale;
  - users of social and community infrastructure in Copeland and Allerdale;
  - home owners and occupants of rented accommodation in Allerdale and Copeland;
  - residents of Allerdale and Copeland who could be affected by changes in the vitality of communities;
  - commercial fishing sector; and
  - agriculture.
- 10.5.2 Many of these receptors are affected by a complex mix of local and national factors and the effects of the Moorside Project may interact with and effect these in various ways. The assessments need to capture these effects in a robust manner, allowing for the uncertainty which may influence them.
- 10.5.3 The geographical focus of a number of the receptors may need to be amended once more information is known about the scale, nature and operational characteristics of the Moorside Project Sites as well as the transport strategy as a whole.

### Spatial and temporal scope

- 10.5.4 The geographical extent of the assessment for each of the effects is set out above (paragraph 10.3.2) and in **Figure 10.1**.
- 10.5.5 With regard to the timeframe of the assessment, the construction and operational phases have been considered and have been based on the phasing plan in **Chapter 2**. Decommissioning has not been specifically assessed within the PEIR as it remains uncertain at this point which elements would be decommissioned and when. An assessment will be included in the ES for the DCO application.

### Potentially significant effects

- 10.5.6 The potentially significant effects were set out in the Scoping Report. These were amended slightly to include religious facilities alongside other community facilities being assessed, following feedback at Stage One Consultation. The potentially significant effects on each of the receptors are described below:
- **Size, diversity and prosperity of the local economies of Copeland, Allerdale and Cumbria.** There is the potential for significant effects on these receptors as a result of one or more of the following changes.
    - Change in wealth. This could be significantly affected by the increased expenditure locally associated with the development and a variety of multiplier and other economic effects. The magnitude of the change will be affected by a variety of factors including the leakage of expenditure and income out of the defined zones of influence.

- Change in size of business base. This could be significantly affected by the increased business activity and employment locally associated with the development and a variety of multiplier effects. As with the above effect, the scale of the effect will depend on a variety of factors, including the nature of the local business and employment base, the supply of skills and the procurement of the construction and operational phases of the development. It will also be influenced by the extent to which supply chain and personal expenditure is retained locally, as opposed to leaking out of the area.
- Change in industrial mix. This could be significantly affected by the growth of particular sectors as a result of supplying services during the construction and operation of the development.
- Change in the prosperity of the visitor economy. The construction phase could potentially be affected by an increase in demand for visitor accommodation from incoming workers (and the displacement of other visitors), changes to the visitor offer and disruption to existing visitors, the loss of visual amenity, changes in the image of the area as a tourism destination, and changes in the willingness of the tourism sector to invest in facilities and its visitor offer.
- **People in employment or seeking employment within Cumbria.** There is the potential for significant effects on this receptor as a result of one or more of the following changes:
  - Change in the number and proportion of residents in employment. This could be significantly affected by the availability of large numbers of job opportunities during the construction and operational phases of the development (the scale and nature of job opportunities and the ability for local people to access these will vary). The scale of the effect could depend upon the availability of workers, the suitability of their skills and measures which might be put in place to enable local workers to access opportunities both during construction and operational phases. It might also be affected by the scope for inactive working age residents to seek jobs.
  - Change in unemployment. This could be significantly affected by the increase in employment and the ability of the currently unemployed to secure the available jobs. The nature of the job opportunities, and the characteristics and skills profile of the residents (as well as other factors) will influence the scope for them to secure these jobs.
- **Residential population in Copeland and Allerdale.** There is the potential for significant effects on this receptor as a result of one or more of the following changes:
  - Change in the size of the working age population. This could be significantly affected by the influx of workers during the construction and operational phases, as well as the retention of local workers who might otherwise have migrated out of the area.

- Change in the age structure. The workers which relocate to the area are likely to have a particular age profile which may change both the age profile of working age residents and all residents.
- **Home owners and occupants of rented accommodation in Allerdale and Copeland.** The focus is upon the adequacy of housing to meet the needs of residents and temporary workers. This could be significantly affected by an influx of additional workers who will require accommodation both on a permanent and short and long term temporary basis.
- **Users of social and community infrastructure in Copeland and Allerdale.** Linked to the above, the influx of additional workers could significantly affect the demand for community and social infrastructure and services and their location.
- **Residents of Allerdale and Copeland who could be affected by changes in the vitality of communities.** This could be significantly affected by the influx of workers, pressures on local services, changes in the economic prosperity of residents and disruption to residents and businesses during construction.

## 10.6 Environmental measures incorporated into the proposed development

- 10.6.1 Details of environmental measures that have been incorporated into the overall design of the Moorside Project are set out in **Section 2.3** of the PEIR (which describes the design evolution of the Moorside Project).
- 10.6.2 Specific measures relating to this socio-economic topic and how these have been targeted to specific socio-economic receptors are set out in **Table 10.3**.
- 10.6.3 Where environmental measures are currently unknown, or uncertain, they are not included within **Table 10.3**. Further measures will be included in the PEIR as they are designed and confirmed.

**Table 10.3 Rationale for incorporation of environmental measures**

Potential receptor	Predicted changes and potential effects	Incorporated measure
<b>Common to all sites</b>		
The size, diversity and prosperity of the local economies of Copeland, Allerdale and Cumbria	<p>The scope for local businesses to pursue and realise supply chain opportunities is likely to be constrained in the absence of proactive measures on the part of NuGen and local stakeholders to raise awareness and capacity.</p> <p>Seeking to increase local sourcing has the benefit of retaining the associated economic benefits of construction and operation locally, as well as reducing</p>	NuGen is committed to seeking to maximise the use of UK and Cumbria based businesses in the supply chain for the project and will source locally wherever possible. It will work with local authorities and economic development and sector bodies to develop an understanding of the capabilities of the local area, and to develop a database of local firms who could potentially play a part in the

Potential receptor	Predicted changes and potential effects	Incorporated measure
	<p>the distance that goods are transported to the Moorside Site.</p> <p>There is also an expectation in national policy that developers and operators of new nuclear power stations will put in place reasonable measures to assist with maximising the economic benefits locally and nationally.</p>	<p>supply chain. This will form the evidence base for a supply chain strategy. The majority of opportunities are likely to be in lower tiers of the supply chain. The Supply Chain Strategy will therefore focus on enabling them to make links with upper tier contractors, and encourage contractors to make use of local suppliers wherever possible.</p>
<p>People in employment or seeking employment within Cumbria</p>	<p>The scope for local workers (both currently in the workforce and likely to enter in future years) to pursue and secure employment opportunities in the construction of the Moorside Site, as well as its operation, is likely to be constrained in the absence of proactive measures on the part of NuGen and local stakeholders to raise awareness of the opportunities, to develop skills and improve work readiness.</p> <p>Seeking to increase the use of local workers in construction and operation of the Moorside Project (and the associated supply chains) has the benefit of retaining the associated economic benefits of construction and operation locally, as well as improving the long term supply of skills and productivity in the local economy.</p> <p>There is also an expectation in national policy that developers and operators of new nuclear power stations will put in place reasonable measures to assist with maximising the economic benefits locally and nationally including workforce measures.</p>	<p>NuGen is committed to seeking to maximise local economic benefits to West Cumbria and will work with partners to develop a Workforce Development Strategy which maximises the number of local people accessing employment during the construction and operational phase. This will be based on an analysis of the workforce requirements of the project, and an assessment of the capacity and skills of the current and future population of West Cumbria. It will also consider the potential barriers potential workers face which may prevent them from accessing employment at Moorside. Based on this evidence, it will make recommendations for the types of interventions required. These will be defined in the strategy but could include employment brokerage services, outreach activities, working with local providers to deliver apprenticeship schemes and capital investment in new facilities.</p>
<p>Users of social and community infrastructure in Copeland and Allerdale</p>	<p>An influx of workers could increase pressure on existing health services and reduce the quality of care available to existing communities.</p>	<p>NuGen will appoint a specialist provider of occupational healthcare services to the workforce during the construction phase, which will minimise pressures placed on local NHS services. The specific services have not been defined in detail but are likely to include the following types of measures:</p> <p><b>Prevention:</b> measures which promote safe working practices to minimise the number of accidents (likely to include risk assessments and risk registers, pre-employment health screening to determine fitness to work,</p>

Potential receptor	Predicted changes and potential effects	Incorporated measure
		<p>development of a health and safety plan, development of a drugs and alcohol policy)</p> <p><b>Promotion:</b> measures to maintain and improve the health and wellbeing of the workforce through raising awareness of work and lifestyle related health issues (to include campaigns and advice on smoking, diet, alcohol and stress).</p> <p><b>Intervention:</b> treatment and advice services to employees who have accidents or are taken ill at work, as well as emergency response teams (medically qualified individuals who can rapidly respond and stabilise staff involved in incidents, as well as facilitating ambulances to take staff to hospital if required). While it will still be necessary to make some referrals to GPs and emergency visits to hospitals, these services are likely to minimise pressures on local NHS facilities.</p>
Users of social and community infrastructure in Copeland and Allerdale	An influx of workers could increase pressure on existing sports and recreation services and reduce the quality of care available to existing communities.	NuGen will ensure that a range of services are provided within the worker accommodation campuses, including sports and leisure facilities. Some of these will be made accessible to the public
Users of social and community infrastructure in Copeland and Allerdale	An influx of workers could increase pressure on places of worship.	NuGen will ensure that a range of services are provided within the worker accommodation campuses, including prayer rooms.
Residents of Allerdale and Copeland who could be affected by changes in the vitality of communities	An influx of workers could increase rates of crime or increase the fear of crime among existing communities	NuGen will work with the Cumbria Constabulary to develop a Community Safety Management Plan. This would identify the potential risks to community safety (including residents and workers) and would implement appropriate measures which minimise the risk of crime or anti-social behaviour. These could include measures such as a worker code of conduct, a welcome pack and formal induction process for incoming workers, a strict alcohol and drugs policy, and an agreement on information sharing and working arrangements with the Cumbria Constabulary.

## 10.7 Assessment methodology

### Methodology for prediction of effects

- 10.7.1 The prediction of socio-economic effects uses a wide range of approaches, depending on the specific effect being assessed. These are all set out in the socio-economics methodology statement which has been shared and discussed with local councils and their advisors.
- 10.7.2 The significance of effects have been assessed by considering the sensitivity of receptor and the magnitude of change that would be brought about by the construction and operation of the Moorside Project. The criteria that will be used to assess sensitivity and magnitude are set out in **Table 10.4** and **Table 10.5**. Although quantitative criteria for judging magnitude are included, it is difficult to apply these with precision at this stage due to high level nature of the assessment.

**Table 10.4 Sensitivity of socio-economic receptors**

Sensitivity	Criteria	Examples of measures relating to the identified criteria
<b>Very High</b>	Receptor is accorded a very high priority in local, regional and national economic development and regeneration policy.	<ul style="list-style-type: none"> <li>) Identified as a highest ranking thematic (e.g. low levels of wealth creation across an economy) or spatial (e.g. pockets of deprivation in particular localities) socio-economic priority. These priorities may also be informed by the economic potential and/or need to achieve change on a particular socio-economic measure.</li> <li>) Evidence of severe socio-economic challenges, under-performance or vulnerability e.g. patterns of deprivation, employment and wealth generation, employment forecasts, exposure to socio-economic threats.</li> </ul>
<b>High</b>	Receptor is accorded a high priority in local, regional and national economic development and regeneration policy.	<ul style="list-style-type: none"> <li>) Identified as a key thematic or spatial priority (as a result of economic potential and/or need).</li> <li>) Evidence of major socio-economic challenges, under-performance or vulnerability e.g. patterns of deprivation, employment and wealth generation, employment forecasts, exposure to socio-economic threats.</li> </ul>
<b>Medium</b>	Receptor is accorded a medium priority in local, regional and national economic development and regeneration policy.	<ul style="list-style-type: none"> <li>) Not identified as a key thematic or spatial priority (as a result of economic potential and/or need).</li> <li>) Evidence of significant socio-economic challenges, under-performance or vulnerability.</li> </ul>

Sensitivity	Criteria	Examples of measures relating to the identified criteria
Low	Receptor is accorded a low priority in local, regional and national economic development and regeneration policy.	<ul style="list-style-type: none"> <li>) Not identified as a key thematic or spatial priority (as a result of economic potential and/or need)</li> <li>) Evidence of economic prosperity, buoyancy and resilience e.g. low levels of deprivation, high employment and average wealth per head, relatively strong employment forecasts.</li> </ul>

**Table 10.5 Criteria for assessing the characteristics of socio-economic effects**

Characteristics of effect (positive and/or negative)	Very low	Low	Medium	High
Change in wealth	Net change of less than +/- 0.5% over baseline	Net change of +/- 0.5 -1% over baseline	Net change of +/- 1-3% over baseline	Net change of more than +/- 3% over baseline
Change in size of the employment base	Net change of less than +/- 0.5% over baseline	Net change of +/- 0.5-1% over baseline	Net change of +/- 1-3% over baseline	Net change of more than +/- 3% over baseline
Change in the industrial mix	Net change of less than +/- 1% over baseline	Net change of +/- 1-2% over baseline	Net change of +/- 2-5% over baseline	Net change of more than +/- 5% over baseline
Change in the economic prosperity and prospects of the visitor economy	Net change of less than +/- 0.5% over baseline	Net change of +/- 0.5-1% over baseline	Net change of +/- 1-3% over baseline	Net change of more than +/- 3% over baseline
Change in residents in employment	Net change of less than +/- 0.5% over baseline	Net change of +/- 0.5 - 1% over baseline	Net change of +/- 1-3% over baseline	Net change of more than +/- 3% over baseline
Change in unemployment levels	Given the complex manner in which labour markets respond to major investments in a local economy, this will be assessed in a qualitative manner.			
Change in long term unemployment	Given the complex manner in which labour markets respond to major investments in a local economy, this will be assessed in a qualitative manner.			
Change in the size of the working age population	Net change of less than +/- 0.5% over baseline	Net change of +/- 0.5-1% over baseline	Net change of +/- 1-3% over baseline	Net change of more than +/- 3% over baseline
Change in the age structure	In the absence of up to date census data, the ability to assess this indicator will be shaped by the available information on the age profile construction staff. It is likely that it will need to be assessed in a more qualitative manner.			

Characteristics of effect (positive and/or negative)	Very low	Low	Medium	High
Adequacy of the supply of housing to meet local needs	This will be influenced by a variety of factors and would need to consider effects on different types of housing markets. This will therefore be assessed in a more qualitative manner.			
Adequacy of the supply of social and community infrastructure and associated services	This will need to consider capacity constraints across a wide range of services and will need to assess a range of indicators to assess the magnitude of effect.			
Change in the vitality of local communities	This will need to consider capacity constraints across a wide range of services and will need to assess a range of indicators to assess the magnitude of effect. This will therefore be assessed in a more qualitative manner.			

### Significance evaluation methodology

- 10.7.3 The approach to significance of evaluation is outlined in **Section 3.3** of this report. This sets out the significance of effect matrix which shows how sensitivity and magnitude have been combined to reach an assessment of the significance of effects.

## 10.8 Preliminary assessment of effects

### Baseline conditions

#### Economy

- 10.8.1 Whilst Cumbria is a large county characterised by its rural nature and a sectoral mix which reflects this, West Cumbria (in which the Moorside Project is located) has energy and engineering sectors of national significance.
- 10.8.2 Gross value added, a measure of wealth, has increased at a much faster rate (21.8% between 2007 and 2013) of growth than regional or national comparators and is explained by a significant increase in the value of output from the energy and manufacturing sectors. This reflects the effect of a number of major high value public sector procurement projects such as the construction of the Astute Class nuclear submarines and the continued resilience of the nuclear sector in Copeland.
- 10.8.3 The productivity of employees in West Cumbria, as measured by GVA per FTE, is above the average for Cumbria and the North West but still some £9,000 below the national average. Although the nuclear sector and some manufacturing sectors are important high value, West Cumbria lacks both strength in depth in some aspects of the supply chain for these sectors as well as a significant concentration of high value service based industries which are found in more urban areas of England.

- 10.8.4 Initial mapping of Cumbria and West Cumbria's business base against the nuclear supply chain suggest that local businesses could be reasonably well placed to capture supply chain opportunities in a variety of specialist and generalist activities. This analysis will need to be supplemented with evidence from a variety of sources in due course, including the business survey being commissioned by Cumbria County Council and more detailed information on project design and the procurement and supply chain strategy.

### *Labour Market*

- 10.8.5 Mirroring this economic growth, West Cumbria as a whole experienced employment growth of +1% between 2009 and 2014 (800 FTEs), which was a stronger rate of growth than the Cumbria or North West averages, but lower than England as a whole (+2.3%). Much of this growth has been concentrated in Copeland, the district within which Sellafield is located. The employment base in West Cumbria is dominated by manufacturing, which accounts for 30% of FTE jobs, compared to 12% in the North West and 10% in England.
- 10.8.6 The performance of the labour market varies across Cumbria. Much of West Cumbria has economic participation rates at the UK average and unemployment rates slightly below the national average (although Barrow and Furness fairs less well). However, the demand for engineering and construction skills in particular is buoyant given the strong demand from major employers and their local supply chains, with a range of skills shortages.
- 10.8.7 The likelihood is that labour market conditions will tighten markedly over the next decade given the combination of:
- major infrastructure projects with a substantial requirement for professional and technical skills (and the associated multiplier effects which will stimulate demand generally within the economy)
  - high levels of retirement of skilled technical workers given the age structure of the current workforce and
  - the limited existing capacity in the local labour market and constrained accessibility which limits access to large labour markets outside of Cumbria.
- 10.8.8 The initial analysis and comparison of the workforce requirement for the Moorside Project and the supply of workers within Cumbria and West Cumbria confirms that the types of skills required for the construction of the Moorside Project are in short supply. However, there is scope to better utilise low skilled workers and harder to reach residents who are currently outside of the labour market or long term unemployed.

### *Population*

- 10.8.9 The population of Cumbria grew by 2.1% between 2001 and 2013, (from 487,100) in 2001 to 497,900 in 2013) which is well below the national and regional average (8.9% and 4.9%). Population growth has tended to be stronger over this period in the major urban areas, where rates of job creation have

been stronger. In contrast, the population of West Cumbria has fallen by 0.3% over this time period, however this masks complex economic and demographic factors at a district level. The strong demand in a number of economic sectors is balanced against the loss of younger adults who move away for education and jobs, as well as the aging population in some area.

- 10.8.10 All three West Cumbria districts experienced a decline in the working age population (16-64), although this was more modest in Allerdale and Copeland compared to Barrow-in-Furness which experienced a fall of 6.2%. Working age residents also account for a smaller share of the total population in each of the districts than the England and North West average. These population trends are a concern for the West Cumbria economy as they imply that the labour supply available to employers is contracting and is a significant concern for major employers like Sellafield. In the long run, this could act as a constraint on economic growth if employers are unable to access the skills they need.

### *Housing and Accommodation*

- 10.8.11 There are around 64,000 household spaces<sup>1</sup> in the Study Areas (as shown on **Figure 10.1**). 3,300 of these (5.1%) were vacant at the time of the 2011 Census. This includes second homes as well as properties which were vacant at the time of the Census but not registered as vacant for council tax purposes. Of the occupied household spaces, 69% (41,900) were owner occupied, 20% (12,300) were social rented, 9% (5,500) were private rented and 1% (900) were households living rent free.
- 10.8.12 Data on housing completions is not available below the level of local authority areas. However the latest available annual monitoring reports for Copeland show that there were an average of 115 new dwellings per annum (dpa) completed between 2003 and 2012. This was broadly consistent with growth in the estimated number of households over the same period (109 per annum).
- 10.8.13 Copeland Borough Council's Local Plan identifies a housing target of 230 dpa over the plan period, but also identifies the need to provide an uplift to 300 dpa during the period of nuclear new build. Both of these targets are above the forecast growth in the number of households based on past trends (72 per annum over the plan period). This implies that there would be significant additional capacity to accommodate workers if the Council successfully met its housing delivery target.

### *Housing Market Trends*

- 10.8.14 Land Registry data shows there were around 7,600 sales of dwellings in the Study Areas between 2011 and 2015 (average of 1,520 sales per annum). Median house prices have been broadly stable during this period, increasing from £112,500 to £114,000 between 2011 and 2015 (1.3%). The local authority area of Copeland, which makes up a large proportion of the Study Areas, is the most affordable local authority district in the country (relative to local

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<sup>1</sup> A household space is the accommodation used or available for use by an individual household

incomes). The affordability of housing and limited house price growth suggests that the owner occupied sector in the Study Area is not experiencing the same housing shortage issues as other parts of the country.

- 10.8.15 There is some evidence of greater market pressure in the private rented sector. Lower quartile and median rents increased by 7% and 6% respectively between 2011 and 2014<sup>2</sup>.

### *Availability of Housing*

- 10.8.16 There is no official data source which shows how many dwellings are available to households wishing to move to the area, or which provides a breakdown of tenure for vacant homes in the study area. The assessment has therefore drawn upon a combination of census data, national data sources and property websites to identify the likely availability of housing.
- 10.8.17 Of the 3,300 vacant homes at the time of the Census, roughly 40% are likely to be second homes (based on council tax records) and are therefore unlikely to be available to construction workers from the Moorside Project. This leaves 1,320 vacant homes which were likely to be available. The 2013 English Housing Survey is a national data source, but shows that around 42% of vacant dwellings in England are in the private rented sector. If this was also the case in the Study Areas, it would mean that 555 of the vacant dwellings were available for private rent at the time of the Census.
- 10.8.18 These would not all be available to construction workers because a proportion is needed to address the typical needs of the market. This can be estimated using data from Copeland Borough Council's 2014 SHMA (Reference 13: CBC), which shows that around 20% of households in private rented housing have moved in the past year. If this rate was applied to the Study Areas, this would mean that 1,100 households had moved in the year before the Census, and that there were, on average, 90 households seeking accommodation in the Study Areas each month. This would leave around 465 dwellings available through the private rented sector, which represents the spare capacity after serving the needs of the market.
- 10.8.19 The assessment has also considered the number of properties advertised for rent on property websites, including Rightmove and Zoopla. These show there are around 340 properties available to rent in the two authorities in December 2015 (185 in Copeland and 155 in Allerdale), a large proportion of which are likely to be in the Study Areas (since it includes the main settlements of both districts). Again, a proportion of these available properties would be needed to serve the typical turnover of the market. Assuming this was 90 households at any given time, this would leave 250 homes as spare capacity. It should be noted that property websites are only likely to advertise a subset of all properties available to rent.
- 10.8.20 This high level analysis assumes that the total number of homes in the private rented sector is fixed. However this is not likely to be the case. Data from the

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<sup>2</sup> This is based on monthly rents which are rounded to the nearest £50, meaning the precise percentage increase may be less than this.

last two censuses shows that the number of private rented homes in the Study Areas increased by over 500 between 2001 and 2011. It is possible that the increased demand generated by Moorside could also increase the supply of private rented accommodation by providing a greater incentive to let out properties (for instance second homes). Finally, if the council successfully met its housing target of 230 to 300 dpa, a proportion of this would be expected to be available to let, which would provide additional capacity.

#### *Availability of Visitor Accommodation*

- 10.8.21 It has not been possible to obtain data on the availability of visitor accommodation below local authority level. However, the 2014 visitor accommodation survey carried out by Cumbria Tourism (Reference 14: Cumbria Tourism), shows that during the peak month (August), there were 826 available bedspaces in Copeland and 3,919 in Allerdale. It is likely that a significant proportion of this accommodation would be too expensive or not available to construction workers. However, if just 10% was available, it could provide accommodation for nearly 500 construction workers.

#### *Spare Bedrooms/Latent Accommodation*

- 10.8.22 Although not likely to form part of the accommodation strategy for the Moorside Project, a proportion of non-home based workers may seek accommodation that is considered 'latent' (i.e. not identified as being currently or previously rented or within the tourist sector), particularly through households in the area responding to the increased demand from Moorside by letting out spare rooms. It is not known how many households this may apply to, however the 2014 SHMA for Copeland identified over 35,000 spare rooms in the owner occupied sector alone.

### *Social and Community Infrastructure*

#### *Education*

- 10.8.23 There are 70 primary schools and 12 secondary schools across the Study Areas. A large number of these are operating above capacity, as measured by the number of students on the roll in January 2015 compared to the capacity estimates published by the Department for Education. This includes particular challenges in Whitehaven and Workington, where the primary schools are collectively operating at 105% capacity.
- 10.8.24 Feedback from consultees also identified recruitment of heads and teachers in Maths and English as being a particular challenge facing many schools in Copeland.

#### *Healthcare*

- 10.8.25 The North Cumbria University Hospitals Trust is the secondary care provider of acute hospital services in north Cumbria, which includes the Study Areas. This trust operates the West Cumberland Hospital based in Whitehaven. The trust is

experiencing a number of challenges. The recent inspection by the Care Quality Commission found that it was failing to meet a number of its targets and is experiencing significant recruitment issues, particularly for nurses. The Accident and Emergency department at West Cumberland Hospital has struggled to meet the Department of Health's target for emergency departments to admit, transfer or discharge patients within four hours of arrival. It also identified a shortage of beds, and found that the trust has consistently failed to achieve the majority of access targets.

- 10.8.26 The Cumbria Clinical Commissioning Group (CCCG) is the body with responsibility for General Practice (GP) services in the Study Areas. There are 68 GP surgeries operating across the Study Areas. Cumulatively, these surgeries have an average patient list size of 1,400 patients per full time equivalent GP, which is much lower than the national average of 1,800. Nevertheless, the GP services are expected to come under significant pressure in the next few years due to the ageing of the workforce, with 25% to 40% of GPs expected to retire in the next five years. The CCG reported that a large number of the surgeries in West Cumbria are struggling to recruit young GPs to replace these retirees.

### *Policing*

- 10.8.27 The Cumbria Constabulary is responsible for the delivery of policing in the Study Areas. Crime data shows there were 89 crimes committed for every 1,000 people living in the Study Areas between December 2014 and November 2015, which was higher than the average for Cumbria (84 crimes per 1,000 people). The highest rates of crime occurred in Whitehaven and Workington, however a large proportion of these related to incidents of anti-social behaviour recorded in each of the town centres, and is likely to reflect the role that these towns play as the main centres of nightlife serving a wide area.
- 10.8.28 Police employment data is not available for the Study Area, however the Cumbria Constabulary as a whole employs 3.8 police officers per 1,000 population which is slightly above the national average (3.7). The constabulary has experienced a 14% fall in workforce numbers since 2010 which consultees have explained was affecting the constabulary's capacity to respond to crimes.

### *Sports and Leisure Services*

- 10.8.29 Copeland Borough Council's Leisure Needs Assessment (Reference 15: CBC) is the most recent audit of sports facilities in the Copeland borough. The key findings were as follows:
- **Sports halls:** Current provision of sports halls is adequate, although this relies on existing halls being available for community use. The quality of sports hall stock is good but in need of some improvements. It is unlikely that additional sports hall space will be required in the next 10-15 years.
  - **Swimming pools:** although there are some issues with accessibility for Copeland residents, capacity is still sufficient both overall and within

individual facilities to meet demand. However, the stock is dated and in need of improvement.

- **Health and fitness:** there is evidence of a shortage of health and fitness sites within Copeland (including public and private sector facilities).
- **Artificial Grass Pitches (AGPs):** there are sufficient AGPs to meet demand within the borough.

10.8.30 Allerdale Borough Council's Indoor Facilities Strategy (Reference 16: ABC) is the most recent audit of sports facilities in the Allerdale borough. The key findings were as follows:

- **Sports halls:** Allerdale has above average sports hall provision with 5.6 badminton courts per 10,000 population compared to a national average of 3.9. The quality of some of these sports halls is poor although there are plans to improve provision through a new Workington Leisure Centre. Other than this it is unlikely that new sports hall provision will be required.
- **Swimming pools:** Allerdale has above average provision. Although some pools cannot meet demand due to their size, the new leisure centre planned for Workington will include an eight lane competition swimming pool. This is the pool which is most likely to be used by construction workers.
- **Health and fitness:** there are a large number of private sector gyms and facilities distributed across Allerdale. The main public facilities are located in Cockermouth and Workington. The report does not comment on whether supply is currently meeting demand or whether new facilities are required.

### *Places of Worship*

10.8.31 In the 2011 Census for Cumbria, nearly 99% of people who claimed to be religious reported themselves to be Christian. The next largest faith was Buddhism with 0.4%. This is reflected in the number of places of worship in Cumbria which are overwhelmingly Christian churches. There are only three non-Christian places of worship in Cumbria; the Manjushri Buddhist Centre near Ulverston, and a mosque and Buddhist centre in Carlisle.

### *Commercial Fisheries*

10.8.32 For the purposes of the PEIR, consideration of commercial fisheries has been included in this chapter, as part of the overall socio-economic environment; however, for the EIA process, and the resulting Environmental Statement (ES), it shall be included as a separate chapter in its own right.

10.8.33 The baseline environment with regards to commercial fisheries was described by Brown and May Marine Ltd (BMM) on behalf of Amec Foster Wheeler, in their Technical Report (**Appendix 10.A**). The approach used for evaluating the existing baseline was to provide an overview, identifying the fishing grounds within the vicinity of the Moorside Project, which would potentially be affected by the construction and operation of the MPS. Rectangles determined by the International Council of the Exploration of the Sea (ICES) were used to

establish relevant areas for the focus of the baseline report. Information sources used to establish the baseline included:

- Marine Management Organisation (MMO), UK:
  - Surveillance sightings data (2010 to 2014);
  - Fisheries landings values and effort data (2004 to 2013).
- Marine Scotland, UK;
  - VMS (2007 to 2011);
- Fishermen and fishermen's representatives; and
- North West Inshore Fisheries and Conservation Authority (NWIFCA).

- 10.8.34 It is noted that updated datasets have become available since the baseline report (**Appendix 10.A**) was written, for example surveillance sightings data from the MMO are now available for 2015. This information will be reviewed and updated for the purposes of the EIA and resultant ES for the DCO application.
- 10.8.35 The Moorside Project is located within ICES rectangle 37E6, which records comparably moderate landings value when compared to other rectangles in the area. Approximately three quarters of landings values within 37E6 are comprised of *Nephrops*, with king scallops and queen scallops (*Aequipecten opercularis*), thornback rays (*Raja clavata*), lobsters, flatfish species and bass constituting the remainder. In terms of fishing gear, *Nephrops* are primarily targeted with demersal otter trawls, king and queen scallops are targeted using scallop dredges of varying designs and lobsters via parlour pots. Flatfish are generally caught either as by-catch of the *Nephrops* fishery or during winter months when vessel swap from dredges to otter trawls, and bass are targeted by vessels operating gillnets.
- 10.8.36 Within 37E6, *Nephrops* trawls record the highest landings values and effort (days fished) in the area, representing a catch per unit effort (CPUE) value of £880/day. Other methods in the rectangle record lower average value and effort in comparison. It should be noted that although *Nephrops* are shown to be the largest catch within 37E6, can be found wherever there is soft sediment, the specific grounds targeted for this species are primarily to the north and west of the proposed Moorside Project.
- 10.8.37 Due to the location and nature of the offshore development being the MOLF, and breakwaters associated with the Moorside Project, consultation with fishermen and their representatives has focused primarily on ports within northern Cumbria, with key ports identified during initial consultation as being Ravenglass, Maryport, Workington and Whitehaven. In addition, representatives of the Scottish Fishermen Federation (SFF) and Anglo-North Irish Fishermen's Producer Organisation (ANIFPO) were consulted, as their members are known to target waters in the Irish Sea.
- 10.8.38 It should be noted that the consultation that has been undertaken with the following organisations and individuals has been used to inform the scope of

the assessment and establish baseline conditions in the Study Areas only at this point in time. This consultation has included fishing activity questionnaires and charts, regular fisheries stakeholder meetings and individual communication via phone and email. The key issues arising from these consultations is identified in **Table 10.6**.

- Ron Graham - Whitehaven Fishermen’s Association, National Federation of Fishermen’s Organisation - North West chairman;
- John McAvoy - Maryport Fishing Cooperative and owner of Solway Star;
- Shaun Humphreys - Maryport skipper of Chelaris MT23;
- Eric Johnson - Whitehaven Skipper of Syriken WA2;
- Mr Smitham - Whitehaven Skipper of Patsy Anne WA5;
- Raymond Walker - Whitehaven skipper of Kinloch WA35;
- Lee Musgrave - Whitehaven skipper of Scotia WA37;
- John Jackson - Whitehaven skipper of Teddera WA72;
- Alan Lofthouse - Whitehaven skipper of Radiant Star WA73;
- Steven Young - Whitehaven skipper of Crystal Star WA85;
- Anthony Harwood - Whitehaven skipper of KBJ WA256;
- Ian Harker - Whitehaven skipper of New Venture WO5;
- Jack & Andy Graham - Ravenglass skippers of Daybreak WA1;
- Mark Whalley - Whitehaven Fishermen’s Association;
- Paul Crooks - Cumbria FLAG;
- Keith Dixon - Workington fishermen’s representative;
- Mandy Knott - North western IFCA;
- Jonathan Parr - Marine Management Organisation (Whitehaven);
- John Watt - Scottish Fishermen’s Federation; and
- Davey Hill - Anglo North Irish Fish Producer Organisation.

**Table 10.6 Fisheries Consultation Responses Received**

Themes of Issues raised	Response
Concerns with regards to impacts on fishing activity, the long term future of the fishery and the potential for investment in new vessels, gear etc. There are locally important grounds for lobster and crab potting, nephrops and fish.	Extensive consultation has been undertaken allowing understanding of local and regional activities and creation of key fishing grounds charts. This has been incorporated into reports and in communication to NuGen and their consultants. NuGen have appointed a fisheries liaison officer who is in regular contact with key stakeholders with

Themes of Issues raised	Response
	the aim of ensure accurate communication and co-operation.
<b>Requirement for further information regarding the design and location of offshore infrastructure. What will be permanent and what will be removed after construction?</b>	Fisheries stakeholder meetings are being undertaken on a quarterly basis open to all fishermen and regularly attended by fishermen's associations, NW IFCA and MMO representatives. Project updates are an agenda item and discussed at each meeting.
<b>Concerns regarding changes in water temperature around the outfall and impacts on fish population and subsequent fishing activity</b>	NuGen has appointed a specialist consultant to assess this aspect and the requirement to minimise the temperature variation will be incorporated into the final design. Updates are given at fisheries stakeholder meetings.
<b>Confirmation of defined traffic routes and exclusion zones during construction and operation</b>	NuGen and their appointed FLO provide regular updates on Moorside Project developments to fisheries stakeholders. Applications regarding offshore safety and navigational zones will be submitted to regulatory authorities such as DECC, MCA or MMO with opportunities for representations to be made in relation to specific applications.
<b>Alternative fishing options is trawling grounds impacted.</b>	NuGen have requested that alternative fishing gears and techniques such as potting for nephrops should be investigated and reviewed.

10.8.39 As stated above, all data used to prepare the baseline report will be reviewed and revised accordingly for the EIA and ES, which will identify and assess potential impacts which may arise as a result of the proposed Moorside Project. These will be assessed in terms of:

- The shorter-term effects which could potentially be associated with construction works; and
- The longer-term effects following completion of construction works.

10.8.40 Potential impacts on fishing effort, landings and incomes and profits will primarily focus on the effects of:

- Whether any significant increase in loss of fishing area would occur, and if so, the scale of any such proportional loss;
- Loss of fishing time due to avoidance of construction vessels and infrastructure;
- The risks of, and cost implications of, loss or damage to fishing gears, loss of catch and loss of fishing time resulting from fishing gear interactions with the infrastructure;
- Increased steaming time to fishing grounds;
- The feasibility and effectiveness of potential mitigation effects and options, and risk reduction measures;
- Safety issues for fishing vessels; and

- Potential beneficial effects.
- 10.8.41 A range of mitigation measures may be considered for incorporation into the construction and operational phases of the project. These might include:
- Safety zones incorporated around all infrastructure and construction vessels;
  - Regular communication of vessel movements in relation to the MOLF;
  - Marking of infrastructure on Fish SAFE Information systems;
  - Transiting construction vessels to fully comply with international regulations (International Regulation for Prevention Collisions at Sea(COLREGS)) and adhere to published transit routes;
  - Assessment of alternative fishing techniques which could be of interest to local fishermen in areas surrounding the infrastructure;
  - Undertake Navigational Risk Assessment to ensure all risks to vessels are identified and all materials/infrastructure are appropriately marked/lit throughout the project's life cycle.

### Predicted residual effects and their significance

- 10.8.42 A summary of the preliminary assessment of the predicted residual effects (i.e. the effects taking into account the incorporated measures) is provided, in **Tables 10.7 to 10.10** with regard to the various types of effects considered in respect of each of the key receptors or receptor groups at the Moorside Site and the Accommodation Sites. The potential effects of the Corkickle and Mirehouse Developments have been considered together because they are both located in the same town (Whitehaven), meaning the sensitivity of receptor is likely to be the same for each receptor. Although there is a difference in the scale of each of the sites, the magnitude of effect is also likely to be the same.
- 10.8.43 No assessment is given of the effects without mitigation, as the measures that will be adopted (and outlined above) as these are considered to represent good practice. The evaluation tables generally present a preliminary assessment of the potential adverse effects arising from the Moorside Project unless explicitly stated to be neutral or beneficial in the rationale.
- 10.8.44 At this stage the evaluation tables only specifically deal with the construction and operational phases of the development at the Moorside Site and the Accommodation Sites.
- 10.8.45 In relation to decommissioning, it should be noted that following their construction, the Accommodation Sites would be operational and/or occupied for a period of time when the Moorside Site is still under construction. Save in respect of the development identified in **Chapter 2** as remaining on the Accommodation Sites, the Accommodation Sites would be decommissioned following the end of the construction activities on the Moorside Site. The effects of the decommissioning of the Accommodation Sites is expected to be

no greater than during their construction phases (see **Tables 10.7 to 10.9**) for details.

- 10.8.46 With respect to the decommissioning of the Moorside Power Station, for the purposes of this PEIR, this phase of the Moorside Project has not been included but a high level assessment will be included in the ES (on the basis that the decommissioning of the MPS would require its own separate ES prior to decommissioning taking place). With respect to the decommissioning of the Moorside Project, potential effects associated with decommissioning are likely to be similar or less than to the effects arising from the construction phase. It is not anticipated that additional receptors would be affected beyond those identified for the construction phase assessment as this assessment has assumed a reasonable worst case. It is anticipated that the decommissioning works would be of shorter duration and would require lower number of workers and supply chain than those currently assumed for construction of the relevant facilities. Subject to further design and delivery details, and for the purposes of this PEIR, a scenario has been applied where it has been assumed that the effects would be the same (rather than less) as those identified for the construction phase. Decommissioning is therefore not considered further in the assessment tables below that address the construction and operational phases.

**Table 10.7 Summary of predicted residual effects - Moorside Site**

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<b>Construction</b>					
<b>Size, diversity and prosperity of the local economies of Copeland, Allerdale and Cumbria</b>					
<p>Change in wealth. This is associated with increased expenditure locally as a result of the development and the economic consequences of this.</p> <p>The main drivers of impact are associated with the construction expenditure which occurs on or close to site and the associated supply chain which is located in the local study areas, as well as the local personal expenditure of workers who do not reside in the temporary worker campuses (the impact associated with these are assessed in the relevant Accommodation Sites).</p>	Likely	High	<p>High beneficial for Copeland;</p> <p>Medium beneficial for the rest of Cumbria.</p>	<p>Major beneficial for Copeland (Significant).</p> <p>Moderate to major beneficial for Allerdale and Cumbria as a whole depending on magnitude of change in particular localities.</p>	<p>The sensitivity of the receptor is high especially for Copeland where there is greater emphasis in policy on securing improved absolute economic performance and closing the performance gap with the UK average (BEC 2012).</p> <p>The Moorside Site will lead to a major injection of additional expenditure and hence demand for goods and services in the economy, although the scale of the injection and ability of the economy to absorb this and adapt successfully in the long term is subject to uncertainty and need for additional analysis. NuGen’s Labour Market and Supply Chain Strategies, working alongside other partners, will assist in this transition.</p> <p>The local economies in which a substantial number of the 2,500 non-campus based workers (Existing Cumbria Home Based Workers and Temporary Workers in Existing Cumbria Accommodation) will be located will also benefit from their expenditure which will help to support new employment across a wide range of sectors (including leisure, food and drink, and retail).</p> <p>The magnitude of change is likely to be high beneficial for Copeland due to potential scale of injection of additional demand; potentially medium for Allerdale and the rest of Cumbria but subject to additional analysis.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
Change in the size and diversity of the business base. This could be significantly affected by the increased business activity and employment locally associated with the Moorside Site development and the economic consequences of this.	Likely	High	High beneficial for Copeland  Medium beneficial for the rest of Cumbria	Major beneficial, especially for Copeland where greater emphasis in policy on promoting the growth of the nuclear sector and related supply chains (Significant).	<p>The sensitivity of the receptor is high especially for Copeland where there is greater emphasis in policy on promoting the growth of the nuclear sector and related supply chains.</p> <p>The Moorside Site is likely to lead to a major injection of additional demand for goods and services from a broad range of local suppliers across sectors, helping existing businesses to grow and new start-ups to be established.</p> <p>The magnitude of change is expected to be high beneficial for Copeland and medium for the rest of Cumbria, subject to the precise procurement approach adopted by NuGen and measures put in place to promote supply chains opportunities amongst local suppliers.</p> <p>The proposed investment in the highways and railway network as set out in the Transport Strategy will improve the capacity of transport networks which may provide long term benefits for local businesses and their workers. This will be fully assessed in the EIA for the DCO Application.</p> <p>Whilst assessed as major beneficial effects, these effects will depend critically on the measures put in place (and their success) by NuGen (including in the Supply Chain Strategy, Training Plan and Workforce Development Strategy) and local stakeholders to enable local businesses to secure supply chain opportunities, as well as the capacity in the local economy to enable growth to occur without significant negative effects on other local businesses (such as skill shortages, the poaching of workers and wage inflation).</p>
Change in the prosperity of the visitor economy. The construction of the	Likely	High in Copeland; Allerdale and	A worse case assessment	Moderate detrimental in Copeland.	The sensitivity reflects the importance of the visitor economy in parts of the zone of influence (such as the National Park) and high quality environment and others assets it depends

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
Moorside Site could potentially increase demand for visitor accommodation, lead to changes to the appeal or nature of the visitor offer, disrupt existing visitors, and contribute to a loss of visual amenity. There is also a proposal from NuGen for the development of a new visitor facility.		rest of the Cumbria (in particular areas within or in close proximity to the National Park	suggests a low negative impact in Copeland, and a very low impact in Allerdale and the rest of Cumbria.	(Possibly Significant),  Minor negligible in Allerdale and the rest of Cumbria, subject to further project information.  (Not Significant)	<p>upon. The site is in very close proximity to the boundary of the National Park and visible from part of the western area of the park. The LVIA has identified a number of significant effects.</p> <p>Subject to more detail as the design of the Moorside Site evolves, outcome of the proposed business survey and fuller assessments from other disciplines (Transport (<b>Chapter 4</b>), Landscape (<b>Chapter 7</b>), Visual (<b>Chapter 8</b>), and Countryside Access and Recreation (<b>Chapter 9</b>)), the assessment points to a low negative magnitude of change in Copeland and very low impact in Allerdale and the rest of Cumbria. The assessment will be updated once the survey and assessment is completed.</p> <p>The available evidence currently suggests a balance between mostly minor negative and minor positive effects, subject to appropriate measures related to the transport strategy (e.g. minimising disruption on local roads used by visitors), accommodation strategy (e.g. ensuring worker accommodation needs are primarily met through purpose built accommodation and any additional need for short term visitor accommodation is balanced with the needs of other visitors), the construction programme and methods (minimising negative changes associated with visual and other amenity) and NuGen's proposed nuclear visitor centre. On balance, a worse case overall assessment points to moderate detrimental effects in Copeland and minor detrimental effects in Allerdale and the rest of Cumbria.</p>
Change in the commercial fishing economy	*	*	*	*	Fisheries: see text starting at 10.8.32 regarding commercial fisheries. A full assessment of this sector of the economy will be included in the ES.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
Change in the agricultural economy	Likely	*	Likely to be high or very high	Likely to be moderate or major adverse in Copeland (Significant)	Although work on the agricultural sector is still ongoing, at this stage due to the extent of agricultural land which would be lost at the Moorside Site and the issues of severance and reduced farm unit size this will result in, it is considered likely that effects could be significantly adverse for Copeland.
<b>People in employment or seeking employment within Copeland, Allerdale and Cumbria.</b>					
Change in the number and proportion of residents in employment. This effect could arise due to the scale of employment associated with the construction phase of the development, the nature of job opportunities and the ability for local people to access these.	Likely	High in Copeland. Medium in Allerdale and the rest of Cumbria.	High beneficial in Copeland. Medium beneficial in Allerdale and low beneficial in the rest of Cumbria.	Major beneficial in Copeland. (Significant).  Moderate beneficial in Allerdale (Significant).  Negligible in the rest of Cumbria (Not Significant).	<p>Sensitivity is high in Copeland due to the policy emphasis on improved employment opportunities and improved access to highly skilled and better paying jobs, and the underlying employment challenges.</p> <p>Sensitivity is medium in the rest of Cumbria, where the employments rates are already high on average.</p> <p>It is assumed that up to 6,500 workers will be directly required for the construction of the Moorside Power Station at its peak with around 1,000 of these being sourced from within the local community (provided that appropriate training and related infrastructure measures are put in place) (Existing Cumbria Home Based Workers).</p> <p>In addition, large numbers of other employment opportunities will be created locally across many economic sectors through the wider supply chain and induced expenditure effects. The substantial increase in the demand for skilled and semi-skilled workers will provide many opportunities for local workers and the training of new labour market entrants.</p> <p>Magnitude of change is expected to be high beneficial in Copeland where associated direct, indirect and induced</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>employment will mainly be located. A number of specific communities in which a large numbers of workers not based in the Accommodation Sites (up to [1,500] Temporary Workers in Existing Cumbria Accommodation) will be located will also benefit from their expenditure supporting new employment across a wide range of sectors (including leisure, food and drink, retail).</p> <p>Magnitude of change is expected to be medium beneficial in Allerdale, in particular due to the potential for the unemployed from larger communities such as Workington to benefit through access to jobs. Low beneficial in the rest of Cumbria.</p> <p>The predicted effect is therefore major beneficial in Copeland and moderate beneficial in Allerdale, due to good access to employment opportunities across the economy arising through the construction of the Moorside Site. Negligible in other parts of Cumbria, where the employment rates are already very high and there will be less ready transport access to the jobs created directly or indirectly through the development.</p>
<p>Change in unemployment. This could be significantly affected by the increase in employment locally and the ability of the currently unemployed to secure the available jobs.</p>	<p>Likely</p>	<p>High in Copeland. Medium in Allerdale and the rest of Cumbria.</p>	<p>High beneficial in Copeland. Medium beneficial in Allerdale and low beneficial in the rest of Cumbria. .</p>	<p>Major beneficial in Copeland. (Significant).  Moderate beneficial in Allerdale (Significant).</p>	<p>Sensitivity is assessed as high in Copeland, due to the policy emphasis of reducing unemployment in particular amongst specific labour market groups and associated concentration of unemployment amongst particular groups or communities.</p> <p>Sensitivity is assessed as medium in Allerdale and the rest of Cumbria, where unemployment levels are typically lower on average.</p> <p>Unemployment in Copeland and West Cumbria is relatively low and concentrated amongst harder to assist groups. The</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
				Negligible in the rest of Cumbria (Not Significant).	<p>degree of jobs created directly and indirectly associated with the Moorside Site will provide opportunities for many of these potential workers to access a wide range of opportunities. Whilst NuGen’s Labour Market Strategy will have a role to play in supporting some measures to assist these workers, it will also require support from other local and national agencies.</p> <p>The magnitude of change is therefore assessed as high beneficial in Copeland (where scale of new employment opportunities could lead to substantial reductions in unemployment providing appropriate active labour market support can be provided to assist groups by NuGen and other local stakeholders) and moderate beneficial in Allerdale where there would be a more modest reduction due to the low numbers of people unemployed in the district.</p> <p>The assessments point to a major beneficial effect in Copeland and moderate beneficial in Allerdale. Negligible in the rest of Cumbria.</p>
<b>Home owners and occupants of rented accommodation - Existing Cumbria Home Based Workers and Temporary Workers in Existing Cumbria Accommodation</b>					
Increased demand for owner occupied housing could cause shortfall in local market and increase house prices	Likely	Low - but potentially higher in some high demand areas such as Cockermouth	Very low	Negligible (Not Significant)	Based on the Accommodation Strategy that is explained in <b>Chapter 2</b> of this PEIR and encapsulated in the Accommodation Sites, NuGen anticipates that there will 1,000 workers who are Existing Cumbria Home Based Workers and 1,500 non-home based workers who choose to be housed outside of the Accommodation Sites (Temporary Workers in Existing Cumbria Accommodation). Of the 1,500 Temporary Workers in Existing Cumbria Accommodation, only a small proportion are likely to seek owner occupied housing (likely to be those workers in senior positions who need to move to

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>Cumbria for the duration of the construction period of the Moorside Site) although the exact number is uncertain at this stage. This demand would also be spread out over a number of years in the early part of the construction period.</p> <p>Paragraph 10.8.14 shows there is limited evidence of current capacity constraints across the Study Area. Housing is mostly affordable (relative to local incomes) and prices have remained broadly stable in recent years. The demand for owner occupied housing from construction workers in any year is only likely to represent a small proportion of the average number of sales in the study area (based on house sales over the past four years). It is therefore likely that the market could absorb this demand without adverse effects on existing residents.</p> <p>If Copeland Borough Council successfully met its housing target then the stock of housing would also grow at a faster rate than household projections (see 10.8.13), which would provide additional capacity.</p>
<p>Increased demand for private rented accommodation could cause shortfalls in the local market and increase rents</p>	<p>Likely</p>	<p>High</p>	<p>Medium</p>	<p>Major adverse (Significant)</p>	<p>The private rented sector (PRS) is likely to play an important role in meeting the accommodation needs of those Temporary Workers in Existing Cumbria Accommodation who do not stay in the Accommodation Sites (this is based on professional judgment and experience of other major developments such as Sizewell B). Although the exact number is uncertain, if half of the 1,500 Temporary Workers in Existing Cumbria Accommodation workers looked for their own accommodation in the PRS, this would represent a 10% increase in demand (although in practice, a large proportion are likely to share accommodation).</p> <p>For the Study Area used as part of the preliminary assessment (shown in <b>Figure 10.1</b>) there is some evidence of</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					current capacity issues in the PRS, including a 7% increase in lower quartile rents between 2011 and 2014. Baseline analysis suggests there may be insufficient capacity within the sector if a large proportion of non-home based workers not in the Accommodation Sites looked for housing in the PRS. While the supply of PRS would be expected to increase in response to this scenario, there is a risk that demand from the Moorside Site could potentially result in a shortfall in the local market and increase rents for local residents.
Increased demand for visitor accommodation could cause shortfall in local supply and displace existing visitor markets	Likely	Low - but likely to be higher sensitivity in parts of Allerdale.	Very low	Negligible (Not Significant)	<p>Visitor accommodation is likely to play a role in meeting the accommodation needs of the 1,500 Temporary Workers in Existing Cumbria Accommodation, although NuGen will encourage these workers to use the Accommodation Sites wherever possible.</p> <p>The Study Area (shown in <b>Figure 10.1</b>) is not a high demand area for tourism and the visitor economy is not a priority sector for Copeland (therefore the sensitivity is low), although it is likely to be higher sensitivity in parts of Allerdale. Recent visitor accommodation surveys (Cumbria Tourism, 2014) show there are nearly 5,000 vacant bed spaces available at peak periods in Copeland and Allerdale, representing a total occupancy rate of around 70% (see 10.8.21). If just 5% of these vacant bed spaces were available to Moorside Site workers, this could accommodate 25% of workers not in the Accommodation Sites (375 of the 1,500 Temporary Workers in Existing Cumbria Accommodation)).</p>
Increased demand for accommodation could result in some households renting out spare bedrooms	Likely	Low	Very low	Negligible (Not Significant)	Spare bedrooms (latent supply) is not expected to be a significant part of the accommodation supply for the Moorside Site as workers will be encouraged to use the Accommodation Sites, however it may still play a small role

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					The Copeland Strategic Housing Market Assessment (SHMA) shows there is likely to be significant capacity in Copeland, with over 35,000 spare bedrooms in Copeland. If just 1% were available to Moorside Site workers this could accommodate 35% of workers not in the Accommodation Sites (525 of the 1,500 workers not in Accommodation Sites)
<b>Users of Social and Community Infrastructure and Services</b>					
Increase in demand could cause shortfall of local school places	Likely	High	Low	Moderate adverse (Potentially Significant)	<p>Only small numbers of workers are expected to bring families with them (likely to be from within the 1,500 Temporary Workers in Existing Cumbria Accommodation), which should limit demand for school places. This demand would also be dispersed across a large number of schools, dependent on where non-home based workers choose to reside.</p> <p>Nevertheless, there is evidence of capacity constraints in a number of schools. There are 70 primary schools in the study area as a whole, and 12 secondary schools. According to the latest capacity figures published by the Department for Education, these primary schools can accommodate 11,370 pupils, however there are currently 11,450 on the pupil roll. The challenge is even greater in Whitehaven and Workington where, collectively, the primary schools are operating at 105% capacity. Since these are the largest settlements within commuting distance of the Moorside Site, it is expected that a large proportion of non-home based workers not in the Accommodation Sites will live in these two towns. Even a modest increase in the number of school age children would therefore increase pressure on local schools.</p>
Increase in demand could increase pressure on local health services	Likely	High	Low	Moderate adverse	Average patient list sizes per full time equivalent GP in the Study Area are below the national and regional average which suggests they do currently have some capacity.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
				(Potentially Significant)	<p>However, these services are likely to come under significant pressure in the next few years as local surgeries are struggling to recruit new GPs to replace those leaving the workforce through retirement (see 10.8.26). The local hospital is also experiencing significant capacity and performance issues, particularly the A&amp;E department (see 10.8.25). The sensitivity of receptor is therefore high.</p> <p>Overall the increase in demand for local healthcare services from within the 1,500 Temporary Workers in Existing Cumbria Accommodation) is likely to be low. This is because the vast majority will be young males, aged between 20 and 50 who have a low propensity to use healthcare services. Furthermore, the occupational health services delivered by a specialist provider will be able to cater for the majority of their healthcare needs while at work, including minor illnesses and accidents.</p> <p>The additional demand placed on local healthcare services will be in instances where the specialist provider needs to make referrals to local GPs or where serious accidents require a visit to the local accident and emergency unit. Past experience from other major projects (including Sizewell B and the construction of the Olympic Stadium) shows that the rates of referrals to local healthcare providers are very low, meaning the additional demand from 1,500 workers in Temporary Workers in Existing Cumbria Accommodation is also likely to be very low.</p> <p>The families who come with some of the Temporary Workers in Existing Cumbria Accommodation will not be eligible to access healthcare services from the specialist provider, and will therefore place additional demands on local providers. Using 2011 Census data on the characteristics of households</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>who have moved to/in Cumbria in the past year, it is estimated that approximately 400 family members will accompany these non-home based workers (although this is a preliminary assessment which will be tested in the ES). This demand would be dispersed across a number of different GP surgeries. However even a modest increase in demand would be likely to place additional pressure on local services.</p> <p>Given the potential increase in demand for GP services, and the limited capacity of these services, the significance of effect is assessed as moderate adverse.</p>
<p>Influx of population could lead to increase of crime and anti-social behaviour which increases pressure on police resources</p>	<p>Likely</p>	<p>High</p>	<p>Low</p>	<p>Minor adverse (Not Significant)</p>	<p>The Study Area has higher rates of crime (per 1,000 people) than the average for Cumbria and is therefore considered to be a sensitive area. Based on average crime rates in Cumbria, the increase in population could lead to an increase of 84 incidents per annum at peak construction (based on 1,500 Temporary Workers in Existing Cumbria Accommodation not housed within the Accommodation Sites), which represents a 0.2% increase for the Cumbria Constabulary as a whole.</p> <p>The construction workforce for Moorside is likely to have a lower propensity to commit crime overall because they are employed (a 2011 study by the Ministry of Justice and Department for Work and Pensions showed that 51% of offenders had claimed out of work benefits in the month before their sentence (Reference 17: Mistry of Justice and DWP)). However, the concentration of young, single males (which are likely to comprise a significant proportion of the construction workforce) means there is greater potential for certain types of crime, particularly night time crimes. The implementation of an effective Community Safety Management Plan and a strict worker code of conduct and</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>drugs and alcohol policy should reduce the incidence of these crimes.</p> <p>The Moorside Site is also likely to attract protests during construction, which require police resources. Experience from other energy developments has shown that these protests can last weeks at a time and require a continual police presence.</p> <p>The police may also need to commit additional resources to ensuring that police communications are available and reliable at the Moorside Site. This is particularly important given the plan to modify the topography of surrounding land by building screening mounds, which have the potential to interfere with existing radio signals</p> <p>Although the number of crimes committed by the 1,500 Temporary Workers in Existing Cumbria Accommodation is likely to be very low, the additional police resources required to manage other effects means the significance of effect is judged to be moderate adverse.</p>
<p>Influx of population could increase demand for local sports and recreation services and place pressure on capacity</p>	<p>Likely</p>	<p>Medium</p>	<p>Low</p>	<p>Minor adverse (Not significant)</p>	<p>The influx of 1,500 Temporary Workers in Existing Cumbria Accommodation (not in the Accommodation Sites) and the approximate 400 family members will increase the demand for a range of sports and leisure facilities and services (including gyms, sports pitches, swimming pools etc.). However this demand will be dispersed amongst a number of different facilities depending on where workers choose to live in the Study Area.</p> <p>The most recent leisure needs assessment for Copeland and Allerdale Borough Councils (ABC, 2014 and CBC, 2011) have identified few capacity issues in local sports and recreation facilities (see paragraphs 10.8.29 and 10.8.30), and this is</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>not identified as a high ranking priority of local councils (hence medium sensitivity has been assessed). The additional demand from the 1,500 Temporary Workers in Existing Cumbria Accommodation and their 400 family members could be accommodated within existing facilities based on the assumptions used in these leisure needs assessments.</p> <p>The provision of on-site sports facilities as part of the Accommodation Sites which will be available for community use will also increase the supply (and therefore the capacity) of sports and leisure facilities in the Study Area.</p>
Increase in population could place demands on local places of worship and other religious facilities	Likely	Medium	Low	Minor adverse (Not significant)	<p>Cumbria has a large supply of Christian places of worship but shortage for other faiths due to low demand. The only non-Christian places of worship are in Carlisle and Ulverston. Moorside is likely to attract a multi-national and multi-ethnic construction workforce, which could result in some increase in demand for religious facilities from people of certain faiths (including, Judaism, Islam, Buddhism, Hinduism). However this effect is expected to be mitigated through the provision of prayer rooms in the Accommodation Sites.</p>
<b>Residents of Allerdale and Copeland who could be affected by changes in the vitality of communities</b>					
Disruption to existing communities during construction	Likely	Medium for the study area as a whole but likely to be high in smaller settlements which are more sensitive to large influxes of workers.	Low	Moderate adverse (Potentially Significant)	<p>The main issue raised by local communities during consultation was increased traffic, which should be minimised through a rail based transport strategy explained in <b>Chapter 2</b> of the PEIR.</p> <p>An influx of 1,500 Temporary Workers in Existing Cumbria Accommodation and their 400 family members has the potential to lead to increased community tension, particularly where there are language barriers and during weekends and night time. However this influx would only</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>result in a 1% increase in the population of the Study Area as a whole, and would be dispersed across a number of settlements. This would potentially offset the projected decline in the population forecast by ONS in its sub-national population projections.</p> <p>These community effects can be minimised through well designed embedded mitigation measures, including a community safety management plan, a worker code of conduct, and induction packs for incoming workers.</p>
<b>Operation</b>					
<b>Size, diversity and prosperity of the local economies of Copeland, Allerdale and Cumbria</b>					
<p>Change in wealth. This is associated with increased expenditure locally as a result of the operation and maintenance of the power station and the economic consequences of this.</p> <p>The main drivers of impact are associated with the construction expenditure which occurs on or close to site and the associated supply chain which is located in the local zones of influences, as well as the local personal</p>	Likely	<p>High, especially for Copeland</p> <p>Medium to high in Allerdale and the rest of Cumbria.</p>	<p>Medium beneficial for Copeland.</p> <p>Low for Allerdale and the rest of Cumbria.</p>	<p>Major beneficial for Copeland (Significant);</p> <p>Moderate to minor for Allerdale and the rest of Cumbria depending on magnitude of change in particular localities (Potentially Significant).</p>	<p>Sensitivity is judged high especially for Copeland where there is greater emphasis in policy on securing improved absolute economic performance and closing the performance gap with the UK average. Medium to high in the other local authority areas, depending on the precise nature of economic challenges such as average earnings and productivity.</p> <p>The Moorside Site will lead to a significant long term injection of additional expenditure and hence demand for goods and services into the economy, although the scale and timing of the injection (including during planned outages for maintenance) and the ability of the economy to absorb this and adapt successfully in the long term is subject to uncertainty and additional analysis will be undertaken as part of the EIA and ES. NuGen’s labour market and supply chain strategies for the operation and maintenance phase, working alongside other partners, will play a role in helping to secure economic positive benefit in the study areas.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
expenditure of workers who do not reside in the temporary worker campuses (the impact associated with these are assessed in the relevant Accommodation Sites)					<p>The magnitude of changes is assessed as medium beneficial for Copeland due to the potential scale of injection of additional expenditure, but this is subject to considerable uncertainty due to gaps in information currently available on the operation and maintenance phase. The area also has the potential to benefit from the legacy of investment in transport infrastructure, although further analysis is required in this particular area. Low beneficial for the rest of Cumbria but subject to additional analysis.</p> <p>Major beneficial effect for Copeland; likely to be moderate to minor for Allerdale and the rest of Cumbria.</p>
<p>Change in the size and diversity of the business base.</p> <p>This could be affected by the increased business activity and employment locally associated with the operation of the Moorside Site and the economic consequences of this.</p>	Likely	High, especially for Copeland.	Medium beneficial for Copeland and low Allerdale and the rest of Cumbria.	<p>Moderate beneficial for Copeland (Significant)</p> <p>Moderate to minor beneficial for Allerdale and the rest of Cumbria (Potentially Significant).</p>	<p>Sensitivity is judged to be high, especially for Copeland where there is a greater emphasis in policy on promoting the growth of the nuclear sector and related supply chains.</p> <p>The Moorside Site is likely to lead to a significant injection of additional demand for goods and services from a broad range of local suppliers across sectors, helping existing businesses to grow and new start-ups to be established. The magnitude of change is assessed as medium beneficial for Copeland and low for Allerdale and the rest of Cumbria, subject to the procurement approach adopted by NuGen and measures put in place to promote supply chain opportunities associated with the operation and maintenance phase amongst local suppliers. Although the supply chain strategy has not yet been developed, this assessment is based on an understanding of NuGen's intentions to put in place measures to promote local supply chain benefits. It also draws on Regeneris' analysis of the supply chain potential of Cumbria's business base which has been shared and discussed with local councils.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>The potential for other local businesses to be affected negatively by increased competition for goods, services and workers from local suppliers is less than during the construction phase, but still subject to uncertainty at this stage.</p> <p>Whilst likely to be beneficial, these effects will be less pronounced both in terms of the potential for the more substantive positive effects and the risks of negative effects than the construction phase of the Moorside Site. Therefore the effects are assessed as: moderate beneficial for Copeland; likely to be moderate to minor beneficial for Allerdale and the rest of Cumbria depending on the precise magnitude and location of change. However, some uncertainty over the potential for wider negative effects on the business base remains, which still needs to be assessed in detail as part of the EIA.</p>
Change in the prosperity of the visitor economy. The operation and maintenance of the Moorside Power Station could increase demand for visitor accommodation, as well as lead to disruption of existing visitors, contribute to the loss of visual amenity and changes to the visitor offer.	Likely	Medium in Copeland; high in Allerdale and rest of the Cumbria (in particular areas within or in close proximity to the National Park.	Low in Copeland  Very low in other study areas.	Expected to be minor in Copeland, Allerdale and the rest of Cumbria (Not Significant).	<p>Sensitivity is assessed as moderate in Copeland and high in parts of Cumbria within or in close proximity to the National Park.</p> <p>Once operational there will be limited scope for the Moorside Site to affect the visitor economy in Copeland, other than through beneficial changes (e.g. demand for visitor accommodation, visitors to a new nuclear related attraction). Other sources of change are assumed to be very low due to Sellafield being a well-established feature in West Cumbria and the addition of the Moorside Site is unlikely to change the perceptions or experience amongst visitors. Very low magnitude of change in Allerdale and the rest of Cumbria.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					Therefore, on a preliminary assessment, the effect is expected to be negligible in Copeland, Allerdale and the rest of Cumbria.
Change in the commercial fishing economy	*	*	*	*	Fisheries: see text starting at 10.8.32 regarding commercial fisheries. A full assessment of this sector of the economy will be included in the ES.
Change in the agricultural economy	Likely	*	Likely to be high or very high	Likely to be moderate or major adverse in Copeland (Significant)	Although work on the agricultural sector is still ongoing, at this stage due to the extent of agricultural land which would be lost at the Moorside Site and the issues of severance and reduced farm unit size this will result in, it is considered likely that effects could be significantly adverse in Copeland.
<b>People in employment or seeking employment within Copeland, Allerdale and Cumbria</b>					
<p>Change in the number and proportion of residents in employment.</p> <p>This effect could arise due to the scale of employment associated with O&amp;M phase of the development, the nature of job opportunities and the ability for local people to access these.</p>	Likely	High in Copeland. Medium in Allerdale and the rest of Cumbria.	Medium beneficial in Copeland. Low beneficial in Allerdale and the rest of Cumbria.	<p>Major beneficial in Copeland. (Significant).</p> <p>Minor beneficial in Allerdale and the rest of Cumbria (not significant).</p>	<p>Sensitivity is assessed as high in Copeland due to the policy emphasis on improved employment opportunities and improved access to highly skilled and better paying jobs and higher concentrations of unemployment and economic inactivity. Medium in Allerdale and other parts of Cumbria, where the employments rates are already very high (although communities such as Workington experience relatively high unemployment and inactivity).</p> <p>Substantial employment will be associated with the operational phase of the Moorside Site, including the planned maintenance periods when higher employment may arise. Therefore, the magnitude of change is assessed as medium beneficial in Copeland where associated direct, indirect and induced employment will mainly be located. The magnitude of change is assessed as low beneficial in Allerdale and the</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>rest of Cumbria because only a proportion of indirect jobs created will be located there.</p> <p>The direct employment and potential for supply chain and induced benefits across the impact areas will be assessed as part of the EIA and will be included in the ES. This will be influenced in part by NuGen’s skills and supply chain strategies once they have been further developed.</p> <p>The effect is assessed as major beneficial in Copeland, but subject to measures to promote employment opportunities to local workforce and encourage embedding of the supply chain. Minor beneficial in Allerdale and the rest of Cumbria.</p> <p>This assessment has been informed by the current knowledge of the scale of job opportunities which will be created and Regeneris’ analysis of the skills and labour market capacity in the Study Area, which has been shared and discussed with local councils. The conclusions will be revisited in the full ES when more information is available.</p>
<p>Change in unemployment.</p> <p>This could be significantly affected by the increase in employment locally associated with the direct and indirect effects of the operation and maintenance of Moorside, and the ability</p>	<p>Likely</p>	<p>High in Copeland. Medium in Allerdale and the rest of Cumbria.</p>	<p>Medium beneficial in Copeland. Low beneficial in Allerdale and the rest of Cumbria.</p>	<p>Major beneficial in Copeland. (Significant).  Minor beneficial in Allerdale and the rest of Cumbria (not significant).</p>	<p>Sensitivity is assessed as high in Copeland due to the policy emphasis reducing unemployment in particular amongst specific labour market groups and concentrations of unemployment and economic inactivity. Medium in Allerdale and the rest of Cumbria, where unemployment is typically lower on average.</p> <p>Jobs created directly and indirectly associated with the Moorside Power Station’s operation and maintenance phase will provide opportunities for many of these potential workers to access long term employment opportunities. The preliminary assessment is that there is the potential for a</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
of the currently unemployed to secure the available jobs.					medium beneficial magnitude of change in Copeland in particular. This depends to some extent on measures to enable local residents to access technical skilled and semi-skilled jobs in particular, which will be set out in the workforce development strategy when it is further developed. There is a good track record of training workers for these opportunities in Cumbria and there are a number of established training providers. This will need to be supplemented by measures put in place by NuGen within the workforce development strategy.
<b>Home owners and occupants of private rented accommodation - Existing Cumbria Home Based Workers and Temporary Workers in Existing Cumbria Accommodation</b>					
Increased demand for owner occupied housing could cause shortfall in local market and increase house prices	Likely	Low, but potentially higher in high demand areas such as Cocker mouth	Low	Minor adverse (Not Significant)	<p>There is little evidence of significant capacity constraints in the Study Area (see 10.8.14). Housing is generally affordable relative to local incomes and prices have been stable. The stock of housing is also expected to grow at faster rate than household projections (see 10.8.13), which would provide additional capacity.</p> <p>Demand for owner occupied housing is likely to be low because a large proportion of the permanent, operational jobs are likely to be taken by local residents (subject to local training and workforce development measures being implemented). These will be set out in the workforce development strategy when it is further developed.</p>
Increased demand for private rented accommodation could cause shortfall in local market and increase rents.	Likely	High	Very Low	Negligible (Not Significant)	There is some evidence of capacity constraints in the local PRS, with lower quartile rents increasing by 7% between 2011 and 2014, and a small number of houses available for rent (see 10.8.15). Delivery of new housing should provide some additional capacity in the local market.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>The demand for PRS is likely to be very low since a large proportion of jobs will be taken by local residents (subject to local training and workforce development measures being implemented in line with the Labour Market Strategy), while most incoming workers are likely to seek owner occupied housing (since the jobs will be permanent and a large proportion will offer high salaries relative to local house prices). There is potential for some demand for housing in the PRS from contract workers who only stay in Cumbria on a temporary basis.</p> <p>If Copeland Borough Council successfully met its housing target, the stock of housing would also grow at a faster rate than household projections, which would provide additional capacity if a proportion of this was available to let (see 10.8.13).</p>
<p>Visitors in visitor accommodation. Increased demand for visitor accommodation could cause shortfall in local supply and displace existing visitor markets</p>		<p>Medium but likely to be higher sensitivity in parts of Allerdale.</p>	<p>Very low</p>	<p>Negligible (Not Significant)</p>	<p>The sensitivity of receptor is medium because the Study Area is not a high demand area for tourism and the visitor economy is not an important sector for Copeland (although parts of Allerdale are higher sensitivity). Visitor surveys (Cumbria Tourism, 2014) show there is surplus capacity within visitor accommodation, even during peak periods (see 10.8.21). If there was a sustained increase in the number of visitors to the Study Area, then the supply of visitor accommodation would be expected to respond to the increase in demand through market forces.</p> <p>Magnitude of change is likely to be very low. It is not known at this stage how many business trips will be generated once the Moorside Site is operational. Cumbria Tourism estimate that Copeland receives 1.8 m visitors per annum, while Allerdale receives 2.6 m. If it is assumed that 12% of these are business visits (the average for the North West according</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					to the Great Britain Tourism Survey), this means the two local authorities receive around 530,000 business visits per annum. This means there are roughly seven business visits for every jobs based in Allerdale and Copeland. An increase of 1,000 jobs could therefore be expected to generate an additional 7,000 business trips per annum to the two local authorities. This represents a 0.16% increase in visits which is considered to be very low.
<b>Users of Social and Community Infrastructure</b>					
Increase in demand could cause shortfall of local school places		High	Very low	Minor adverse (Not Significant)	<p>There is evidence of capacity issues at a number of schools in the Study Area, including Whitehaven and Workington where the primary schools are collectively operating at 105% capacity based on current pupil roll numbers (hence high sensitivity). There are no current capacity issues associated with secondary provision.</p> <p>Nevertheless, demand for school places is expected to be very low.</p> <p>A large proportion of operational workers will be local people (subject to implementation of training and workforce development measures). These will be set out in the workforce development strategy once it is further developed. A small number are likely to be non-home based and bring families with them to the Study Area or Cumbria residents who might have left the area were it not for the employment opportunity at Moorside. This is based on the assumption that most of the jobs created will be in lower or intermediate skilled positions and therefore more accessible to local workers. It is likely to be the most specialised and highly skilled positions which may need to recruit from a wider area, which are likely to make up a small proportion of the</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>workforce. This demand will be dispersed across a wide area and a number of schools.</p> <p>These assumptions will be tested as more information is available on the types of jobs during the operational phase.</p>
Increase in demand could increase pressure on local health services		High	Very low	Minor adverse (Not Significant)	<p>Local health services are experiencing significant capacity issues due to skill shortages. However, a large proportion of operational workers are likely to be from the local area (subject to training and the workforce development strategy). This assumes that most low skilled and intermediate positions could be filled locally since these are more accessible job opportunities. These assumptions will be tested as more information is available on the types of jobs which will be created during the operational phase.</p> <p>Therefore demand for additional health services from operational workers and their families is likely to be very low and dispersed across a large number of facilities, depending on where incoming workers choose to live.</p>
Influx of population could lead to increase of crime and anti-social behaviour which increases pressure on police resources		High	Very low	Minor adverse (Not Significant)	<p>Rates of crime are higher in the Study Area where operational workers are likely to live (hence high sensitivity). However a large proportion of operational workers are likely to be from the local area (subject to training and the workforce development strategy). This assumes that most low skilled and intermediate positions could be filled locally since these are more accessible job opportunities. These assumptions will be tested as more information is available on the types of jobs which will be created during the operational phase.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					Those non home based workers who do move into the Study Area will be employed and therefore have a lower propensity to commit crime.
Influx of population could increase demand for local sports and recreation services and place pressure on capacity	Likely	Medium	Very low	Negligible (Not Significant)	The most recent sports and leisure needs assessment for Copeland identifies few capacity issues in local sports facilities, and this is not identified as a key priority of local councils. The magnitude is assessed as very low because a large number of operational workers will be local residents (subject to training and the workforce development strategy). Those incoming workers will generate a small increase in demand for sports and leisure facilities, however this will be widely dispersed depending on where they choose to live, and will be accommodated through existing capacity.
Increase in population could place demands on local places of worship and other religious facilities	Likely	Medium	Very Low	Minor adverse (Not significant)	Cumbria has a large supply of Christian places of worship but shortage for other faiths due to low demand. The only non-Christian places of worship are in Carlisle and Ulverston.  However the magnitude of effect is very low since a large number of operational workers will be local residents and therefore unlikely to be of a non-Christian faith (based on 2011 Census data). There is potential for some incoming workers to be practicing members of other religions but this is likely to be very low overall.

**Table 10.8 Summary of predicted residual effects - Mirehouse and Corkickle Sites**

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<b>Construction</b>					
<b>Size, diversity and prosperity of the local economy of Copeland</b>					
Change in wealth. This is associated with increased expenditure locally as a result of the construction of accommodation at Mirehouse and the economic consequences of this.	Likely	High	Low beneficial	Moderate beneficial (Potentially Significant).	<p>The sensitivity of the receptor is high for Copeland where there is a greater emphasis in policy on securing improved absolute economic performance and closing the economic performance gap with the UK average (BEC, 2012). The construction of the accommodation and associated facilities at Mirehouse and Corkickle will lead to an injection of additional expenditure and hence demand for goods and services into the economy. Local businesses should be in a good position to secure contracts to build the facilities given the non-specialist nature of these facilities (which require very general housebuilding skills), the suitability of the skills of local workers (there are 14,000 people employed in the construction sector in Cumbria) and the timing of construction activity mostly at an earlier stage in the overall timescale for the Moorside Project (and hence more capacity in the economy).</p> <p>NuGen’s workforce, procurement and supply chain strategies will help to retain this expenditure and the associated demand (including the employment opportunities) in the local economy. Given the scale of activity and the retention of expenditure locally, the magnitude of change is assessed as low beneficial.</p>
Change in the size and diversity of the business base. This could be significantly affected by the increased business activity and employment	Likely	High	Very low beneficial	Minor beneficial (Not Significant).	<p>The sensitivity of the receptor is high for Copeland due to the emphasis in policy on promoting a more diverse business base and the growth of the business base more generally, which is driven by the heavy dependence upon a small numbers of sectors (the nuclear and public sectors in particular) (BEC 2014).</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
locally associated with the construction of accommodation at Mirehouse and Corkickle and the economic consequences of this.					The construction of the accommodation and related facilities at Mirehouse and Corkickle will provide a positive boost to the construction and related supply chain sectors in Copeland, the degree of which will be dependent on the ability of local businesses to secure contracts. Whilst this will be beneficial in supporting the growth of these sectors, including enhancing their capacity to secure contracts as part of the main Moorside Site construction, it will in its own right have a modest contribution to changing the size and diversity of the business base locally. It is assessed as very low beneficial. The overall effect is assessed as minor beneficial.
Change in the prosperity of the visitor economy.	Likely	Medium (only Copeland is affected)	Very Low	Negligible (Not Significant)	Construction of the Mirehouse and Corkickle Developments would not affect any sensitive tourism areas and are therefore unlikely to effect the visitor economy. The effects are therefore assessed as negligible.
Change in the agricultural economies	*	*	*	*	Assessment work being undertaken on the land use implications for the agricultural sector. There is unlikely to be a need to assess this receptor for the Mirehouse and Corkickle Sites given the scale and nature of the land take but this will need to be confirmed in due course.
<b>People in employment or seeking employment within Copeland.</b>					
Change in the number and proportion of residents in employment.  The creation of job opportunities during construction could increase employment levels in Copeland	Likely	High	Very Low	Minor beneficial (Not Significant)	An initial estimate is that up to 200 workers will be required on the Mirehouse and Corkickle sites during the construction period (which could last over four years), whilst a small amount of additional employment could be created locally through supply chain and induced expenditure effects. Even after including these effects, this would represent a very modest increase in employment levels in Copeland. The magnitude of effect is therefore assessed as very low.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
Change in unemployment. This could be significantly affected by the increase in employment locally and the ability of the currently unemployed to secure the available jobs.	Likely	High	Low beneficial.	Moderate beneficial (Potentially Significant).	<p>Sensitivity is high in Copeland due to the policy emphasis on improved employment opportunities and improved access to highly skilled and better paying jobs, and the underlying employment challenges especially amongst target groups (e.g. older workers and the low skilled).</p> <p>An initial estimate is that up to 200 workers will be required on the Mirehouse and Corkickle sites during the construction period (which could last over four years), whilst a small amount of additional employment could be created locally through supply chain and induced expenditure effects. Whilst unemployment in Copeland is relatively low, there is a concentration amongst particular groups (many of whom are harder to assist into work) and in particular locations (e.g. Whitehaven in which the Mirehouse and Corkickle sites are located). The nature of construction activity will provide good opportunities for these workers to access job opportunities on-site and this will be aided by the types of workforce development measures which NuGen are considering as part of their workforce strategy. Given this combination of factors, the magnitude of change is assessed as low beneficial.</p> <p>The effect is therefore assessed as moderate beneficial.</p>
<b>Home owners and occupants of rented accommodation</b>					
Increased demand for housing and other types of accommodation which could result in a shortfall in the local market.	Likely	Low - but potentially higher in some high demand areas such as Cockermouth	Very low	Negligible (Not Significant)	Construction of the Mirehouse and Corkickle Development are expected to require up to 200 workers (depending on the stage of construction), with the majority of these requiring non-specialised construction skills which should be available from the local workforce. There is therefore unlikely to be an influx of workers that would increase the demand for housing and other forms of accommodation.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<b>Users of Social and Community Infrastructure and Services</b>					
Increase in demand could cause shortfall of local school places	Likely	High	Very low	Minor Adverse (Not Significant)	Construction of the Mirehouse and Corkickle Developments is likely to require non-specialised construction skills, which can be drawn from the local workforce. The potential influx of migrant labour and their families is therefore likely to be very low, which will limit the increased demand for school places.
Increase in demand could increase pressure on local health services (including ambulances)	Likely	High	Very Low	Minor Adverse (Not Significant)	The potential influx of workers and their families during construction of the Mirehouse and Corkickle Developments is likely to be very low, which will limit the increased demand for healthcare services.
Influx of population could lead to increase of crime and anti-social behaviour which increases pressure on police resources	Likely	High	Very Low	Minor Adverse (Not Significant)	The potential influx of workers and their families during construction of the Mirehouse and Corkickle Developments is expected to be very low, which means there is not likely to be any increase in crime and anti-social behaviour.
Influx of population could increase demand for local sports and recreation services and place pressure on capacity	Likely	Medium	Very Low	Negligible (Not significant)	The potential influx of workers and their families during construction of the Mirehouse and Corkickle Developments is expected to be very low, which means there is not likely to be any increased demand for sports and recreation services.
Increase in population could place demands on local places of worship and other religious facilities	Likely	Medium	Very Low	Negligible (Not significant)	The potential influx of workers and their families during construction of the Mirehouse and Corkickle Developments is expected to be very low, which means there is not likely to be any increased demand for places of worship.
<b>Residents of Copeland who could be affected by changes in the vitality of communities</b>					
Disruption to existing communities during construction	Likely	High -	Very Low	Minor Adverse (Not Significant)	The potential influx of workers and their families during construction of the Mirehouse and Corkickle Developments is expected to be very low, which means there is limited potential for any negative impacts on community cohesion.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					The creation of additional job opportunities for local people in the construction sector could help to retain some people who might otherwise have left Cumbria.
<b>Operation</b>					
<b>Size, diversity and prosperity of the local economy of Copeland</b>					
Change in wealth. This is associated with increased expenditure locally as a result of the operation of accommodation at Mirehouse and Corkickle the economic consequences of this.	Likely	High	Low beneficial	Moderate beneficial (Potentially Significant).	<p>The sensitivity of the receptor is high for Copeland where there is a greater emphasis in policy on securing improved absolute economic performance and closing the economic performance gap with the UK average (BEC, 2012). The Corkickle and Mirehouse Developments will house up to 1,000 and 2,500 respectively with potential reserve capacity for another 500 and 1,000 workers at Corkickle and Mirehouse respectively should capacity need to be increased (as explained in <b>Chapter 2</b> and paragraph 10.1.6 of this <b>Chapter 10</b>).</p> <p>This will lead to a considerable injection of additional personal expenditure and hence demand for goods and services into the Whitehaven and Copeland economies. The 2015 Family Expenditure Survey shows that the average expenditure of one person households is £448 per week. Therefore the total expenditure of residents at the Corkickle and Mirehouse Developments could be £448,000 and £1.1m respectively.</p> <p>Although a large proportion of this expenditure will leak out of the local economy given the origin and work/leisure patterns of these workers, there is still the potential for additional economic activity to be supported across a wide range of local sectors.</p> <p>Local businesses should be in a good position to secure contracts for a range of services linked to the operation and</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>maintenance of the campuses. NuGen's workforce development and supply chain strategies (once further developed) will help to retain this expenditure and the associated demand (including the employment opportunities) in the local economy. Given the scale of activity and the retention of expenditure locally, the magnitude of change is assessed as moderate beneficial.</p> <p>The overall effect is assessed as moderate beneficial.</p>
<p>Change in the size and diversity of the business base.</p> <p>This could be significantly affected by the increased business activity and employment locally associated with the operation of accommodation at Mirehouse and Corkickle and the economic consequences of this.</p>	Likely	High	Very low beneficial	Minor beneficial (Not Significant).	<p>The sensitivity of the receptor is high for Copeland due to the emphasis in policy on promoting a more diverse business base and the growth of the business base more generally, which is driven by the heavy dependence upon a small numbers of sectors (the nuclear and public sectors in particular). The operation of the Mirehouse and Corkickle Developments will provide a positive boost to a range of sectors in Whitehaven and Copeland, the degree of which will be dependent on the retention of resident workers expenditure in the local economic and ability of local businesses to secure operation and maintenance contracts.</p> <p>Whilst this will be beneficial in supporting the growth of these sectors, it will in its own right have a modest contribution to changing the size and diversity of the business base locally. It is assessed as very low beneficial.</p> <p>The overall effect is assessed as minor beneficial.</p>
Change in the prosperity of the visitor economy.	Likely	Medium (only Copeland is affected)	Very Low	Negligible (Not Significant)	<p>The operation of the Mirehouse and Corkickle Developments as accommodation campuses would not affect any sensitive tourism areas, however there is the potential for resident workers' expenditure to support local tourism facilities and attractions. Nevertheless, the effects are therefore assessed as negligible.</p>
Change in the agricultural economies	*	*	*	*	<p>Assessment work being undertaken on the land use implications for the agricultural sector. There is unlikely to be</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					a need to assess this receptor for the Mirehouse and Corkickle Sites given the scale and nature of the land take but this will need to be confirmed in due course.
<b>People in employment or seeking employment In Copeland</b>					
<p>Change in the number and proportion of residents in employment.</p> <p>The creation of job opportunities during operation could increase employment levels in Copeland</p>	Likely	High	Very Low Beneficial	Minor beneficial (Not Significant)	<p>The Corkickle and Mirehouse Developments will house up to 1,000 and 2,500 respectively with potential reserve capacity for another 500 and 1,000 workers at Corkickle and Mirehouse respectively should capacity need to be increased (as explained in <b>Chapter 2</b> and paragraph 10.1.6 of this <b>Chapter 10</b>). This will lead to a considerable injection of additional expenditure and support additional employment. The 2015 Family Expenditure Survey shows that the average expenditure of one person households is £448 per week. Therefore the total expenditure of residents at the Corkickle and Mirehouse Developments could be £448,000 and £1.1m respectively.</p> <p>While a large proportion of this would be expected to leak out of the local economy, if just a proportion of this was retained locally, this would support new job opportunities in the local area.</p> <p>Whilst the effect will be beneficial it will be minor given the overall scale of Copeland's economy</p>
<p>Change in unemployment. This could be significantly affected by the increase in employment locally and the ability of the currently unemployed to secure the available jobs.</p>	Likely	High	Very Low beneficial.	Minor beneficial (Potentially Significant).	<p>Linked to the above, the injection of expenditure will support some additional employment and this will provide opportunities for local residents to access these jobs. The proposed workforce development measures proposed by NuGen will help local people to access these jobs, including people from disadvantaged groups.</p> <p>The effect is assessed as minor beneficial.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<b>Users of Social and Community Infrastructure and Services</b>					
<p>Increase in demand could increase pressure on local health services</p>	<p>Likely</p>	<p>High</p>	<p>Low</p>	<p>Moderate Adverse (Potentially Significant)</p>	<p>There is clear evidence that local health services (including GPs and local hospitals) are experiencing capacity issues, which will intensify in the next few years due to a shortage of GPs to replace those who are retiring. Therefore the sensitivity is high.</p> <p>The Mirehouse and Corkickle Developments collectively will accommodate up to 3,500 construction workers (with potential reserve capacity of up to 5,000 in total (up to 3,500 at Mirehouse and up to 1,500 at Corkickle, as explained in <b>Chapter 2</b> and paragraph 10.1.6 of this <b>Chapter 10</b>). The vast majority of these will be young males below the age of 49, who have a low propensity to use local health services. Furthermore, all of these workers will receive healthcare through the occupational health services delivered by a specialist provider.</p> <p>Although there may be a small number of referrals to local GPs and hospitals, past experience from other developments shows that the increased demand on local healthcare facilities will be minimal.</p> <p>A greater source of demand for local healthcare services is likely to be from injuries or other incidents which take place while not at work. These include alcohol related incidents during workers' time off, which require ambulance call outs and visits to A&amp;E. While mitigation measures will be expected to reduce the number of these incidents (including a bar in the Mirehouse and Corkickle Developments, strict worker code of conduct policy and alcohol and drugs testing), there is likely to be a rise in these types of incidents. This is particularly the case in Whitehaven where large numbers of workers are likely to use local pubs, which could increase the potential for conflict with local people.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>While more work is required to quantify the increased demand for health services, at this stage the magnitude of change is judged to be low and the significance of effect is moderate adverse.</p>
<p>Influx of population could lead to increase of crime and anti-social behaviour which increases pressure on police resources</p>	<p>Likely</p>	<p>High</p>	<p>Low</p>	<p>Moderate Adverse (Potentially Significant)</p>	<p>The Study Area has higher rates of crime (per 1,000 people) than the average for Cumbria and is therefore considered to be a sensitive area. Based on average crime rates in Cumbria, the increase in population could lead to an increase of 296 incidents per annum at peak construction (based on 3,500 construction workers), which represents a 1% increase for the Cumbria Constabulary as a whole.</p> <p>The concentration of workers in Whitehaven means that there is greater potential for conflict and disturbances in Whitehaven town centre, which already has the highest rates of crime in Copeland. Therefore, police are likely to have to commit extra resources to managing a large influx of people in one location and minimising disturbance in the town centre. Experience from the construction of Sizewell B in the 1990s suggests there were some increases above the norm in petty crime and behavioural offences, such as drunkenness, minor public disorder and traffic incidents and offences. However the introduction of appropriate mitigation measures meant that crime rates fell even with major increases in the construction workforce.</p> <p>The implementation of an effective Community Safety Management Plan and a strict worker code of conduct and drugs and alcohol policy by NuGen should therefore reduce the incidence of these crimes. The magnitude of effect is therefore considered to be low and the significance of effect is moderate adverse.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
Influx of population could increase demand for local sports and recreation services and place pressure on capacity	Likely	Medium	Low	Minor adverse (Not significant)	<p>The leisure needs assessment for Copeland Borough Council has identified few capacity issues in local sports and recreation facilities, and this is not identified as a high ranking priority of local councils (hence medium sensitivity).</p> <p>The influx of 3,500 construction workers at the Mirehouse and Corkickle Developments (with potential reserve capacity of up to 5,000 in total (up to 3,500 at Mirehouse and up to 1,500 at Corkickle, as explained in <b>Chapter 2</b> and paragraph 10.1.6 of this <b>Chapter 10</b>) will increase the demand for a range of sports and leisure facilities and services (including gyms, sports pitches, swimming pools etc.).</p> <p>Based on the sports facilities calculator used in the 2011 Copeland Leisure Study, this would generate demand for 146 sq. m of sports hall space, 33 sq. m of swimming pool space, 20 health and fitness stations, 0.1 artificial grass pitches and 0.05 athletics tracks. According to the leisure needs assessment, this level of demand could be met through existing capacity in most cases. The exception to this was health and fitness stations where there was a deficit at the time of the study. However since then, Copeland Pool has opened a new fitness suite which addressed the shortfall.</p> <p>The provision of onsite sports facilities at the Mirehouse Development which will be available for community use will also increase the supply (and therefore the capacity) of sports and leisure facilities in the study area. Therefore the magnitude of effect is low.</p>
Increase in population could place demands on local places of worship and other religious facilities	Likely	Medium	Low	Minor adverse (Not significant)	<p>Cumbria has a large supply of Christian places of worship but shortage for other faiths due to low demand with the only non-Christian places of worship available in Carlisle and Ulverston.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					The Mirehouse and Corkickle Developments are likely to house a multi-national and multi-ethnic workforce, which could result in some increase in demand for religious facilities from people of certain faiths (Judaism, Islam, Buddhism, Hinduism). However this effect should be mitigated through the provision of prayer rooms in the Mirehouse and Corkickle Developments.
<b>Residents of Allerdale and Copeland who could be affected by changes in the vitality of communities</b>					
Disruption to existing communities due to influx of migrants	Likely	Medium	Medium	Moderate adverse (Potentially Significant)	<p>Whitehaven has a population of 24,000, 97% of whom are White British. The town has a wide range of shops and services and serves as the main retail and nightlife centre for a much wider area. It is also the most popular residential location for Sellafield workers, including contract workers and is therefore more accustomed to inflow of nuclear workers. The sensitivity is therefore medium.</p> <p>The influx of 3,500 construction workers at the Mirehouse and Corkickle Developments (with potential reserve capacity of up to 5,000 in total (up to 3,500 at Mirehouse and up to 1,500 at Corkickle, as explained in <b>Chapter 2</b> and paragraph 10.1.6 of this <b>Chapter 10</b>) would represent a 14% increase in the population of Whitehaven and would be likely to include a wide mix of different nationalities and ethnicities.</p> <p>An influx of this scale does have clear potential to lead to increased community tension, particularly where there are language barriers and during weekends and night time. Past experience from other major developments including Sizewell in the 1990s showed that the greatest concerns of residents related to increased traffic and the disturbance caused by incoming workers. Consultations for Moorside have also identified concerns about the impact on local health services.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>The transport strategy for the Moorside Project will minimise the amount of traffic on the road, although there is likely to be some increase as some construction workers will use cars to get to the Mirehouse and Corkickle sites. There is likely to be some increase in crime, however the experiences of Sizewell B have shown that the implication of community safety measures can be effective in reducing rates of crime. There is likely to be some impacts on local health services, as shown above, however these could be reduced through the appointment of an occupational healthcare provider. Therefore most of the concerns of local people should be minimised through effective mitigation measures.</p> <p>Nevertheless, the size of the influx of workers and the concentration at the Mirehouse and Corkickle Developments means that the perceptions of these risks (traffic, crime and local services) are still likely to be a concern for many communities, which will need to be sensitively managed. The magnitude of effect is therefore considered to be medium for Whitehaven and the significance of effect is moderate adverse.</p>

**Table 10.9 Summary of predicted residual adverse effects - Egremont Development**

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<b>Construction</b>					
<b>Size, diversity and prosperity of the local economy of Copeland</b>					
Change in wealth. This is associated with increased expenditure locally as a result of the construction of accommodation at Egremont and the economic consequences of this.	Likely	High	Very Low beneficial	Minor beneficial (Not Significant).	<p>The sensitivity of the receptor is high for Copeland where there is a greater emphasis in policy on securing improved absolute economic performance and closing the economic performance gap with the UK average.</p> <p>The construction of the Egremont Development and associated facilities at Egremont will lead to a relatively modest injection of additional expenditure and hence demand for goods and services into the economy.</p> <p>However the scale of the facilities being proposed means this will be much less than Mirehouse and Corkickle. Local businesses should be in a good position to secure contracts to build the facilities given the non-specialist nature of these facilities, the suitability of the skills of local workers and the timing of construction activity mostly at an earlier stage in the overall timescale for the Moorside Project (and hence more capacity in the economy). NuGen's workforce and supply chain strategies will help to retain this expenditure and the associated demand (including the employment opportunities) in the local economy. Given the scale of activity and the retention of expenditure locally, the magnitude of change is assessed as very low beneficial.</p> <p>The overall effect is assessed to be minor beneficial.</p>
Change in the size and diversity of the business base. This could be	Likely	High	Very low beneficial	Minor beneficial	<p>The sensitivity of the receptor is high for Copeland due to the emphasis in policy on promoting a more diverse business base and the growth of the business base more generally, which is</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
significantly affected by the increased business activity and employment locally associated with the construction of accommodation at Egremont and the economic consequences of this.				(Not Significant).	<p>driven by the heavy dependence upon a small numbers of sectors (the nuclear and public sectors in particular).</p> <p>The construction of the Egremont Development and related facilities will provide a positive boost to the construction and related supply chain sectors in Copeland, the degree of which will be dependent on the ability of local businesses to secure contracts. Whilst this will be beneficial in supporting the growth of these sectors, including enhancing their capacity to secure contracts as part of the main Moorside Site construction, it will in its own right have a modest contribution to changing the size and diversity of the business base locally. It is assessed as very low beneficial.</p> <p>The overall effect is assessed as minor beneficial.</p>
Change in the prosperity of the visitor economy.	Likely	Medium (only Copeland is affected)	Very Low	Negligible (Not Significant)	Construction of the Egremont Development would not affect any sensitive tourism areas and are therefore unlikely to affect the visitor economy. The magnitude of effect is therefore assessed as very low and the overall effect is assessed as negligible.
Change in the agricultural economies	*	*	*	*	Assessment work being undertaken on the land use implications for the agricultural sector. There is unlikely to be a need to assess this receptor for the Egremont Site given the scale and nature of the land take but this will need to be confirmed in due course.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<b>People in employment or seeking employment within Copeland.</b>					
<p>Change in the number and proportion of residents in employment.</p> <p>The creation of job opportunities during construction could increase employment levels in Copeland</p>	Likely	High	Very Low beneficial	Minor beneficial (Not Significant)	<p>An initial estimate is that up to 150 workers will be required for the Egremont Development during the construction period (which could last over four years), whilst a small amount of additional employment could be created locally through supply chain and induced expenditure effects. Even after including these effects, this would represent a very modest increase in employment levels in Copeland. The magnitude of effect is therefore assessed as very low.</p> <p>The overall effect is assessed as minor beneficial.</p>
<p>Change in unemployment. This could be significantly affected by the increase in employment locally and the ability of the currently unemployed to secure the available jobs.</p>	Likely	High	Low beneficial.	Moderate beneficial (Potentially Significant).	<p>Sensitivity is high in Copeland due to the policy emphasis on improved employment opportunities and improved access to highly skilled and better paying jobs, and the underlying employment challenges especially amongst target groups (e.g. older workers and the low skilled).</p> <p>Whilst unemployment in Copeland is relatively low, there is a concentration amongst particular groups (many of whom are harder to assist into work) and in particular locations, including Egremont). The nature of construction activity will provide good opportunities for these workers to access job opportunities on-site and this will be aided by the types of workforce development measures which NuGen are considering as part of their workforce strategy. Given this combination of factors, the magnitude of change is assessed as low beneficial.</p> <p>The effect is therefore assessed as moderate beneficial.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<b>Home owners and occupants of rented accommodation</b>					
Increased demand for housing and other types of accommodation which could result in a shortfall in the local market.	Likely	Low - but potentially higher in some high demand areas such as Cockermouth	Very low	Negligible (Not Significant)	Construction of the Egremont Development is expected to require up to 150 workers (depending on the stage of construction), with the majority of these requiring non-specialised construction skills which should be available from the local workforce. There is therefore unlikely to be an influx of workers that would increase the demand for housing and other forms of accommodation.
<b>Users of Social and Community Infrastructure and Services</b>					
Increase in demand could cause shortfall of local school places	Likely	High	Very low	Minor Adverse (Not Significant)	Construction of the Egremont Development is likely to require non-specialised construction skills, which can be drawn from the local workforce. The potential influx of migrant labour and their families is therefore likely to be very low, which will limit the increased demand for school places.
Increase in demand could increase pressure on local health services (including ambulances)	Likely	High	Very Low	Minor Adverse (Not Significant)	The potential influx of migrant labour and their families during construction of the Egremont Development is likely to be very low, which will limit the increased demand for healthcare services.
Influx of population could lead to increase of crime and anti-social behaviour which increases pressure on police resources	Likely	High	Very Low	Minor Adverse (Not Significant)	The potential influx of migrant labour and their families during construction of Egremont Development is expected to be very low, which means there is not likely to be any increase in crime and anti-social behaviour.
Influx of population could increase demand for local sports and recreation services and place pressure on capacity	Likely	Medium	Very Low	Negligible (Not significant)	The potential influx of migrant labour and their families during construction of the Egremont Development is expected to be very low, which means there is not likely to be any increased demand for sports and recreation services.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
Increase in population could place demands on local places of worship and other religious facilities	Likely	Medium	Very Low	Negligible (Not significant)	The potential influx of migrant labour and their families during construction of the Egremont Development is expected to be very low, which means there is not likely to be any increased demand for places of worship.
<b>Residents of Copeland who could be affected by changes in the vitality of communities</b>					
Disruption to existing communities during construction	Likely	High - particularly in Cleator Moor and Egremont	Very Low	Minor Adverse (Not Significant)	The potential influx of migrant labour and their families during construction of the Egremont Development is expected to be very low, which means there is limited potential for any negative impacts on community cohesion. The creation of additional job opportunities for local people in the construction sector could help to retain some people who might otherwise have left Cumbria.
<b>Operation</b>					
<b>Size, diversity and prosperity of the local economy of Copeland</b>					
Change in wealth. This is associated with increased expenditure locally as a result of the operation of accommodation at Egremont and the economic consequences of this.	Likely	High	Very low beneficial	Minor beneficial (Not Significant).	<p>The sensitivity of the receptor is high for Copeland where there is a greater emphasis in policy on securing improved absolute economic performance and closing the economic performance gap with the UK average.</p> <p>The accommodation and associated facilities at Egremont will accommodate 500 workers (with reserve capacity for an additional 500 workers, as explained in <b>Chapter 2</b> and paragraph 10.1.6 of this <b>Chapter 10</b>). This will lead to additional expenditure and hence demand for goods and services into the Egremont and Copeland economies.</p> <p>The 2015 Family Expenditure Survey shows that the average expenditure of one person households is £448 per week. Therefore the total expenditure of residents at the Egremont Development could be £224,000.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>Although much expenditure will leak out of the local economy given the origin and work/leisure patterns of these workers, there is still the potential for additional economic activity to be supported across a wide range of local sectors.</p> <p>Local businesses should be in a good position to secure contracts for a range of services linked to the operation and maintenance of the campuses. NuGen's workforce and supply chain strategies will help to retain this expenditure and the associated demand (including the employment opportunities) in the local economy. Given the scale of activity and the retention of expenditure locally, the magnitude of change is assessed as moderate beneficial.</p> <p>The overall effect is assessed as minor beneficial.</p>
<p>Change in the size and diversity of the business base. This could be significantly affected by the increased business activity and employment locally associated with the operation of accommodation at Egremont and the economic consequences of this.</p>	Likely	High	Very low beneficial	Minor beneficial (Not Significant).	<p>The sensitivity of the receptor is high for Copeland due to the emphasis in policy on promoting a more diverse business base and the growth of the business base more generally, which is driven by the heavy dependence upon a small numbers of sectors (the nuclear and public sectors in particular) (BEC 2012).</p> <p>The operation of the Egremont Development will provide a positive boost to a range of sectors in Whitehaven and Copeland, the degree of which will be dependent on the retention of resident workers expenditure in the local economic and ability of local businesses to secure operation and maintenance contracts. Whilst this will be beneficial in supporting the growth of these sectors, it will in its own right have a modest contribution to changing the size and diversity of the business base locally. It is assessed as very low beneficial.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					The overall effect is assessed as minor beneficial.
Change in the prosperity of the visitor economy.	Likely	Medium (only Copeland is affected)	Very Low	Negligible (Not Significant)	The operation of the Egremont Development as accommodation campuses would not affect any sensitive tourism areas, however there is the potential for resident workers' expenditure to support local tourism facilities and attractions. Nevertheless, the effects are therefore assessed as negligible.
Change in the agricultural economies	*	*	*	*	Assessment work being undertaken on the land use implications for the agricultural sector. There is unlikely to be a need to assess this receptor for the Egremont Site given the scale and nature of the land take but this will need to be confirmed in due course.
<b>People in employment or seeking employment in Copeland</b>					
Change in the number and proportion of residents in employment.  The creation of job opportunities during operation could increase employment levels in Copeland	Likely	High	Very Low Beneficial	Minor beneficial (Not Significant)	The Egremont Development will house up to 500 workers (with reserve capacity for an additional 500 workers, as explained in <b>Chapter 2</b> and paragraph 10.1.6 of this <b>Chapter 10</b> ). This will lead to an injection of additional expenditure and support additional employment.  Whilst the effect will be beneficial it will be minor in the context of the overall scale of Copeland's economy.
Change in unemployment. This could be significantly affected by the increase in employment locally and the ability of the currently unemployed to secure the available jobs.	Likely	High	Very Low beneficial.	Minor beneficial (Potentially Significant).	Linked to the above, the injection of expenditure will support some additional employment and this will provide opportunities for local residents to access these jobs. The proposed workforce development measures proposed by NuGen will help local people to access these jobs, including people from disadvantaged groups.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					The effect is assessed as minor beneficial.
<b>Users of Social and Community Infrastructure</b>					
Increase in demand could increase pressure on local health services	Likely	High	Very Low	Minor Adverse (Not Significant)	<p>There is evidence that local health services (including GPs and local hospitals) are experiencing capacity issues, which will intensify in the next few years due to a shortage of GPs to replace those who are retiring. Therefore the sensitivity is high.</p> <p>The Egremont Development will accommodate up to 500 construction workers (with reserve capacity for an additional 500 workers, as explained in <b>Chapter 2</b> and paragraph 10.1.6 of this <b>Chapter 10</b>).</p> <p>The vast majority of these will be young males below the age of 49, who have a low propensity to use local health services. Furthermore, all of these workers will receive healthcare through the occupational health services delivered by a specialist provider. Although there may be a small number of referrals to local GPs and hospitals, past experience from other developments shows that the increased demand on local healthcare facilities will be minimal. Therefore the magnitude of change is very low and the significance of effect is minor adverse.</p> <p>There may also be increased demand for A&amp;E and ambulance services when workers are not in work, particularly related to alcohol related incidents at the weekend. However the much lower numbers of workers staying in the Egremont Development means that these effects will be much lower than in Whitehaven.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
Influx of population could lead to increase of crime and anti-social behaviour which increases pressure on police resources	Likely	High	Very Low	Minor Adverse (Potentially Significant)	<p>The Study Area has higher rates of crime (per 1,000 people) than the average for Cumbria and is therefore considered to be a sensitive area. Based on average crime rates in Cumbria, the increase in population could lead to an increase of 42 incidents per annum at peak construction (based on 500 construction workers), which represents a 0.1% increase for the Cumbria Constabulary as a whole.</p> <p>The concentration of workers at the Egremont Development means that there is greater potential for conflict and disturbances in the town centre. Therefore, police are likely to have to commit extra resources to managing an influx of people in this location.</p> <p>Experience from the construction of Sizewell B in the 1990s suggests there were some increases above the norm in petty crime and behavioural offences, such as drunkenness, minor public disorder and traffic incidents and offences. However the introduction of appropriate mitigation measures meant that crime rates fell even with major increases in the construction workforce. The implementation of an effective Community Safety Management Plan and a strict worker code of conduct and drugs and alcohol policy should therefore reduce the incidence of these crimes. The magnitude of effect is therefore considered to be very low.</p>
Increase in population could place demands on local places of worship and other religious facilities	Likely	Medium	Low	Minor adverse (Not significant)	<p>Cumbria has a large supply of Christian places of worship but shortage for other faiths due to low demand. The only non-Christian places of worship are in Carlisle and Ulverston.</p> <p>The Egremont Development is likely to house a multi-national and multi-ethnic workforce, which could result in some increase in demand for religious facilities from people of certain faiths (including Judaism, Islam, Buddhism, Hinduism).</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					However this effect should be mitigated through the provision of prayer rooms in the Egremont Development.
Influx of population could increase demand for local sports and recreation services and place pressure on capacity	Likely	Medium	Low	Minor adverse (Not significant)	<p>The leisure needs assessment for Copeland Borough Council has identified few capacity issues in local sports and recreation facilities, and this is not identified as a high ranking priority of local councils (hence medium sensitivity).</p> <p>The Egremont Development will accommodate 500 workers (with reserve capacity for an additional 500 workers, as explained in <b>Chapter 2</b> and paragraph 10.1.6 of this <b>Chapter 10</b>). The influx of these workers will increase the demand for a range of sports and leisure facilities and services (including gyms, sports pitches, swimming pools etc.). Based on the sports facilities calculator used in the 2011 Copeland Leisure Study, this would generate demand for 21 sq. m of sports hall space, 5 sq. m of swimming pool space and 3 health and fitness stations. According to the leisure needs assessment, this level of demand could be met through existing capacity in Copeland in most cases. The exception to this was health and fitness stations where there was a deficit at the time of the study. However since then, Copeland Pool has opened a new fitness suite which addressed the shortfall.</p> <p>The provision of onsite sports facilities at the Mirehouse Development which will be available for community use will also increase the supply (and therefore the capacity) of sports and leisure facilities in the study area. Therefore the magnitude of effect is low.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<b>Residents of Allerdale and Copeland who could be affected by changes in the vitality of communities</b>					
Disruption to existing communities due to influx of migrants	Likely	High	Low	Moderate adverse (Potentially Significant)	<p>Egremont has a population of 8,200 people, the vast majority of whom are White British. The town has a limited range of services, including shops, bars and restaurants. The smaller size of the settlement means it is more sensitive to influxes of migrants. Hence high sensitivity.</p> <p>The influx of workers at the Egremont Development would represent a 6.1% in the case of Egremont (less than half the increase in Whitehaven). This would be likely to include a wide mix of different nationalities and ethnicities. There is potential for this influx to lead to increased community tension, particularly where there are language barriers and during weekends and night time.</p> <p>Past experience from other major developments including Sizewell in the 1990s showed that the greatest concerns of residents related to increased traffic and the disturbance caused by incoming workers. Consultations for the Moorside Project have also identified concerns about the impact on local health services.</p> <p>The transport strategy for the Moorside Project will minimise the amount of traffic on the road, although there is likely to be some increase as some workers will use cars to get to the accommodation campuses. There is likely to be some increase in crime, however the experiences of Sizewell B have shown that the implication of community safety measures can be effective in reducing rates of crime. The impact on local health services are likely to be minimal, as shown above. Therefore most of the concerns of local people should be addressed through effective mitigation measures.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					The magnitude of effect is considered to be low because the percentage increase is much lower than is the case for Whitehaven, and because the implementation of embedded mitigation measures should address community concerns.

## 10.9 Preliminary assessment of the Moorside Project as a whole

- 10.9.1 The summary of the predicted residual effects of the whole Moorside Project presented in **Table 10.10** takes a different format to most of the other chapters, in that it provides a fuller assessment, rather than an accumulation of the conclusions from the Moorside Site and the Accommodation Sites. This has been possible for Socio-Economics due to the way in which socio-economic effects are largely relevant to the Moorside Project as a whole, rather than individual sites on their own. For example, the construction workers may live on one of the Accommodation Sites, work on the Moorside Site, but spend their income across a variety of locations. Whilst it is possible to split some of these effects out to individual sites (as has been undertaken in **Tables 10.7 to 10.9**, it is also appropriate to do this for the whole Project.

**Table 10.10 Summary of Predicted Residual Effects - Whole Project**

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<b>Construction</b>					
<b>Size, diversity and prosperity of the local economies of Copeland, Allerdale and Cumbria</b>					
<p>Change in wealth. This is associated with increased expenditure locally as a result of the development and the economic consequences of this.</p> <p>The main drivers of impact are associated with the construction expenditure which occurs on or close to the Moorside Project Sites and the associated supply chain which is located in the study areas, as well as the local personal expenditure of workers.</p>	Likely	High	<p>High beneficial for Copeland;</p> <p>Medium beneficial for the rest of Cumbria</p>	<p>Major beneficial for Copeland (Significant).</p> <p>Moderate to major beneficial for Allerdale and Cumbria as a whole depending on magnitude of change in particular localities.</p>	<p>The sensitivity of the receptor is high, especially in Copeland where there is greater emphasis in policy on securing improved absolute economic performance and closing the performance gap with the UK average (BEC, 2012).</p> <p>The Moorside Project as a whole will lead to a major injection of additional expenditure and hence demand for goods and services in the economy, although the scale of the injection and ability of the economy to absorb this and adapt successfully in the long term is subject to uncertainty and need for additional analysis. NuGen’s Labour Market and Supply Chain Strategies, working alongside other partners, will assist in this transition.</p> <p>The local economies in which the construction workers are located during the construction of the Accommodation Sites and the Moorside Site will also benefit from</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>their expenditure which will help to support new employment across a wide range of sectors (including leisure, food and drink, and retail).</p> <p>The magnitude of change is likely to be high beneficial for Copeland due to potential scale of injection of additional demand; potentially medium for Allerdale and the rest of Cumbria but subject to additional analysis.</p>
<p>Change in the size and diversity of the business base. This could be significantly affected by the increased business activity and employment locally associated with the Moorside Project and the economic consequences of this.</p>	<p>Likely</p>	<p>High</p>	<p>High beneficial for Copeland</p> <p>Medium beneficial for the rest of Cumbria</p>	<p>Major beneficial, especially for Copeland where greater emphasis in policy on promoting the growth of the nuclear sector and related supply chains (Significant).</p>	<p>The sensitivity of the receptor is high especially for Copeland, where there is greater emphasis in policy on securing improved absolute economic performance and closing the performance gap with the UK average (BEC, 2012).</p> <p>The magnitude of change is expected to be high beneficial for Copeland and medium for the rest of Cumbria, subject to the precise procurement approach adopted by NuGen and measures put in place to promote supply chains opportunities amongst local suppliers.</p> <p>The proposed investment in the highways and railway network as set out in the Transport Strategy</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>will improve the capacity of transport networks which may provide long term benefits for local businesses and their workers. This will be fully assessed in the EIA for the DCO Application.</p> <p>Whilst assessed as major beneficial effects, these effects will depend critically on the measures put in place (and their success) by NuGen (including in the Supply Chain Strategy, Training Plan and Workforce Development Strategy) and local stakeholders to enable local businesses to secure supply chain opportunities, as well as the capacity in the local economy to enable growth to occur without significant negative effects on other local businesses (such as skill shortages, the poaching of workers and wage inflation).</p>
<p>Change in the prosperity of the visitor economy. The construction of the Moorside Project could potentially increase demand for visitor accommodation, lead to changes to the appeal or nature of the visitor offer, disrupt existing</p>	<p>Likely</p>	<p>High in Copeland; Allerdale and rest of the Cumbria (in particular areas within or in close proximity to the National Park</p>	<p>A worse case assessment suggests a low negative impact in Copeland, and a very low impact in Allerdale and the rest of Cumbria.</p>	<p>Moderate detrimental in Copeland. (Possibly Significant),  Minor negligible in Allerdale and the rest of Cumbria, subject to further project information.</p>	<p>The sensitivity reflects the importance of the visitor economy in parts of the study area (such as the National Park) and high quality environment and others assets it depends upon. The site is in very close proximity to the boundary of the National Park and visible from part of the western area of the</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
visitors, and contribute to a loss of visual amenity. There is also a proposal from NuGen for the development of a new visitor facility.				(Not Significant)	<p>park. The LVIA has identified a number of significant effects.</p> <p>Subject to more detail as the design of the Moorside Project evolves, the outcome of the proposed business survey and fuller assessments from other disciplines (Transport (Chapter 4), Landscape (Chapter 7), Visual (Chapter 8), and Countryside Access and Recreation (Chapter 9)), the assessment points to a low negative magnitude of change in Copeland and very low impact in Allerdale and the rest of Cumbria. The assessment will be updated once the survey and assessment is completed.</p>
Change in the commercial fishing economy	*	*	*	*	Fisheries: see text starting at 10.8.30 regarding commercial fisheries. A full assessment of this sector of the economy will be included in the ES.
Change in the agricultural economy	Likely	*	*	*	Although work on the agricultural sector is still ongoing, at this stage it is expected that agricultural land would be lost at the Moorside Site, the Mirehouse Site and the Egremont Site. These land losses will result in issues of severance and reduced farm unit size but it is

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					unknown at this point in time how significant these will be in the context of the wider agricultural economy of the local area.
<b>People in employment or seeking employment within Copeland, Allerdale and Cumbria.</b>					
Change in the number and proportion of residents in employment. This effect could arise due to the scale of employment associated with the construction phase of the development, the nature of job opportunities and the ability for local people to access these.	Likely	High in Copeland. Medium in Allerdale and the rest of Cumbria.	High beneficial in Copeland. Medium beneficial in Allerdale and low beneficial in the rest of Cumbria. .	Major beneficial in Copeland. (Significant).  Moderate beneficial in Allerdale (Significant).  Negligible in the rest of Cumbria (Not Significant).	<p>Sensitivity is high in Copeland due to the policy emphasis on improved employment opportunities and improved access to highly skilled and better paying jobs and the underlying employment challenges. Sensitivity is medium in the rest of Cumbria, where employment rates are already high on average.</p> <p>The substantial increase in the demand for skilled and semi-skilled workers will provide many opportunities for local workers and the training of new labour market entrants across Cumbria.</p> <p>Magnitude of change is expected to be high beneficial in Copeland where associated direct, indirect and induced employment will mainly be located. Medium beneficial in Allerdale, in particular due to the potential for the unemployed from larger communities such as Workington to benefit through access to jobs.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>Low beneficial in the rest of Cumbria.</p> <p>The predicted effect is therefore major beneficial in Copeland and moderate beneficial in Allerdale, due to good access to employment opportunities across the economy arising through the construction of the Moorside Project. Negligible in other parts of Cumbria, where the employment rates are already very high and there will be less ready transport access to the jobs created directly or indirectly through the development.</p>
<p>Change in unemployment. This could be significantly affected by the increase in employment locally and the ability of the currently unemployed to secure the available jobs.</p>	<p>Likely</p>	<p>High in Copeland. Medium in Allerdale and the rest of Cumbria.</p>	<p>High beneficial in Copeland. Medium beneficial in Allerdale and low beneficial in the rest of Cumbria. .</p>	<p>Major beneficial in Copeland. (Significant).</p> <p>Moderate beneficial in Allerdale (Significant).</p> <p>Negligible in the rest of Cumbria (Not Significant).</p>	<p>Sensitivity is assessed as high in Copeland due to policy emphasis of reducing unemployment in particular amongst specific labour market groups and associated concentration of unemployment amongst particular groups or communities (BEC, 2012).</p> <p>Sensitivity is medium in Allerdale and the rest of Cumbria, where unemployment levels are typically lower on average.</p> <p>The magnitude of change is assessed as high beneficial in Copeland (where scale of new employment opportunities could</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>lead to substantial reductions in unemployment providing appropriate active labour market support can be provided to harder to assist groups by NuGen and other local stakeholders).</p> <p>The assessments point to a major beneficial effect in Copeland and moderate beneficial in Allerdale. Negligible in the rest of Cumbria. Moderate in other parts of Cumbria. These conclusions are based on current knowledge of the number of jobs which will be created and Regeneris' analysis of the skills and labour market capacity of the Study Area which has been shared and discussed with local councils. These will be revisited when more information is available on the workforce requirements of the Moorside Project.</p>
<b>Home owners and occupants of rented accommodation</b>					
Increased demand for owner occupied housing could cause shortfall in local market and increase house prices	Likely	Low - but potentially higher in some high demand areas such as Cockermouth	Very low	Negligible (Not Significant)	Based on the Accommodation Strategy that is explained in <b>Chapter 2</b> of this PEIR and encapsulated in the Accommodation Sites, NuGen anticipates that there will be 1,000 workers who are Existing Cumbria

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>Based Workers and 1,500 non-home based workers who choose to be housed outside of the Accommodation Sites (Temporary Workers in Existing Cumbria Accommodation). Of the 1,500 Temporary Workers in Existing Cumbria Accommodation, only a small proportion are likely to seek owner occupied housing (likely to be those workers in senior positions who need to move to Cumbria for the duration of the construction period of the Moorside Project) although the exact number is uncertain at this stage. This demand would also be spread out over a number of years in the early part of the construction period.</p> <p>There is limited evidence of current capacity constraints across the Study Area (see 10.8.14). Housing is mostly affordable (relative to local incomes) and prices have remained broadly stable in recent years. The demand for owner occupied housing from construction workers in any year is only likely to represent a small proportion of the average number of sales in the study area (based on house sales over the past four</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>years). It is therefore likely that the market could absorb this demand without adverse effects on existing residents.</p> <p>The stock of housing is also expected to grow at a faster rate than household projections if Copeland Borough Council meets its housing target, which would provide additional capacity (see 10.8.13).</p>
<p>Increased demand for private rented accommodation could cause shortfall in local market and increase rents</p>	<p>Likely</p>	<p>High</p>	<p>Medium</p>	<p>Major adverse (Significant)</p>	<p>The private rented sector (PRS) is likely to play an important role in meeting the accommodation needs of those Temporary Workers in Existing Cumbria Accommodation who do not stay in the Accommodation Sites (based on professional judgment and experiences of other major developments). Although the exact number is uncertain if half of the 1,500 Temporary Workers in Existing Cumbria Accommodation looked for their own accommodation in the PRS, this would represent a 10% increase in demand (although in practice, a large proportion are likely to share accommodation).</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>For the Study Area (shown in <b>Figure 10.1</b>) there is some evidence of current capacity issues in the PRS, including a 7% increase in lower quartile rents between 2011 and 2014. Baseline analysis suggests there may be insufficient capacity within the sector if a large proportion of non-home based workers not in Accommodation Sites looked for housing in the PRS. While the supply of PRS would be expected to increase in response to this scenario, there is a risk that demand that the Moorside Project could potentially result in a shortfall in the local market and increase rents for local residents.</p>
<p>Increased demand for visitor accommodation could cause shortfall in local supply and displace existing visitor markets</p>	<p>Likely</p>	<p>Low - but likely to be higher sensitivity in parts of Allerdale.</p>	<p>Very low</p>	<p>Negligible (Not Significant)</p>	<p>Visitor accommodation is likely to play a role in meeting the accommodation needs of the 1,500 Temporary Workers in Existing Cumbria Accommodation, although NuGen will encourage these workers to use the Accommodation Sites wherever possible.</p> <p>The Study Area (shown in <b>Figure 10.1</b>) is not a high demand area for tourism and the visitor economy is not a priority sector for Copeland (therefore the sensitivity</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>is low), although it is likely to be higher sensitivity in parts of Allerdale. Recent visitor accommodation surveys (Cumbria Tourism 2014) show there are nearly 5,000 vacant bed spaces available at peak periods in Copeland and Allerdale, representing a total occupancy rate of around 70% (see 10.8.21). If just 5% of these vacant bed spaces were available to Moorside Project workers, this could accommodate 25% of workers not in Accommodation Sites (375 of the 1,500 Temporary Workers In Existing Cumbria Accommodation).</p>
<p>Increased demand for accommodation could result in some households renting out spare bedrooms</p>	<p>Likely</p>	<p>Low</p>	<p>Very low</p>	<p>Negligible (Not Significant)</p>	<p>Spare bedrooms (latent supply) is not expected to be a significant part of the accommodation supply for the Moorside Project as workers will be encouraged to use the Accommodation Sites, however it may still play a small role. The Copeland SHMA shows there is likely to be significant capacity in Copeland, with over 35,000 spare bedrooms in Copeland. If just 1% were available to Moorside Project workers this could accommodate 35% of workers not in the Accommodation Sites (525 of the</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					1,500 workers not in the Accommodation Sites)
<b>Users of Social and Community Infrastructure and Services</b>					
Increase in demand could cause shortfall of local school places	Likely	High	Low	Moderate adverse (Potentially Significant)	<p>Only small numbers of workers are expected to bring families with them (likely to be those workers in Temporary Workers In Existing Cumbria Accommodation), which should limit demand for school places. This demand would also be dispersed across a large number of schools, dependent on where non-home based workers choose to reside.</p> <p>Nevertheless, there is evidence of capacity constraints in a number of schools. There are 70 primary schools in the study area as a whole, and 12 secondary schools. According to the latest capacity figures published by the Department for Education, these primary schools can accommodate 11,370 pupils, however there are currently 11,450 on the pupil roll. The challenge is even greater in Whitehaven and Workington where, collectively, the primary schools are operating at 105% capacity.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>Since these are the largest settlements within commuting distance of the Moorside Site, it is expected that a large proportion of non-home based workers not in the Accommodation Sites will live in these two towns. Even a modest increase in the number of school age children would therefore increase pressure on local schools.</p>
<p><b>Increase in demand could increase pressure on local health services</b></p>	<p>Likely</p>	<p>High</p>	<p>Medium</p>	<p>Major adverse (Significant)</p>	<p>Average patient list sizes per full time equivalent GP in the study area are below the national and regional average which suggests they do currently have some capacity. However, these services are likely to come under significant pressure in the next few years as local surgeries are struggling to recruit new GPs to replace those leaving the workforce through retirement (see 10.8.26). The local hospital is also experiencing significant capacity and performance issues, including the A&amp;E department (see 10.8.25). The sensitivity of receptor is therefore high.</p> <p>The vast majority of the 5,500 workers who move in to the area will be young males, aged between 20 and 50 who have a low</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>propensity to use healthcare services. Furthermore, the occupational health services delivered by a specialist provider will be able to cater for the vast majority of their healthcare needs, including minor illnesses and accidents.</p> <p>The additional demand placed on local healthcare services will be in instances where the specialist provider needs to make referrals to local GPs or where serious accidents require a visit to the local accident and emergency unit. Past experience from other major projects (including Sizewell B and the construction of the Olympic Stadium) shows that the rates of referrals to local healthcare providers are very low, meaning the additional demand from 5,500 workers is also likely to be very low.</p> <p>A greater source of demand for local healthcare services is likely to be from injuries or other incidents which take place while not at work. These include alcohol related incidents during workers' time off, which require ambulance call outs and visits to A&amp;E. While</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>mitigation measures will be expected to reduce the number of these incidents (including bars in the Accommodation Sites, strict worker code of conduct policy and alcohol and drugs testing), there is likely to be a rise in these types of incidents. This is particularly the case in Whitehaven where large numbers of workers are likely to use local pubs, which could increase the potential for conflict with local people.</p> <p>The families who come with some of the Temporary Workers in Existing Cumbria Accommodation will not be eligible to access healthcare services from the specialist provider, and will therefore place additional demands on local providers. Using 2011 Census data on the characteristics of households who have moved to/in Cumbria in the past year, it is estimated that approximately 400 family members will accompany these non-home based workers (although this is estimate preliminary assessment which will be tested in the EIA and ES). This demand would be dispersed across a number of different GP surgeries. However</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>even a modest increase in demand would be likely to place additional pressure on local services. Therefore the magnitude of change is considered to be low and significance of effect is moderate adverse.</p> <p>Taken together, these effects are judged to be of medium magnitude, therefore the significance of effect is major adverse.</p>
<p>Influx of population could lead to increase of crime and anti-social behaviour which increases pressure on police resources</p>	<p>Likely</p>	<p>High</p>	<p>Medium</p>	<p>Major adverse (Not Significant)</p>	<p>The Study Area has higher rates of crime (per 1,000 people) than the average for Cumbria and is therefore considered to be a sensitive area. Based on average crime rates in Cumbria, the increase in population could lead to an increase of 595 incidents per annum at peak construction (based on 5,500 non home based workers), which represents a 2% increase for the Cumbria Constabulary as a whole.</p> <p>The construction workforce for the Moorside Project is likely to have a lower propensity to commit crime overall because they are employed (a 2011 study by the Ministry of Justice and Department for Work</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>and Pensions showed that 51% of offenders had claimed out of work benefits in the month before their sentence). However the concentration of young, single males (which are likely to comprise a significant proportion of the construction workforce) means there is greater potential for certain types of crime, particularly night time crimes. The large concentrations of these workers in the towns with temporary worker accommodation means the police are likely to have to commit extra resources to prevent and deal with disturbances in these areas.</p> <p>Experience from the construction of Sizewell B in the 1990s suggests there were some increases above the norm in petty crime and behavioural offences, such as drunkenness, minor public disorder and traffic incidents and offences. However the introduction of appropriate mitigation measures meant that crime rates fell even with major increases in the construction workforce. The implementation of an effective Community Safety Management Plan and a strict worker code of conduct and drugs and alcohol</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>policy should therefore reduce the incidence of these crimes.</p> <p>Police are also likely to have to commit additional resources to policing protests during the construction stage, improving telecommunications on site and dealing with traffic issues.</p> <p>The magnitude of change is judged to be medium, meaning the significance is major adverse.</p>
<p>Influx of population could increase demand for local sports and recreation services and place pressure on capacity</p>	<p>Likely</p>	<p>Medium</p>	<p>Low</p>	<p>Minor adverse (Not significant)</p>	<p>The leisure needs assessment for Copeland Borough Council has identified few capacity issues in local sports and recreation facilities, and this is not identified as a high ranking priority of local councils (hence medium sensitivity).</p> <p>The influx of 5,500 non home based workers will increase the demand for a range of sports and leisure facilities and services (including gyms, sports pitches, swimming pools etc.). Based on the sports facilities calculator used in the 2011 Copeland Leisure Study, this would generate demand for 229 sq. m of sports hall space, 52 sq. m of swimming pool space, 35</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>health and fitness stations, 0.1 artificial grass pitches and 0.05 athletics tracks. According to the leisure needs assessment, this level of demand could be met through existing capacity in most cases. The exception to this was health and fitness stations where there was a deficit at the time of the study. However since then, Copeland Pool has opened a new fitness suite which addressed the shortfall.</p> <p>The provision of onsite sports facilities at the Mirehouse Development which will be available for community use will also increase the supply (and therefore the capacity) of sports and leisure facilities in the study area. Therefore the magnitude of effect is low.</p>
<p>Increase in population could place demands on local places of worship and other religious facilities</p>	<p>Likely</p>	<p>Medium</p>	<p>Low</p>	<p>Minor adverse (Not significant)</p>	<p>Cumbria has a large supply of Christian places of worship but shortage for other faiths due to low demand. The only non-Christian places of worship are in Carlisle and Ulverston. The Moorside Project is likely to attract a multi-national and multi-ethnic workforce, which could result in some increase in demand for</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>religious facilities from people of certain faiths (including Judaism, Islam, Buddhism, Hinduism). However this effect is expected to be mitigated through the provision of prayer rooms in the Accommodation Sites.</p>
<p><b>Residents of Allerdale and Copeland who could be affected by changes in the vitality of communities</b></p>					
<p>Disruption to existing communities during construction</p>	<p>Likely</p>	<p>Medium for the study area as a whole and for Whitehaven but high in smaller settlements which are more sensitive to large influxes of migrants (Egremont)</p>	<p>High for Whitehaven but Low for Egremont</p>	<p>Major adverse for Whitehaven (Significant)  Moderate adverse for Egremont (Potentially Significant)</p>	<p>The Study Area has a population of 132,000, the vast majority of whom are White British. The Study Area includes medium sized towns such as Whitehaven and Workington which have a wide range of shops and services and more transient populations. This leaves them better equipped to adjust to an influx of population than smaller towns such as Egremont.</p> <p>A large proportion of the 5,500 incoming non home based workers (plus around 400 family members) are anticipated to stay in the town of Whitehaven. This contains the Mirehouse and Corkickle sites and is also likely to be the most popular residential location for the Temporary Workers In Existing Cumbria Accommodation (based on the locations of Sellafield</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>workers). An influx of at least 3,500 non home based workers would represent a 14% increase in the population of Whitehaven and would be likely to include a wide mix of different nationalities and ethnicities. This compares to a 6% increase in Egremont.</p> <p>An influx of this scale does have clear potential to lead to increased community tension, particularly where there are language barriers and during weekends and night time. Past experience from other major developments including Sizewell in the 1990s showed that the greatest concerns of residents related to increased traffic and the disturbance caused by incoming workers. Consultations for Moorside have also identified concerns about the impact on local health services.</p> <p>The transport strategy for the Moorside Project will minimise the amount of traffic on the road, although there is likely to be some increase as some workers will use cars to get to the Accommodation Sites. The significance of these effects will be assessed as more</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>information becomes available from the transport assessment.</p> <p>There is likely to be an increase in crime, as shown above, however the experiences of Sizewell B have shown that the implication of community safety measures can be effective in reducing rates of crime.</p> <p>There is also likely to be increased strain on local health services, particularly A&amp;E and ambulance services which are already under significant pressure.</p> <p>These community effects will be minimised through a worker code of conduct and induction packs for incoming workers.</p> <p>The size of the influx of workers means that the perceptions of these risks (traffic, crime and local services) are also likely to be a concern for many communities, which will need to be sensitively managed. Even if mitigation measures are successful in reducing crime or minimising impacts on health services, the large concentration of workers in two locations in Whitehaven is likely to be a cause of concern and</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					anxiety for many residents. The magnitude of effect is therefore considered to be high for Whitehaven and low for Cleator Moor and Egremont.
<b>Operation</b>					
<b>Size, diversity and prosperity of the local economies of Copeland, Allerdale and Cumbria</b>					
<p>Change in wealth. This is associated with increased expenditure locally as a result of the operation and maintenance of the power station and the economic consequences of this.</p> <p>The main drivers of impact are associated with the operational expenditure which occurs on or close to site and the associated supply chain which is located in the local study areas, as well as the local personal expenditure of workers who do not reside in the temporary worker campuses</p>	Likely	High, especially for Copeland	<p>Medium beneficial for Copeland.</p> <p>Low for Allerdale and the rest of Cumbria.</p>	<p>Major beneficial for Copeland (Significant);</p> <p>Moderate to minor for Allerdale and the rest of Cumbria depending on magnitude of change in particular localities (Potentially Significant).</p>	<p>Sensitivity is judged high especially for Copeland. Medium to high in the other local authority areas, depending on the precise nature of economic challenges, such as average earnings and productivity.</p> <p>The magnitude of changes is assessed as medium beneficial for Copeland due to the potential scale of injection of additional expenditure, but this is subject to considerable uncertainty due to gaps in information currently available on the operation and maintenance phase. The area also has the potential to benefit from the legacy of investment in transport infrastructure, although further analysis is required in this particular area. Low beneficial for the rest of Cumbria but subject to additional analysis.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>These conclusions are based on the current knowledge for job opportunities which will be created during the operational phase and Regeneris' analysis of supply chain strengths in Cumbria, which has been shared and discussed with local councils.</p> <p>Major beneficial effect for Copeland; likely to be moderate to minor for Allerdale and the rest of Cumbria.</p>
<p>Change in the size and diversity of the business base.</p> <p>This could be affected by the increased business activity and employment locally associated with the operation of the Moorside Project and the economic consequences of this.</p>	<p>Likely</p>	<p>High, especially for Copeland.</p>	<p>Medium beneficial for Copeland and low Allerdale and the rest of Cumbria.</p>	<p>Moderate beneficial for Copeland (Significant)</p> <p>Moderate to minor beneficial for Allerdale and the rest of Cumbria (Potentially Significant).</p>	<p>Sensitivity is judged to be high, especially for Copeland where there is a greater emphasis in policy on promoting the growth of the nuclear sector and related supply chains.</p> <p>The magnitude of change is assessed as medium beneficial for Copeland and low for the rest of Cumbria, subject to the procurement approach adopted by NuGen and measures put in place to promote supply chains opportunities associated with the operation and maintenance phase amongst local suppliers.</p> <p>The potential for other local businesses to be affected negatively by increased</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					competition for goods, services and workers from local suppliers is less than during the construction phase, but still subject to uncertainty at this stage. Whilst likely to be beneficial, these effects will be less pronounced both in terms of the potential for the more substantive positive effects and the risks of negative effects than the construction phase. Therefore the effects are assessed as: moderate beneficial for Copeland; likely to be moderate to minor beneficial for Allerdale and the rest of Cumbria depending on the precise magnitude and location of change. However, some uncertainty over the potential for wider negative effects on the business base remains, which still needs to be assessed in detail as part of the EIA.
Change in the prosperity of the visitor economy. The operation and maintenance of the Moorside Power Station could increase demand for visitor accommodation, as well as lead to disruption of	Likely	Medium in Copeland; high in Allerdale and rest of the Cumbria (in particular areas within or in close proximity to the National Park.	Low in Copeland  Very low in other study areas.	Expected to be minor in Copeland, Allerdale and the rest of Cumbria (Not Significant).	Sensitivity is assessed as moderate in Copeland and high in parts of Cumbria within or in close proximity to the National Park.  Once operational there will be limited scope for the Moorside Project to affect the visitor economy in Copeland, other than through beneficial changes (e.g.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
existing visitors, contribute to the loss of visual amenity and changes to the visitor offer.					<p>demand for visitor accommodation, visitors to a new nuclear related attraction). Other sources of change are assumed to be very low due to Sellafield being a well-established feature in West Cumbria and the addition of Moorside is unlikely to change the perceptions or experience amongst visitors. Very low magnitude of change in Allerdale and the rest of Cumbria.</p> <p>Therefore, on a preliminary assessment, the effect is expected to be negligible in Copeland, Allerdale and the rest of Cumbria.</p>
Change in the commercial fishing economy	*	*	*	*	<p>Fisheries: see text starting at 10.8.30 regarding commercial fisheries. A full assessment of this sector of the economy will be included in the ES.</p>
Change in the agricultural economy	Likely	*	*	*	<p>Although work on the agricultural sector is still ongoing, at this stage it is expected that agricultural land would be lost at the Moorside Site, the Mirehouse Site and the Egremont Site. These land losses will result in issues of severance and reduced farm unit size but it is unknown at this point in time how significant these will be in the</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					context of the wider agricultural economy of the local area.
<b>People in employment or seeking employment within Copeland, Allerdale and Cumbria</b>					
<p>Change in the number and proportion of residents in employment.</p> <p>This effect could arise due to the scale of employment associated with O&amp;M phase of the development, the nature of job opportunities and the ability for local people to access these.</p>	Likely	High in Copeland. Medium in Allerdale and the rest of Cumbria.	Medium beneficial in Copeland. Low beneficial in Allerdale and the rest of Cumbria. .	<p>Major beneficial in Copeland. (Significant).</p> <p>Minor beneficial in Allerdale and the rest of Cumbria (not significant).</p>	<p>Sensitivity is assessed as high in Copeland due to the policy emphasis on improved employment opportunities and improved access to highly skilled and better paying jobs and higher concentrations of unemployment and economic inactivity. Medium in Allerdale and other parts of Cumbria, where the employment rates are already very high (although communities such as Workington experience relatively high unemployment and inactivity).</p> <p>Substantial employment will be associated with the operational phase of the Moorside Project, including the planned maintenance periods when higher employment may arise. Therefore, the magnitude of change is assessed as medium beneficial in Copeland where associated direct, indirect and induced employment will mainly be located. Low beneficial in Allerdale and the rest of Cumbria.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>The direct employment and potential for supply chain and induced benefits across the impact areas will be assessed as part of the EIA and will be included in the ES. This will be influenced in part by NuGen's skills and supply chain strategies, which will be further developed as more information becomes available on the workforce requirements of the project.</p> <p>The effect is assessed as major beneficial in Copeland, but subject to measures to promote employment opportunities to local workforce and encourage embedding of the supply chain. Minor beneficial in Allerdale and the rest of Cumbria.</p>
<p>Change in unemployment.</p> <p>This could be significantly affected by the increase in employment locally associated with the direct and indirect effects of the operation and maintenance of Moorside, and the ability of the currently unemployed to secure the available jobs.</p>	Likely	High in Copeland. Medium in Allerdale and the rest of Cumbria.	Medium beneficial in Copeland. Low beneficial in Allerdale and the rest of Cumbria. .	<p>Major beneficial in Copeland. (Significant).</p> <p>Minor beneficial in Allerdale and the rest of Cumbria (not significant).</p>	<p>Sensitivity is assessed as high in Copeland due to the policy emphasis reducing unemployment in particular amongst specific labour market groups and concentrations of unemployment and economic inactivity. Medium in Allerdale and the rest of Cumbria, where unemployment is typically lower on average.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>Jobs created directly and indirectly associated with the Moorside Power Station’s operation and maintenance phase will provide opportunities for many of these potential workers to access long term employment opportunities. . The preliminary assessment is that the potential for a medium beneficial magnitude of change in Copeland in particular. This depends to some extent on measures to enable local residents to access technical skilled and semi-skilled jobs in particular. There is a good track record of training workers for these opportunities in Cumbria and there are a number of established training providers. This will need to be supplemented by measures put in place by NuGen, which will be defined in more detail once the workforce development and supply chain strategy is further developed.</p> <p>Although the effect is assessed as major beneficial in Copeland, this is subject to the precise nature of the measures put in place to support appropriate training assistance. The effects are</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					assessed as minor beneficial in the rest of Cumbria.
<b>Home owners and occupants of private rented accommodation</b>					
Increased demand for owner occupied housing could cause shortfall in local market and increase house prices	Likely	Low, but potentially higher in high demand areas such as Cockermouth	Low	Minor adverse (Not Significant)	<p>There is little evidence of significant capacity constraints in the Study Area (see 10.8.14). Housing is generally affordable relative to local incomes and prices have been stable.</p> <p>The stock of housing is also expected to grow at faster rate than household projections, which would provide additional capacity.</p> <p>Demand for owner occupied housing is likely to be low because a large proportion of the permanent, operational jobs are likely to be taken by local residents (subject to local training and workforce development measures being implemented). This is based on the assumption that only the most highly skilled and specialised positions will need to recruit workers from outside the Study Area since lower skilled and intermediate skilled positions could be filled locally.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
<p>Increased demand for private rented accommodation could cause shortfall in local market and increase rents.</p>	<p>Likely</p>	<p>High</p>	<p>Very Low</p>	<p>Minor adverse (Not Significant)</p>	<p>Paragraph 10.8.15 shows there is some evidence of capacity constraints in the local PRS, with lower quartile rents increasing by 7% between 2011 and 2014, and a small number of houses available for rent. Delivery of new housing should provide some additional capacity in the local market (see 10.8.13).</p> <p>The demand for PRS is likely to be very low since a large proportion of jobs will be taken by local residents (subject to local training and workforce development measures being implemented in line with the Labour Market Strategy), while most incoming workers are likely to seek owner occupied housing (since the jobs will be permanent and a large proportion will offer high salaries relative to local house prices). There is potential for some demand for housing in the PRS from contract workers who only stay in Cumbria on a temporary basis.</p> <p>If Copeland Borough Council met its housing target. The stock of housing would also grow at faster rate than household projections,</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					which would provide additional capacity if a proportion of this was available to let (see 10.8.13).
Visitors in visitor accommodation. Increased demand for visitor accommodation could cause shortfall in local supply and displace existing visitor markets		Medium but likely to be higher sensitivity in parts of Allerdale.	Very low	Negligible (Not Significant)	<p>The sensitivity of receptor is medium because the Study Area is not a high demand area for tourism and the visitor economy is not an important sector for Copeland (although parts of Allerdale are higher sensitivity). Visitor surveys show there is surplus capacity within visitor accommodation, even during peak periods (see 10.8.21). If there was a sustained increase in the number of visits to the Study Area, it is expected that the supply of visitor accommodation would respond to the increase in demand through market forces.</p> <p>Magnitude of change is likely to be very low. It is not known at this stage how many business trips will be generated once the Moorside Project is operational. Cumbria Tourism estimate that Copeland receives 1.8m visitors per annum, while Allerdale receives 2.6m. If it is assumed that 12% of these are business visits (the average for the North West according to the Great Britain Tourism Survey), this means</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					the two local authorities receive around 530,000 business visits per annum. This means there are roughly seven business visits for every job based in Allerdale and Copeland. An increase of 1,000 jobs could therefore be expected to generate an additional 7,000 business trips per annum to the two local authorities. This represents a 0.16% increase in visits which is considered to be very low.
<b>Users of Social and Community Infrastructure</b>					
Increase in demand could cause shortfall of local school places		High	Very low	Minor adverse (Not Significant)	<p>Paragraph 10.8.23 shows there is evidence of capacity issues at a number of schools in the Study Area, including Whitehaven and Workington where the primary schools are collectively operating at 105% capacity based on current pupil roll numbers (hence high sensitivity). There are no current capacity issues associated with secondary provision. However demand for school places is expected to be very low.</p> <p>A large proportion of operational workers will be local people (subject to implementation of</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>training and workforce development measures). A small number are likely to be non-home based and bring families with them to study area or Cumbria residents who might have left the area were it not for the employment opportunity at Moorside. This is likely to apply to the most specialised, highly skilled positions where it will be more difficult to recruit locally. Although the number of these positions is unknown at this stage, it is only likely to represent a small number of people and this demand will be dispersed across a wide area and a number of schools.</p>
Increase in demand could increase pressure on local health services		High	Very low	Minor adverse (Not Significant)	Local health services are experiencing significant capacity issues due to skill shortages.

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					<p>However a large proportion of operational workers are likely to be from the local area (subject to training and the workforce development strategy). The only positions which are likely to require workers from outside Cumbria are those specialised, highly skilled positions where it will be more difficult to recruit locally.</p> <p>Although the number of these positions is unknown at this stage, it is only likely to represent a small number of people. Therefore demand for additional health services from operational workers and their families is likely to be very low and dispersed across a large number of facilities, depending on where incoming workers choose to live.</p>
<p>Influx of population could lead to increase of crime and anti-social behaviour which increases pressure on police resources</p>		<p>High</p>	<p>Very low</p>	<p>Minor adverse (Not Significant)</p>	<p>Rates of crime are higher in the Study Area where operational workers are likely to live (hence high sensitivity). However a large proportion of operational workers are likely to be from the local area (subject to training and workforce development strategy). Those non home based workers who do move into the area will be employed and</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
					therefore have a lower propensity to commit crime.
Influx of population could increase demand for local sports and recreation services and place pressure on capacity	Likely	Medium	Very low	Negligible (Not Significant)	<p>The most recent sports and leisure needs assessment for Copeland identifies few capacity issues in local sports facilities, and this is not identified as a key priority of local councils. The magnitude is assessed as very low because a large number of operational workers will be local residents (subject to training and the workforce development strategy).</p> <p>Those incoming workers will generate a small increase in demand for sports and leisure facilities, however this will be widely dispersed depending on where they choose to live, and will be accommodated through existing capacity.</p>

Receptor and summary of predicted effects	Probability	Sensitivity/value of receptor	Magnitude of change	Significance of effect	Rationale
Increase in population could place demands on local places of worship and other religious facilities	Likely	Medium	Very Low	Minor adverse (Not significant)	Cumbria has a large supply of Christian places of worship but shortage for other faiths due to low demand. However the magnitude of effect is very low since a large number of operational workers will be local residents and therefore unlikely to be of a non-Christian faith (based on census data). There is potential for some incoming workers to be practicing members of other religions but this is likely to be very low overall.

## 10.10 Preliminary assessment of cumulative effects with other developments

### Scope of the assessment

- 10.10.1 As outlined in **Section 3.4** of **Chapter 3**, an exercise has been undertaken to determine which other (non-Moorside) developments should be considered in the context of their ability to result in cumulative adverse environmental effects with the Moorside Project.
- 10.10.2 Of the other developments described in **Section 3.4**, listed in **Table 3.4** and considered in the context of **Table 3.9** in terms of socio-economic effects, it is considered appropriate at this stage not to consider the following projects on the basis that there is very little information available on the workforce and supply chain requirements, the timing of the projects or the potential socio-economic effects of the schemes:
- Heysham New Nuclear Power Station (EDF Energy);
  - Tidal Lagoon West Cumbria (Tidal Lagoon Power).
- 10.10.3 However, it should be noted that the situation with respect to the above sites will be kept under review during the preparation of the EIA and preparation of the ES for the DCO application, pending the availability of information from the respective developers.
- 10.10.4 Of the remaining other developments considered in **Table 3.9**, these are briefly discussed in the context of their likely interaction with respect to socio-economics in the sub-sections below.

#### 1. Sellafield Site Decommissioning

- 10.10.5 The decommissioning of the Sellafield facilities will create an on-going demand for skilled and semi-skilled construction, operational and management workers. Whilst the overall level of employment may be fairly static over the next decade, there will be a significant on-going recruitment need due to the existing workers reaching retirement age (as well as the usual churn in the workforce). The potential for significant cumulative effects associated with the competition for and recruitment of workers (i.e. the employment receptor in particular) is likely to be greatest during the construction phase when the demand for workers, many with a similar skillset to those required by Sellafield Ltd, is greatest.
- 10.10.6 There is also the potential for significant effects associated with the sourcing of particular goods and services from within the study area, in particular during the construction phase. The potential additional demand for particular inputs may lead to price inflation (which would be picked up through the Change in Wealth receptor).

- 10.10.7 The potential for other significant effects associated with the housing market, social and community infrastructure, or community vitality is limited unless there is a change in the composition or location of the Sellafield workforce.

## **2. Upgrade of BAE Systems' Barrow Site**

- 10.10.8 There is limited information currently available on the workforce requirement, the expected sourcing of these workers and the implications for housing demand and social and community infrastructure. However, the workforce requirement is expected to be substantial, with a degree of overlap in the skillsets required during the Moorside Project construction in particular. There is also likely to be some overlap in the residential locations of workers which would increase pressure on local housing markets and social and community services. Potentially significant cumulative effects could occur in each of these respects.
- 10.10.9 There is also the potential for significant effects associated with the sourcing of particular goods and services from within the zone of influence, in particular during the construction phase.

## **3. Low Level Waste Repository, Drigg**

- 10.10.10 Whilst relatively little is known about the potential socio-economic implications of the LLWR construction programme, there is the potential for a range of potentially significant cumulative effects associated with economic, labour market, housing and community receptors for the construction of the Moorside project. The key determinant will be the scale, characteristics and geographical sourcing of the construction workforce, and the accommodation locations.

## **4. Biopharmaceutical Manufacturing Facility Extensions, Ulverston**

- 10.10.11 As phase one works have commenced (the main construction phase out of the three phases in terms of the requirement for construction workers) and there will be limited overlap in the labour market catchment areas with the Moorside Project, the potential for significant effects is on balance limited.

## **5. North West Coast Connections (NWWC), West Cumbria**

- 10.10.12 The North West Coast Connections Project is intimately related to the Moorside Project, since it would provide the connection to the UK national electricity grid for the power generated and therefore the local works would partially take place within the boundary of the Moorside Site.
- 10.10.13 Whilst relatively little is currently known about the potential socio-economic implications of the LLWR construction programme, there is the potential for a range of potentially significant cumulative effects associated with the economic and labour market receptors for the construction of the Moorside project in particular. The key determinant will be the scale, characteristics, geographical sourcing and accommodation provision of the workforce associated with the construction.

- 10.10.14 However, our current expectation is that there will be limited overlap in the accommodation locations between NWWC and the Moorside Project, although this will need to be tested further.

### 6. West Cumbria Mining Project, Whitehaven

- 10.10.15 In terms of the potential for cumulative effects to occur with the Moorside Project, it is considered that WCM's preferred option has the potential to interact with the Mirehouse Development. The reason for this is that the proposed infrastructure would potentially be located within the part of the Mirehouse Site that lies to the west of the railway line.
- 10.10.16 However, the likelihood of cumulative socio-economic effects cannot be more fully determined at this time due to the limited information on the potential scale and type of workforce and accommodation requirements, supply chain expenditure or effects on the visitor economy. However, this will be revisited as part of the EIA once fuller information is available.

### 7. West Cumbria Water Supply Project- Thirlmere Pipeline, West Cumbria

- 10.10.17 Given the proposed timing of the construction of the pipeline, there may be limited potential for cumulative effects with the Moorside Project. However, this will be revisited as part of the EIA once fuller information is available.

## 10.11 Consideration of additional mitigation

- 10.11.1 The assessment has identified a number of residual, significant adverse effects, including effects on capacity in the private rented housing sector, local health services and education. Additional mitigation measures will be required to bring these effects to an acceptable level. 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.

## 10.12 References

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