North West Coastal Connections

EXECUTIVE MEMBER: Councillor
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WHAT BENEFITS WILL THESE PROPOSALS BRING TO COPELAND RESIDENTS?
The proposed National Grid development will provide a connection for the new nuclear power station at Moorside. The existing Electricity North West system serving west Cumbria has insufficient capacity; therefore National Grid proposes to reinforce the network to provide the necessary connections. The introduction of new 400kV overhead lines could provide potential opportunities for inward investment which could have positive local economic effects in the long term.

WHY HAS THIS REPORT COME TO THE EXECUTIVE?
The National Grid is preparing a Development Consent Order (DCO) which will be submitted to the planning inspectorate for determination. Therefore Copeland Borough Council is not the determining body for this application, but we are a statutory consultee. As such National Grid is carrying out a consultation process on the potential Route Corridors for the 400KV transmission line. The Executive is asked to consider the attached report, to highlight any additional factors that need to be taken into consideration and to approve the proposed consultation response.

This process is consistent with the interim constitutional arrangements recently established having regard to decisions relating to NSIPs

RECOMMENDATIONS: That the Executive accepts the content of the attached draft consultation response which can be submitted as the Council's formal position at this stage of the consultation process

1. INTRODUCTION

1.1. In order to facilitate the development of a new nuclear power station at the Moorside site, to the north of Sellafield, the electricity transmission network must be reinforced and upgraded in order to transmit the increased levels of energy produced.

1.2. As part of the pre-application process for the DCO the National Grid have to work with affected Local Authorities and relevant Stakeholders to identify the

most suitable route for the grid connection. To ensure that they adequately consult on the DCO they have and will run a public consultation at key decision points:

- Consultation 1 – National Grid ran a consultation exercise in October 2012 to choose which strategic option to proceed with.

- Consultation 2 – Current consultation -Route Corridor Study to determine which route corridor to progress.

- Consultation 3 – Spring 2016 – site specific detailed information including technology choice and exact routing.

1.3. All members were invited to a briefing delivered by National Grid on September 03rd 2014 at the beginning of the current consultation. Information was provided about the proposals and options which available for consideration. Details were provided of the various consultation events held across the Borough between September and the end of October. Advice was also provided as to an extensive mail drop to residential addresses across the Borough.

1.4. Whilst decisions relating to the content of the Council's response to consultation rest with the Executive, it had previously been concluded that there would be potential value in seeking the views of the wider membership on a draft consultation response. A draft consultation response and explanatory report was issued to all members on 27th October with request for response by 5th November 2014. A copy of the response and the explanatory report are appended.

1.5. The final date for response to consultation is 28th November 2014.

2. ALTERNATIVE OPTIONS TO BE CONSIDERED

2.1. The explanatory report explains the options available for consideration within the consultation exercise. The draft response offers views on the proposals.

2.2. In summary the response suggests that the Council should register its support for the development. However some key areas of concern are highlighted:

- The protection and enhancement of the boroughs landscape, cultural and historic features and their settings in particular the protection of St Bees Heritage Coast.

- Ensuring the potential for economic growth and development within the borough, particularly in areas close to the edge of existing settlements where there is considerable risk of additional infrastructure development constraining opportunities for growth. To ensure the proposed development where possible

rationalises the existing wire scape to reduce the negative cumulative visual impact on local settlements, communities and enhances the potential gains and overall acceptability of the project to the local community.

- The potential to ensure that improvements to the transmission network support improvements to the local distribution network, particularly in southern parts of the borough where the poor resilience of existing supply infrastructure compromises economic development and growth

- Maximising the community benefit to the area through the implementation of an economic strategy that seeks to invest in the local supply chain.

2.2 As of close of play 5th November 2014, no response to the draft consultation had been received from members.

3. CONCLUSIONS

3.1 In order for the Council to maximise the opportunities associated with this development, mitigate the impacts and influence the design and development it is crucial that we provide meaningful feedback at this stage of the consultation process.

3.2 Members are therefore urged to consider the attached draft consultation response which assesses the route corridor options and considers if there are any other factors which we need to take into consideration when determining the most preferential route.

4.0 STATUTORY OFFICER COMMENTS

4.1 The Monitoring Officer's comments are: All members have been briefed on the proposal. No further comments at this stage.

4.2 The Section 151 Officer's comments are: The Council is responding to consultation process – no further comments at this stage

4.3 Other consultee comments, if any: None

5.0 RESOURCE REQUIREMENTS

5.1 Participation in the process of consideration of this project is funded through a Planning Performance Agreement which enables the Council to recover costs to the point of submission of the Development Consent Order

List of Appendices

Appendix A – Member Briefing Document - A Draft Consultation Response on the North West Coastal Grid Connection - October 2014
Appendix B - North West Coast Connections (NWCC) Project – Response to National Grid's Route Corridors Consultation (Stage 2) November 2014
Appendix C – Maps illustrating the proposed route corridor.

List of Background Documents:

North West Coast Connections Project – Response to National Grid's Route Corridors Consultation (Stage 2) November 2014

Landscape and Visual

Section	Comment
All	Reference is made in the assessment to Landscapes of County Importance throughout the RCS. In policy terms, this local level designation is now superseded, except in Copeland, which retains reference in its Local Plan. The presence of Landscapes of County Importance in areas outside Copeland should not form a key consideration in the determination of route corridors therefore.
All	Cumulative impact arising from vertical infrastructure including pylons and wind turbines has been highlighted as a growing concern in Cumbria, and will play a key role in establishing the ultimate route and nature of the grid connection. In association with partners, Cumbria County Council is developing work which seeks to assess the cumulative impact of vertical infrastructure in Cumbria and North Lancashire. The Cumulative Impact Assessment of Vertical Structures Study (2014) has been referred to in the county council's assessment of the National Grid proposals, will be of benefit in the next stage of the NWCC project.
All	In the majority of cases, the net impact of an increase in height of pylons resulting from following an 'opportunity corridor' is judged by the RCS to be less significant than pursuing an alternative option which would involve developing a new corridor across previously undeveloped land. Given this, the preference in landscape in visual terms is generally to follow the existing 132kv route corridor. Whilst this approach would appear logical in the majority of cases, further evidence to substantiate this view would be welcome. Photomontages illustrating the cumulative effects of several lines of pylon of different types may assist. Additionally, zone of theoretical visibility analysis will be key to understanding the impact of new infrastructure and consequently the development of according mitigation.

Ecology

Section	Comments
All sections	1. There is often no clear definition of the qualifying features of European sites – SAC/Ramsar/SPAs or of the interest features of SSSIs for route corridor sections. This is important baseline information to inform the future work as the qualifying features and interest features will be of significance when undertaking the ecological impact assessments at a later date. It should more clearly define species and habitats of ecological value within the Search Areas which may need to be avoided and/or mitigated. The ecological receptors help to define the zone of influence of the scheme and hence requirements for more detailed survey at the next stage. 2. The overview geology and soils map does not show the peat areas. Peat is of significance not only for ecology but for sustainability aspects of the scheme. The individual paragraphs on soils and geology for each option do not appear to consider peat, and only designated nature conservation areas on peat are considered in the ecology sections. It appears that some areas of peat may therefore have been omitted from the assessment of options. 3. Water environment sections consider the ecological water quality targets in the initial baseline descriptions but do not address any water quality aspects in the section appraisals, neither is this covered in the ecology sections. 4. The Bird Areas are shown on an overview map of the whole scheme but not on the individual ecology constraints maps for each section so could be overlooked. 5. It has been difficult and time consuming to make use of the submitted maps due to the large number of layers involved, and lack of any means of viewing only the relevant

	layers. In addition the route options are not shown on all the maps so without this overlay it has meant going to and fro between a number of maps to locate and confirm constraints etc. 6. Where SPA birds are relevant to the option appraisals it would be useful to have considered in-combination effects with existing and proposed vertical structures such as windfarms or radiomasts. Windfarms are mentioned with regards the visual impacts but information has not been provided for in the ecology appraisals for areas where SPA birds are a constraint. 7. In general the baseline and appraisal information is very thorough but there have been a few oversights which possibly stem from lack of co-ordination between the separate specialist topic areas. As an example the presence of windfarms in Search Areas in combination with SPA bird presence should have been taken account of during consideration of route options, particularly in those areas where SPA birds are a constraint. 8. In OSOV.08 UK BAP it is difficult to differentiate the different purple colours. Lowland raised bog, upland flushes, upland heath, CFPGM and saltmarsh, particularly where there are numerous overlays. 9. Important Plant Areas have not been considered in the baseline information – Lake District IPA and its core areas and Duddon Dunes IPA. 10. Construction effects for all of the route options will be of a similar nature but the way in which they might impact the ecology differ depending on the ecological receptors present. Location of all construction sites, crane pads, access routes, foundations etc will need to be considered in detail in the next stage. In addition the indirect effects of the construction phase will need to be addressed such as changes in hydrology due to compression of soils due to use of plant and temporary access tracks, equipment storage, particularly in areas of peat, coastal habitats, marshy areas and other sensitive habitats. Water quality aspects should be in relation to run-off and dewatering during construction of foundations especially upstream of any SAC watercourse including their tributaries.
All Sections	Please note that the Onshore North overview soils and geology map ONOV.09 in Appendix 6 does not appear to show peat distribution, and it appears likely that this GIS layer may have been omitted. Peat is shown on the more detailed Figures for environmental constraints for sections of the route but there are so many layers shown it is difficult to identify these areas. Use of GIS will help to clarify the spatial extent of environmental constraints. Figure ONOV 07 Ecology and Biodiversity Constraints does not show bird sensitive areas or peat areas so these issues may be overlooked and hence neglected when considering and comparing options.
A	In 6.3.40 the internationally and nationally designated sites are considered, together with a sentence explaining their importance. 6.3.43 Clints Quarry near Egremont is CWT site; it should not be confused with Clints Quarry SAC further north at Moota, near Cockermouth which is designated for its large population of great crested newt. Water Environment – this section identifies watercourses, waterbodies etc within the search areas and includes current ecological quality status in 6.3.112. This is also of relevance to the ecological assessments so should preferably be cross referenced under the ecology heading, particularly where the watercourses are designated as SACs such as the River Ehen. Also it has been noted that when the route options are appraised the water environment section does not specifically address the ecological implications. 6.3.57 mentions the hen harrier sensitive area which extends northwards from the northern edge of route section A2. Potential for impact on hen harriers is not addressed later in the consideration of options as both route options meet at this northern point. The hen harrier overwintering population of west Cumbria has been evaluated as of equal ecological status to SPA birds so it is important that bird surveys take account of the locations and movements of these birds.
A	The UK BAP Figure in ISOV.08 and INOV.08 shows a buffer zone for natterjack toad - it is suggested that this could be extended northwards towards Nethertown to cover other coastal pools and waterbodies which could potentially support natterjack toads, to make

	sure there is an awareness of the potential for natterjack to be present here. The southern edge of the Sellafield end of both the A1 options lies within 500m of several natterjack toad breeding pools, therefore mitigation may be required depending on the micro-siting of the towers (potential loss of terrestrial habitat for foraging, refugia, hibernation etc.) Inland fields along the River Ehen are used for roosting bird species such as redshank, oystercatcher, ringed plover and curlew. Inland fields along the River Ehen are used for roosting bird species such as redshank, oystercatcher, ringed plover and curlew. St Bees Head SSSI is designated for its important breeding seabird populations, and birds may use fields behind the immediate coastal area. However the A2 route options pass inland of Whitehaven so are not immediately affecting the bird colonies at St Bees.
B	In 7.3.65 the internationally and nationally designated sites are considered, together with a brief description explaining their importance. River Derwent and Bassenthwaite Lake SAC supports the following qualifying features – oligotrophic to mesotrophic standing waters, watercourses of plain to montane levels with Ranunculion fluitantis and Callitrio-Batrachion vegetation, marsh fritillary, sea lamprey, brook lamprey, river lamprey, Atlantic salmon, otter and floating water plantain. River Derwent and Tributaries SSSI lists the above interest features as well as vendace, a nationally rare fish, riparian vegetation, aquatic invertebrate fauna and flora. 7.3.73 mentions the Hen Harrier Protection Zone which extends to the south and east of the A595 mainly within B1 but extends into the southern section of B2. The hen harrier overwintering population of West Cumbria has been evaluated as of equal ecological status to SPA birds so it is important that bird surveys take account of the locations and movements of these birds in the vicinity of the proposed route options. 7.3.73 mentions 3 sites within the B corridor supporting great crested newt but omits Clints Quarry at Moota which is designated as a SAC due to its large breeding GCN population. It seems that there may have been some confusion between the Clints Quarry CWT site near Egremont and the Clints Quarry SAC located near Cockermouth, and even Clints Quarry SSSI in Yorkshire. The SAC in Cumbria supports a large great crested newt population but we are uncertain as to whether the CWT site near Egremont also supports GCN. Clints Quarry SAC lies within and on the edge of B3 but is not crossed by any B3 corridor. B3.5 lies approximately 450-500m from Clints Quarry SAC. 7.5.17 states that the Hen Harrier Protection Zone extends across most of the B1 Search Area although one route corridor avoids most of this site – B1.1. 7.1.27 Hen harrier breeding habitat is present in North Pennine Moors SPA. 7.3.73 mentions the Hen Harrier Protection Zone but this does not extend into B3. Water Environment – this section identifies watercourses, waterbodies etc within the B1 search areas and includes current ecological quality status in 7.3.141. This is also of relevance to the ecological assessments so it would be useful tocross reference this to the ecology section, particularly where the watercourses are designated as SACs such as the River Derwent and Bassenthwaite Lake SAC. Also it has been noted that when the route options are appraised the water environment section does not specifically address the ecological implications.
B	Inland fields along the River Marron corridor and coastal plain are used at times by SPA birds such as common redshank, oystercatcher, ringed plover and curlew. Route corridor B1.3 crosses the Marron and runs along this corridor for about 8km, and it is agreed that this corridor could impact on the SAC and associated wildlife corridor so should be avoided if possible. Inland fields along the River Derwent and tributaries corridor and coastal plain are used

	by SPA birds such as common redshank, oystercatcher, ringed plover and curlew.
B	7.3.73 mentions 3 sites within the B corridor supporting great crested newt but omits Clints Quarry which is designated as a SAC due to its large breeding GCN population. It seems that there may have been some confusion between the Clints Quarry CWT site near Egremont and the Clints Quarry SAC located near Cockermouth, and even Clints Quarry SSSI in Yorkshire. The SAC in Cumbria supports a great crested newt population but we are uncertain as to whether the CWT site near Egremont also supports GCN. Clints Quarry SAC lies within and on the edge of B3 but is not crossed by any B3 corridor.B3.5 lies approximately 450-500m from Clints Quarry SAC.
C	In 8.3.80 the internationally important designated sites are considered, together with a very brief sentence explaining their importance. It would be useful at baseline stage to identify all the 'qualifying' features i.e. habitats and species. In addition to raised mire, intertidal and marine habitats, and bird populations listed, Upper Solway Flats and Marshes Ramsar site includes natterjack toad as a Habitats Directive Annex IV species and the site qualifies in part due to it supporting over 10% of the British population of natterjack toad; Solway Firth SAC designation also includes fixed dunes, shingle vegetation, sea lamprey and river lamprey as qualifying features; in the South Solway Mosses SAC both active raised bog an degraded raised bog are included where these are still capable of being restored. Section 8.3.81 refers to bird migration routes together with local flight paths between roosting and feeding areas. Reference is made to the Coastal and Floodplain Grazing Marsh areas which are shown on Figure ONOV.08 UK BAP Habitat, but not to the RSPB report on Sensitive Bird Populations in Cumbria (Wind Turbines and Sensitive Bird Populations; A Spatial Planning Guide for on-shore windfarm developments in Cumbria RSPB). The waterfowl feeding areas and waterfowl flightways are only shown on the whole project overview Figure OV06 map of Bird Areas. These areas appear not to have been added as layers to the more detailed section maps when considering the different routing options. The areas shown are not definitive boundaries but indicate which areas may be used by SPA birds, and cover a wider area than the CFGM. Movement of SPA birds and potential for collision and/or impact on habitat continuity are important factors when considering Section C, so as much baseline information as possible should be provided. As ornithology surveys are commencing shortly it is considered important that potential for disruption of bird movement is adequately addressed through positioning and timing of bird surveys to cover both high and low tides, and nocturnal movements across these areas. 8.3.83 considers the River Eden SAC/SSSI as flowing to the east of C2 search areas whereas it is actually within the northern section of C2. Tributaries located upstream of the River Eden also need to be included in assessment. These include the River Caldew and its tributaries and the River Petteril discharges into the Eden SAC at Carlisle. Qualifying features of this SAC should also include alluvial forests as a 'priority' feature as well as the assemblages of aquatic vegetation. 8.3.125 Soils section does not mention peat. 8.9.26 Soils relating to C2 – no mention of peat in vicinity of project. 8.11.65 Mention of small area of peat NE of Oulton (C2.1, C2.3) but not of any peat associated with the designated nature conservation sites some of which are expected to overly peat. There appears to be a large area of peat in the vicinity of the Harker substation . Disturbance to this should be avoided if possible during micro-siting of the tower bases. This is common to all route options for C2. Water Environment – this section identifies watercourses, waterbodies etc within the search areas and includes current ecological quality status. This is also of relevance to the ecological assessments so it would be useful to cross-reference these comments to the ecology heading. Also it has been noted that when the route options are discussed

	the water environment section does not specifically address the ecological implications. As some watercourses are designated and others drain into the Eden SAC Planning Policy – Allerdale Borough Council – please note policies to protect Natura 2000 sites, and provisions to safeguard SPA birds in relation to vertical structures
C	8.7.18 states that route corridors C1.1 and C1.2 avoid all ecologically designated sites within the search area. However please note that tributaries of the Wampool and Colmire Sough may flow through/adjacent to Wedholme Flow which is part of the South Solway Mosses SAC. Pollution control measures during construction would form part of the CEMP, but any potential changes in hydrology should also be addressed.
C	8.11.40 This considers that Route Corridors C2.1, C2.2, C2.8 followed by C2.6.and C2.7 would have least potential for effect on SPA bird populations, being located further from the Upper Solway Flats and Marshes SPA/Ramsar/SSSI. However there are SPA birds making use of areas further inland which will also need to be addressed (oystercatcher, curlew, pink-footed goose, dunlin). The northern section of the route close to Carlisle is likely to pose the greatest constraint with regards SPA birds, with species such as barnacle goose, common redshank, whooper swan, pink-footed goose, scaup and ringed plover recorded in the vicinity – but this section is common to all options. 8.11.41 Removal of existing 132kV following installation of 400kV overhead lines close to this alignment is likely to be of benefit only where there is only one 132kV present. If there are additional 132kV lines present nearby the vertical extent of the flight barrier will be greater following installation of the 400kV and this needs to be addressed in the impact assessment. 8.11.43 This considers small areas of Orton Moss and Oulton Moss SSSIs within the corridor can be avoided but have areas of peat outside the designated nature conservation sites been considered for example near to Bigland Bog? 8.11.68 Water Environment – again this has not addressed any water quality aspects of the proposed route across the Eden SAC during construction and removal of pylon foundations. However this will apply to all options which will all have to cross the river downstream of Carlisle. Note that there is potential for flows from land affected by the routes during construction, installation and removal of old pylon bases, to enter watercourses draining to Wedholme Flow and Drumburgh Moss, part of South Solway Mosses SAC. This will need to be addressed in the ES.
D	In 11.3.48 the internationally important designated sites present in the D Search Area is listed as Drigg Coast SAC, SPA. Drigg Coast SAC supports Annex I habitats of estuaries, Atlantic de-calcified dunes (dune heath) as a Priority habitat and dunes with creeping willow as the primary reasons for its designation; other qualifying habitats are mudflats and sandflats not covered by seawater at low tide, Salicornia and other annuals colonising mud and sand, Atlantic salt meadows, embryonic shifting dunes, white dunes, grey dunes and humid dune slacks. Drigg Coast is not designated as an SPA or Ramsar site, but forms Drigg Coast Marine Site. 11.3.51 lists national designations. 11.3.34 Note that Drigg Coast SSSI has additional interest features to the SAC habitats above - these include great crested newt and natterjack toad, rich and varied flora and invertebrate fauna, and reptile population. 11.3.102 mentions peat on high ground to the east of the coastal plain south of Ravenglass. The deep peat sensitivity map for Cumbria (RSPB, 2008) shows there are large areas of blanket bog on the fells to the east. Water Environment – 11.3.121 this section identifies watercourses, waterbodies etc within the search areas and includes current ecological quality status. This is also of relevance to the ecological assessments so it would be useful to cross-reference to the

	ecology appraisal. Also it has been noted that when the route options are discussed the water environment section does not specifically address any ecological implications. It is noted that all river crossings associated with both options can be achieved in a single span
D	11.5.20 With regards natterjack toad, the southern tip of both route options west of Waberthwaite cross low lying wet areas with ephemeral pools which are thought to be used by natterjack toads from the Eskmeals site for breeding. The fields immediately to the east of the Eskmeals road are known to be used by natterjack toads possibly for foraging and/or breeding. 11.11.19 With regards natterjack toad, the route section between Stubb Place and Waberthwaite crosses low lying wet areas with ephemeral pools which are thought might be used by natterjack toads from the Eskmeals site for breeding. The fields immediately to the east of the Eskmeals road are known to be used by natterjack toads possibly for foraging and/or breeding. The route options fall within the wider area of the Lake District Important Plant Area (IPA).
E	It is useful to identify all the qualifying species and habitats of potentially affected European sites at the baseline stage to ensure these features are adequately surveyed and assessed at the next stage as Habitats Regulations Assessment of the scheme may be required. 12.3.87 The natterjack toad importance is recognised by Duddon Estuary Ramsar Criteria 2, as it is a qualifying feature of this designation. 12.3.114 Soils overview section mentions peat along the western side of the Duddon Estuary but these areas are omitted from the soils and geology overview figure. 12.3.149 Water environment section mentions there are a number of small to large static water bodies in the E1 Search Area, and goes on to mention those at Hodbarrow and Baystone bank Reservoir. There are numerous other waterbodies present in the Haverigg dune systems, Ironworks Nature Reserve, upper saltmarsh areas etc These are important as many are used as natterjack breeding pools.
E	Haverigg Dunes is designated as an Important Plant Area forming a part of the scattered Duddon Dunes IPA on both sides of the Duddon Estuary. In OSOV.08 UK BAP it is difficult to differentiate the different purple colours -Lowland raised bog, upland flushes, upland heath, CFPGM and saltmarsh. The coastal vegetation extending south-east from Dunnerholme towards Askham is designated as an Important Plant Area forming a part of the scattered Duddon Dunes IPA on both sides of the Duddon Estuary. This IPA also includes Sandscale Haws, parts of north-west and south Walney Island. Both route corridor pass through or within 500m of known natterjack toad breeding pools at several locations along the Duddon estuary, including both sides of the Duddon Estuary crossing and south of Kirkby-in-Furness. It is therefore important that the breeding habitats are avoided during the micro-siting of the route, and that access tracks are located so as to avoid impact on their terrestrial habitat. Removal of the existing 132kV in these locations will also require more detailed consideration, as will the siting of any associated access roads, construction compounds and crane pads.
E/F	It will be useful to identify all the qualifying species and habitats at the baseline stage to ensure these features are adequately surveyed and assessed as Habitats Regulations Assessment of the scheme may be required.. 2.3.50 This states that there is a relatively large area of coastal floodplain and grazing marsh west of Grizebeck. Is this land also used by SPA birds from Morecambe Bay and Duddon Estuary?

	Figure OSOV 07 Ecology and Biodiversity Constraints does not show bird sensitive areas or peat areas so these issues may be overlooked and hence neglected when considering and comparing options as there are significant areas of peat in this area. 2.3.77 Soils section does not mention any peat. 2.3.82 Water Environment – this covers the current ecological status of the River Duddon and Kirby Pool but no comment on any effects on water quality or ecological status is mentioned later. Route passes close to, or within, known natterjack toad habitats.
F	Other ecological designations include Kirkby Moor SSSI, Morecambe Bay SSSI and Sea Wood SSSI. Again it would be useful if the interest features for these SSSIs were clearly identified at this stage so that the potential effects of installation can be assessed at a high level to allow comparison of options. Figure ONOV 07 Ecology and Biodiversity Constraints does not show bird sensitive areas or peat areas so these issues may be overlooked and hence neglected when considering and comparing options? It should be noted that the area immediately to the west, south-west and south of Lindale forms a Core Area within the Lake District Important Plant Area (IPA). IPAs were initially designated in 2007 by PlantLife and cover areas in the UK and overseas which support internationally important plant populations. 3.3.114 Superficial geology section mentions a band of peat in F2 from Fish House Moss in the north to Reake Moss in the south. This is not clear on the soils and geology overview or the F2 section constraints but this is probably because of the number of overlays at this location. Water Environment – this section identifies watercourses, waterbodies etc within the search areas and includes current ecological status. This is also of relevance to the ecological assessments so should be referred to under the ecology heading. Also it has been noted that when the route options are discussed the water environment section does not specifically address the water quality or ecological implications. There is potential for loss and fragmentation of habitat, and disturbance if routes through ancient woodland are pursued. These woodlands support protected species such as red squirrel, badger and dormouse. Deep peat areas need to be highlighted in this area as not shown on the soils and geology overview map and not clearly identified on ecological constraints maps. Any construction of foundations or use of access tracks across peat are likely to cause temporary and permanent damage to the peat itself through compaction and digging through resulting in potentially irreversible damage. Many of the SAC habitats along the routes represented are dependent on the peat, and could therefore also suffer irreversible damage.
G	4.3.79 onwards – Soils and geology section does not mention peat in respect of G2. It is understood that the area adjacent and to the west of the existing overhead lines at Holme comprises peat possibly supporting lowland raised mire but this does seem to have been recognised in the text provided. This peat area extends over the boundary into Lancashire to the west of the M6. We cannot however accurately identify areas of peat from the very complex overlays in this area but peat is not shown here on either the soils overview map of the general ecology overview map. If there is deep peat in this area then this is of concern if additional foundations need to penetrate this. It is probable that the sensitive peat areas can be avoided but we need to know where they are at this stage so they are acknowledged as a potential constraint. 4.3.128 Morecambe Bay Pavements SAC includes juniper on heathland calcareous grassland, semi-natural dry grasslands and scrubland facies on calcareous substrates

	(and important orchid sites), limestone pavements, Tilio-Acerion forests of slopes, screes and ravines, and yew woodlands. Priority habitat includes calcareous fens. Other features include dry heath and old sessile oak woodlands with holly and hard fern. Annex II species is the narrow mouthed whorl snail. 4.3.132 River Kent and Tributaries SAC supports watercourses of plain to montane levels with Ranunculion fluitantis and Callitricho-Batrachion as Annex I qualifying feature and Annex II qualifying species are white-clawed crayfish (Primary reason for designation), freshwater pearl mussel and bullhead. 4.3.228 Water Environment – this section identifies watercourses, waterbodies etc within the search areas and includes current ecological status. This is also of relevance to the ecological assessments so should be referred to under the ecology heading. Also it has been noted that when the route options are discussed the water environment section does not specifically address the water quality or ecological implications.
G	3.3.114 Superficial geology section does not mention peat in respect of G1. The BAP Priority habitats map shows that most of both corridors cross areas of lowland raised peat and heath but even this is difficult to pick out due to colour similarities. It appears that there is potentially deep peat in the area which might be crossed by the pylons in the case of G1.1but this cannot be substantiated from the maps provided. Most of Search Area G1 lies within the Lake District Important Plant Area (IPA) designated by PlantLife in 2007 as an area of international importance for plants. These areas are not considered to be the most significant core areas of the IPA but nonetheless are recognised internationally. There are core areas of IPAs in the G2 Search Area but these are located to the west of the A6 and to the east of the M6 so these do not affect route options.
H	13.3.50 onwards – Soils and geology section does not mention peat in respect of H. Water Environment – 13.3.68 this section identifies watercourses, waterbodies etc within the search areas and includes current ecological status. This is also of relevance to the ecological assessments so it would be useful to cross-reference this to the ecology section. Also it has been noted that when the route options are discussed the water environment section does not specifically address the water quality or ecological implications. 13.7.37 Residual noise effects are mentioned with regards the tunnel heads, but if a constant noise this is less likely to have permanent adverse effects on birds. In 13.15.12 the internationally and nationally important designated sites are listed. Following this there is a useful Table 13.8 which lists the designated sites and interest features. This is not fully comprehensive as it leaves out some of the qualifying features of Morecambe Bay SAC such as sand dunes and Annex II species great crested newt.
I	2.6.3 states that the route I1.1 runs parallel and to the 'west' of the Cumbrian Coastal railway line whereas it appears to run to the east?
J	Drigg Coast is not designated as an SPA or Ramsar site, but forms Drigg Coast Marine Site. Note that Drigg Coast SSSI has additional interest features to the SAC habitats above - these include great crested newt and natterjack toad, rich and varied flora and invertebrate fauna, and reptile population. 3.3.89 mentions peat on high ground to the east of the coastal plain south of Ravenglass. The deep peat sensitivity map for Cumbria (RSPB, 2008) shows there are large areas of blanket bog on the fells to the east. Water Environment – 3.3.104 this section identifies watercourses, waterbodies etc within the search areas and includes current ecological quality status. This is also of relevance to the ecological assessments so it would be useful to cross-reference to the ecology

	appraisal. Also it has been noted that when the route options are discussed the water environment section does not specifically address any ecological implications.

Cultural Heritage

Section	Comments
All Sections	The list of sources in Appendix 5 indicates that “Registered Parks & Gardens I II*, I” have been mapped on the project constraint figures. It is assumed this is a typographical error and should read “Registered Parks & Gardens I II*, II”. The list of sources in Appendix 5 indicates that “Significant Groups of Grade II Listed Buildings” have been mapped on the project constraint figures. The criteria used to determine “significant groups” has not been identified. Grade II Listed Buildings appear to have been considered within the Option Appraisal Summary Tables therefore it is unclear whether these have been comprehensively assessed.
All Sections	The baseline description does not consider the potential effects of the routes upon the proposed submission of the Lake District as a World Heritage Site under the cultural landscape category. This should be considered at the next stage.
All Sections	Historic Landscape Characterisation data has not been considered within the study and this should be considered at the next stage. Historic landscape, as either an asset in its own right, or as a contributory factor to the historic environment or setting of heritage assets has not been considered within the Archaeology and Heritage section of this study. This should be clearly addressed within either the Landscape or Heritage section of the report at the next stage.
All Sections	No distinction is made on the constraints maps (e.g. ON2.1) between the monuments comprising the World Heritage Site and the World Heritage Site buffer zone. Whilst it is recognised the Scheduled Monuments associated with the Frontiers form the World Heritage Site this does not allow for the distinction of Scheduled Monuments within the World Heritage Site buffer zone that are not related to the World Heritage Site, or World Heritage Site properties without an additional buffer.
A	Within the Option Appraisal Summary Tables the proximity of the route corridor options to the Grade II Listed Building at Wodow Bank should be included within the table.
A	None of the heritage constraints identified within paragraph 6.3.60 are identified on Figure ON1.1. This is particularly noticeable for Netherend Grade II* Listed Building located within route corridors.
A	The Option Appraisal Summary Tables for Route Options A2.1 and A2.2 do not identify the Grade II Listed Building of the Cross which although within 1km of the route corridors, lies within 100m of an opportunity corridor for Route Option A1.2. The Option Appraisal Summary Table for Route Option A2.2 does not identify a cluster of Listed Buildings at Cleator. The Option Appraisal Route Summary Table identifies a Roman road non-designated asset of potential regional significance within the A2.1 Route Option Corridor. A review of the route Option Corridors indicates that this asset is also likely to be present within Route Option Corridors A2.2 and A2.4 although it is not included within the Table. This is carried through to paragraph 6.11.42 within the main report text.
B	Not all constraints identified in 7.3.75 are identified on Figures ON1.1 and ON2.1 e.g. Burrow Walls Scheduled Monument and World Heritage Site, Frizington Cross Scheduled Monument and Grade II* Listed Building, Gatra Scheduled Monument, Calva Hall bridge Scheduled Monument, Grade I Listed Building in Whitehaven,. The rationale for which assets are labelled is not readily understandable from the figures or text.
B	Paragraph 7.1.5.4 indicates that the effects upon the setting of a number of designated heritage assets within the wider Study Area have been considered relevant to the assessment of Section B1, but have not been subsequently discussed. It is unclear whether the identification of Route Corridors or the appraisal of options has taken potential effects upon these assets into account.
B	However, it should be noted that paragraph 7.15.40 should read “B3.3 will introduce a

	new effect on one [**key or highest significance**] designated asset" to distinguish between other effect on designated assets of lesser significance e.g. Grade II Listed Buildings.
B	Minor Typographical errors and issues 7.3.75.1 Frontiers of the World Heritage Site at Parton and Burrow Walls are also Scheduled Monuments. 7.3.75.2 and 7.3.75.7 It would be helpful to separate out or list the Scheduled Monuments and Grade I and II* Listed Buildings in these items given their proximity to either side of the Route Corridor Options. Four Grade II* Listed Buildings at Workington Hall and Crakeplace Hall Grade II* Listed Building are not identified within section 7.3.75, but are shown on figure ON2.1. Workington Hall Tower House Scheduled Monument and Jane Pit Coal Mine, Scheduled Monument, Mossby are not shown on Figure ON2.1 or discussed in Section 7.3.75. 7.3.85 notes the buffer zone of the World Heritage Site extends into Section B1 but this is not shown on Figure ON2.1, listed in 7.3.75 or discussed within the baseline text. 7.3.84 This should read that no further Roman designated sites are located within Section B1, not B2 and B3. 7.3.85 describes the Roman nuclei in Section B1 as being located at Cockermouth and Maryport. This should read Section B2. 7.3.94 describes the deer park and mill associated with Workington Hall as undesignated. The windmill is a Grade II* Listed Building and the park is Grade II listed on the Register of Parks and Gardens. 7.5.20 should identify that Hayes Castle Scheduled Monument was taken into consideration in guiding the development of route options. 7.5.22 Whitekeld Listed Buildings are closer to Ullock than Dean. There are typographic errors which mean the list in paragraph 7.3.76 and 7.3.77 appears compressed and more difficult to read, but does not affect the overall assessment. The Hadrian's Wall tower 25A is not identified in Section 7.3.76 as a Scheduled Monument and World Heritage Site property, nor is it labelled on Figure ON3.1. The Scheduled Romano-British settlement and Bronze Age cremation cemetery at Ewanrigg is not identified in 7.3.76 or labelled on Figure ON3.1. Not all constraints identified in 7.3.76 are identified on Figures ON 2.1 and ON 3.1 e.g. Grade II* Listed Buildings at Flimby. The rationale for which assets are labelled is not readily understandable from the figures or text. 7.3.76.2 It would be helpful to separate out or list the Scheduled Monuments and Grade I and II* Listed Buildings at Cockermouth, Papcastle and Maryport given their differing periods and types. 7.3.82-7.3.87 Roman period section does not address the potential Roman baseline within Section B2 adequately. There is no mention of the World Heritage Site property at tower 25A, buffer zone between Maryport and Crosby or sufficient consideration of the Roman remains at Cockermouth and Papcastle. The proposal within the World Heritage Site Management Plan 2008-2014 to potentially include Papcastle and a buffer zone within the World Heritage Site is not addressed. This has not resulted in an issue for the overall assessment of Route Corridor Options in relation to the preferred option.

	7.3.84 This should read that no further Roman designated sites are located within Section B1, not B2 and B3. 7.3.85 describes the Roman nuclei in Section B1 as being located at Cockermouth and Maryport. This should read Section B2. Paragraph 7.3.96 does not discuss the Listed Building designated assets of medieval date. Paragraph 7.3.97 describes non-designated assets within Section B2 but includes reference to assets within Section B1 such as Distington, Lamplugh and Dean which are in Section B1. Paragraph 7.3.103 - it assumed it should read: "The industrial focus is towards the western coastal area, with **an additional** cluster of sites in Cockermouth." Not all constraints identified in 7.3.77are identified on Figures ON3.1 and ON4.1 e.g. Dovecote at Arkleby Grade II* Listed Building and Conservation Areas at Westnewton and Hayton Castle. The rationale for which assets are labelled is not readily understandable from the figures or text. 7.3.77.2 Paton and Rosehill Scheduled Monuments and Listed Buildings fall within Area B1 rather than B3. 7.3.98 Hayton Castle and the Church of St Mary are also both key designated assets of medieval date.
B	Within the Option Appraisal Summary Tables B1.1 and B1.2 appraisals of other designations within 1km of the corridor, the distance of Workington Registered Park and Garden is described as 20m from the route corridor. This is assumed to be a typographic error and should read 200m? In the summary of B1.3 within the Option Appraisal Summary Table the discussion mentions the "existing 132kV pylons" and change in size of pylon height when for this route the pylons would be a new feature as there is no opportunity corridor.
B	Within the Option Appraisal Summary Table the phrase "route corridor is considered to lie outside the negative aspect of the immediate setting of the asset" is used several times. It is recommended the word "negative" is deleted. Within the Option Appraisal Summary Tables B2.1, B2.2 and B2.3 consider the two Grade II Listed Buildings within the Route Corridor Option. The table describes these as being located at Seaton and Stainburn and both are located at Seaton. Within the summary the table incorrectly identifies there are no designated heritage assets within these three Route Corridor Options. Within the Option Appraisal Summary Tables B2.1 and B2.2 describe a single Grade II listed Building at Flimby within 1km. it is unclear which building this refers to and the scale of the plans are insufficient to identify whether this is the only building affected at Flimby. The four Listed Buildings, including two Grade II* Listed Buildings which are not identified within the OAST are very close together. The Route Corridor Option B2.2 appears to be greater than 1km from Flimby therefore it is unclear if this statement is relevant to Corridor B2.2. Within the Option Appraisal Summary Table the discussion of Grade II Listed Buildings within 1km of Route Corridor Option B2.3 does not discuss the Listed Buildings at Dovenby or Linefoot (estimated to be at least nine buildings). The potential effects upon the setting of these heritage assets is unclear. **This could be a significant omission given Route B2.3 has been identified as the preferred option.** The Option Appraisal summary Table for Route Corridors B2.4 and B2.5 discuss the

	Grade II Listed Building within 1km at High Croft. This should refer to the Church of St Oswald, not St Mungo. The description of Mayfield as being within 0.2km of Route Corridor Option B2.5 within the Option Appraisal Summary Table is incorrect. The distance is estimated at 0.75km and it is unclear if the assessment of visibility is accurate. Paragraph 7.11.44.1 and 7.11.44.2 duplicate the early medieval cemetery at Eaglesfield.
B	Paragraph 7.13.18 states that "The route corridors almost entirely avoid direct effects on the above key heritage assets." Within the World Heritage Site buffer zone in Corridor B3.1 it is not the route corridors themselves that avoid direct effects on the assets – at this stage it can only be stated that the intention is to avoid direct effects on assets within the route corridors through micro-siting of the pylons. Paragraph 7.3.18 notes that Hayton Conservation Area is located within Route Corridor Option B3.1. This is not included within the Option Appraisal Summary Table for other designated assets within the Route Corridor. Within the Option Appraisal Summary Table for Route Corridor Option B3.5 for other designated assets within 1km the description of the church related to assets at Arkleby, Parsonby, Plumbland and Threapland the description of the church should read the "Grade II Listed Church of St Cuthbert". The summary of Route Corridors B3.3 and B3.4 note there are no designated assets within the corridor. This is incorrect there are two Grade II Listed Buildings at Ellenhall within these corridors.
C	Not all constraints identified in 8.3.89 are identified on Figures ON4.1 and ON5.1. e.g. The Scheduled moated site north east of Cockbridge is not shown on Figure 4.1. The Grade Ii Listed Church of All Saints at Mealsgate is shown but not the Grade I Listed church of All Saints at Boltongate. The rationale for which assets are labelled is not readily understandable from the figures or text. 8.3.1 Significant clusters of Grade II Listed Buildings are also present at Ireby and Bothel within Section C2. Within the Option Appraisal Summary Tables and 8.7.22 the assessment notes there is no visibility from the Scheduled St Mungos castle and Grade I listed Church. It is unclear if this lack of visibility has been assessed for the higher pylons or just based on the existing pylon height.
C	Not all constraints identified in 8.3.90 are identified on Figures ON5.1 and ON6.1 (e.g. Scheduled settlement south of Gerrard House and Scheduled Old Carlisle Fort ad Civil settlement). The rationale for which assets are labelled is not readily understandable from the figures or text. Figure ON6.1 indicates a constraint of the Frontiers of the Roman Empire Hadrian's Wall and Vallum Components (WHS& SM) labelled to the north-west of the existing 400kV substation at Harker but this does not correlate with a mapped constraint or National Heritage List for England mapping. Paragraph 8.9.21 notes a Grade I Registered Park and Garden within the C2 Search Area but this is not identified within the assets of highest significance under 8.3.90 as defined by NPPF.
C	8.9.25 states that "The route corridors avoid direct effects on the heritage assets." It is not the route corridors themselves that avoid direct effects on the assets – at this stage it can only be stated that the intention is to avoid direct effects on assets within the route corridors through micro-siting of the pylons. 8.9.25 states "it has not been possible to avoid routeing in close proximity to some of them including the Frontiers of the Roman Empire WHS and buffer zone; Scheduled Components of Hadrian's Wall, vallum and associated forts and Scheduled Monuments

	at Orton Moss and north of Sceughmire." In all these cases the Route Corridors encompass these assets rather than being in proximity to them. The proposed route and pylon locations within the corridors may be subsequently located to avoid these assets. This is acknowledged in 8.9.22 in contradiction of the comment in 8.9.25. Within the Option Appraisal Summary Tables C2.1, C2.2 and C2.8 – the count of 6 Scheduled Monuments associated with the frontiers World Heritage Site is correct but the are incorrectly identified as "Nowtler Hill 1 and 2 Roman Temporary Camps, Boomby Lane 1 and 2 Roman Temporary Camps, and two sections of Hadrian's Wall Vallum" when they should be Nowtler Hill 1 and 2 Roman Temporary Camps, Boomby Lane 1 and 2 Roman Temporary Camps [single site], and three sections of Hadrian's Wall Vallum [1014693, 1014694 and 1014695]. Within the Option Appraisal Summary Tables the description of the World Heritage Site and its buffer zone (e.g. C2.1 and C2.2 within 1km) is sometimes used interchangeably with the World Heritage Site and its setting (e.g. C2.3 and C2.4). The buffer zone should be identified consistently as a specific planning policy related designation. Within the Option Appraisal Summary Tables the Kirkbampton Conservation Area and significant cluster of Grade II Listed Buildings is not identified within the 1km buffer of the Route Corridors for C2.6 and C2.7.
D	In paragraph 11.3.74, the well-preserved Iron Age (and Bronze Age) sets of human remains found in peat mosses are often referred to as 'bog bodies'.
E	Paragraph 12.1.64 indicates that the effects upon the setting of Duddon Bridge within the wider Study Area have been considered relevant to the assessment of Section E, but have not been subsequently discussed. It is unclear whether the identification of Route Corridors or the appraisal of options has taken potential effects upon these assets into account. Historic Landscape Characterisation data has not been considered within the study and this should be considered at the next stage. Historic landscape, as either an asset in its own right, or as a contributory factor to the historic environment or setting of heritage assets has not been considered within the Archaeology and Heritage section of this study. This should be clearly addressed within either the Landscape or Heritage section of the report at the next stage. Not all constraints identified in 13.3.89 are identified on Figures OST3.1 e.g. Scheduled Hodbarrow beacon or the stone circle, avenue and stone alignment at Great Knott. The rationale for which assets are labelled is not readily understandable from the figures or text. 12.3.105 to 12.3.106 notes there are no key designated assets of post-medieval date within the E1 area. The Scheduled Monument of Hodbarrow Beacon should be included in the consideration of key designated assets.
E	Not all constraints identified in 12.3.91 are identified on Figures OST3.1 and OST4.1 e.g. Broughton tower special school, Ashlack Hall, Marsh Grange, Bow Bridge, Furness Abbey and Piel Castle. The rationale for which assets are labelled is not readily understandable from the figures or text. Figure OST3.1 does not show the extent of Scheduled Monument associated with Duddon Iron Furnace in the Study Area, just a point. Figure OST3.1 does not show the Conservation Area at Ireleth. 12.3.91 It should be noted that Piel Castle and Dalton Castle are Grade I Listed Buildings as well as Scheduled Monuments. It is unclear where the Grade II* obelisk and stocks are located from the description in 12.3.91. Paragraph 12.9.21.16 notes a Grade II* Listed Church of St Mary as being important in Route Corridor identification but this is not discussed in the baseline section or shown on

	Figures OST3.1 or 4.1. 12.3.103 does not address the key designated assets of medieval date within Area E2 including Furness Abbey Scheduled Monument and Listed Buildings, Piel Castle Scheduled Monument and Listed Building, Dalton Castle Scheduled Monument. 12.3.103 and 12.3.104 do not draw out the medieval importance of Area E2. Furness Abbey was an important site, not just in the immediate locality, but across the area as evidenced by the Abbey's control of Piel Castle and Dalton Castle. The relationships between these monuments across the peninsular are important factors in their significance. 12.3.107 should address other key designated assets within the area such as other Grade I and Grade II* Listed buildings in Dalton in Furness, Tytup Hall etc. 12.3.108 should note there are also Conservation Areas in Barrow in Furness.
E	Paragraph 12.9.22 states that "The identified route corridors all avoid direct effects on the above heritage assets. However it has not be possible to avoid routeing in close proximity to …." It is not the route corridors themselves that avoid direct effects on the assets – at this stage it can only be stated that the intention is to avoid direct effects on assets within the route corridors through micro-siting of the pylons. The Grade II* Listed Tytup Hall is located within the Route Option Corridors of both B2.1 and B2.2. Within the Option Appraisal Summary Tables the assessment for both Routes B2.1 and B2.2 omits to identify the presence of the Grade II* Listed Building of Tytup Hall and four associated Listed Buildings in the south of E2 as being within the corridor for both routes, identifying them incorrectly as being within 1km of the Route Corridor Option. The Option Appraisal Summary Table for Option B2.1 omits to identify the presence of the Grade II Listed Sand Gap Farmhouse within the Route Corridor identifying it incorrectly as being within 1km of the Route Corridor Option. The comments in the above two paragraphs are carried through to the summary assessment in the Option Appraisal Summary Table. The Option Appraisal Summary bullet points for designated assets within 1km do not identify potential effects on one Conservation Area for Option B2.1 (Ireleth) and two Conservation Areas for Option B2.2 (Broughton in Furness and Ireleth) although these are discussed in the text of the tables. Paragraph 12.11.60 of the report does not consistently compare the potential effects on the Conservation Areas and Grade II Listed Buildings. The potential effects on Ireleth Conservation Area and Sand Gap Farmhouse should be addressed for both Options.
H	Not all constraints identified in 13.3.39 are identified on Figure OST4.1 e.g. Scheduled Monuments on Birkrigg common, pallisaded hilltop enclosure, hut circle at Holme Bank Scheduled Moat Farm and motte and bailey, Grade I listed church at Great Urswick etc. The rationale for which assets are labelled is not readily understandable from the figures or text. Additionally assets of less significance such as the Grade II Listed Building at Moss Side Farmhouse are shown on Figure OST4.1. Paragraph 13.3.47 notes 54 Grade II post-medieval buildings within the H1 Search Area. It is unclear if this count is correct as the text describes particular clusters at Dalton in Furness and Barrow in Furness which are located in Area E2.
H	In summary the omission of a limited number of features from the Option Appraisal Summary Tables and report text are not considered to affect the overall assessment or interpretation of constraints with regard to identifying a preferred route option. The following omissions or clarifications are identified below. Within the Option Appraisal Summary Tables H1.1 omits to discuss the presence of four Grade II Listed Buildings within the H1.1 Route Corridor option at Roosecote. These are

	also not discussed in the main report text. These are located particularly close to the existing opportunity corridor. The presence of two Romano-British farmstead Scheduled Monuments on and near Little Urswick Crags within 1km of Route Corridor Options H1.1, H1.2 and H1.3 are not discussed within the Option Appraisal Summary tables or the main report text. The Option Appraisal Summary Table discusses Listed Buildings within 1km of H1.1 including buildings west of Barrow in Furness. This should read to the east of Barrow in Furness. The Listed Buildings at Barrow in Furness are located outside of the 1km study area of Option H1.2. Paragraph 13.7.44 has typographic errors such that two sentences appear to be conflated. It is anticipated this is intended to read there are designated assets within Option H1.1 (five Grade II Listed Buildings), but none in the remaining corridors. Paragraph 13.7.46 notes the tunnel siting head lies o the north of Listed Buildings at Moor Head when it lies to the south of these buildings. The first sentence of 13.7.50 is anticipated to belong to the paragraph and list of undesignated assets in 13.7.49.
H	No heritage constraints have been labelled on Figure OST5.1 and the Search Area and proposed tunnel entrance are not clearly labelled on the Figure. The presence of additional Grade II Listed Buildings and Conservation Area in Heysham should be noted in paragraph 13.10.19, as should the presence of isolated Listed Buildings across the Search Area. Paragraph 13.11.9 describes “local listed buildings of Grade II* or higher” located in Heysham. It is unclear if these means a local list maintained by the Local Planning Authority, or whether these are referring to designated Listed Buildings which should be attributed a national significance. The consideration of archaeology and heritage baseline for the offshore tunnel options identifies there are no designated wreck sites within the Search Area. The baseline also identifies other potential assets of heritage interest but the assessment has not been sufficiently developed to allow these to be mapped or their significance identified. It is considered the conclusion in paragraph 13.13.20 that heritage and archaeological residual effects will be neutral is considered to be too robust a statement at this stage prior to confirmation of detailed siting or assessment of the potential for previously unrecorded archaeological remains.

Socio-economic

Section	Comment
All Sections	The baseline section does not provide a review the broad economic strategy of the area, and makes no mention of the Cumbria Strategic Economic Plan (Cumbria Local Enterprise Partnership). The section could benefit from detailing the future strategy (and spatial implications); however, it is considered that as it stands the baseline provides a good overview.
A2	The safeguarding route for the Whitehaven Eastern Relief Road/Bypass is partially within this area, and while there appear to scope for detailed routing to avoid the allocated zone, this has not been outlined.
A2	The RCS lacks a full assessment of the economic impact of the route, specifically of the impact of the infrastructure on tourism and economic activity. Given that

	this sector of the economic is of key importance this represents an omission that will be required, to fully consider of the implications of the route choice, and possible economic mitigation required
A2.1	However, as the study suggests there are potentially serious implications of the section of A2.1. Although the route does not cross the Westlakes Science and Technology Park it skirts the boundary, potentially constraining the long term growth of the park. Furthermore, the route has the greatest interaction with the proposed by-pass and the gas pipeline safeguarding area.
A2.1	Whilst reaching these conclusions it is acknowledged that these key constraints in respect of route corridor identification are not likely to be absolute constraints in terms of route alignment. National Grid considers that detailed route alignment which protects these receptors from significant negative effects will be possible. This is accepted subject to appropriate siting and mitigation at the next stage of project development.
A2.1	If Route Corridor A2.1 is selected mitigation will be an essential mechanism to address potential significant negative effects on key receptors. As the project progresses it is considered that mitigation through detailed routing and siting should enable an optimal route for the overhead that is acceptable. However, given the conflict between different economic and planning receptors this process requires an accepted robust scope and methodology.
B, C	The Lake District National Park is mentioned as a key tourism driver, however, while there is mention of several other tourism receptors the section should also consider the Solway Coast AONB as an additional tourism driver.
B	It is worth noting that Section B also includes a small area of land within the Lake District National Park Plan Area; however, the impact of this omission from the baseline is limited given the size of the area and likely low level of economic activity.
B, C	The description of relevant Allerdale planning policy is largely comprehensive; however, there is no mention of the Solway Coast AONB (Policy S34) which is a potential planning policy constraint given that some of the route corridors have a degree of interaction with designation. Furthermore, paragraph 7.3.174 incorrectly suggests that Policy EN22 of the 1999 Local Plan forms part of the Development Plan. This was deleted by the adoption of the Allerdale Local Plan 2014 (Part 1) rather than saved as stated; therefore the Landscapes of County Importance designation is not relevant to this section.
B, C	Paragraph 7.3.172 The Allerdale Local Plan designates Wigton as a 'Key Service Settlement', rather than 'Secondary Settlement'. Paragraph 8.3.152 The Allerdale Local Plan designates Wigton as a 'Key Service Settlement', rather than 'Secondary Settlement'.
B	Paragraph 7.9.31 in planning terms Seaton is considered to be part of the wider Workington Settlement.
C	It is worth noting that Section C also includes a small area of land within Eden District Council; however, the impact of this omission from the baseline is limited given the distant proximity to the route corridors and the low level of economic activity in the area.
C	The baseline does not review the emerging Carlisle Local Plan (2014) that has been subject to consultation on the preferred options, including site allocations. A review of the emerging plan provides further evidence that underpins the main messages outlined in the baseline.
D	The route corridors interact with potential development sites identified in the Lake District National Park Local Plan. The allocations are mentioned in the baseline, but not reviewed as a constraint despite interaction with the route (eg Wellbank Camp Site at Bootle). This omission is not serious given that it is reviewed in the appraisal.
E	There is discussion of several key tourism drivers the section, however, the Lake District

	National Park is not mentioned.
E	The RCS highlights the potential to interact with land allocations; however, it does not highlight specific allocated sites with South Lakeland LPA that are within the route corridor. These are as follows; • Employment allocation in Broughton in Furness LA1.8 Land West of Foxfield Road • Residential allocation Kirby in Furness LA1.3 Land Adjacent to Burlington C of E School
F, H	The RCS does not review the recent Barrow Borough Local Plan: Issues and Options – Consultation Document (2014) that outlines future economic and spatial strategy for Barrow, including potential land allocations.
G	The baseline does not provide an overview of the South Lakeland Allocations DPD despite the route corridors interacting with several settlements with allocations such as Endmoor, Holme, Burton-in-Kendal and Milnthorpe. This is considered to be an omission.
G	The RCS could have made reference to Carnforth and Warton given their relative size and location in relation to the route corridors.

Traffic and Transport

Section	Comment
All	Paths and cycleways have been identified but not considered. Any disruption to the availability of public rights of way will require detailed identification and consideration of the impacts on travel and mitigation measures. Some cycleways are owned and maintained by other organisations (eg Sustrans) and therefore they must be directly consulted.

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North West Coast Connections (NWCC) Project – Response to National Grid's Route Corridors Consultation (Stage 2) November 2014

Copeland Borough Council has been working closely with the National Grid over the past 5 years developing and progressing the North West Coast Connections project. The Council has welcomed the open and transparent nature, adopted by National Grid, in the pre consultation period. National Grid have designed an effective platform for engaging all affected Local Authorities and invited stake holders with a potential interest in the project to be involved in pre-consultation discussion and briefings. This pre engagement activity has allowed the Council the opportunity to help shape this consultation and the Council Officers the opportunity to apprise the National Grid of concerns and issues that needed to be addressed. The Council believes that this has enabled a more effective consultation and the Council would urge other NSIP developers to adopt a similar approach.

1.0 Overall Comments

1.1 The Proposed National Grid development will provide a connection for the new nuclear power station at Moorside to the North of Sellafield. The Council recognises the significance of these projects both locally from a social economic regeneration perspective and from a national perspective in securing the nation's electricity supply. With this is mind the Council is supportive of development that will enhance the economic stability of the local area and the electricity supply nationally. However it is vital that these projects are designed and developed with the local communities needs as an intrinsic part of the process balancing the national benefits against the local social, environmental, visual and financial impacts.

1.2 Within the Copeland area there are a number of key considerations which predicate the Councils reasoning for choosing a particular route corridor against an alternative route, these include:

- The protection and enhancement of the boroughs landscape, cultural and historic features and their settings in particular the protection of St Bees Heritage Coast.
- Insuring the potential for economic growth and development within the borough, with particular reference to areas such as section A which has the potential to stifle the growth of Whitehaven town to the east.
- To insure the proposed development where possible rationalises the existing wire scape to reduce the negative cumulative visual impact on local settlements, communities and enhances the potential gains and overall acceptability of the project to the local community, this is an important consideration is section A of the consultation.
- The potential for future proofing the grid to allow economic development and providing enhancements to existing security of electricity supply in the more rural southern region in Section E of the project.

- Maximising the community benefit to the area through the implementation of an economic strategy that seeks to invest in the local supply chain.

2.0 Background

2.1 The following report provides Copeland Borough Council's response to National Grid's Route Corridors Consultation (Stage 2). Comments are focussed on the emerging preferred route corridor within Copeland and other route options where they are considered to be preferable or more consideration is required. It is recognised that there are many different factors that need to be taken into account in assessing potential route options, the Councils response has been informed through the technical experts assessment of the Route Corridor Study (RCS), see appendix 1 for a summary of key issues raised, focusing on the following key issues:

- Landscape and Visual issues
- Ecology and biodiversity issues
- Cultural Heritage issues
- Socio-economic issues
- Traffic and Transport
- Growth

2.2 The current consultation seeks to identify 'route corridors' and as such they will be subject to detailed data gathering and assessment to identify specific impacts and mitigation that is required. With this in mind the views expressed may therefore be subject to change and refinement when further detailed information is available.

2.3 The RCS covers the entire route. The route is broken down into sections. The sections of the development that fall within the Copeland boundary are section A, B, D and E. The Council's response is focused on these sections but also comments on the potential impacts of the proposed use of an option which includes a tunnel beneath Morecombe Bay. Our response also makes reference to possible off-shore route options in anticipation of the possibility that other stakeholders will suggest such options as a preferable solution. The southern onshore route runs through the Lake District National Park (LDNP) within Copeland. This response is a Copeland Borough Council response and will cover the whole of Copeland, both within and outside the LDNP. It is anticipated that the Lake District National Park Authority will submit their own response outlining their comments on the preferred route corridors and other options and how they affect the Park.

3.0 Offshore / Onshore review

3.1 The Council has given careful consideration to the three south options and has concluded that the RCS has provided appropriate evidence to support National Grid's preference for the Onshore South with Tunnel Group Option.

3.2 The route corridor study demonstrates that there are clear difficulties with the off shore option that must be balanced and could threaten the timely delivery of the project. These issues are mainly technical in nature and relate to the technology that would be required and the complexity of installing and maintaining a High Voltage Direct Current (HDVC) cable on the seabed.

3.3 Furthermore, the route offshore has potentially additional issues related to existing uses such as the Eskdale firing range, oil and gas pipelines, offshore wind turbines and associated cable crossings, the technical and cost implications of this option are substantial.

3.4 Although the '*Onshore South*' (all onshore) is the least costly (£0.8bn) and technically most straight forward option, it is the lowest performing group in terms of landscape and visual, ecology, cultural heritage and socio-economic activity. The Council has serious concerns about the potential for this option to have an unacceptable impact on Cumbria. Furthermore, the route corridor has a direct effect on the Lake District National Park (estimated to be approximately 18km), in addition to the nearby protected coastal areas around the Duddon Estuary and other important receptors.

3.5 The Council recognises the national level of protection afforded to the areas within the National Park. There is obvious tension between this protected status and the ability to deliver a nationally significant infrastructure project which supports national ambitions to provide an effective and resilient energy supply to the nation. The acceptance that an on-shore option is likely to be the only feasible and viable option must be based on the essential premise that the on-shore route uses all possible engineering and design solutions to ensure minimal impact and where possible to deliver improvement to landscape appearance and quality. This should include review of the scope to underground cables – where that of itself will not result in harm, and critically to ensure that existing infrastructure is removed and rationalised with a net environmental and landscape benefit

3.6 The choice between the '*Onshore South with Tunnel*' and the '*Offshore South*' is more balanced. There are clear benefits to constructing the route south entirely offshore, thus avoiding the important landscape, ecological and economic receptors through the south of Cumbria and the Morecambe Bay. However, the RCS demonstrates that there are clear difficulties with this option that must be balanced and could threaten the timely delivery of the project. These issues are mainly technical in nature and relate to the technology that would be required and the complexity of installing and maintaining a High Voltage Direct Current (HDVC) cable on the seabed.

3.7 The Council recognises that the off shore option has a range of issues and complexities. It may however remain appropriate to continue to assess feasibility to ensure that any conclusion that this is not a viable option can be robustly demonstrated. The Council notes however that no nuclear power station in the world has been connected by HVDC circuits; therefore, use of the technology in this situation is untested and may result in material additional costs and delays, to what is estimated to be the overwhelmingly most costly option at approximately £1.8bn. Furthermore, the route offshore has potentially additional issues related to existing uses such as the Eskdale firing range, oil and gas pipelines, offshore wind turbines and associated cable crossings. The technical and cost implications of this option are substantial and it is accepted that these would be unlikely to satisfy National Grid's Principles for route development.

3.8 On this basis the Council accepts that on balance the emerging Onshore South with Tunnel Option provides the most preferable option. However, it is also accepted that the emerging

preferred option presents a series of complex and challenging issues that must be overcome to ensure the route option can be delivered effectively without compromising important environmental, economic and social considerations of the route. The sanction of an initially more cost effective option should be reflected in the scale of mitigation of impact on the sensitive landscape through which the onshore route would pass.

3.9 The Council would also have concerns regarding the need for both circuits to go north from Moorside before entering the Sea. The impact of 2 double circuits and a large converter station in this area would cause serious cumulative negative impacts on the local area. If this option is reconsidered the Council would expect further consultation and investigation of the onshore north implications of the offshore route.

3.10 This, together with opportunities for enhanced electricity supply south of Moorside are the main reasons Copeland Borough Council supports the onshore south options. Use of the Tunnel to cross Morecambe Bay provides mitigation for the alternative route around the very sensitive and highly constrained Morecambe Bay, which would also involve going through the LDNP, by avoiding these sensitive areas.

4.0 Considering the Route Corridor Sections in Detail

4.1 The following section provides detailed comments on National Grid's emerging preferred options for the '*Onshore North Group'* and '*Onshore South with Tunnel Group*'. Should the group preference change after this consultation the Council would expect that all partners and communities would to have an additional opportunity to comment and revise overall comments accordingly.

5.0 <u>Section A – Moorside to Whitehaven</u>

5.1 The principal considerations in Section A are:

- The potential for negative impacts on growth in the area
- The protection of the St Bees Head Heritage Coast;
- Rationalisation where possible to reduce impact on the settlements and communities potential affected by the route corridor
- The coastline, and coastal plain between the Lake District fells and the coastline;
- The Lake District fells and the Lake District National Park (LDNP);
- Ecology – including effects on the River Ehen Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI).

5.2 Section A1 - Moorside to Egremont

5.3 The RCS identifies A1.1 as the emerging preferred route corridor for the Moorside to Egremont section. Copeland Borough Council generally accepts the RCS assessment for the majority of the route corridor options in Section A1, with exception to the northern element. The Council

would argue that route A1.2 needs to be included for further development as it may be needed as an alternative connection point from section A2 onward north.

5.4 Copeland Borough Council have concerns regarding route A1.1 and its potential to result in adverse impacts upon St. Bees Heritage Coast, Seascape character and visual receptors through the introduction of pylons of a greater height.

5.5 Cumbria County Council and partners has produced the Cumulative Impact Assessment of Vertical Structures Study (2014) in order to assist in the assessment of cumulative impact in Cumbria and North Lancashire. The Study concludes that the landscape character areas in this section currently experience large to very large magnitude of effect from medium scale infrastructure. The area identified to the north of Section A1 is particularly prominent, located on a ridge. The pylons situated here affect the setting of St Bees Head, the settlement of Egremont, and are clearly visible to users of the A595. In views from the high ground on St Bees Head, these pylons are clearly apparent – and affect the setting of the LDNP, as viewed from the west. A number of individual wind turbines have recently been constructed in this area, which adds to the cumulative effect in this area. The construction of a line of 400kV pylons along this route will exacerbate already significant landscape and visual effects upon key landscape designations, and visual receptors.

5.6 The Council recognises that route A1.2 would involve the creation of an additional line of pylons where currently there are none, therefore the Council would stress the need for consideration to be given to the feasibility of removing both 132kV lines, should new high voltage pylons be constructed.

5.7 Should the route A1.2 need to be progressed in order to provide a suitable connection to the northern section of the route in section A2, detailed consideration should be given to siting to reduce the impact on the Egremont community. Whilst it is recognised that the need to take A1.2 forward may constraint development of the west side of Egremont it is considered that the growth impact is reduced due to the limited road access to this area and the topography.

5.8 Both the RCS and the Council's assessment of the impact of the development suggest that a number of issues will need to be addressed either through consideration of detailed routing and appropriate mitigation to ensure that the development of Route Corridor A1.1 is acceptable. Furthermore, the Councils recommendations for section A2 may result in potential grid alignment issues, which may require that route A1.2 is taken forward for further consideration.

5.9 Overall it is considered that detailed assessment of the preferred route corridor will be key to ensuring that the specific routing of overhead lines and siting of pylons is appropriate. Scoping of assessment methodology will be key to ensure that the route takes account of the important issues and receptors in the next stage of the NWCC project, and adopts the most appropriate route, and mitigation measures. The Council supports early dialogue on the detailed routing and mitigation that will be required to ensure that the effect of the upgraded overhead line is acceptable.

5.10 From consideration of the RCS it is clear that a key form of mitigation will include maximising the rationalisation of pylons and overhead lines. This form of mitigation will be Key to reducing the residual negative impacts across a range of topics including; landscape and visual impact; ecology; cultural heritage as well as the impact on community along the emerging route corridor. The Council's assessment of the landscape and visual impact of the Route Corridor A1.1 concluded that the construction of a line of 400kV pylons will exacerbate already significant landscape and visual effects upon key landscape designations, and visual receptors. Given this there is a clear requirement in some locations to remove more than one existing line to reduce the residual negative effect on the area.

5.11 Furthermore, detailed pylon siting, screen planting, technology choice and appropriate construction management will be key to ensuring that the effects of the upgraded overhead line are acceptable.

6.0 Section A2 - Egremont to Whitehaven/Cleator Moor

6.1 The RCS identifies A2.1 as the emerging preferred route corridor for the Egremont to Whitehaven/Cleator Moor section. Copeland Borough Council objects to the preferred route as it will severely constrain the development of Whitehaven to the east.

6.2 The preferred route corridor in this section incorporates a large piece of land between the current Whitehaven boundary and Westlakes Science and Technology Park. Whilst the Council appreciates that the preferred route follows an opportunity corridor, this area contains the route of the proposed Whitehaven Eastern Relief Road and has the potential to be the general direction of growth for the town into the future.

6.3 The proposed new nuclear power station in Copeland is a nationally significant project and as such it requires a significant amount of associated development to facilitate it. Therefore the Council is challenged with ensuring there is adequate land available to allow for growth and to enable the Associated Development and to ensure that it is created in sustainable locations that will provide a legacy for the local communities.

6.4 The area within route corridor A2.1 may be of especial importance when the principle of where Associated Development for the new nuclear power station at Moorside is considered, due to its proximity to Whitehaven, the A595 for access to Moorside and the opportunity to provide additional route to Moorside, and it may play an increasingly significant role in enabling the delivery of the new power station at Moorside in the short term as well as the direction of growth for Whitehaven in the longer term.

6.5 Even though the area is currently potentially somewhat constrained, with the high pressure gas pipeline, route of the proposed Whitehaven Eastern Relief Road and existing 132kv line the Council is currently exploring its potential, both to provide for Associated Development for the Moorside project and the longer term growth of Whitehaven, as it would appear to be a sensible option in planning terms. A section of land to the east of the A595 within option A2.1 has been proposed for housing development in the emerging local plan.

6.6 The settlement boundary on the northern edge of Whitehaven is also likely to be extended slightly to enable the Education Campus to be developed. This is an additional factor that will need to be taken into account when the detailed route alignment is considered.

6.7 Westlakes Science and Technology Park is a key strategic site located to the south east of Whitehaven and east of the preferred A1.2 route. The Councils aspiration is to provide for the growth of Whitehaven to the east which will provide stronger links between the town and this important strategic site. Providing for development to the east of Whitehaven will support the future growth and development of the science park and the town through supplying additional business space for the expanding supply chain needed to support the nuclear new build, decommissioning and emerging energy markets in the region.

6.8 Installing 400kv pylons in route corridor A2.1 could prevent this development and effectively sterilise growth in this area of Whitehaven, even if the existing 132kv pylons running through the site are removed. As such the Council strongly recommends that alternative corridors which avoid this area are explored in greater detail and that National Grid takes forward A2.3 and A2.5 as additional preferred route corridors to allow this work to take place.

6.9 Due to the complexity of socio economic issues in area A2 the National Grid has not identified a preferred route corridor based on socio economic constraints. However, the report does highlight there is potentially serious implication of the section A2.1. Including the potential to constrain the long term growth of the Science and Technology Park. The Council would also argue that the potential to constrain the development of Whitehaven to the east has not been given due consideration and weighting in selecting the preferred route.

6.10 In term of visual impact the National Grid conclude that A2.1 will result in greater impacts upon the St Bees Heritage Coast. Their rationale for preferring this route in spite of these findings is that the alternative options would result in greater impact upon local settlements, notably Bigrigg and Moor Row.

6.11 However the RCS assessments concludes that, for the area to the south of A2, the draft cumulative impact work indicates that the landscape character areas through which the route corridors run currently experience significant cumulative effects from vertical infrastructure, as do the majority of settlements in the vicinity. It also states that the pylons situated on the ridge here affect the setting of St. Bees Head, Egremont and are clearly visible to users of the A595 and that in views from the high ground on St Bees Head, these pylons are clearly apparent – and affect the setting of the Lake District National Park. The RCS concludes that Consideration should be given to undergrounding these prominent, elevated sections of the line.

6.12 The RCS ecology assessment of Section A2.1 states that this route would impact on a replanted woodland on an Ancient Woodland Site with requirement to coppice or remove trees and in terms of ecology the preferred route A2.1 cannot easily be mitigated and would potentially also disrupt wildlife corridor continuity and commuting along the woodland edges.

6.13 It therefore concluded that In terms of biodiversity alternative routes which introduce additional overhead lines but avoid the woodland are preferable.

6.14 It should be noted that if A2.3 and/or A2.5 are taken forward this would require the widening of the southern end of corridor B1.2 (the preferred corridor in section B1) so that the sections continue to join together as one continuous route corridor.

7.0 Section B - Whitehaven to Aspatria

7.1 The principal considerations in Section B are:

- The coastline, and coastal plain between the Lake District fells and the coastline;
- The Lake District fells and the Lake District National Park;
- The Solway Coast Area of Outstanding Natural Beauty;
- The Historic Environment, including Hadrian's Wall and Frontiers of the Roman Empire World Heritage Site (WHS); and
- Whitehaven, Workington, Distington, Frizington, Parton, Lowca, Moresby Parks and Arlecdon
- Important ecological sites such as Derwent and Bassenthwaite Lake Special Area of Conservation, Site of Special Scientific Interest
- Effects on the setting of heritage assets including most of the Frontiers of the Roman Empire (Hadrian's Wall) WHS and its Buffer Zone and other important heritage assets

8.0 Section B1 - Whitehaven to Stainburn/Dean

8.1 The RCS identifies B1.2 as the emerging preferred route corridor for the Whitehaven to Stainburn section. Copeland Borough Council accepts the RCS assessment of the route corridor options in Section B1, and considers that with appropriate mitigation B1.2 performs best across the range of topic areas.

8.2 It should be noted that if A2.3 and/or A2.5 are taken forward this would require the widening of the southern end of corridor B1.2 (the preferred corridor in section B1) so that the sections continue to join together as one continuous route corridor.

8.3 Both the RCS and the Council's assessment of the impact of the development suggest that a number of issues will need to be addressed either through consideration of detailed routing and appropriate mitigation to ensure that the development of Route Corridor B1.2 is acceptable.

8.4 Furthermore, detailed pylon siting, screen planting, technology choice and appropriate construction management will be key to ensuring that the effects of the upgraded overhead line are acceptable.

9.0 On shore south with tunnel area

Section D – Moorside to Silecroft

9.1 The principal considerations in Section D are:

- The coastline, and coastal plain between the Lake District fells and the coastline;
- The Lake District fells and the Lake District National Park;
- The St Bees Head Heritage Coast;
- Muncaster Fell (and registered/listed components of the Muncaster Castle estate) which extends across the coastal plain to the east of Ravenglass.

Section D1 – Moorside to Ravenglass

9.2 The RCS identifies D1.1 as the emerging preferred route corridor for the Moorside to Ravenglass section. Copeland Borough Council generally accepts that the RCS assessment of the route corridor options in Section D1 is appropriate and it considers that with appropriate mitigation D1.1 has the potential to perform best across the range of topic areas.

9.3 From a landscape and visual perspective the Council consider that despite D1.1 being the best performing overall route corridor there is potential residual negative impact on seascape and the setting of LDNP. It is further acknowledged that the existing line currently generates adverse impacts upon the National Park, therefore given that the development of an additional overhead route would exacerbate this effect, mitigation must be considered to reduce existing impacts in addition to considering the landscape and visual benefits made possible by undergrounding existing as well as the proposed line.

10.0 Section D2 - Ravenglass to Silecroft

10.1 The RCS identifies D2.1 as the emerging preferred route corridor for the Ravenglass to Silecroft section. Copeland Borough Council generally accepts that the RCS assessment of the route corridor options in Section D2 is appropriate and it considers that with appropriate mitigation D2.1 has the potential to perform best across the range of topic areas. From a landscape and visual perspective the Council consider that despite D2.1 being the best performing overall route corridor there is potential residual negative impact on seascape and the setting of LDNP. It is further acknowledged that the existing line currently generates adverse impacts upon the National Park, therefore given that the development of an additional overhead route would exacerbate this effect, mitigation must be considered to reduce existing impacts in addition to considering the landscape and visual benefits made possible by undergrounding existing as well as the proposed line. Furthermore, the Cumulative Impact Assessment of Vertical Structures Study (2014) that demonstrates that this area is already experiencing significant cumulative effects from vertical infrastructure. Therefore, any additional development is likely to be very significant.

11.0 <u>Section E – Silecroft to Lindal in Furness</u>

11.1 The principal considerations in Section E are:

- The coastline, and coastal plain between the Lake District fells and the coastline;
- The coastline of the Duddon Estuary;
- The Lake District fells and the Lake District National Park;
- Topographical features such as Black Combe, Knott Hill, Bank End, Thornthwaite Latter Rigg, Heathwaite Fell, Great Burney and High Moor;
- The high ground that runs in a broadly north south direction down the Furness peninsula;

- The settlements of Millom, Dalton-in-Furness, Lindal in Furness, Barrow-in-Furness; and Walney Island.
- Nationally and Internationally important ecological sites – including effects on Duddon Mosses Special Area of Conservation (SAC), Site of Special Scientific Interest and National Nature Reserve (NNR); and the Duddon Estuary Special Protection Area, Ramsar site and SSSI (and Morecambe Bay SAC); and, upland sites of Subberthwaite, Blawith and Torver Low Commons SAC and Kirkby Moor Site SSSI.
- Future proofing the grid and insuring security of supply to this rural area

11.2 **Section E1 – Silecroft to Duddon**

11.3 The RCS identifies E1.1 as the emerging preferred route corridor for the Silecroft to Duddon section. Copeland Borough Council accepts the RCS assessment of the route corridor options in Section E1, and considers that with appropriate mitigation E1.1 performs best across the range of topic areas.

11.4 The main area of concern from a socio economic point of view is ensuring that the local area, and Millom in particular, benefits from an enhanced security of electricity supply. As we understand it the provision of a new 400kv route will provide enhanced potential electricity supply in south Copeland and the Council would stress that an enhanced local distribution network is provided, directly or in partnership with Electricity North West to provide, in the Millom and surrounding area, whichever route is taken forward in this section. This will ensure that the North West Coast Connections project brings direct and immediate benefit to the Millom area as well as future proofing the Grid.

11.5 The Council's assessment of the landscape and visual impact of the Route Corridor E1.1 concluded that although preferable to other options the construction of a line of 400kV pylons will exacerbate already significant landscape and visual effects upon key landscape designations such as the LDNP, and visual receptors. It is suggested that where appropriate underground routing of new line should be investigated.

11.6 Detailed siting is also required to ensure that E1.1 would not result in unacceptable adverse impacts on international, national and local designations. Careful consideration should be given to the Duddon Mosses and as such it is considered that a Habitats Regulations Assessment is likely to be required.

12.0 Conclusion

12.1 As a general principle the Council supports the use of an 'opportunity corridor' given the clear potential to rationalise the number of pylons and overhead lines in order to reduce the impact on the communities and economic receptors along the route.

12.2 However, in section A2 the Council does not agree with the preferred route corridor and would urge that the social and economic implications in this section have not been fully taken into consideration and for that reason the alternative routes should be reconsidered due to the potential for A1.1 to constrain the development of Whitehaven to the east.

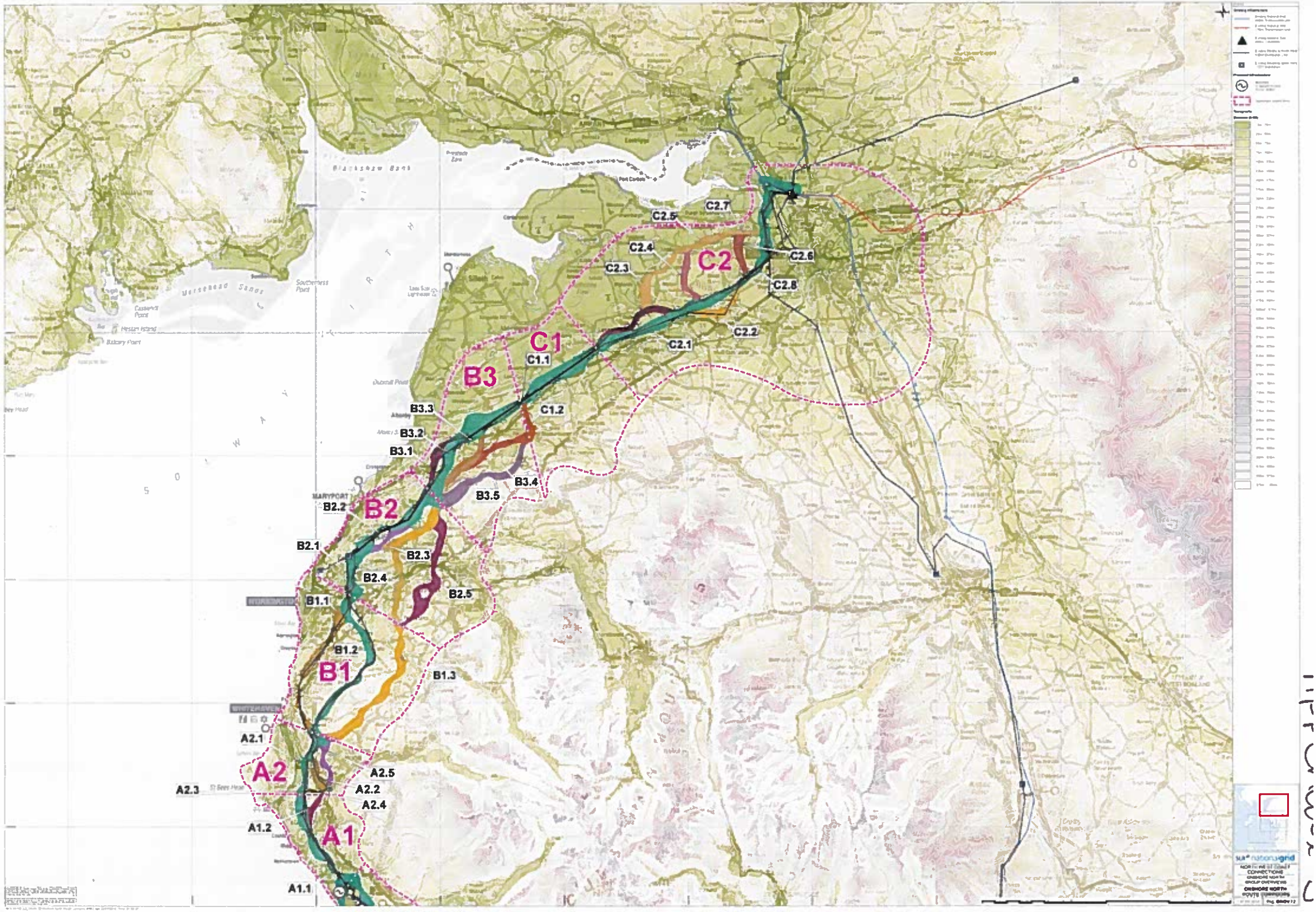
12.3 The Council would also stress the need to address the security of supply in section E and the Millom area in particular. Collaborative working with Electricity North West (ENW) could ensure that the proposed development brings more direct and immediate benefit to the Millom area and maximises the local benefits of this national project.

12.4 Overall it is considered that detailed assessment of the preferred route corridor will be key to ensuring that the specific routing of overhead lines and siting and design of pylons is appropriate. Scoping of assessment methodology will be key to ensure that the route takes account of the important issues and receptors in the next stage of the NWCC project, and adopts the most appropriate route, and mitigation measures. The Council supports early dialogue on the detailed routing and mitigation that will be required to ensure that the effect of the upgraded overhead line is acceptable.

12.5 The development of route corridors has the potential to result in positive temporary economic activity effects during construction, both directly, from the workforce expenditure, and in respect of the multiplied indirect positive effects of that local expenditure within existing and new supply chains. The Council will work with partners including National Grid to maximise the opportunities and support for local businesses and labour force.

12.6 A construction and economic development strategy should be implemented that seeks to maximise the economic benefit and legacy to the local area. A central component of this will be building the key skills and training that will provide a lasting and positive skills and education legacy for local people. It is considered that this could ensure that the residual effect of construction is positive and opportunities for economic development and inward investment achieves long term positive effects.

Appendix one : **Baseline Assessment**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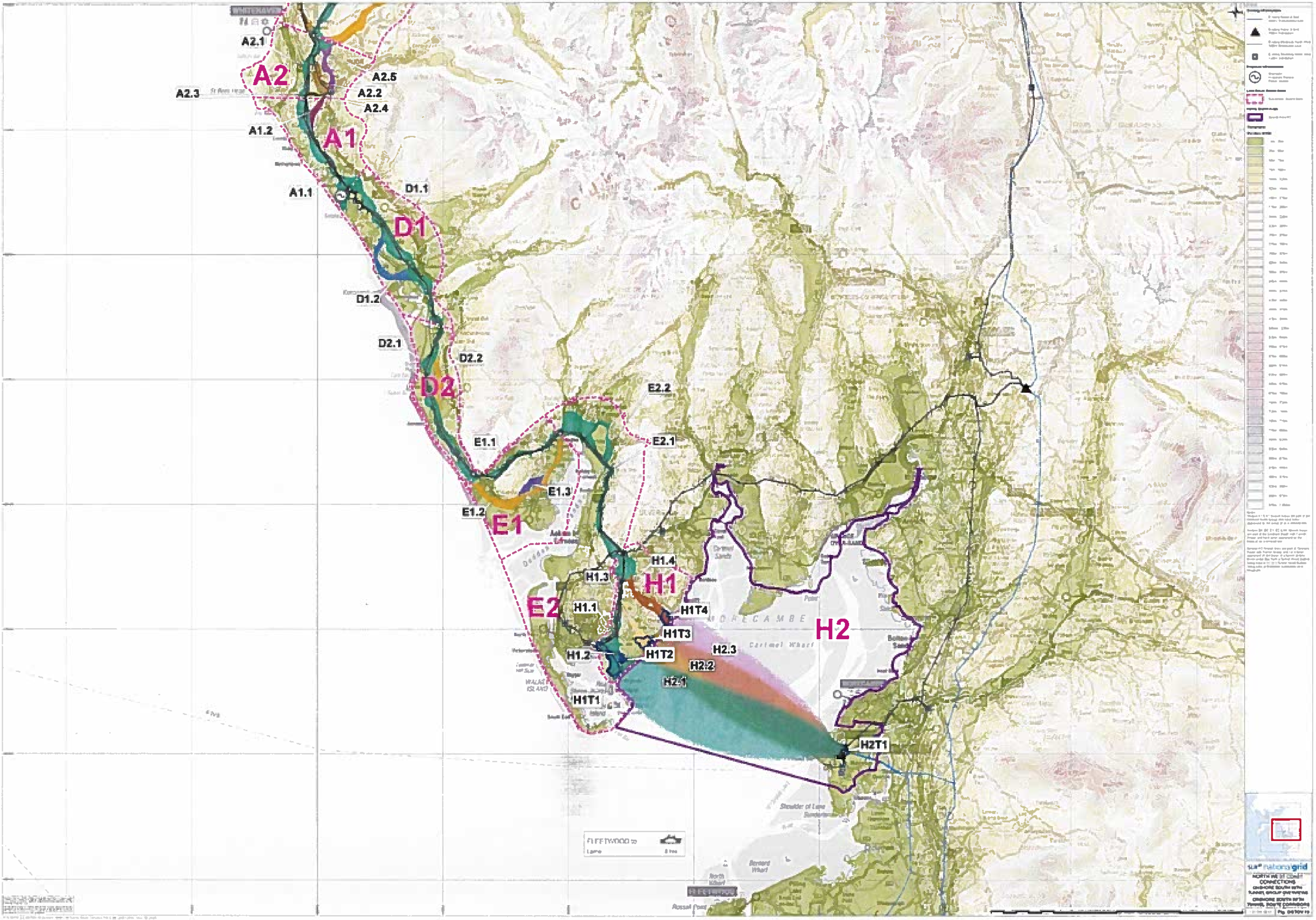
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national grid
NORTH WEST COAST CONNECTIONS

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