

From: Malcolm.charis [mailto:]
Sent: 18 December 2014 22:42
To: YorksHumberCCSPipeline
Cc: ;
Subject: Yorkshire & Humber CCS Cross Country Pipeline (EN070001) - Representor 10029765
EMAIL 1 of 2

Dear Sir, I have the following to communicate,
Representor 10029765

Notification of a wish to attend a hearing

(ii) Notification of wish to speak at a compulsory acquisition hearing

- W Clifford Watts Ltd (objector ID: 85),
- The Trustees of the Burton Agnes Estate Trust (objector ID: 74),
- The Hon Mrs S Cunliffe-Lister (objector ID: 75), and
- Mr & Mrs P Conner (objector ID: 86).

Hereby give notification that the above parties wish to speak at a compulsory acquisition hearing

(iii) Notification by interested parties of their intention to attend the accompanied site visit(s)

- W Clifford Watts Ltd (objector ID: 85),
- Mineral Products Association (objector ID: 22),

Hereby give notification that the above parties wish to attend the accompanied site visit(s) for Gransmoor, Barf HillWood and Park Farm Quarries. The issues surrounding the mineral safeguarding issue are technical and complicated and it would assist the ExA in his deliberations if he could see the quarries, the mineral face, the reconstructed bund for the proposed realignment of the pipeline in thier surroundings.

Notification by interested parties of wish to be heard at an issue specific hearing

- Mineral Products Association (objector ID: 22),
- W Clifford Watts Ltd (objector ID: 85),
- The Trustees of the Burton Agnes Estate Trust (objector ID: 74),
- The Hon Mrs S Cunliffe-Lister (objector ID: 75), and
- Mr & Mrs P Conner (objector ID: 86).

Hereby give notification that the above parties wish to speak at an issue specific hearing

The topics that the parties wish to address relate to

- mineral safeguarding and the relationship of the proposal with actual, planned, safeguarded mineral extraction and mining areas.
- local employment and the effect on local services including businesses.

Submission of Written Representations & accompanying material

In addition, I attach the joint Written Representations of the Parties (one for each objector), a Summary (one for each objector) plus a set of 6 Appendices and two plans (one only in a separate email on account of its size).

Please acknowledge receipt immediately, and advise if any parts of the representations do not arrive.

regards,

Malcolm Ratcliff

for the objectors

SUMMARY

Written Representations

of the

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W Clifford Watts Ltd (WCW) and Others

to the

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(IDs 22, 74, 75, 85, 86)

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1. The objectors have established that
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 - National policy for mineral safeguarding requires the local identification of MSAs, and policies for prior extraction
 - National guidance on mineral safeguarding advises that non mineral developers carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality
 - Local policies are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.
 - This Local Plan Strategy Document has reached examination stage and should be accorded more weight in the planning balance
 - EN – 1 requires applicants to safeguard minerals ‘as far as possible’, which is a high bar to development that requires significant effort and investigation to satisfy.
 - EN – 1 also requires applicants to put in place appropriate mitigation measures when developments have an impact on MSAs to safeguard mineral resources.
 - The EIA scoped out minerals but the reasons for this decision remain unknown.
 - The corridor route selection process logged the existence and location of active mineral sites and MSA boundaries.
 - The project crosses over 40 linear km of MSAs in the East Riding alone, 25 km of which are sand and gravel MSAs.
 - The applicant should recognise that notwithstanding the national importance of its project national policy also accords great weight to the benefits of mineral extraction, and by implication, mineral safeguarding.

2. The objectors await confirmation of the following ,
 - The corridor route selection process assumes that where the development impacts on mineral resource areas were ‘unavoidable’ that this justified not carrying out mineral assessments.

- There is no clarity about why impacts on mineral impacts were accorded 'minor' status which would involve successful mitigation of impacts.
 - Whether any field investigations were carried out as required by Local Plan policy, viz, test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, the value of the underlying or adjacent mineral now or in future, documented attempts to market the mineral or the use of it in the development.
3. The objectors submit that without confirmation that mineral assessments have been carried out to a professional standard, the applicant cannot demonstrate that it has complied with national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures. Neither can it demonstrate that it complies with national or local planning policy in considering seriously, prior extraction of mineral. The MPA therefore asks that in this respect, the DCO should not be confirmed until this work has been carried out, consulted on and examined.

Summary of Gransmoor Issue

4. The objectors have established that
- The Gransmoor Deposit is not as the applicant supposes, a thin contaminated deposit of limited value, but is part of a projected esker deposit of sometimes great thickness and exceptional quality sand and gravel.
 - There are proven deposits of up to 23 metres in thickness and 1.7 million tonnes to be exploited at Gransmoor.
 - W Clifford Watts (the company) has one of the most important sand and gravel operations in the Humber area at Gransmoor which produces typically 12.5% of the output for the East Riding. It is a highly integrated enterprise that employs ultimately 103 people, and added value plants across the East Riding area are dependent on the site for resources.
 - The company has made significant investment in the site and in dependent operations on the assumption that its medium term plan to progress through the Barf Hill deposit will be realised.
 - The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation to demonstrate the seriousness of its intentions and to supplement its remaining reserves at Turtle Hill.
 - The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes of mineral or 40% of the

mineral to the south of Barf Hill wood, leaving the company with reserves for only 3 years if the planned extension is permitted.

- Company plans to join the two operations at Gransmoor and Park Farm through the Barf Hill deposit would be compromised to the extent that it would not be viable to divert the road and relocate the wood as planned.
- There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.
- The company has proposed an alternative alignment for the pipeline on a causeway already constructed at Park Farm quarry that can be assured to be suitable for the location of the pipeline. This can be achieved either by demonstration of stability by testing or by a legal agreement to ensure that it is provided to a suitable specification.
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Conclusions and Recommendation

5. National policy supports the conservation of scarce mineral resources, recognises the importance of them to the national economy and requires mineral safeguarding and policies for prior extraction. It therefore advises that non mineral developers should carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality before applications should be determined. Local policies are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.
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Summary of Gransmoor Issue

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- The Gransmoor Deposit is not as the applicant supposes, a thin contaminated deposit of limited value, but is part of a projected esker deposit of sometimes great thickness and exceptional quality sand and gravel.
 - There are proven deposits of up to 23 metres in thickness and 1.7 million tonnes to be exploited at Gransmoor.
 - W Clifford Watts (the company) has one of the most important sand and gravel operations in the Humber area at Gransmoor which produces typically 12.5% of the output for the East Riding. It is a highly integrated enterprise that employs ultimately 103 people, and added value plants across the East Riding area are dependent on the site for resources.
 - The company has made significant investment in the site and in dependent operations on the assumption that its medium term plan to progress through the Barf Hill deposit will be realised.
 - The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation to demonstrate the seriousness of its intentions and to supplement its remaining reserves at Turtle Hill.
 - The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes of mineral or 40% of the

mineral to the south of Barf Hill wood, leaving the company with reserves for only 3 years if the planned extension is permitted.

- Company plans to join the two operations at Gransmoor and Park Farm through the Barf Hill deposit would be compromised to the extent that it would not be viable to divert the road and relocate the wood as planned.
- There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.
- The company has proposed an alternative alignment for the pipeline on a causeway already constructed at Park Farm quarry that can be assured to be suitable for the location of the pipeline. This can be achieved either by demonstration of stability by testing or by a legal agreement to ensure that it is provided to a suitable specification.
- However, if necessary, there are other alternative routes should that not be acceptable to the applicant.

Conclusions and Recommendation

5. National policy supports the conservation of scarce mineral resources, recognises the importance of them to the national economy and requires mineral safeguarding and policies for prior extraction. It therefore advises that non mineral developers should carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality before applications should be determined. Local policies are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.
6. The applicant has not confirmed that mineral assessments have been carried out to a professional standard along the 40 linear km of MSAs that the pipeline corridor crosses, and therefore the applicant has not demonstrated that it has complied with national planning policy to conserve minerals, or national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures, or that it complies with national or local planning policy in considering seriously, prior extraction of mineral.
7. In respect of Gransmoor the deposit is a valuable proven deposit of up to 23 metres in thickness and over 1.7 million tonnes of recoverable mineral. W Clifford Watts has one of the most important sand and gravel operations in the Humber area with a highly integrated enterprise and added value plants across the East Riding area are dependent on the site for resources. The company has recently submitted a planning application to East Riding County

Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation.

8. The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes or 40% of the mineral to the south of Barf Hill wood, and prevent the company from joining the two operations at Gransmoor and Park Farm through the Barf Hill deposit. There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.
9. The company has proposed an alternative alignment for the pipeline on a causeway already constructed that can be assured to be suitable for the location of the pipeline.
10. The objectors therefore ask that the DCO should not be confirmed.

Written Representations
of the
Mineral Products Association (MPA),
W Clifford Watts Ltd (WCW), and Others
to the
Yorkshire and Humber (CCS Cross Country Pipeline)
Development Consent Order
Examination
(IDs 22, 74, 75, 85, 86)

18th December 2014

Written Representations of the Mineral Products Association (MPA), W Clifford Watts, and Others to the Yorkshire and Humber (CCS Cross Country Pipeline) Development Consent Order Examination

Introduction

1. These joint representations are made on behalf of the following objectors,
 - Mineral Products Association (objector ID: 22),
 - W Clifford Watts Ltd (objector ID: 85),
 - The Trustees of the Burton Agnes Estate Trust (objector ID: 74),
 - The Hon Mrs S Cunliffe-Lister (objector ID: 75), and
 - Mr & Mrs P Conner (objector ID: 86).
2. The Mineral Products Association is taking the lead in the representations on these matters at the Examination.
3. The Mineral Products Association (MPA) is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. With the recent addition of The British Precast Concrete Federation (BPCF) and the British Association of Reinforcement (BAR), it has a growing membership of 450 companies and is the sectoral voice for mineral products. MPA membership is made up of the vast majority of independent SME companies throughout the UK, as well as the 9 major international and global companies. It covers 100% of GB cement production, 90% of aggregates production and 95% of asphalt and ready-mixed concrete production and 70% of precast concrete production. Each year the industry supplies £9 billion of materials and services to the £120 billion construction and other sectors. Industry production represents the largest materials flow in the UK economy and is also one of the largest manufacturing sectors.
4. Given the NPPF's recognition of the economic and employment benefits of the extractive industries (paras 28 & 144) we should like to direct your attention to 'Making the Link', a document produced by the MPA to highlight the contribution that the sector makes to the economy. The document can be downloaded from the following website.
http://www.mineralproducts.org/documents/MPA_MTL_Document.pdf
3. This evidence covers two aspects of the objections. First, it addresses the need to observe national policy for mineral safeguarding and second, it examines the effect of the DCO on a member company's operations (W Clifford Watts Ltd) which include the interests of the mineral and land owners of the sterilised section.

The Objections

4. The **MPA** has objected to the draft DCO, not because it wishes to stop development, but to ensure that the procedure for mineral safeguarding has been respected and that the applicant demonstrates with certainty that it has fully evaluated the impact of development on mineral interests and has taken the appropriate action in line with national policy. The project crosses many kilometres of MSA within the East Riding¹. In addition, the MPA objected in support of one of its member companies, W Clifford Watts Ltd, who operate two quarries at Gransmoor and Park Farm near the village of Kelk, East Riding. The pipeline lies in the centre of an Area of Search for minerals in the adopted Mineral Local Plan (2004) and therefore threatens the future of these quarries and the MPA and the company wish the installation to be moved to accommodate future mineral need.

5. **W Clifford Watts** objected to the draft DCO because there are few areas in the locality where exploitation of sand and gravel is economically viable and traditional mineral working areas are becoming exhausted. In order to secure future supplies, the Company has entered into three option agreements to take a lease and work sand and gravel over land at Great Kelk. It is estimated that in total, the current route of the pipeline would sterilise a significant and strategically important tonnage of sand and gravel in the areas covered by those option agreements. In addition, the Company believes it would be possible to re route the pipeline so as to minimise the disruption and volume of minerals sterilised within the Barf Hill and Great Kelk areas helping to preserve the future supply of minerals to the local market place. The applicant has failed to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission Document which proposes Minerals Safeguarding Areas.

6. **The Trustees of the Burton Agnes Estate Trust, the Hon Mrs S Cunliffe-Lister and Mr & Mrs P. Conner** all presented similar objections to the intent that the current route of the pipeline would sterilise a significant and strategically important tonnage by crossing the deposit. It would be possible to re-route the pipeline so as to minimise the disruption and volume of minerals sterilised, helping to preserve the future supply of minerals to the local market. In the market served by minerals extracted from this locality there is a recognised shortage of sand and gravel and without developing local reserves there will be a need to import sand and gravel from outside of the locality resulting in the generation of additional road traffic and possibly disruption to supply. There are few areas in the locality where exploitation of sand and gravel is economically viable. Traditional mineral working areas are becoming exhausted and there is a need to preserve future reserves of minerals in this locality which is not met in the proposed

¹ The MPA calculates that the project traverses over 25 km of sand and gravel MSAs and 19 km of Industrial Chalk MSA within the East Riding.

scheme. The proposed pipeline route fails to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission which proposes Minerals Safeguarding Areas.

Part 1: The Mineral Safeguarding Objection

The Mineral Safeguarding Regime Nationally

7. Mineral safeguarding is recognised as “,,essential to ensure that the ability of future generations to meet their needs for minerals is not compromised by planning decisions that are being made in the present day. The essence of any safeguarding process is that it should introduce the consideration of minerals into the decision making balance, so that access to mineral resources for future generations is preserved as far as possible. The first part of that process is the identification of mineral resources and the definition of Mineral Safeguarding Areas (MSAs). “²
8. Although National Infrastructure Projects are subject to a separate policy document, projects will rely on the planning system to inform them of planning constraints and policies for conservation that will in turn inform an EIA process.
9. NPPF para 122 says, “Minerals are essential to support sustainable economic growth and our quality of life...However, since minerals are a finite natural resource, and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation.”
10. NPPF para 143, bullet point 3 says that in preparing Local Plans local planning authorities should, “define Minerals Safeguarding Areas and adopt appropriate policies in order that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked”.
11. Bullet point 5 of the same paragraph in NPPF says that local planning authorities should, “set out policies to encourage the prior extraction of minerals, where practicable and environmentally feasible, if it is necessary for non-mineral development to take place;”
12. NPPF para 144 says, “When determining planning applications, local planning authorities should give great weight to the benefits of the mineral extraction, including to the economy” (bullet point

² Mineral safeguarding in England: good practice advice, British Geological Survey Open Report OR/11/046, October 2011, para 1.1.2

1); and “not normally permit other development proposals in mineral safeguarding areas where they might constrain potential future use for these purposes;” (bullet point 7).

13. NPPG paragraph: ID: 27-004 says “Mineral planning authorities should adopt a systematic approach for safeguarding mineral resources, which...adopts clear development management policies which set out how proposals for non-minerals development in Minerals Safeguarding Areas will be handled, and what action applicants for development should take to address the risk of losing the ability to extract the resource. This may include policies that encourage the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in Minerals Safeguarding Areas and to prevent the unnecessary sterilisation of minerals”.
14. The BGS good practice guidance is the bedrock of identifying and delineating MSAs. This guidance advises local planning authorities on the methodology to adopt for this task, and proposes a seven step approach from identifying the geological resources (usually from the BGS’s own mineral resources maps), through to proposing draft MSA boundaries, undertaking consultation and then the most appropriate way of formalising them in strategic local plan documents and development management policies. This is followed up by including safeguarding requirements in local plans and finally the requirements of mineral assessments in local validation lists (para 1.1.3).
15. The BGS guidance also explains the role of the BGS in providing baseline information. “Mineral resource maps of each English county have been compiled by the BGS on behalf of the Office of the Deputy Prime Minister (now DCLG). These maps show the geological distribution of all onshore mineral resources together with additional information on the location of mineral extraction sites, the extent of mineral planning permissions...and the extent of selected landscape and nature-conservation designations. The primary objective is to produce baseline data in a consistent format that can be updated, revised and customised to suit planning needs, including use in the preparation of LDDs.” (para 2.2.1)
16. It is important that “sufficient information on mineral resources is necessary for local authorities to determine non-mineral planning applications submitted in MSAs. The requirement for a Mineral Assessment to accompany these applications could be administered through inclusion on the local list of information requirements” (para 6.1.).
17. The BGS guidance also confirms the normal content of such an assessment. The two levels of Mineral Assessment are:

1. "A site-specific desk-based assessment of the existing surface and solid geological and mineral resource information. This may comprise information on the mining and quarrying history, mineral assessments and market appraisals, boreholes, site investigations, geological memoirs, technical reports, mining plans and the thickness of superficial geological deposits.
2. Analysis of the site-specific information derived from level 1 including:
 - An estimate of the economic value (for example quality and quantity) of the mineral resource.
 - Its potential for use in the forthcoming development and an assessment of whether it is feasible and viable to extract the mineral resource ahead of development to prevent unnecessary sterilisation.
 - Where prior extraction can be undertaken, an explanation of how this will be carried out as part of the overall development scheme.

Level 2 should be prepared by a suitably qualified and competent person. Should an applicant believe that some or all of the information is not necessary, advice should be sought from the MPA."³

18. A further key concept of mineral safeguarding is proximal sterilisation. It is a common mistake made by developers and local planning authorities that mineral safeguarding is expressed only in the principle of prior extraction. If developers consider the area sterilised by development to be too small for such prior extraction, they often believe they have done their job. This is possibly because specific requirements are laid down by NFFP paragraph 143 bullet point 5 for policies on prior extraction. However, it cannot be stressed too strongly that this is not the be-all and end-all of mineral safeguarding. The BGS document makes clear that even small developments in mineral safeguarding areas covering much less land than would be viable for prior extraction, is very likely to sterilise mineral. This is through the influence of sterilisation by proximity. Figure 2 in the BGS document shows graphically the potential for sterilisation of large quantities of mineral underground by land development out of all proportion to its footprint. Thus there is a real danger that mineral might be sterilised by small development that severs larger deposits, or requires standoffs which would prevent mineral working taking place later or that closes off access to deposits entirely.

³ BGS guidance; recommended text for inclusion in the local list of information requirements

The Mineral Safeguarding Regime Locally

19. MSAs in the East Riding were first proposed and consulted on through the preparation of the Hull and East Riding Joint Minerals Local Plan at Issues and Options stage, the Preferred Approach stages, as well as through the Draft Strategy Document and Policies Map, and the Proposed Submission Strategy Document and Policies Map. These will be refined through the Joint Minerals Local Plan. However, they are largely complete pending the outcome of the Submission Strategy Document Examination. Having regard to the advanced stage of adoption of this plan the MPA believes the Examining Authority should accord it more weight.

20. Technical evidence for defining Mineral Safeguarding Areas has been progressed through the Joint Minerals Plan. The approach taken to defining these Areas is largely set out in paras 8.3 - 8.12 of the Preferred Approach Joint Minerals Plan. This recognises that, in defining Minerals Safeguarding Areas, it is important to consider the extent and nature of the mineral resource. Within the East Riding these resources comprise:
 - i. Sand and Gravel;
 - ii. Crushed Rock (Limestone);
 - iii. Crushed Rock (Chalk);
 - iv. Clay;
 - v. Industrial Chalk; and
 - vi. Silica Sand.

21. For sand and gravel Mineral Safeguarding Areas have been defined based on the full extent of glaciofluvial, sand and gravel of unknown origin, and glaciolacustrine deposits shown on the British Geological Survey Geological Resources Map for the area. This approach has been used because of the economic importance of the resource, as demonstrated by the significant number of active sand and gravel workings in the East Riding, as well as the sales of sand and gravel resources in the Humber area shown by the draft Local Aggregates Assessment.

22. One of the unfortunate results of relying on that information base is that the deposits at Barf Hill were missed off the resources map due to the inadequacies of geological mapping in the area, and even though they are clearly being worked and there is direct evidence of their existence. This is no doubt one of the refinements to MSA boundaries that the Submission Strategy Document mentions is the task of the forthcoming Joint Minerals Local Plan.

23. MSAs have therefore existed in draft form since 2010 and are being used by the mineral planning authority in decision making. Prospective applicants would be expected to respect the requirements of mineral safeguarding in formulating proposals.

24. Policy for mineral safeguarding is contained within the East Riding Proposed Submission Strategy Document which is under examination. Hearings have been completed and the Inspector's report is awaited. Policy EC 6 deals with mineral safeguarding and this proposes MSAs which are shown on the Policies Map and that non mineral development located within or adjacent to MSAs will only be supported where a number of criteria are met. These include where the mineral is of limited economic value, or the need for the development outweighs the need to safeguard mineral, the mineral resource will not be affected in the future, or development is temporary, or where the proposal is an allocated site in the development plan, or where prior extraction can take place. Although the MPA objected to this policy, it was in the form of suggesting additions to it. In general the Association was happy with the approach adopted by the County Council, and indeed the safeguarding policies are not the subject of much uncertainty due to the extent or weight of objection.

25. Clearly, these criteria cannot be met without recourse to investigation of the mineral potential, which the supporting text makes clear. Paragraph 7.77 of the draft Plan states,

“The safeguarding of mineral resources will ensure that the importance of the mineral can be balanced against the importance of the proposed non-mineral development. It does not provide a presumption in favour of minerals development. Therefore, non-mineral development, which would adversely affect the viability of exploiting an underlying or adjacent deposit in the future, will be supported in a Mineral Safeguarding Area where:

- *Test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, suggest the underlying or adjacent mineral is of limited economic value, and its value is unlikely to become significantly greater in future, for example, by being of insufficient amount or quality. Documented attempts to market the mineral may be required to demonstrate that the mineral resource is not viable;*
- *The need for the development outweighs the need to safeguard the minerals for the future, for example, the surface development is an essential piece of infrastructure and alternative sites are not available without a disproportionate cost;*
- *It can take place without preventing the mineral resource from being extracted in the future. This could include development covering a smaller area, such as householder development. Some larger proposals containing only limited built development could also take place without sterilising the resource, for example, golf courses or some types of agricultural development. This will depend on the nature of the proposal and the extent, nature and economic value of the mineral concerned...”*

National Policy for Infrastructure Projects

26. National infrastructure projects are regulated by separate policy (Overarching National Policy Statement for Energy [EN -1]) and the Local Plan may be a material consideration in determining any proposals made under EN - 1. The MPA considers that the Local Plan provides the local context for policy statements in EN -1 with regard to mineral safeguarding, and describes how the Policy should be implemented.
27. EN -1 requires the safeguarding of any mineral resources on the proposed site *'as far as possible taking into account the long-term potential of the land use after any future decommissioning has taken place'* (para 5.10.9) and *'where a proposed development has an impact upon a Mineral Safeguarding Area (MSA)...appropriate mitigation measures have been put in place to safeguard mineral resources'* (para 5.10.22).
28. These two brief statements are the only references to mineral safeguarding in EN – 1. However, other policy statements on the general subject of land use may be relevant. Paragraph 5.10.5 states, *"The ES (see Section 4.2) should identify existing and proposed¹³² land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan."* The reference in the text (132) is to the following statement, *"For example, where a planning application has been submitted."*
29. Thus in the case of a more immediate prospect of future mineral working such as at Gransmoor which lies in an adopted Area of Search for minerals, it would be expected that an analysis of the effects of the project on this land use would be undertaken. Although one indication of a proposed land use might be a planning application, the existence of the Area of Search should have alerted the applicant to the likelihood of workable mineral in the area.
30. The test of safeguarding minerals 'as far as possible' in para 5.12.9 is very high and requires much more than a cursory examination of mineral safeguarding. It should be noted that this is not couched in terms of what is feasible, or viable or practicable, but what is possible. Therefore, the policy requires more effort in finding solutions to potential conflicts and widening the scope of potential mitigation to overcome unsustainable outcomes. The appropriate mitigation mentioned by para 5.10.22 should be seen in the context of the mineral interest encountered, so the solution might differ depending on the mineral and from place to place. If solutions are suggested they should be looked into in all seriousness.

The Application, Objection & Subsequent Responses

31. The application for the pipeline was accompanied by an Environmental Statement, and the submitted documents contained details of the route corridor study. The initial objection to the project was made following a search of the application documents in which we could find no reference to mineral assessments having been carried out.
32. Following the Preliminary meeting, the MPA received a communication from Fisher German dated 21 November 2014, the agents for National Grid setting out a response to the objection and an invitation to participate in a Statement of Common Ground (**Appendix MPA 1 – Fisher German letter**). The MPA made a response to this letter in the form of a number of questions (**Appendix MPA 2 – MPA/objector response**) dated 26 November 2014. Since then, although promised, a draft Statement of Common Ground has not been received by the MPA. Therefore, at the time of writing we have had to make certain assumptions about the corridor selection process which may be clarified when we finally receive a response from the agents or the matters are discussed at a Hearing.
33. In Fisher German's letter reference is made to the application (Proposed Scheme Report Section 7.8) which contains the Route Corridor Study and to Appendix C Selection of the Preferred Route Corridor Report November 2011. Paragraph 4.4.2 of the Route Corridor Study (November 2011, Appendix B) mentions a number of active mineral sites, Gransmoor among them. Paragraph 4.4.6 discusses mineral resource protection in more detail. This lists *"Four preferred areas for future sand and gravel workings that are within the Area of Search were identified from the East Riding of Yorkshire Joint Minerals Local Plan", one of which is An extensive area of search for sand and gravel working, a large proportion of which is within the Area of Search, has been designated around Gransmoor and Lissett."*
34. Minerals were accorded a secondary constraint status in the route corridor study (para 2.5). Paragraph 8.1.2 categorises constraints into avoidable or unavoidable. Where a feature is unavoidable, it is further categorised according to a number of 'guidelines'. These range from very High, High, Moderate to Minor. Minor is defined as *" - any substantial conflict should be capable of successful resolution through the adoption of standard construction techniques or mitigation measures."*
35. Furthermore, in Appendix C Selection of the Preferred Route Corridor Report paragraph 8.5.24 mentions unavoidable development plan allocations. The report says, "No development plan allocations, for uses other than mineral extraction were identified within the route corridor options that are unavoidable through routeing of the pipeline." Table 8.5 lists those unavoidable

allocations and nineteen times in the table it is reported that concerns for mineral safeguarding and mineral features (presumably working sites) are minor. They are further mentioned in paragraphs 8.5.31 & 32 and again in the Comparison Tables in Chapter 10.1.8 (ref. para 8.5.33).

36. These references are very opaque. The following information is not provided as part of the study results,

- It is not known why minerals were down graded to secondary status as a constraint
- It is not known why despite crossing several tens of kilometres of MSA, minerals were scoped out of the EIA process
- It is not known what 'unavoidable' means in the context of mineral resources and whether this justifies not carrying out mineral assessments
- In the context of minor impacts it is not known what might be involved in 'construction techniques or mitigation measures' which would lead to 'successful resolution' of conflict with mineral interests
- It is not known what constitutes 'unavoidable' in the context of the Gransmoor operation where clearly an installation could go round it

37. The objectors are left with a sanitised and incomplete picture of how effects on mineral interest were assessed if at all. Further light may be shed on this from the agent's letter of 21 November 2014 which addressed the objections as submitted (**Appendix MPA 1**).

38. The letter asserts that minerals was fully considered in the pipeline corridor study and we agree that the applicants have identified the relevant active mineral sites and resources as shown in MSAs across the study area. However, it is not this that is at dispute. It is how the subject has been treated and whether the applicants have done sufficient work to comply with national and local policy and demonstrate clearly that there are no unavoidable impacts on minerals, and further that investigations show that no substantial conflict arises that is not capable of being overcome.

39. The overall tone of the agent's response suggests that the treatment of minerals was mostly a desk top exercise with very little (if any) field investigation or detailed analysis as required by policy. The following Table contains extracts from the letter and the MPA's observations on aspects touching the MSAs. Comments directed to the Gransmoor/Lissett area are dealt with in the second part of this Statement,

Table 1 Fisher German letter & Observations of the MPA on General Matters (Appendices MPA 1 & 2)

Quotations from Agent's letter	MPA observations
<p>The consideration of 'mineral extraction' areas is included in this appraisal as can be identified in application document 7.8 Appendix B. The report makes reference to relevant minerals planning policy and identifies minerals interest throughout the whole area of search. This study, along with the Selection of Preferred Route Corridor Report (published in November 2011 and available in Document 7.8 Appendix C of the application) demonstrates an early consideration of the region's mineral resource in the development of the project.</p>	<p>It is agreed that some consideration of mineral interests in the identification of active mineral sites and MSA boundaries has been carried out. It is in dispute that any mineral assessments required by policy have been carried out, or that prior extraction has been seriously considered.</p>
<p>Both reports identify that the preferred aim was and remains to avoid an adverse effect on minerals. However the reports also recognise that given the extent of the mineral safeguarding areas in the Holderness Plain, avoidance of all such areas would not be possible given the need for the pipeline to make landfall at a point along the Holderness coast.</p>	<p>It is agreed that it is reasonable to avoid adverse effects on mineral. However, this must be informed by a detailed study of where the most sensitive mineral areas are (i.e. where the deposit is commercially exploitable) by recourse to field investigations and economic mineral assessment. It cannot be assumed that because impacts are generally unavoidable it is permitted to cross MSAs anywhere and that unacceptable impacts will not arise.</p>
<p>Having regard to the breadth of the considerations it is noted that the final route selected does not impact upon any existing operational mineral areas, no existing consented areas of extraction nor any preferred areas of extraction as identified in the Joint Minerals Local Plan 2004."</p>	<p>This is a half truth that omits reference to the potential impacts on the MSA as a whole and on the Areas of Search allocated in the Gransmoor/Lissett area.</p>
<p>National Grid did not consider that a significant effect on mineral resources was likely to occur as a result of the construction, operation or decommissioning of the project and therefore this issue has not been assessed within the environmental statement.</p>	<p>The letter does not say why it was thought there would be no significant effect on mineral resources when the pipeline crosses over linear 40 km of MSA. The MPA submits that this is a pre-judgment which has coloured subsequent decisions about impacts on specific areas.</p>
<p>The complexities of the route selection process have been covered in point 1 above and the Route Corridor Study (published May 2011) makes reference to relevant minerals planning policy and identifies 'sporadic' minerals interest throughout the whole area of search.</p>	<p>The reference to sporadic minerals interest is irrelevant since the MSAs are by definition areas where economic minerals are known to exist. The reference seeks to downplay the importance of minerals and leads to them being dismissed as a constraint on development, and seeks to justify the inadequate approach taken by the corridor selection process.</p>
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.)</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). Proving whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>

<p>In terms of EN-1 and para 5.10.9, the scheme has been designed to minimise impacts upon the MSA and known deposits outside of these areas by seeking to avoid them where possible, crossing by the shortest route where unavoidable due to the linear nature of the scheme and allowing site machinery to cross the proposed pipeline where required subject to the usual pipeline protection measures.</p>	<p>This a half truth that omits the responsibility of the non mineral developer to carry out a mineral assessment on direct and indirect effects on the mineral resource and assess the prospects for prior extraction.</p>
<p>There are no proven reserves of economically viable minerals within the MSA</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). <u>Proving</u> whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>
<p>Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.</p>	<p>If prior extraction is taken seriously (as it should) it would have formed part of the DCO and be included within the overall timescale for the development. The applicant has made a pre-judgment that prior extraction is not possible when national and local policy requires that it be considered, and now pleads that it cannot be accommodated.</p>

Summary of Issue

40. The objectors have established that

- National policy supports the conservation of scarce mineral resources and recognises the importance of them to the national economy
- National policy for mineral safeguarding requires the local identification of MSAs, and policies for prior extraction
- National guidance on mineral safeguarding advises that non mineral developers carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality
- Local policies are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.
- This Local Plan Strategy Document has reached examination stage and should be accorded more weight in the planning balance
- EN – 1 requires applicants to safeguard minerals 'as far as possible', which is a high bar to development that requires significant effort and investigation to satisfy.
- EN – 1 also requires applicants to put in place appropriate mitigation measures when developments have an impact on MSAs to safeguard mineral resources.
- The EIA scoped out minerals but the reasons for this decision remain unknown.
- The corridor route selection process logged the existence and location of active mineral sites and MSA boundaries.
- The project crosses over 40 linear km of MSAs in the East Riding alone, 25 km of which are sand and gravel MSAs.

- The applicant should recognise that notwithstanding the national importance of its project national policy also accords great weight to the benefits of mineral extraction, and by implication, mineral safeguarding.

41. The objectors await confirmation of the following ,

- The corridor route selection process assumes that where the development impacts on mineral resource areas were 'unavoidable' that this justified not carrying out mineral assessments.
- There is no clarity about why impacts on mineral impacts were accorded 'minor' status which would involve successful mitigation of impacts.
- Whether any field investigations were carried out as required by Local Plan policy, viz, test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, the value of the underlying or adjacent mineral now or in future, documented attempts to market the mineral or the use of it in the development.

42. The objectors submit that without confirmation that mineral assessments have been carried out to a professional standard, the applicant cannot demonstrate that it has complied with national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures. Neither can it demonstrate that it complies with national or local planning policy in considering seriously, prior extraction of mineral. The MPA therefore asks that in this respect, the DCO should not be confirmed until this work has been carried out, consulted on and examined.

Part 2: The Effect on the Mineral Deposits at Gransmoor

The Gransmoor Deposits

43. The mineral deposits at Gransmoor are not uniformly shown on the BGS minerals resources map but evidence of their existence and exploitation is present to confirm them with confidence. The deposits being worked at Gransmoor and Park Farm are fluvio-glacial deposits in the form of a beaded esker of sub-glacial origin. This is shown in graphical form on **Plan 1**. The esker can be projected for a distance of at least 6 km from Kelk Hill in the north to east of Lisset Bridge in the south and is associated with kame deposits (e.g. Yew Hills) and possibly with subsidiary channel deposits. The plan shows clearly where minerals workings have previously taken place along this route and will take place.
44. The deposit at Barf Hill and Park Farm is particularly thick. The operator's experience over many years in this area confirms that the base of the deposit is at a uniform height of –10.5 metres AOD. Observation of the existing quarry and the old quarry in the woodland at Barf Hill demonstrate that from this base the deposit varies from 15 meters in depth to over 23 metres on rising ground. There is a known deposit on the northern side of the woodland, evidence of old workings within the woodland and a deposit between Park Farm and the woodland making a contiguous deposit well in excess of 1.5 million tonnes.
45. The quality of the deposit worked in the two locations is uniformly of a clean sand and gravel with a ratio of sand to gravel of 70/30 with an average silt content of 10-15%. There is very little overburden and there is typically no interburden of clay. This is consistent with the description of the deposit as an esker since this was formed in a high pressure and high energy depositional environment which scoured the bedrock beneath the retreating glacier leaving clean sand and gravel behind. The principal products are single size gravel, coarse concreting sand, and washed soft sand and asphalt sand. The products are suitable for all strengths of concrete, and for asphalt and mortar. The site produces an average 100,000 tonnes of aggregate per year.

The Gransmoor Operation

46. W Clifford Watts Ltd is an SME employing 103 people and its operations are professional and highly integrated. The Gransmoor/Park Farm operation supplies an internal market for material to an on-site ready mixed concrete plant on land to the north and east of Park House. The company also operates a recycling plant on land to the north of Barf Hill at the former Gransmoor Quarry which works in tandem with the sand and gravel extraction operation, producing a range of blended materials for the local market, which maximises the use of the available material. The

continued operation of both sides of the operation is also essential to ensure a cost effective operation for both the company and its customers along with minimising traffic movements by backhauling.

47. Reserves in the current extraction operation to the south of the proposed pipeline route north of Park House are virtually exhausted with the next phase of operations being at Turtle Hill to the north of the recycling site with a confirmed 4 years of reserves. The company's strategic development plan which is being undertaken in conjunction with Burton Agnes Estates is to extract the mineral through Barf Hill thereby linking the two existing operational areas. It is envisaged that this operation may need to commence within 2 years to guarantee continuity of supply.
48. On the assumption that this extraction was to go ahead, the company have made significant investments in installing a new state of the art programmed logic controller (plc) sand processing plant at the quarry (primarily to remove lignite as required for meeting the specifications of the Givlon liquid screed produced at Malton) and a new washing plant and effluent treatment system at the recycling operation. Not only this, but the company has also installed a multi million pound dry silo mortar plant which is being constructed at one of its chalk quarries some 30 miles to the south that is dependent upon the internal lignite-free sand supply from this location.
49. The company is also in the process of a planning application at one of its limestone quarries some 30 miles to the west to erect an asphalt plant which will also be dependent upon sand from this location to supplement the internal supply of filler.
50. The business also has three other ready mixed concrete plants within the area at Hunmanby, South Cave and Malton as well as a pre cast operation which rely predominantly on its internal supply of both sand and gravel from this location.
51. The company is thus very heavily reliant upon minerals from this area, the cessation of which would inevitably result in closure of large sections of the business.

The Aggregates Market in East Riding

52. The East Riding is a large county which is relatively isolated in terms of accessibility from the major population centres of England. It has thus become largely dependant on its own resources of aggregates and has traditionally been self sufficient. It is a net exporter of sand and gravel, mainly to adjoining eastern parts of North Yorkshire and to Hull.

53. The 2013 Local Aggregates Assessment (LAA) says of the East Riding, “In 2012 there were six sites extracting sand and gravel. The most important areas for working are near Gransmoor, North Cave and Brandesburton in East Riding.” (para 2.15) The county is notable for being largely free of the aggregates ‘majors’, which are the four largest national companies who dominate the aggregates market. In the county there are no extractive sites run by the majors and all sites are operated by independent SMEs, all of which are local firms.
54. W Clifford Watts Ltd also operates one other site apart from Park Farm – Turtle Hill (north of Gransmoor) and is one of the largest operators in the county.
55. Of the other operating sites mentioned, Brandesburton is almost exhausted having received a permission to extend operations in 2012 for about 40,000 tonnes. North Cave is an important unit but it differs from the Gransmoor operation by having a more restricted product range.
56. The 2013 LAA says that in 2011 the output of sand and gravel from the Humber area was 900,000 tonnes, 800,000 of which came from the East Riding (para 3.4). The East Riding is therefore a regionally important source of sand and gravel. In terms of reserves of sand and gravel the Humber total is 16.5 Million tonnes, the majority of which are in the East Riding (para 3.8).
57. Although the landbank is a comfortable 16.6 years across the Humber area it is unevenly distributed. The Gransmoor operation can only draw on reserves from its Turtle Hill site for the immediate future, which must in due course be replaced with other contiguous reserves if the business and its contribution to regional aggregates output, is to continue.
58. In summary, the Gransmoor operation is acknowledged as one of three sand and gravel workings in the county which are of most importance. This is enhanced by being able to produce a wide range of material, especially for high strength concrete, which is in generally short supply.

The Impact of the Pipeline on the Gransmoor Operation

59. The operator has a long term development plan which would in normal circumstances have involved applying for planning permission to extend the Park Farm and Gransmoor operational areas towards each other in about 5 years time. However, the advent of the pipeline scheme has brought these plans forward. The operator submitted an application to work the deposit north of Park Farm towards Barf Hill wood including the pipeline corridor, to the East Riding County Council on 12th December 2014. This application if permitted, would release 616,000 tonnes of mineral.

60. However, if the pipeline is confirmed on its applied for alignment across the field to the south of Barf Hill wood, it would seriously compromise the Gransmoor operation. The development plan includes the provision of a public benefit of straightening the Gransmoor Road at the double bend by the quarry access north of Barf Hill wood, releasing mineral under the road, and additionally working beneath the wood itself, and recreating it as a landscape feature north of its present position on excavated and refilled ground.
61. The company estimate that the capital costs of this work will be more than £1,200,000. The Park Farm extension is viable as it stands being a straight extension of existing activity. However, the 616,000 tonnes applied for includes the route of the pipeline, and if the DCO is confirmed the pipeline would sterilise 250,000 tonnes, or 40% of the available mineral. The company has assumed that all of the deposit between the pipeline and the wood would be sterilised as well as the pipeline corridor itself. Additionally, an assumed minimum 1 in 3 batter would be required with additional mineral lost at the toe to prevent wave cut action from the restored Park Farm lake to its southern boundary undermining the embankment, and for the estimated 15 metre depth of water within it. Thus if the pipeline is confirmed the company would only have assured reserves for 7 years if permission is granted for this extension.
62. That would leave 1.38 Million tonnes in situ in the wood and south of Gransmoor that could be liberated by the realignment of the road (**Appendix MPA 3 – Barf Hill Report**). This represents a recoverable mineral quantity of 1.17 Million tonnes, which means that the capital cost of the additional public benefits would add £1.06 to the price of the mineral, making it uneconomic. This would be compared with 1.70 Million tonnes recoverable if the pipeline were to be relocated at Park Farm.
63. The loss of mineral of this scale would threaten the long term development of the business. At present if the development plan is implemented, the company would have assured reserves for about 24 years including existing permitted reserves. Without it, the company would be faced with finding replacement reserves much sooner than planned, most probably in just 7 years. There is a dearth of available resources locally of the quality of the Gransmoor deposit and if the pipeline is confirmed over the ground at Stonehills as well, proven alternatives would of necessity be available only at greater distances (in the Scarborough area of North Yorkshire 40 miles away) at much greater cost. Other possible sources could be crushed fines or marine aggregates but these are again much more expensive and/or involve longer haulage distances and would result in a less sustainable outcome.

64. The applicant has suggested that Barf Hill wood would never be given planning permission for mineral working. This is the only significant constraint to working on the entire site. The company has had the wood surveyed recently and recommendations have been made by the ecologist for further work in due season. As explained, the company was not intending to apply for planning permission on this land yet and also has not yet carried out all of the work necessary to inform an Environmental Assessment. However, there does not yet appear to be any reason to suppose that the wood has anything more than a local ecological interest. The wood is also a local landscape feature which the company would propose to replicate on another part of the site nearby as compensation. The mineral planning authority may also require other compensatory action in addition to this. The company's conclusion is that the wood poses no insuperable impediment to mineral working in the future. In any case, any future planning application will be decided on its merits and in accordance with the development plan. Even should there be found a conflict with the development plan in removing this feature, this would need to be balanced against the need for the mineral and the great weight attaching to its benefits.

65. The applicant has responded to some of these points and these will be addressed later in this Statement.

The Impact of the Mineral Resource at Gransmoor on the Pipeline Route

66. The company has suggested an alternative route for the pipeline which would not involve an unacceptable effect on the mineral operation. This was to locate the pipeline across a largely already constructed causeway within the Park Farm quarry. Following a severe flooding event in 2007 which led to a goit breaking its banks and flooding the workings, the company reconstructed a channel for it and realigned the confluence of the goit with the Barmston drain, which has been in use for almost four years and has successfully solved the flooding problem. The company has offered to widen this causeway (indeed, it is already nearly 50 metres wide and up to full height) to accommodate the pipeline in an area of the quarry which has already been worked and where the pipeline would not conflict with future mineral operations.

67. The company has commissioned a geotechnical study of the causeway (see **Appendix MPA 4 – Geotechnical Study**) and has offered the applicant tests to see if it meets the applicant's requirements or to agree to a legally binding obligation to construct it to whatever specification the applicant desires and to indemnify the causeway against failure for a period of three years after construction.

68. The company believes that this represents a realistic alternative solution. If however, this is deemed not to be acceptable then there are other alternatives including diverting the pipeline to

the north along the realigned Gransmoor Road. The company would be prepared to sacrifice some mineral at this location since it is thinner and would have less impact on the future of the operation, although it would rather not lose any mineral at all.

The objection & Subsequent Responses

69. The following Table contains extracts from the applicant's agent's letter and the MPA / W Clifford Watts observations on aspects touching the Gransmoor/Lissett area which illustrate its case.

Table 2 Fisher German letter & Observations of the MPA & WCW on Site Specific Matters

Quotations from Agent's letter	WCW observations
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.) However despite being identified in the 2004 JMLP there does not appear to have been any further investigation through this 10 year period as to whether economically viable extraction could take place within this Area of Search, nor have any proposals been put in front of East Riding of Yorkshire Council for such extraction.</p>	<p>The medium term strategy of the company was to formulate a planning application to extract the mineral in the area between the quarries including Barf Hill to commence operations in 2021. To this end, discussions were held with the land and mineral owners concerned with a view to a planning application being submitted within the next 1 to 2 years. The early application was planned so that there would be sufficient time to divert the road to the north and to build another woodland area of similar nature to Barf Hill in which habitats could be recreated for wild life. Options and leases are in place for the whole of this area.</p> <p>Since the advent of the CCS pipeline, copies of communications as well as discussions have been held with Shirley Ross at ERYC with copies of communications also sent to Andy Wainwright at ERYC.</p> <p>Importantly, all of the above was reported on more than one occasion to the applicant's agents.</p>
<p>British Geological Survey data suggests that large parts of this Area of Search have a superficial geology of boulder clay or sand and gravel with laminated clay. Deposits containing such laminated clay are expensive to process and result in large quantities of waste to be dealt with. It should be noted that there are no operational quarries within this area of search, suggesting that the market does not believe there are economically viable deposits in this area.</p>	<p>There are extraction areas both to the north and south of Barf Hill wood with very consistent geology. The geology of the area between the two quarries is extrapolated to be a continuation of the same deposit which very rich in prime quality sand and gravel.</p> <p>Not only was all this communicated to the applicant's agents, but a visual inspection of the two sites would make this apparent to anyone with some knowledge of geology.</p>
<p>It is noted that the operator of this quarry does not have any detailed site investigation information into the mineral deposit at Barf Hill, no planning application has been submitted for its development, nor has it been promoted as a preferred area to the Mineral Planning Authority.</p>	<p>Planning and further investigation of the deposit has not been a priority due to the anticipated timing of utilising this reserve. In addition, the company has used its long experience of working in this locality and would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>

<p>National Grid has carried out borehole investigation at this point to verify the accuracy of the information shown on BGS records. BGS suggest a narrow, linear alluvium deposit of sand and gravel running south from Barf Hill. Borehole analysis by National Grid suggests that this area is subject to laminated clay deposits within the sand and gravel.</p>	<p>The company has asked for this information, drilling logs and a location plan of the borehole but to date it has not been supplied. The company disputes this interpretation of the Barf Hill deposit.</p>
<p>Due to the narrowness of this deposit the actual volume of material likely to be sterilised is very modest and has been estimated, adopting some high range assumptions, at 41,000 tonnes. Depending on the level of clay contamination the actual loss of sterilised mineral may be significantly less and this calculation assumes that material is sterilised on both sides of the pipeline – given the proximity to Barf Hill Wood this may not be the case. In terms of production throughout the local authority area this volume has a de minimis effect.</p>	<p>A copy of the reserve calculation of National Grid would be required to demonstrate how a figure as low as this has been achieved. Working on the basis of the deposits to the north and south of Barf Hill which stretch over 2 kilometres between them, it is estimated that they have an approximate surface width of 100 metres, base width of 40 metres and depth from surrounding ground level of 17 metres. In addition to this, any rise in ground level above surrounding ground level enhances the recoverable mineral proportionately. Barf Hill stands an additional 6 metres above surrounding ground level.</p> <p>In addition, the company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>
<p>Furthermore to the extent that a claim for loss can be established and subject to valuation principles, the arrangements for taking rights either voluntarily through the pipeline easement, or via the development consent order process would lead to an entitlement to compensation, which might include Mining Code compensation in any given case, and thus it should not be assumed that minerals are being “lost” to the scheme.</p>	<p>Relying on the Mining Code does not absolve the applicant from following national policy on safeguarding mineral. The objective of national policy is not compensation since this is already well provided for. Rather, it is a sustainability issue of preserving a scarce nationally important resource from needless sterilisation. National Grid will be glad of such scarce resources in constructing its pipeline. The statement made by the agent demonstrates the low priority that the applicant has given to mineral safeguarding.</p>
<p>National Grid submits that in the light of this they have complied with the requirements of para 5.10.9 of EN - 1 as the vast majority of the land which the operator may wish to extract in the future will be unaffected by the proposed development. Crossing points of the pipeline for site machinery will be available subject to the usual pipeline protection measures and the pipeline has been designed to be as close as possible to Barf Hill Wood – a local landscape feature which is subject to local environmental designations and which is unlikely to be permitted for mineral extraction. By following this boundary the volume of material affected is again minimised.</p>	<p>Evidence in this Statement confirms the very real impact that sterilisation via the pipeline will have on the company’s long term business prospects. The company submits that the applicant has completely misunderstood the local geology, under-estimated the impact of its proposals on an important local business and failed to engage seriously in discussions about mitigation. It has demonstrably not complied with para 5.10.9 of EN-1 since it cannot show how it has accommodated the considerable mineral interest in this location ‘as far as possible’.</p> <p>Barf Hill wood is not designated as environmentally important although it is accepted that it is a local landscape feature. The wood is not subject to any national or international designation that the company knows of, and consequently it must be viewed as a local constraint. The company will in due course fully survey the wood and propose appropriate mitigation for the loss of a local landscape and wildlife feature in</p>

	line with Local Plan policy. It is thus not true that it is unlikely to be permitted for mineral extraction.
Discussions have been held with the operator of the quarry at Gransmoor regarding the utilisation of alternative routes across areas that have previously been extracted. However no such routes have been restored at the current time to enable them to be used by the proposed development.	On the contrary, one area had been restored for some 3 years to carry the Nutholmes dyke. This had been inspected regularly by a geotechnical consultant but National Grid appeared to have very little interest in pursuing this option because “they had already drawn up a pipeline corridor”. This restored area has now been extended significantly as can be seen from the latest survey (see Plan 2) and a geotechnical report is appended to this Statement (Appendix MPA 4).
Discussions were held regarding areas of the existing quarry that may be restored in the future but due to a lack of certainty as to the timing of their restoration and the stability of the material involved (and thus the security of the pipeline) no acceptable option was available.	An option of restoring another section to the north of the existing quarry to specifications required by National Grid was suggested. This was ruled out at the time by National Grid because there would not be anything there in time for the submission of the planning application. The fact that a new embankment could have been created to its specifications well within the timescale of the pipeline being constructed was of no interest to its representatives. The suggestion was made that should the company go into liquidation then there was no guarantee that the embankment would be in place.
The prior extraction of the preferred route carries these uncertainties as well as the additional unknown as to when the mineral extraction might be completed. That timescale is also dependent upon a successful planning consent being obtained and the timescales for all of this make such an approach incompatible with the scheme generally.	Once again, National Grid was not prepared to discuss this option based upon the 2 points raised above.
The scheme is a nationally significant infrastructure project, and to route the scheme through the existing quarry would introduce unnecessary and undesirable uncertainty and impediment.	The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation. It has taken a highhanded approach to the issue.
There are no proven reserves of economically viable minerals within the MSA, although with reference to the adjacent deposit identified in para 3 above investigations carried out by National Grid at Barf Hill indicate a modest reserve of up to 41,000 tonnes of sand and gravel contaminated with clay. It is not intended to remove any of this material for use within the scheme.	Demonstration of the sterilised reserve tonnage is required. A new state of the art plc controlled washing plant is operational at the adjacent quarry to process the mineral. Part of the justification for his plant being purchased was on the basis that reserves at Barf Hill would eventually be processed through it.
Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.	If National Grid was not prepared to discuss this with the operator how has this conclusion been reached?
The impact upon known mineral reserves and the MSA was taken into account in the route selection process and the final route has sought to minimize the impact upon these.	The MPA did not assert that mineral <u>reserves</u> had not been taken into account; it asserted that mineral <u>resources</u> had been ignored – a very real and important difference.

<p>There is no evidence of viable reserves within the Areas of Search and despite being designated as such for 10 years there does not appear to be any appetite from operators to promote any of these areas. This may be due to the uncertain geology of the area.</p>	<p>This is a disingenuous half truth since the applicant has already acknowledged that it has had discussions with the operator and heard of its future plans (see Appendix MPA 5 – Correspondence between the applicant & WCW). There is no doubt about resource quality as a visual inspection of the quarry and its surroundings would have demonstrated. The applicant has wilfully ignored the evidence.</p>
<p>It is worth noting that in the Humber Area Local Aggregates Assessment 2013, the average sand and gravel production volume within the region on average over the previous 10 years was 0.99 million tonnes (excluding silica sand sales.) This is despite the sharp downturn during the recession. Prior to that average sales volume were consistently above 1.1 million tonnes per annum.</p> <p>Thus the potential loss of 41,000 tonnes at the site at Gransmoor is equivalent to two weeks supply which will have very limited effect on the mineral supply situation in the area</p>	<p>The comment is meaningless if the calculated tonnage is wrong. The whole site which may now be jeopardised is over 1.5 million tonnes equating to more than 15 years life for the operator. Not only is the pipeline going to sterilise reserves in the mid term strategic plan at Barf Hill, but the next area in the long term strategic plan was at Stonehills Farm to the east which is also in the proposed path of the pipeline, and which is also within the area of search and subject to objections from the landowners.</p>
<p>The remaining reserves at this site will be unaffected by the proposed development and will be available for extraction. As a result it is submitted that National Grid has sought to safeguard mineral resources as far as is possible in line with the requirement in EN-1.</p>	<p>The company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p> <p>The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation.</p>

Other Impacts on Mineral Areas

70. Representations have also been made by landowners of the Stonehills deposit (see Objections from Claire Jackson, Peter Mawer and Christopher Marshall on behalf of the Glendon Estate IDs: 3, 4 & 5) and also see **Appendix MPA 6 – Stonehills Report and Plan 1**, which confirms the existence of exploitable quantities of mineral. Although this site has already been worked for sand and gravel as shown on **Plan 1**, it is apparent from the report produced for the company that there are significant remaining resources to be exploited in the site. The project land plans (Sheet 24) shows that the pipeline traverses the middle of this area of interest. The company have a long term plan which would go to that area once the Gransmoor deposits are exhausted. It should be clear that although there is no immediate prospect of working these deposits, it would be prudent to keep access to them clear, and reserving the largest deposit possible for working, by having the pipeline avoid the minerals as much as possible. For reasons already argued in this Statement, this has not been demonstrated. The MPA and the company submit that the pipeline route should be diverted to accommodate this clear interest.

Summary of Issue

71. The objectors have established that

- The Gransmoor Deposit is not as the applicant supposes, a thin contaminated deposit of limited value, but is part of a projected esker deposit of sometimes great thickness and exceptional quality sand and gravel.
- There are proven deposits of up to 23 metres in thickness and 1.7 million tonnes to be exploited at Gransmoor.
- W Clifford Watts (the company) has one of the most important sand and gravel operations in the Humber area at Gransmoor which produces typically 12.5% of the output for the East Riding. It is a highly integrated enterprise that employs ultimately 103 people, and added value plants across the East Riding area are dependent on the site for resources.
- The company has made significant investment in the site and in dependent operations on the assumption that its medium term plan to progress through the Barf Hill deposit will be realised.
- The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation to demonstrate the seriousness of its intentions and to supplement its remaining reserves at Turtle Hill.
- The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes of mineral or 40% of the mineral to the south of Barf Hill wood, leaving the company with reserves for only 3 years if the planned extension is permitted.
- Company plans to join the two operations at Gransmoor and Park Farm through the Barf Hill deposit would be compromised to the extent that it would not be viable to divert the road and relocate the wood as planned.
- There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.
- The company has proposed an alternative alignment for the pipeline on a causeway already constructed at Park Farm quarry that can be assured to be suitable for the location of the pipeline. This can be achieved either by demonstration of stability by testing or by a legal agreement to ensure that it is provided to a suitable specification.
- However, if necessary, there are other alternative routes should that not be acceptable to the applicant.

Conclusions and Recommendation

72. National policy supports the conservation of scarce mineral resources, recognises the importance of them to the national economy and requires mineral safeguarding and policies for prior

extraction. It therefore advises that non mineral developers should carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality before applications should be determined. Local polices are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.

73. The applicant has not confirmed that mineral assessments have been carried out to a professional standard along the 40 linear km of MSAs that the pipeline corridor crosses, and therefore the applicant has not demonstrated that it has complied with national planning policy to conserve minerals, or national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures, or that it complies with national or local planning policy in considering seriously, prior extraction of mineral.

74. In respect of Gransmoor the deposit is a valuable proven deposit of up to 23 metres in thickness and over 1.7 million tonnes of recoverable mineral. W Clifford Watts has one of the most important sand and gravel operations in the Humber area with a highly integrated enterprise and added value plants across the East Riding area are dependent on the site for resources. The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation.

75. The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes or 40% of the mineral to the south of Barf Hill wood, and prevent the company from joining the two operations at Gransmoor and Park Farm through the Barf Hill deposit. There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.

76. The company has proposed an alternative alignment for the pipeline on a causeway already constructed that can be assured to be suitable for the location of the pipeline.

77. The objectors therefore ask that the DCO should not be confirmed.

Written Representations
of the
Mineral Products Association (MPA),
W Clifford Watts Ltd (WCW), and Others
to the
Yorkshire and Humber (CCS Cross Country Pipeline)
Development Consent Order
Examination
(IDs 22, 74, 75, 85, 86)

18th December 2014

Written Representations of the Mineral Products Association (MPA), W Clifford Watts, and Others to the Yorkshire and Humber (CCS Cross Country Pipeline) Development Consent Order Examination

Introduction

1. These joint representations are made on behalf of the following objectors,
 - Mineral Products Association (objector ID: 22),
 - W Clifford Watts Ltd (objector ID: 85),
 - The Trustees of the Burton Agnes Estate Trust (objector ID: 74),
 - The Hon Mrs S Cunliffe-Lister (objector ID: 75), and
 - Mr & Mrs P Conner (objector ID: 86).

2. The Mineral Products Association is taking the lead in the representations on these matters at the Examination.

3. The Mineral Products Association (MPA) is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. With the recent addition of The British Precast Concrete Federation (BPCF) and the British Association of Reinforcement (BAR), it has a growing membership of 450 companies and is the sectoral voice for mineral products. MPA membership is made up of the vast majority of independent SME companies throughout the UK, as well as the 9 major international and global companies. It covers 100% of GB cement production, 90% of aggregates production and 95% of asphalt and ready-mixed concrete production and 70% of precast concrete production. Each year the industry supplies £9 billion of materials and services to the £120 billion construction and other sectors. Industry production represents the largest materials flow in the UK economy and is also one of the largest manufacturing sectors.

4. Given the NPPF's recognition of the economic and employment benefits of the extractive industries (paras 28 & 144) we should like to direct your attention to 'Making the Link', a document produced by the MPA to highlight the contribution that the sector makes to the economy. The document can be downloaded from the following website.
http://www.mineralproducts.org/documents/MPA_MTL_Document.pdf

3. This evidence covers two aspects of the objections. First, it addresses the need to observe national policy for mineral safeguarding and second, it examines the effect of the DCO on a member company's operations (W Clifford Watts Ltd) which include the interests of the mineral and land owners of the sterilised section.

The Objections

4. The **MPA** has objected to the draft DCO, not because it wishes to stop development, but to ensure that the procedure for mineral safeguarding has been respected and that the applicant demonstrates with certainty that it has fully evaluated the impact of development on mineral interests and has taken the appropriate action in line with national policy. The project crosses many kilometres of MSA within the East Riding¹. In addition, the MPA objected in support of one of its member companies, W Clifford Watts Ltd, who operate two quarries at Gransmoor and Park Farm near the village of Kelk, East Riding. The pipeline lies in the centre of an Area of Search for minerals in the adopted Mineral Local Plan (2004) and therefore threatens the future of these quarries and the MPA and the company wish the installation to be moved to accommodate future mineral need.

5. **W Clifford Watts** objected to the draft DCO because there are few areas in the locality where exploitation of sand and gravel is economically viable and traditional mineral working areas are becoming exhausted. In order to secure future supplies, the Company has entered into three option agreements to take a lease and work sand and gravel over land at Great Kelk. It is estimated that in total, the current route of the pipeline would sterilise a significant and strategically important tonnage of sand and gravel in the areas covered by those option agreements. In addition, the Company believes it would be possible to re route the pipeline so as to minimise the disruption and volume of minerals sterilised within the Barf Hill and Great Kelk areas helping to preserve the future supply of minerals to the local market place. The applicant has failed to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission Document which proposes Minerals Safeguarding Areas.

6. **The Trustees of the Burton Agnes Estate Trust, the Hon Mrs S Cunliffe-Lister and Mr & Mrs P. Conner** all presented similar objections to the intent that the current route of the pipeline would sterilise a significant and strategically important tonnage by crossing the deposit. It would be possible to re-route the pipeline so as to minimise the disruption and volume of minerals sterilised, helping to preserve the future supply of minerals to the local market. In the market served by minerals extracted from this locality there is a recognised shortage of sand and gravel and without developing local reserves there will be a need to import sand and gravel from outside of the locality resulting in the generation of additional road traffic and possibly disruption to supply. There are few areas in the locality where exploitation of sand and gravel is economically viable. Traditional mineral working areas are becoming exhausted and there is a need to preserve future reserves of minerals in this locality which is not met in the proposed

¹ The MPA calculates that the project traverses over 25 km of sand and gravel MSAs and 19 km of Industrial Chalk MSA within the East Riding.

scheme. The proposed pipeline route fails to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission which proposes Minerals Safeguarding Areas.

Part 1: The Mineral Safeguarding Objection

The Mineral Safeguarding Regime Nationally

7. Mineral safeguarding is recognised as “,,essential to ensure that the ability of future generations to meet their needs for minerals is not compromised by planning decisions that are being made in the present day. The essence of any safeguarding process is that it should introduce the consideration of minerals into the decision making balance, so that access to mineral resources for future generations is preserved as far as possible. The first part of that process is the identification of mineral resources and the definition of Mineral Safeguarding Areas (MSAs). “²
8. Although National Infrastructure Projects are subject to a separate policy document, projects will rely on the planning system to inform them of planning constraints and policies for conservation that will in turn inform an EIA process.
9. NPPF para 122 says, “Minerals are essential to support sustainable economic growth and our quality of life...However, since minerals are a finite natural resource, and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation.”
10. NPPF para 143, bullet point 3 says that in preparing Local Plans local planning authorities should, “define Minerals Safeguarding Areas and adopt appropriate policies in order that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked”.
11. Bullet point 5 of the same paragraph in NPPF says that local planning authorities should, “set out policies to encourage the prior extraction of minerals, where practicable and environmentally feasible, if it is necessary for non-mineral development to take place;”
12. NPPF para 144 says, “When determining planning applications, local planning authorities should give great weight to the benefits of the mineral extraction, including to the economy” (bullet point

² Mineral safeguarding in England: good practice advice, British Geological Survey Open Report OR/11/046, October 2011, para 1.1.2

1); and “not normally permit other development proposals in mineral safeguarding areas where they might constrain potential future use for these purposes;” (bullet point 7).

13. NPPG paragraph: ID: 27-004 says “Mineral planning authorities should adopt a systematic approach for safeguarding mineral resources, which...adopts clear development management policies which set out how proposals for non-minerals development in Minerals Safeguarding Areas will be handled, and what action applicants for development should take to address the risk of losing the ability to extract the resource. This may include policies that encourage the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in Minerals Safeguarding Areas and to prevent the unnecessary sterilisation of minerals”.
14. The BGS good practice guidance is the bedrock of identifying and delineating MSAs. This guidance advises local planning authorities on the methodology to adopt for this task, and proposes a seven step approach from identifying the geological resources (usually from the BGS’s own mineral resources maps), through to proposing draft MSA boundaries, undertaking consultation and then the most appropriate way of formalising them in strategic local plan documents and development management policies. This is followed up by including safeguarding requirements in local plans and finally the requirements of mineral assessments in local validation lists (para 1.1.3).
15. The BGS guidance also explains the role of the BGS in providing baseline information. “Mineral resource maps of each English county have been compiled by the BGS on behalf of the Office of the Deputy Prime Minister (now DCLG). These maps show the geological distribution of all onshore mineral resources together with additional information on the location of mineral extraction sites, the extent of mineral planning permissions...and the extent of selected landscape and nature-conservation designations. The primary objective is to produce baseline data in a consistent format that can be updated, revised and customised to suit planning needs, including use in the preparation of LDDs.” (para 2.2.1)
16. It is important that “sufficient information on mineral resources is necessary for local authorities to determine non-mineral planning applications submitted in MSAs. The requirement for a Mineral Assessment to accompany these applications could be administered through inclusion on the local list of information requirements” (para 6.1.).
17. The BGS guidance also confirms the normal content of such an assessment. The two levels of Mineral Assessment are:

1. "A site-specific desk-based assessment of the existing surface and solid geological and mineral resource information. This may comprise information on the mining and quarrying history, mineral assessments and market appraisals, boreholes, site investigations, geological memoirs, technical reports, mining plans and the thickness of superficial geological deposits.
2. Analysis of the site-specific information derived from level 1 including:
 - An estimate of the economic value (for example quality and quantity) of the mineral resource.
 - Its potential for use in the forthcoming development and an assessment of whether it is feasible and viable to extract the mineral resource ahead of development to prevent unnecessary sterilisation.
 - Where prior extraction can be undertaken, an explanation of how this will be carried out as part of the overall development scheme.

Level 2 should be prepared by a suitably qualified and competent person. Should an applicant believe that some or all of the information is not necessary, advice should be sought from the MPA."³

18. A further key concept of mineral safeguarding is proximal sterilisation. It is a common mistake made by developers and local planning authorities that mineral safeguarding is expressed only in the principle of prior extraction. If developers consider the area sterilised by development to be too small for such prior extraction, they often believe they have done their job. This is possibly because specific requirements are laid down by NFFP paragraph 143 bullet point 5 for policies on prior extraction. However, it cannot be stressed too strongly that this is not the be-all and end-all of mineral safeguarding. The BGS document makes clear that even small developments in mineral safeguarding areas covering much less land than would be viable for prior extraction, is very likely to sterilise mineral. This is through the influence of sterilisation by proximity. Figure 2 in the BGS document shows graphically the potential for sterilisation of large quantities of mineral underground by land development out of all proportion to its footprint. Thus there is a real danger that mineral might be sterilised by small development that severs larger deposits, or requires standoffs which would prevent mineral working taking place later or that closes off access to deposits entirely.

³ BGS guidance; recommended text for inclusion in the local list of information requirements

The Mineral Safeguarding Regime Locally

19. MSAs in the East Riding were first proposed and consulted on through the preparation of the Hull and East Riding Joint Minerals Local Plan at Issues and Options stage, the Preferred Approach stages, as well as through the Draft Strategy Document and Policies Map, and the Proposed Submission Strategy Document and Policies Map. These will be refined through the Joint Minerals Local Plan. However, they are largely complete pending the outcome of the Submission Strategy Document Examination. Having regard to the advanced stage of adoption of this plan the MPA believes the Examining Authority should accord it more weight.

20. Technical evidence for defining Mineral Safeguarding Areas has been progressed through the Joint Minerals Plan. The approach taken to defining these Areas is largely set out in paras 8.3 - 8.12 of the Preferred Approach Joint Minerals Plan. This recognises that, in defining Minerals Safeguarding Areas, it is important to consider the extent and nature of the mineral resource. Within the East Riding these resources comprise:
 - i. Sand and Gravel;
 - ii. Crushed Rock (Limestone);
 - iii. Crushed Rock (Chalk);
 - iv. Clay;
 - v. Industrial Chalk; and
 - vi. Silica Sand.

21. For sand and gravel Mineral Safeguarding Areas have been defined based on the full extent of glaciofluvial, sand and gravel of unknown origin, and glaciolacustrine deposits shown on the British Geological Survey Geological Resources Map for the area. This approach has been used because of the economic importance of the resource, as demonstrated by the significant number of active sand and gravel workings in the East Riding, as well as the sales of sand and gravel resources in the Humber area shown by the draft Local Aggregates Assessment.

22. One of the unfortunate results of relying on that information base is that the deposits at Barf Hill were missed off the resources map due to the inadequacies of geological mapping in the area, and even though they are clearly being worked and there is direct evidence of their existence. This is no doubt one of the refinements to MSA boundaries that the Submission Strategy Document mentions is the task of the forthcoming Joint Minerals Local Plan.

23. MSAs have therefore existed in draft form since 2010 and are being used by the mineral planning authority in decision making. Prospective applicants would be expected to respect the requirements of mineral safeguarding in formulating proposals.

24. Policy for mineral safeguarding is contained within the East Riding Proposed Submission Strategy Document which is under examination. Hearings have been completed and the Inspector's report is awaited. Policy EC 6 deals with mineral safeguarding and this proposes MSAs which are shown on the Policies Map and that non mineral development located within or adjacent to MSAs will only be supported where a number of criteria are met. These include where the mineral is of limited economic value, or the need for the development outweighs the need to safeguard mineral, the mineral resource will not be affected in the future, or development is temporary, or where the proposal is an allocated site in the development plan, or where prior extraction can take place. Although the MPA objected to this policy, it was in the form of suggesting additions to it. In general the Association was happy with the approach adopted by the County Council, and indeed the safeguarding policies are not the subject of much uncertainty due to the extent or weight of objection.

25. Clearly, these criteria cannot be met without recourse to investigation of the mineral potential, which the supporting text makes clear. Paragraph 7.77 of the draft Plan states,

“The safeguarding of mineral resources will ensure that the importance of the mineral can be balanced against the importance of the proposed non-mineral development. It does not provide a presumption in favour of minerals development. Therefore, non-mineral development, which would adversely affect the viability of exploiting an underlying or adjacent deposit in the future, will be supported in a Mineral Safeguarding Area where:

- *Test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, suggest the underlying or adjacent mineral is of limited economic value, and its value is unlikely to become significantly greater in future, for example, by being of insufficient amount or quality. Documented attempts to market the mineral may be required to demonstrate that the mineral resource is not viable;*
- *The need for the development outweighs the need to safeguard the minerals for the future, for example, the surface development is an essential piece of infrastructure and alternative sites are not available without a disproportionate cost;*
- *It can take place without preventing the mineral resource from being extracted in the future. This could include development covering a smaller area, such as householder development. Some larger proposals containing only limited built development could also take place without sterilising the resource, for example, golf courses or some types of agricultural development. This will depend on the nature of the proposal and the extent, nature and economic value of the mineral concerned...*”

National Policy for Infrastructure Projects

26. National infrastructure projects are regulated by separate policy (Overarching National Policy Statement for Energy [EN -1]) and the Local Plan may be a material consideration in determining any proposals made under EN - 1. The MPA considers that the Local Plan provides the local context for policy statements in EN -1 with regard to mineral safeguarding, and describes how the Policy should be implemented.
27. EN -1 requires the safeguarding of any mineral resources on the proposed site *'as far as possible taking into account the long-term potential of the land use after any future decommissioning has taken place'* (para 5.10.9) and *'where a proposed development has an impact upon a Mineral Safeguarding Area (MSA)...appropriate mitigation measures have been put in place to safeguard mineral resources'* (para 5.10.22).
28. These two brief statements are the only references to mineral safeguarding in EN – 1. However, other policy statements on the general subject of land use may be relevant. Paragraph 5.10.5 states, *"The ES (see Section 4.2) should identify existing and proposed¹³² land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan."* The reference in the text (132) is to the following statement, *"For example, where a planning application has been submitted."*
29. Thus in the case of a more immediate prospect of future mineral working such as at Gransmoor which lies in an adopted Area of Search for minerals, it would be expected that an analysis of the effects of the project on this land use would be undertaken. Although one indication of a proposed land use might be a planning application, the existence of the Area of Search should have alerted the applicant to the likelihood of workable mineral in the area.
30. The test of safeguarding minerals 'as far as possible' in para 5.12.9 is very high and requires much more than a cursory examination of mineral safeguarding. It should be noted that this is not couched in terms of what is feasible, or viable or practicable, but what is possible. Therefore, the policy requires more effort in finding solutions to potential conflicts and widening the scope of potential mitigation to overcome unsustainable outcomes. The appropriate mitigation mentioned by para 5.10.22 should be seen in the context of the mineral interest encountered, so the solution might differ depending on the mineral and from place to place. If solutions are suggested they should be looked into in all seriousness.

The Application, Objection & Subsequent Responses

31. The application for the pipeline was accompanied by an Environmental Statement, and the submitted documents contained details of the route corridor study. The initial objection to the project was made following a search of the application documents in which we could find no reference to mineral assessments having been carried out.
32. Following the Preliminary meeting, the MPA received a communication from Fisher German dated 21 November 2014, the agents for National Grid setting out a response to the objection and an invitation to participate in a Statement of Common Ground (**Appendix MPA 1 – Fisher German letter**). The MPA made a response to this letter in the form of a number of questions (**Appendix MPA 2 – MPA/objector response**) dated 26 November 2014. Since then, although promised, a draft Statement of Common Ground has not been received by the MPA. Therefore, at the time of writing we have had to make certain assumptions about the corridor selection process which may be clarified when we finally receive a response from the agents or the matters are discussed at a Hearing.
33. In Fisher German's letter reference is made to the application (Proposed Scheme Report Section 7.8) which contains the Route Corridor Study and to Appendix C Selection of the Preferred Route Corridor Report November 2011. Paragraph 4.4.2 of the Route Corridor Study (November 2011, Appendix B) mentions a number of active mineral sites, Gransmoor among them. Paragraph 4.4.6 discusses mineral resource protection in more detail. This lists *"Four preferred areas for future sand and gravel workings that are within the Area of Search were identified from the East Riding of Yorkshire Joint Minerals Local Plan", one of which is An extensive area of search for sand and gravel working, a large proportion of which is within the Area of Search, has been designated around Gransmoor and Lissett."*
34. Minerals were accorded a secondary constraint status in the route corridor study (para 2.5). Paragraph 8.1.2 categorises constraints into avoidable or unavoidable. Where a feature is unavoidable, it is further categorised according to a number of 'guidelines'. These range from very High, High, Moderate to Minor. Minor is defined as *" - any substantial conflict should be capable of successful resolution through the adoption of standard construction techniques or mitigation measures."*
35. Furthermore, in Appendix C Selection of the Preferred Route Corridor Report paragraph 8.5.24 mentions unavoidable development plan allocations. The report says, "No development plan allocations, for uses other than mineral extraction were identified within the route corridor options that are unavoidable through routeing of the pipeline." Table 8.5 lists those unavoidable

allocations and nineteen times in the table it is reported that concerns for mineral safeguarding and mineral features (presumably working sites) are minor. They are further mentioned in paragraphs 8.5.31 & 32 and again in the Comparison Tables in Chapter 10.1.8 (ref. para 8.5.33).

36. These references are very opaque. The following information is not provided as part of the study results,

- It is not known why minerals were down graded to secondary status as a constraint
- It is not known why despite crossing several tens of kilometres of MSA, minerals were scoped out of the EIA process
- It is not known what 'unavoidable' means in the context of mineral resources and whether this justifies not carrying out mineral assessments
- In the context of minor impacts it is not known what might be involved in 'construction techniques or mitigation measures' which would lead to 'successful resolution' of conflict with mineral interests
- It is not known what constitutes 'unavoidable' in the context of the Gransmoor operation where clearly an installation could go round it

37. The objectors are left with a sanitised and incomplete picture of how effects on mineral interest were assessed if at all. Further light may be shed on this from the agent's letter of 21 November 2014 which addressed the objections as submitted (**Appendix MPA 1**).

38. The letter asserts that minerals was fully considered in the pipeline corridor study and we agree that the applicants have identified the relevant active mineral sites and resources as shown in MSAs across the study area. However, it is not this that is at dispute. It is how the subject has been treated and whether the applicants have done sufficient work to comply with national and local policy and demonstrate clearly that there are no unavoidable impacts on minerals, and further that investigations show that no substantial conflict arises that is not capable of being overcome.

39. The overall tone of the agent's response suggests that the treatment of minerals was mostly a desk top exercise with very little (if any) field investigation or detailed analysis as required by policy. The following Table contains extracts from the letter and the MPA's observations on aspects touching the MSAs. Comments directed to the Gransmoor/Lissett area are dealt with in the second part of this Statement,

Table 1 Fisher German letter & Observations of the MPA on General Matters (Appendices MPA 1 & 2)

Quotations from Agent's letter	MPA observations
<p>The consideration of 'mineral extraction' areas is included in this appraisal as can be identified in application document 7.8 Appendix B. The report makes reference to relevant minerals planning policy and identifies minerals interest throughout the whole area of search. This study, along with the Selection of Preferred Route Corridor Report (published in November 2011 and available in Document 7.8 Appendix C of the application) demonstrates an early consideration of the region's mineral resource in the development of the project.</p>	<p>It is agreed that some consideration of mineral interests in the identification of active mineral sites and MSA boundaries has been carried out. It is in dispute that any mineral assessments required by policy have been carried out, or that prior extraction has been seriously considered.</p>
<p>Both reports identify that the preferred aim was and remains to avoid an adverse effect on minerals. However the reports also recognise that given the extent of the mineral safeguarding areas in the Holderness Plain, avoidance of all such areas would not be possible given the need for the pipeline to make landfall at a point along the Holderness coast.</p>	<p>It is agreed that it is reasonable to avoid adverse effects on mineral. However, this must be informed by a detailed study of where the most sensitive mineral areas are (i.e. where the deposit is commercially exploitable) by recourse to field investigations and economic mineral assessment. It cannot be assumed that because impacts are generally unavoidable it is permitted to cross MSAs anywhere and that unacceptable impacts will not arise.</p>
<p>Having regard to the breadth of the considerations it is noted that the final route selected does not impact upon any existing operational mineral areas, no existing consented areas of extraction nor any preferred areas of extraction as identified in the Joint Minerals Local Plan 2004."</p>	<p>This is a half truth that omits reference to the potential impacts on the MSA as a whole and on the Areas of Search allocated in the Gransmoor/Lissett area.</p>
<p>National Grid did not consider that a significant effect on mineral resources was likely to occur as a result of the construction, operation or decommissioning of the project and therefore this issue has not been assessed within the environmental statement.</p>	<p>The letter does not say why it was thought there would be no significant effect on mineral resources when the pipeline crosses over linear 40 km of MSA. The MPA submits that this is a pre-judgment which has coloured subsequent decisions about impacts on specific areas.</p>
<p>The complexities of the route selection process have been covered in point 1 above and the Route Corridor Study (published May 2011) makes reference to relevant minerals planning policy and identifies 'sporadic' minerals interest throughout the whole area of search.</p>	<p>The reference to sporadic minerals interest is irrelevant since the MSAs are by definition areas where economic minerals are known to exist. The reference seeks to downplay the importance of minerals and leads to them being dismissed as a constraint on development, and seeks to justify the inadequate approach taken by the corridor selection process.</p>
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.)</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). Proving whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>

<p>In terms of EN-1 and para 5.10.9, the scheme has been designed to minimise impacts upon the MSA and known deposits outside of these areas by seeking to avoid them where possible, crossing by the shortest route where unavoidable due to the linear nature of the scheme and allowing site machinery to cross the proposed pipeline where required subject to the usual pipeline protection measures.</p>	<p>This a half truth that omits the responsibility of the non mineral developer to carry out a mineral assessment on direct and indirect effects on the mineral resource and assess the prospects for prior extraction.</p>
<p>There are no proven reserves of economically viable minerals within the MSA</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). <u>Proving</u> whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>
<p>Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.</p>	<p>If prior extraction is taken seriously (as it should) it would have formed part of the DCO and be included within the overall timescale for the development. The applicant has made a pre-judgment that prior extraction is not possible when national and local policy requires that it be considered, and now pleads that it cannot be accommodated.</p>

Summary of Issue

40. The objectors have established that

- National policy supports the conservation of scarce mineral resources and recognises the importance of them to the national economy
- National policy for mineral safeguarding requires the local identification of MSAs, and policies for prior extraction
- National guidance on mineral safeguarding advises that non mineral developers carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality
- Local policies are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.
- This Local Plan Strategy Document has reached examination stage and should be accorded more weight in the planning balance
- EN – 1 requires applicants to safeguard minerals 'as far as possible', which is a high bar to development that requires significant effort and investigation to satisfy.
- EN – 1 also requires applicants to put in place appropriate mitigation measures when developments have an impact on MSAs to safeguard mineral resources.
- The EIA scoped out minerals but the reasons for this decision remain unknown.
- The corridor route selection process logged the existence and location of active mineral sites and MSA boundaries.
- The project crosses over 40 linear km of MSAs in the East Riding alone, 25 km of which are sand and gravel MSAs.

- The applicant should recognise that notwithstanding the national importance of its project national policy also accords great weight to the benefits of mineral extraction, and by implication, mineral safeguarding.

41. The objectors await confirmation of the following ,

- The corridor route selection process assumes that where the development impacts on mineral resource areas were 'unavoidable' that this justified not carrying out mineral assessments.
- There is no clarity about why impacts on mineral impacts were accorded 'minor' status which would involve successful mitigation of impacts.
- Whether any field investigations were carried out as required by Local Plan policy, viz, test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, the value of the underlying or adjacent mineral now or in future, documented attempts to market the mineral or the use of it in the development.

42. The objectors submit that without confirmation that mineral assessments have been carried out to a professional standard, the applicant cannot demonstrate that it has complied with national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures. Neither can it demonstrate that it complies with national or local planning policy in considering seriously, prior extraction of mineral. The MPA therefore asks that in this respect, the DCO should not be confirmed until this work has been carried out, consulted on and examined.

Part 2: The Effect on the Mineral Deposits at Gransmoor

The Gransmoor Deposits

43. The mineral deposits at Gransmoor are not uniformly shown on the BGS minerals resources map but evidence of their existence and exploitation is present to confirm them with confidence. The deposits being worked at Gransmoor and Park Farm are fluvioglacial deposits in the form of a beaded esker of sub-glacial origin. This is shown in graphical form on **Plan 1**. The esker can be projected for a distance of at least 6 km from Kelk Hill in the north to east of Lisset Bridge in the south and is associated with kame deposits (e.g. Yew Hills) and possibly with subsidiary channel deposits. The plan shows clearly where minerals workings have previously taken place along this route and will take place.
44. The deposit at Barf Hill and Park Farm is particularly thick. The operator's experience over many years in this area confirms that the base of the deposit is at a uniform height of –10.5 metres AOD. Observation of the existing quarry and the old quarry in the woodland at Barf Hill demonstrate that from this base the deposit varies from 15 meters in depth to over 23 metres on rising ground. There is a known deposit on the northern side of the woodland, evidence of old workings within the woodland and a deposit between Park Farm and the woodland making a contiguous deposit well in excess of 1.5 million tonnes.
45. The quality of the deposit worked in the two locations is uniformly of a clean sand and gravel with a ratio of sand to gravel of 70/30 with an average silt content of 10-15%. There is very little overburden and there is typically no interburden of clay. This is consistent with the description of the deposit as an esker since this was a formed in a high pressure and high energy depositional environment which scoured the bedrock beneath the retreating glacier leaving clean sand and gravel behind. The principal products are single size gravel, coarse concreting sand, and washed soft sand and asphalt sand. The products are suitable for all strengths of concrete, and for asphalt and mortar. The site produces an average 100,000 tonnes of aggregate per year.

The Gransmoor Operation

46. W Clifford Watts Ltd is an SME employing 103 people and its operations are professional and highly integrated. The Gransmoor/Park Farm operation supplies an internal market for material to an on-site ready mixed concrete plant on land to the north and east of Park House. The company also operates a recycling plant on land to the north of Barf Hill at the former Gransmoor Quarry which works in tandem with the sand and gravel extraction operation, producing a range of blended materials for the local market, which maximises the use of the available material. The

continued operation of both sides of the operation is also essential to ensure a cost effective operation for both the company and its customers along with minimising traffic movements by backhauling.

47. Reserves in the current extraction operation to the south of the proposed pipeline route north of Park House are virtually exhausted with the next phase of operations being at Turtle Hill to the north of the recycling site with a confirmed 4 years of reserves. The company's strategic development plan which is being undertaken in conjunction with Burton Agnes Estates is to extract the mineral through Barf Hill thereby linking the two existing operational areas. It is envisaged that this operation may need to commence within 2 years to guarantee continuity of supply.
48. On the assumption that this extraction was to go ahead, the company have made significant investments in installing a new state of the art programmed logic controller (plc) sand processing plant at the quarry (primarily to remove lignite as required for meeting the specifications of the Givlon liquid screed produced at Malton) and a new washing plant and effluent treatment system at the recycling operation. Not only this, but the company has also installed a multi million pound dry silo mortar plant which is being constructed at one of its chalk quarries some 30 miles to the south that is dependent upon the internal lignite-free sand supply from this location.
49. The company is also in the process of a planning application at one of its limestone quarries some 30 miles to the west to erect an asphalt plant which will also be dependent upon sand from this location to supplement the internal supply of filler.
50. The business also has three other ready mixed concrete plants within the area at Hunmanby, South Cave and Malton as well as a pre cast operation which rely predominantly on its internal supply of both sand and gravel from this location.
51. The company is thus very heavily reliant upon minerals from this area, the cessation of which would inevitably result in closure of large sections of the business.

The Aggregates Market in East Riding

52. The East Riding is a large county which is relatively isolated in terms of accessibility from the major population centres of England. It has thus become largely dependant on its own resources of aggregates and has traditionally been self sufficient. It is a net exporter of sand and gravel, mainly to adjoining eastern parts of North Yorkshire and to Hull.

53. The 2013 Local Aggregates Assessment (LAA) says of the East Riding, “In 2012 there were six sites extracting sand and gravel. The most important areas for working are near Gransmoor, North Cave and Brandesburton in East Riding.” (para 2.15) The county is notable for being largely free of the aggregates ‘majors’, which are the four largest national companies who dominate the aggregates market. In the county there are no extractive sites run by the majors and all sites are operated by independent SMEs, all of which are local firms.
54. W Clifford Watts Ltd also operates one other site apart from Park Farm – Turtle Hill (north of Gransmoor) and is one of the largest operators in the county.
55. Of the other operating sites mentioned, Brandesburton is almost exhausted having received a permission to extend operations in 2012 for about 40,000 tonnes. North Cave is an important unit but it differs from the Gransmoor operation by having a more restricted product range.
56. The 2013 LAA says that in 2011 the output of sand and gravel from the Humber area was 900,000 tonnes, 800,000 of which came from the East Riding (para 3.4). The East Riding is therefore a regionally important source of sand and gravel. In terms of reserves of sand and gravel the Humber total is 16.5 Million tonnes, the majority of which are in the East Riding (para 3.8).
57. Although the landbank is a comfortable 16.6 years across the Humber area it is unevenly distributed. The Gransmoor operation can only draw on reserves from its Turtle Hill site for the immediate future, which must in due course be replaced with other contiguous reserves if the business and its contribution to regional aggregates output, is to continue.
58. In summary, the Gransmoor operation is acknowledged as one of three sand and gravel workings in the county which are of most importance. This is enhanced by being able to produce a wide range of material, especially for high strength concrete, which is in generally short supply.

The Impact of the Pipeline on the Gransmoor Operation

59. The operator has a long term development plan which would in normal circumstances have involved applying for planning permission to extend the Park Farm and Gransmoor operational areas towards each other in about 5 years time. However, the advent of the pipeline scheme has brought these plans forward. The operator submitted an application to work the deposit north of Park Farm towards Barf Hill wood including the pipeline corridor, to the East Riding County Council on 12th December 2014. This application if permitted, would release 616,000 tonnes of mineral.

60. However, if the pipeline is confirmed on its applied for alignment across the field to the south of Barf Hill wood, it would seriously compromise the Gransmoor operation. The development plan includes the provision of a public benefit of straightening the Gransmoor Road at the double bend by the quarry access north of Barf Hill wood, releasing mineral under the road, and additionally working beneath the wood itself, and recreating it as a landscape feature north of its present position on excavated and refilled ground.
61. The company estimate that the capital costs of this work will be more than £1,200,000. The Park Farm extension is viable as it stands being a straight extension of existing activity. However, the 616,000 tonnes applied for includes the route of the pipeline, and if the DCO is confirmed the pipeline would sterilise 250,000 tonnes, or 40% of the available mineral. The company has assumed that all of the deposit between the pipeline and the wood would be sterilised as well as the pipeline corridor itself. Additionally, an assumed minimum 1 in 3 batter would be required with additional mineral lost at the toe to prevent wave cut action from the restored Park Farm lake to its southern boundary undermining the embankment, and for the estimated 15 metre depth of water within it. Thus if the pipeline is confirmed the company would only have assured reserves for 7 years if permission is granted for this extension.
62. That would leave 1.38 Million tonnes in situ in the wood and south of Gransmoor that could be liberated by the realignment of the road (**Appendix MPA 3 – Barf Hill Report**). This represents a recoverable mineral quantity of 1.17 Million tonnes, which means that the capital cost of the additional public benefits would add £1.06 to the price of the mineral, making it uneconomic. This would be compared with 1.70 Million tonnes recoverable if the pipeline were to be relocated at Park Farm.
63. The loss of mineral of this scale would threaten the long term development of the business. At present if the development plan is implemented, the company would have assured reserves for about 24 years including existing permitted reserves. Without it, the company would be faced with finding replacement reserves much sooner than planned, most probably in just 7 years. There is a dearth of available resources locally of the quality of the Gransmoor deposit and if the pipeline is confirmed over the ground at Stonehills as well, proven alternatives would of necessity be available only at greater distances (in the Scarborough area of North Yorkshire 40 miles away) at much greater cost. Other possible sources could be crushed fines or marine aggregates but these are again much more expensive and/or involve longer haulage distances and would result in a less sustainable outcome.

64. The applicant has suggested that Barf Hill wood would never be given planning permission for mineral working. This is the only significant constraint to working on the entire site. The company has had the wood surveyed recently and recommendations have been made by the ecologist for further work in due season. As explained, the company was not intending to apply for planning permission on this land yet and also has not yet carried out all of the work necessary to inform an Environmental Assessment. However, there does not yet appear to be any reason to suppose that the wood has anything more than a local ecological interest. The wood is also a local landscape feature which the company would propose to replicate on another part of the site nearby as compensation. The mineral planning authority may also require other compensatory action in addition to this. The company's conclusion is that the wood poses no insuperable impediment to mineral working in the future. In any case, any future planning application will be decided on its merits and in accordance with the development plan. Even should there be found a conflict with the development plan in removing this feature, this would need to be balanced against the need for the mineral and the great weight attaching to its benefits.

65. The applicant has responded to some of these points and these will be addressed later in this Statement.

The Impact of the Mineral Resource at Gransmoor on the Pipeline Route

66. The company has suggested an alternative route for the pipeline which would not involve an unacceptable effect on the mineral operation. This was to locate the pipeline across a largely already constructed causeway within the Park Farm quarry. Following a severe flooding event in 2007 which led to a goit breaking its banks and flooding the workings, the company reconstructed a channel for it and realigned the confluence of the goit with the Barmston drain, which has been in use for almost four years and has successfully solved the flooding problem. The company has offered to widen this causeway (indeed, it is already nearly 50 metres wide and up to full height) to accommodate the pipeline in an area of the quarry which has already been worked and where the pipeline would not conflict with future mineral operations.

67. The company has commissioned a geotechnical study of the causeway (see **Appendix MPA 4 – Geotechnical Study**) and has offered the applicant tests to see if it meets the applicant's requirements or to agree to a legally binding obligation to construct it to whatever specification the applicant desires and to indemnify the causeway against failure for a period of three years after construction.

68. The company believes that this represents a realistic alternative solution. If however, this is deemed not to be acceptable then there are other alternatives including diverting the pipeline to

the north along the realigned Gransmoor Road. The company would be prepared to sacrifice some mineral at this location since it is thinner and would have less impact on the future of the operation, although it would rather not lose any mineral at all.

The objection & Subsequent Responses

69. The following Table contains extracts from the applicant's agent's letter and the MPA / W Clifford Watts observations on aspects touching the Gransmoor/Lissett area which illustrate its case.

Table 2 Fisher German letter & Observations of the MPA & WCW on Site Specific Matters

Quotations from Agent's letter	WCW observations
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.) However despite being identified in the 2004 JMLP there does not appear to have been any further investigation through this 10 year period as to whether economically viable extraction could take place within this Area of Search, nor have any proposals been put in front of East Riding of Yorkshire Council for such extraction.</p>	<p>The medium term strategy of the company was to formulate a planning application to extract the mineral in the area between the quarries including Barf Hill to commence operations in 2021. To this end, discussions were held with the land and mineral owners concerned with a view to a planning application being submitted within the next 1 to 2 years. The early application was planned so that there would be sufficient time to divert the road to the north and to build another woodland area of similar nature to Barf Hill in which habitats could be recreated for wild life. Options and leases are in place for the whole of this area.</p> <p>Since the advent of the CCS pipeline, copies of communications as well as discussions have been held with Shirley Ross at ERYC with copies of communications also sent to Andy Wainwright at ERYC.</p> <p>Importantly, all of the above was reported on more than one occasion to the applicant's agents.</p>
<p>British Geological Survey data suggests that large parts of this Area of Search have a superficial geology of boulder clay or sand and gravel with laminated clay. Deposits containing such laminated clay are expensive to process and result in large quantities of waste to be dealt with. It should be noted that there are no operational quarries within this area of search, suggesting that the market does not believe there are economically viable deposits in this area.</p>	<p>There are extraction areas both to the north and south of Barf Hill wood with very consistent geology. The geology of the area between the two quarries is extrapolated to be a continuation of the same deposit which very rich in prime quality sand and gravel.</p> <p>Not only was all this communicated to the applicant's agents, but a visual inspection of the two sites would make this apparent to anyone with some knowledge of geology.</p>
<p>It is noted that the operator of this quarry does not have any detailed site investigation information into the mineral deposit at Barf Hill, no planning application has been submitted for its development, nor has it been promoted as a preferred area to the Mineral Planning Authority.</p>	<p>Planning and further investigation of the deposit has not been a priority due to the anticipated timing of utilising this reserve. In addition, the company has used its long experience of working in this locality and would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>

<p>National Grid has carried out borehole investigation at this point to verify the accuracy of the information shown on BGS records. BGS suggest a narrow, linear alluvium deposit of sand and gravel running south from Barf Hill. Borehole analysis by National Grid suggests that this area is subject to laminated clay deposits within the sand and gravel.</p>	<p>The company has asked for this information, drilling logs and a location plan of the borehole but to date it has not been supplied. The company disputes this interpretation of the Barf Hill deposit.</p>
<p>Due to the narrowness of this deposit the actual volume of material likely to be sterilised is very modest and has been estimated, adopting some high range assumptions, at 41,000 tonnes. Depending on the level of clay contamination the actual loss of sterilised mineral may be significantly less and this calculation assumes that material is sterilised on both sides of the pipeline – given the proximity to Barf Hill Wood this may not be the case. In terms of production throughout the local authority area this volume has a de minimis effect.</p>	<p>A copy of the reserve calculation of National Grid would be required to demonstrate how a figure as low as this has been achieved. Working on the basis of the deposits to the north and south of Barf Hill which stretch over 2 kilometres between them, it is estimated that they have an approximate surface width of 100 metres, base width of 40 metres and depth from surrounding ground level of 17 metres. In addition to this, any rise in ground level above surrounding ground level enhances the recoverable mineral proportionately. Barf Hill stands an additional 6 metres above surrounding ground level.</p> <p>In addition, the company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>
<p>Furthermore to the extent that a claim for loss can be established and subject to valuation principles, the arrangements for taking rights either voluntarily through the pipeline easement, or via the development consent order process would lead to an entitlement to compensation, which might include Mining Code compensation in any given case, and thus it should not be assumed that minerals are being “lost” to the scheme.</p>	<p>Relying on the Mining Code does not absolve the applicant from following national policy on safeguarding mineral. The objective of national policy is not compensation since this is already well provided for. Rather, it is a sustainability issue of preserving a scarce nationally important resource from needless sterilisation. National Grid will be glad of such scarce resources in constructing its pipeline. The statement made by the agent demonstrates the low priority that the applicant has given to mineral safeguarding.</p>
<p>National Grid submits that in the light of this they have complied with the requirements of para 5.10.9 of EN - 1 as the vast majority of the land which the operator may wish to extract in the future will be unaffected by the proposed development. Crossing points of the pipeline for site machinery will be available subject to the usual pipeline protection measures and the pipeline has been designed to be as close as possible to Barf Hill Wood – a local landscape feature which is subject to local environmental designations and which is unlikely to be permitted for mineral extraction. By following this boundary the volume of material affected is again minimised.</p>	<p>Evidence in this Statement confirms the very real impact that sterilisation via the pipeline will have on the company’s long term business prospects. The company submits that the applicant has completely misunderstood the local geology, under-estimated the impact of its proposals on an important local business and failed to engage seriously in discussions about mitigation. It has demonstrably not complied with para 5.10.9 of EN-1 since it cannot show how it has accommodated the considerable mineral interest in this location ‘as far as possible’.</p> <p>Barf Hill wood is not designated as environmentally important although it is accepted that it is a local landscape feature. The wood is not subject to any national or international designation that the company knows of, and consequently it must be viewed as a local constraint. The company will in due course fully survey the wood and propose appropriate mitigation for the loss of a local landscape and wildlife feature in</p>

	line with Local Plan policy. It is thus not true that it is unlikely to be permitted for mineral extraction.
Discussions have been held with the operator of the quarry at Gransmoor regarding the utilisation of alternative routes across areas that have previously been extracted. However no such routes have been restored at the current time to enable them to be used by the proposed development.	On the contrary, one area had been restored for some 3 years to carry the Nutholmes dyke. This had been inspected regularly by a geotechnical consultant but National Grid appeared to have very little interest in pursuing this option because “they had already drawn up a pipeline corridor”. This restored area has now been extended significantly as can be seen from the latest survey (see Plan 2) and a geotechnical report is appended to this Statement (Appendix MPA 4).
Discussions were held regarding areas of the existing quarry that may be restored in the future but due to a lack of certainty as to the timing of their restoration and the stability of the material involved (and thus the security of the pipeline) no acceptable option was available.	An option of restoring another section to the north of the existing quarry to specifications required by National Grid was suggested. This was ruled out at the time by National Grid because there would not be anything there in time for the submission of the planning application. The fact that a new embankment could have been created to its specifications well within the timescale of the pipeline being constructed was of no interest to its representatives. The suggestion was made that should the company go into liquidation then there was no guarantee that the embankment would be in place.
The prior extraction of the preferred route carries these uncertainties as well as the additional unknown as to when the mineral extraction might be completed. That timescale is also dependent upon a successful planning consent being obtained and the timescales for all of this make such an approach incompatible with the scheme generally.	Once again, National Grid was not prepared to discuss this option based upon the 2 points raised above.
The scheme is a nationally significant infrastructure project, and to route the scheme through the existing quarry would introduce unnecessary and undesirable uncertainty and impediment.	The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation. It has taken a highhanded approach to the issue.
There are no proven reserves of economically viable minerals within the MSA, although with reference to the adjacent deposit identified in para 3 above investigations carried out by National Grid at Barf Hill indicate a modest reserve of up to 41,000 tonnes of sand and gravel contaminated with clay. It is not intended to remove any of this material for use within the scheme.	Demonstration of the sterilised reserve tonnage is required. A new state of the art plc controlled washing plant is operational at the adjacent quarry to process the mineral. Part of the justification for his plant being purchased was on the basis that reserves at Barf Hill would eventually be processed through it.
Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.	If National Grid was not prepared to discuss this with the operator how has this conclusion been reached?
The impact upon known mineral reserves and the MSA was taken into account in the route selection process and the final route has sought to minimize the impact upon these.	The MPA did not assert that mineral <u>reserves</u> had not been taken into account; it asserted that mineral <u>resources</u> had been ignored – a very real and important difference.

<p>There is no evidence of viable reserves within the Areas of Search and despite being designated as such for 10 years there does not appear to be any appetite from operators to promote any of these areas. This may be due to the uncertain geology of the area.</p>	<p>This is a disingenuous half truth since the applicant has already acknowledged that it has had discussions with the operator and heard of its future plans (see Appendix MPA 5 – Correspondence between the applicant & WCW). There is no doubt about resource quality as a visual inspection of the quarry and its surroundings would have demonstrated. The applicant has wilfully ignored the evidence.</p>
<p>It is worth noting that in the Humber Area Local Aggregates Assessment 2013, the average sand and gravel production volume within the region on average over the previous 10 years was 0.99 million tonnes (excluding silica sand sales.) This is despite the sharp downturn during the recession. Prior to that average sales volume were consistently above 1.1 million tonnes per annum.</p> <p>Thus the potential loss of 41,000 tonnes at the site at Gransmoor is equivalent to two weeks supply which will have very limited effect on the mineral supply situation in the area</p>	<p>The comment is meaningless if the calculated tonnage is wrong. The whole site which may now be jeopardised is over 1.5 million tonnes equating to more than 15 years life for the operator. Not only is the pipeline going to sterilise reserves in the mid term strategic plan at Barf Hill, but the next area in the long term strategic plan was at Stonehills Farm to the east which is also in the proposed path of the pipeline, and which is also within the area of search and subject to objections from the landowners.</p>
<p>The remaining reserves at this site will be unaffected by the proposed development and will be available for extraction. As a result it is submitted that National Grid has sought to safeguard mineral resources as far as is possible in line with the requirement in EN-1.</p>	<p>The company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p> <p>The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation.</p>

Other Impacts on Mineral Areas

70. Representations have also been made by landowners of the Stonehills deposit (see Objections from Claire Jackson, Peter Mawer and Christopher Marshall on behalf of the Glendon Estate IDs: 3, 4 & 5) and also see **Appendix MPA 6 – Stonehills Report and Plan 1**, which confirms the existence of exploitable quantities of mineral. Although this site has already been worked for sand and gravel as shown on **Plan 1**, it is apparent from the report produced for the company that there are significant remaining resources to be exploited in the site. The project land plans (Sheet 24) shows that the pipeline traverses the middle of this area of interest. The company have a long term plan which would go to that area once the Gransmoor deposits are exhausted. It should be clear that although there is no immediate prospect of working these deposits, it would be prudent to keep access to them clear, and reserving the largest deposit possible for working, by having the pipeline avoid the minerals as much as possible. For reasons already argued in this Statement, this has not been demonstrated. The MPA and the company submit that the pipeline route should be diverted to accommodate this clear interest.

Summary of Issue

71. The objectors have established that

- The Gransmoor Deposit is not as the applicant supposes, a thin contaminated deposit of limited value, but is part of a projected esker deposit of sometimes great thickness and exceptional quality sand and gravel.
- There are proven deposits of up to 23 metres in thickness and 1.7 million tonnes to be exploited at Gransmoor.
- W Clifford Watts (the company) has one of the most important sand and gravel operations in the Humber area at Gransmoor which produces typically 12.5% of the output for the East Riding. It is a highly integrated enterprise that employs ultimately 103 people, and added value plants across the East Riding area are dependent on the site for resources.
- The company has made significant investment in the site and in dependent operations on the assumption that its medium term plan to progress through the Barf Hill deposit will be realised.
- The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation to demonstrate the seriousness of its intentions and to supplement its remaining reserves at Turtle Hill.
- The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes of mineral or 40% of the mineral to the south of Barf Hill wood, leaving the company with reserves for only 3 years if the planned extension is permitted.
- Company plans to join the two operations at Gransmoor and Park Farm through the Barf Hill deposit would be compromised to the extent that it would not be viable to divert the road and relocate the wood as planned.
- There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.
- The company has proposed an alternative alignment for the pipeline on a causeway already constructed at Park Farm quarry that can be assured to be suitable for the location of the pipeline. This can be achieved either by demonstration of stability by testing or by a legal agreement to ensure that it is provided to a suitable specification.
- However, if necessary, there are other alternative routes should that not be acceptable to the applicant.

Conclusions and Recommendation

72. National policy supports the conservation of scarce mineral resources, recognises the importance of them to the national economy and requires mineral safeguarding and policies for prior

extraction. It therefore advises that non mineral developers should carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality before applications should be determined. Local polices are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.

73. The applicant has not confirmed that mineral assessments have been carried out to a professional standard along the 40 linear km of MSAs that the pipeline corridor crosses, and therefore the applicant has not demonstrated that it has complied with national planning policy to conserve minerals, or national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures, or that it complies with national or local planning policy in considering seriously, prior extraction of mineral.

74. In respect of Gransmoor the deposit is a valuable proven deposit of up to 23 metres in thickness and over 1.7 million tonnes of recoverable mineral. W Clifford Watts has one of the most important sand and gravel operations in the Humber area with a highly integrated enterprise and added value plants across the East Riding area are dependent on the site for resources. The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation.

75. The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes or 40% of the mineral to the south of Barf Hill wood, and prevent the company from joining the two operations at Gransmoor and Park Farm through the Barf Hill deposit. There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.

76. The company has proposed an alternative alignment for the pipeline on a causeway already constructed that can be assured to be suitable for the location of the pipeline.

77. The objectors therefore ask that the DCO should not be confirmed.

Written Representations
of the
Mineral Products Association (MPA),
W Clifford Watts Ltd (WCW), and Others
to the
Yorkshire and Humber (CCS Cross Country Pipeline)
Development Consent Order
Examination
(IDs 22, 74, 75, 85, 86)

18th December 2014

Written Representations of the Mineral Products Association (MPA), W Clifford Watts, and Others to the Yorkshire and Humber (CCS Cross Country Pipeline) Development Consent Order Examination

Introduction

1. These joint representations are made on behalf of the following objectors,
 - Mineral Products Association (objector ID: 22),
 - W Clifford Watts Ltd (objector ID: 85),
 - The Trustees of the Burton Agnes Estate Trust (objector ID: 74),
 - The Hon Mrs S Cunliffe-Lister (objector ID: 75), and
 - Mr & Mrs P Conner (objector ID: 86).

2. The Mineral Products Association is taking the lead in the representations on these matters at the Examination.

3. The Mineral Products Association (MPA) is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. With the recent addition of The British Precast Concrete Federation (BPCF) and the British Association of Reinforcement (BAR), it has a growing membership of 450 companies and is the sectoral voice for mineral products. MPA membership is made up of the vast majority of independent SME companies throughout the UK, as well as the 9 major international and global companies. It covers 100% of GB cement production, 90% of aggregates production and 95% of asphalt and ready-mixed concrete production and 70% of precast concrete production. Each year the industry supplies £9 billion of materials and services to the £120 billion construction and other sectors. Industry production represents the largest materials flow in the UK economy and is also one of the largest manufacturing sectors.

4. Given the NPPF's recognition of the economic and employment benefits of the extractive industries (paras 28 & 144) we should like to direct your attention to 'Making the Link', a document produced by the MPA to highlight the contribution that the sector makes to the economy. The document can be downloaded from the following website.
http://www.mineralproducts.org/documents/MPA_MTL_Document.pdf

3. This evidence covers two aspects of the objections. First, it addresses the need to observe national policy for mineral safeguarding and second, it examines the effect of the DCO on a member company's operations (W Clifford Watts Ltd) which include the interests of the mineral and land owners of the sterilised section.

The Objections

4. The **MPA** has objected to the draft DCO, not because it wishes to stop development, but to ensure that the procedure for mineral safeguarding has been respected and that the applicant demonstrates with certainty that it has fully evaluated the impact of development on mineral interests and has taken the appropriate action in line with national policy. The project crosses many kilometres of MSA within the East Riding¹. In addition, the MPA objected in support of one of its member companies, W Clifford Watts Ltd, who operate two quarries at Gransmoor and Park Farm near the village of Kelk, East Riding. The pipeline lies in the centre of an Area of Search for minerals in the adopted Mineral Local Plan (2004) and therefore threatens the future of these quarries and the MPA and the company wish the installation to be moved to accommodate future mineral need.

5. **W Clifford Watts** objected to the draft DCO because there are few areas in the locality where exploitation of sand and gravel is economically viable and traditional mineral working areas are becoming exhausted. In order to secure future supplies, the Company has entered into three option agreements to take a lease and work sand and gravel over land at Great Kelk. It is estimated that in total, the current route of the pipeline would sterilise a significant and strategically important tonnage of sand and gravel in the areas covered by those option agreements. In addition, the Company believes it would be possible to re route the pipeline so as to minimise the disruption and volume of minerals sterilised within the Barf Hill and Great Kelk areas helping to preserve the future supply of minerals to the local market place. The applicant has failed to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission Document which proposes Minerals Safeguarding Areas.

6. **The Trustees of the Burton Agnes Estate Trust, the Hon Mrs S Cunliffe-Lister and Mr & Mrs P. Conner** all presented similar objections to the intent that the current route of the pipeline would sterilise a significant and strategically important tonnage by crossing the deposit. It would be possible to re-route the pipeline so as to minimise the disruption and volume of minerals sterilised, helping to preserve the future supply of minerals to the local market. In the market served by minerals extracted from this locality there is a recognised shortage of sand and gravel and without developing local reserves there will be a need to import sand and gravel from outside of the locality resulting in the generation of additional road traffic and possibly disruption to supply. There are few areas in the locality where exploitation of sand and gravel is economically viable. Traditional mineral working areas are becoming exhausted and there is a need to preserve future reserves of minerals in this locality which is not met in the proposed

¹ The MPA calculates that the project traverses over 25 km of sand and gravel MSAs and 19 km of Industrial Chalk MSA within the East Riding.

scheme. The proposed pipeline route fails to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission which proposes Minerals Safeguarding Areas.

Part 1: The Mineral Safeguarding Objection

The Mineral Safeguarding Regime Nationally

7. Mineral safeguarding is recognised as “,,essential to ensure that the ability of future generations to meet their needs for minerals is not compromised by planning decisions that are being made in the present day. The essence of any safeguarding process is that it should introduce the consideration of minerals into the decision making balance, so that access to mineral resources for future generations is preserved as far as possible. The first part of that process is the identification of mineral resources and the definition of Mineral Safeguarding Areas (MSAs). “²
8. Although National Infrastructure Projects are subject to a separate policy document, projects will rely on the planning system to inform them of planning constraints and policies for conservation that will in turn inform an EIA process.
9. NPPF para 122 says, “Minerals are essential to support sustainable economic growth and our quality of life...However, since minerals are a finite natural resource, and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation.”
10. NPPF para 143, bullet point 3 says that in preparing Local Plans local planning authorities should, “define Minerals Safeguarding Areas and adopt appropriate policies in order that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked”.
11. Bullet point 5 of the same paragraph in NPPF says that local planning authorities should, “set out policies to encourage the prior extraction of minerals, where practicable and environmentally feasible, if it is necessary for non-mineral development to take place;”
12. NPPF para 144 says, “When determining planning applications, local planning authorities should give great weight to the benefits of the mineral extraction, including to the economy” (bullet point

² Mineral safeguarding in England: good practice advice, British Geological Survey Open Report OR/11/046, October 2011, para 1.1.2

1); and “not normally permit other development proposals in mineral safeguarding areas where they might constrain potential future use for these purposes;” (bullet point 7).

13. NPPG paragraph: ID: 27-004 says “Mineral planning authorities should adopt a systematic approach for safeguarding mineral resources, which...adopts clear development management policies which set out how proposals for non-minerals development in Minerals Safeguarding Areas will be handled, and what action applicants for development should take to address the risk of losing the ability to extract the resource. This may include policies that encourage the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in Minerals Safeguarding Areas and to prevent the unnecessary sterilisation of minerals”.
14. The BGS good practice guidance is the bedrock of identifying and delineating MSAs. This guidance advises local planning authorities on the methodology to adopt for this task, and proposes a seven step approach from identifying the geological resources (usually from the BGS’s own mineral resources maps), through to proposing draft MSA boundaries, undertaking consultation and then the most appropriate way of formalising them in strategic local plan documents and development management policies. This is followed up by including safeguarding requirements in local plans and finally the requirements of mineral assessments in local validation lists (para 1.1.3).
15. The BGS guidance also explains the role of the BGS in providing baseline information. “Mineral resource maps of each English county have been compiled by the BGS on behalf of the Office of the Deputy Prime Minister (now DCLG). These maps show the geological distribution of all onshore mineral resources together with additional information on the location of mineral extraction sites, the extent of mineral planning permissions...and the extent of selected landscape and nature-conservation designations. The primary objective is to produce baseline data in a consistent format that can be updated, revised and customised to suit planning needs, including use in the preparation of LDDs.” (para 2.2.1)
16. It is important that “sufficient information on mineral resources is necessary for local authorities to determine non-mineral planning applications submitted in MSAs. The requirement for a Mineral Assessment to accompany these applications could be administered through inclusion on the local list of information requirements” (para 6.1.).
17. The BGS guidance also confirms the normal content of such an assessment. The two levels of Mineral Assessment are:

1. "A site-specific desk-based assessment of the existing surface and solid geological and mineral resource information. This may comprise information on the mining and quarrying history, mineral assessments and market appraisals, boreholes, site investigations, geological memoirs, technical reports, mining plans and the thickness of superficial geological deposits.
2. Analysis of the site-specific information derived from level 1 including:
 - An estimate of the economic value (for example quality and quantity) of the mineral resource.
 - Its potential for use in the forthcoming development and an assessment of whether it is feasible and viable to extract the mineral resource ahead of development to prevent unnecessary sterilisation.
 - Where prior extraction can be undertaken, an explanation of how this will be carried out as part of the overall development scheme.

Level 2 should be prepared by a suitably qualified and competent person. Should an applicant believe that some or all of the information is not necessary, advice should be sought from the MPA."³

18. A further key concept of mineral safeguarding is proximal sterilisation. It is a common mistake made by developers and local planning authorities that mineral safeguarding is expressed only in the principle of prior extraction. If developers consider the area sterilised by development to be too small for such prior extraction, they often believe they have done their job. This is possibly because specific requirements are laid down by NFFP paragraph 143 bullet point 5 for policies on prior extraction. However, it cannot be stressed too strongly that this is not the be-all and end-all of mineral safeguarding. The BGS document makes clear that even small developments in mineral safeguarding areas covering much less land than would be viable for prior extraction, is very likely to sterilise mineral. This is through the influence of sterilisation by proximity. Figure 2 in the BGS document shows graphically the potential for sterilisation of large quantities of mineral underground by land development out of all proportion to its footprint. Thus there is a real danger that mineral might be sterilised by small development that severs larger deposits, or requires standoffs which would prevent mineral working taking place later or that closes off access to deposits entirely.

³ BGS guidance; recommended text for inclusion in the local list of information requirements

The Mineral Safeguarding Regime Locally

19. MSAs in the East Riding were first proposed and consulted on through the preparation of the Hull and East Riding Joint Minerals Local Plan at Issues and Options stage, the Preferred Approach stages, as well as through the Draft Strategy Document and Policies Map, and the Proposed Submission Strategy Document and Policies Map. These will be refined through the Joint Minerals Local Plan. However, they are largely complete pending the outcome of the Submission Strategy Document Examination. Having regard to the advanced stage of adoption of this plan the MPA believes the Examining Authority should accord it more weight.

20. Technical evidence for defining Mineral Safeguarding Areas has been progressed through the Joint Minerals Plan. The approach taken to defining these Areas is largely set out in paras 8.3 - 8.12 of the Preferred Approach Joint Minerals Plan. This recognises that, in defining Minerals Safeguarding Areas, it is important to consider the extent and nature of the mineral resource. Within the East Riding these resources comprise:
 - i. Sand and Gravel;
 - ii. Crushed Rock (Limestone);
 - iii. Crushed Rock (Chalk);
 - iv. Clay;
 - v. Industrial Chalk; and
 - vi. Silica Sand.

21. For sand and gravel Mineral Safeguarding Areas have been defined based on the full extent of glaciofluvial, sand and gravel of unknown origin, and glaciolacustrine deposits shown on the British Geological Survey Geological Resources Map for the area. This approach has been used because of the economic importance of the resource, as demonstrated by the significant number of active sand and gravel workings in the East Riding, as well as the sales of sand and gravel resources in the Humber area shown by the draft Local Aggregates Assessment.

22. One of the unfortunate results of relying on that information base is that the deposits at Barf Hill were missed off the resources map due to the inadequacies of geological mapping in the area, and even though they are clearly being worked and there is direct evidence of their existence. This is no doubt one of the refinements to MSA boundaries that the Submission Strategy Document mentions is the task of the forthcoming Joint Minerals Local Plan.

23. MSAs have therefore existed in draft form since 2010 and are being used by the mineral planning authority in decision making. Prospective applicants would be expected to respect the requirements of mineral safeguarding in formulating proposals.

24. Policy for mineral safeguarding is contained within the East Riding Proposed Submission Strategy Document which is under examination. Hearings have been completed and the Inspector's report is awaited. Policy EC 6 deals with mineral safeguarding and this proposes MSAs which are shown on the Policies Map and that non mineral development located within or adjacent to MSAs will only be supported where a number of criteria are met. These include where the mineral is of limited economic value, or the need for the development outweighs the need to safeguard mineral, the mineral resource will not be affected in the future, or development is temporary, or where the proposal is an allocated site in the development plan, or where prior extraction can take place. Although the MPA objected to this policy, it was in the form of suggesting additions to it. In general the Association was happy with the approach adopted by the County Council, and indeed the safeguarding policies are not the subject of much uncertainty due to the extent or weight of objection.

25. Clearly, these criteria cannot be met without recourse to investigation of the mineral potential, which the supporting text makes clear. Paragraph 7.77 of the draft Plan states,

“The safeguarding of mineral resources will ensure that the importance of the mineral can be balanced against the importance of the proposed non-mineral development. It does not provide a presumption in favour of minerals development. Therefore, non-mineral development, which would adversely affect the viability of exploiting an underlying or adjacent deposit in the future, will be supported in a Mineral Safeguarding Area where:

- *Test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, suggest the underlying or adjacent mineral is of limited economic value, and its value is unlikely to become significantly greater in future, for example, by being of insufficient amount or quality. Documented attempts to market the mineral may be required to demonstrate that the mineral resource is not viable;*
- *The need for the development outweighs the need to safeguard the minerals for the future, for example, the surface development is an essential piece of infrastructure and alternative sites are not available without a disproportionate cost;*
- *It can take place without preventing the mineral resource from being extracted in the future. This could include development covering a smaller area, such as householder development. Some larger proposals containing only limited built development could also take place without sterilising the resource, for example, golf courses or some types of agricultural development. This will depend on the nature of the proposal and the extent, nature and economic value of the mineral concerned...*”

National Policy for Infrastructure Projects

26. National infrastructure projects are regulated by separate policy (Overarching National Policy Statement for Energy [EN -1]) and the Local Plan may be a material consideration in determining any proposals made under EN - 1. The MPA considers that the Local Plan provides the local context for policy statements in EN -1 with regard to mineral safeguarding, and describes how the Policy should be implemented.
27. EN -1 requires the safeguarding of any mineral resources on the proposed site *'as far as possible taking into account the long-term potential of the land use after any future decommissioning has taken place'* (para 5.10.9) and *'where a proposed development has an impact upon a Mineral Safeguarding Area (MSA)...appropriate mitigation measures have been put in place to safeguard mineral resources'* (para 5.10.22).
28. These two brief statements are the only references to mineral safeguarding in EN – 1. However, other policy statements on the general subject of land use may be relevant. Paragraph 5.10.5 states, *"The ES (see Section 4.2) should identify existing and proposed¹³² land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan."* The reference in the text (132) is to the following statement, *"For example, where a planning application has been submitted."*
29. Thus in the case of a more immediate prospect of future mineral working such as at Gransmoor which lies in an adopted Area of Search for minerals, it would be expected that an analysis of the effects of the project on this land use would be undertaken. Although one indication of a proposed land use might be a planning application, the existence of the Area of Search should have alerted the applicant to the likelihood of workable mineral in the area.
30. The test of safeguarding minerals 'as far as possible' in para 5.12.9 is very high and requires much more than a cursory examination of mineral safeguarding. It should be noted that this is not couched in terms of what is feasible, or viable or practicable, but what is possible. Therefore, the policy requires more effort in finding solutions to potential conflicts and widening the scope of potential mitigation to overcome unsustainable outcomes. The appropriate mitigation mentioned by para 5.10.22 should be seen in the context of the mineral interest encountered, so the solution might differ depending on the mineral and from place to place. If solutions are suggested they should be looked into in all seriousness.

The Application, Objection & Subsequent Responses

31. The application for the pipeline was accompanied by an Environmental Statement, and the submitted documents contained details of the route corridor study. The initial objection to the project was made following a search of the application documents in which we could find no reference to mineral assessments having been carried out.
32. Following the Preliminary meeting, the MPA received a communication from Fisher German dated 21 November 2014, the agents for National Grid setting out a response to the objection and an invitation to participate in a Statement of Common Ground (**Appendix MPA 1 – Fisher German letter**). The MPA made a response to this letter in the form of a number of questions (**Appendix MPA 2 – MPA/objector response**) dated 26 November 2014. Since then, although promised, a draft Statement of Common Ground has not been received by the MPA. Therefore, at the time of writing we have had to make certain assumptions about the corridor selection process which may be clarified when we finally receive a response from the agents or the matters are discussed at a Hearing.
33. In Fisher German's letter reference is made to the application (Proposed Scheme Report Section 7.8) which contains the Route Corridor Study and to Appendix C Selection of the Preferred Route Corridor Report November 2011. Paragraph 4.4.2 of the Route Corridor Study (November 2011, Appendix B) mentions a number of active mineral sites, Gransmoor among them. Paragraph 4.4.6 discusses mineral resource protection in more detail. This lists *"Four preferred areas for future sand and gravel workings that are within the Area of Search were identified from the East Riding of Yorkshire Joint Minerals Local Plan", one of which is An extensive area of search for sand and gravel working, a large proportion of which is within the Area of Search, has been designated around Gransmoor and Lissett."*
34. Minerals were accorded a secondary constraint status in the route corridor study (para 2.5). Paragraph 8.1.2 categorises constraints into avoidable or unavoidable. Where a feature is unavoidable, it is further categorised according to a number of 'guidelines'. These range from very High, High, Moderate to Minor. Minor is defined as *" - any substantial conflict should be capable of successful resolution through the adoption of standard construction techniques or mitigation measures."*
35. Furthermore, in Appendix C Selection of the Preferred Route Corridor Report paragraph 8.5.24 mentions unavoidable development plan allocations. The report says, "No development plan allocations, for uses other than mineral extraction were identified within the route corridor options that are unavoidable through routeing of the pipeline." Table 8.5 lists those unavoidable

allocations and nineteen times in the table it is reported that concerns for mineral safeguarding and mineral features (presumably working sites) are minor. They are further mentioned in paragraphs 8.5.31 & 32 and again in the Comparison Tables in Chapter 10.1.8 (ref. para 8.5.33).

36. These references are very opaque. The following information is not provided as part of the study results,

- It is not known why minerals were down graded to secondary status as a constraint
- It is not known why despite crossing several tens of kilometres of MSA, minerals were scoped out of the EIA process
- It is not known what 'unavoidable' means in the context of mineral resources and whether this justifies not carrying out mineral assessments
- In the context of minor impacts it is not known what might be involved in 'construction techniques or mitigation measures' which would lead to 'successful resolution' of conflict with mineral interests
- It is not known what constitutes 'unavoidable' in the context of the Gransmoor operation where clearly an installation could go round it

37. The objectors are left with a sanitised and incomplete picture of how effects on mineral interest were assessed if at all. Further light may be shed on this from the agent's letter of 21 November 2014 which addressed the objections as submitted (**Appendix MPA 1**).

38. The letter asserts that minerals was fully considered in the pipeline corridor study and we agree that the applicants have identified the relevant active mineral sites and resources as shown in MSAs across the study area. However, it is not this that is at dispute. It is how the subject has been treated and whether the applicants have done sufficient work to comply with national and local policy and demonstrate clearly that there are no unavoidable impacts on minerals, and further that investigations show that no substantial conflict arises that is not capable of being overcome.

39. The overall tone of the agent's response suggests that the treatment of minerals was mostly a desk top exercise with very little (if any) field investigation or detailed analysis as required by policy. The following Table contains extracts from the letter and the MPA's observations on aspects touching the MSAs. Comments directed to the Gransmoor/Lissett area are dealt with in the second part of this Statement,

Table 1 Fisher German letter & Observations of the MPA on General Matters (Appendices MPA 1 & 2)

Quotations from Agent's letter	MPA observations
<p>The consideration of 'mineral extraction' areas is included in this appraisal as can be identified in application document 7.8 Appendix B. The report makes reference to relevant minerals planning policy and identifies minerals interest throughout the whole area of search. This study, along with the Selection of Preferred Route Corridor Report (published in November 2011 and available in Document 7.8 Appendix C of the application) demonstrates an early consideration of the region's mineral resource in the development of the project.</p>	<p>It is agreed that some consideration of mineral interests in the identification of active mineral sites and MSA boundaries has been carried out. It is in dispute that any mineral assessments required by policy have been carried out, or that prior extraction has been seriously considered.</p>
<p>Both reports identify that the preferred aim was and remains to avoid an adverse effect on minerals. However the reports also recognise that given the extent of the mineral safeguarding areas in the Holderness Plain, avoidance of all such areas would not be possible given the need for the pipeline to make landfall at a point along the Holderness coast.</p>	<p>It is agreed that it is reasonable to avoid adverse effects on mineral. However, this must be informed by a detailed study of where the most sensitive mineral areas are (i.e. where the deposit is commercially exploitable) by recourse to field investigations and economic mineral assessment. It cannot be assumed that because impacts are generally unavoidable it is permitted to cross MSAs anywhere and that unacceptable impacts will not arise.</p>
<p>Having regard to the breadth of the considerations it is noted that the final route selected does not impact upon any existing operational mineral areas, no existing consented areas of extraction nor any preferred areas of extraction as identified in the Joint Minerals Local Plan 2004."</p>	<p>This is a half truth that omits reference to the potential impacts on the MSA as a whole and on the Areas of Search allocated in the Gransmoor/Lissett area.</p>
<p>National Grid did not consider that a significant effect on mineral resources was likely to occur as a result of the construction, operation or decommissioning of the project and therefore this issue has not been assessed within the environmental statement.</p>	<p>The letter does not say why it was thought there would be no significant effect on mineral resources when the pipeline crosses over linear 40 km of MSA. The MPA submits that this is a pre-judgment which has coloured subsequent decisions about impacts on specific areas.</p>
<p>The complexities of the route selection process have been covered in point 1 above and the Route Corridor Study (published May 2011) makes reference to relevant minerals planning policy and identifies 'sporadic' minerals interest throughout the whole area of search.</p>	<p>The reference to sporadic minerals interest is irrelevant since the MSAs are by definition areas where economic minerals are known to exist. The reference seeks to downplay the importance of minerals and leads to them being dismissed as a constraint on development, and seeks to justify the inadequate approach taken by the corridor selection process.</p>
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.)</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). Proving whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>

<p>In terms of EN-1 and para 5.10.9, the scheme has been designed to minimise impacts upon the MSA and known deposits outside of these areas by seeking to avoid them where possible, crossing by the shortest route where unavoidable due to the linear nature of the scheme and allowing site machinery to cross the proposed pipeline where required subject to the usual pipeline protection measures.</p>	<p>This a half truth that omits the responsibility of the non mineral developer to carry out a mineral assessment on direct and indirect effects on the mineral resource and assess the prospects for prior extraction.</p>
<p>There are no proven reserves of economically viable minerals within the MSA</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). <u>Proving</u> whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>
<p>Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.</p>	<p>If prior extraction is taken seriously (as it should) it would have formed part of the DCO and be included within the overall timescale for the development. The applicant has made a pre-judgment that prior extraction is not possible when national and local policy requires that it be considered, and now pleads that it cannot be accommodated.</p>

Summary of Issue

40. The objectors have established that

- National policy supports the conservation of scarce mineral resources and recognises the importance of them to the national economy
- National policy for mineral safeguarding requires the local identification of MSAs, and policies for prior extraction
- National guidance on mineral safeguarding advises that non mineral developers carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality
- Local policies are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.
- This Local Plan Strategy Document has reached examination stage and should be accorded more weight in the planning balance
- EN – 1 requires applicants to safeguard minerals 'as far as possible', which is a high bar to development that requires significant effort and investigation to satisfy.
- EN – 1 also requires applicants to put in place appropriate mitigation measures when developments have an impact on MSAs to safeguard mineral resources.
- The EIA scoped out minerals but the reasons for this decision remain unknown.
- The corridor route selection process logged the existence and location of active mineral sites and MSA boundaries.
- The project crosses over 40 linear km of MSAs in the East Riding alone, 25 km of which are sand and gravel MSAs.

- The applicant should recognise that notwithstanding the national importance of its project national policy also accords great weight to the benefits of mineral extraction, and by implication, mineral safeguarding.

41. The objectors await confirmation of the following ,

- The corridor route selection process assumes that where the development impacts on mineral resource areas were 'unavoidable' that this justified not carrying out mineral assessments.
- There is no clarity about why impacts on mineral impacts were accorded 'minor' status which would involve successful mitigation of impacts.
- Whether any field investigations were carried out as required by Local Plan policy, viz, test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, the value of the underlying or adjacent mineral now or in future, documented attempts to market the mineral or the use of it in the development.

42. The objectors submit that without confirmation that mineral assessments have been carried out to a professional standard, the applicant cannot demonstrate that it has complied with national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures. Neither can it demonstrate that it complies with national or local planning policy in considering seriously, prior extraction of mineral. The MPA therefore asks that in this respect, the DCO should not be confirmed until this work has been carried out, consulted on and examined.

Part 2: The Effect on the Mineral Deposits at Gransmoor

The Gransmoor Deposits

43. The mineral deposits at Gransmoor are not uniformly shown on the BGS minerals resources map but evidence of their existence and exploitation is present to confirm them with confidence. The deposits being worked at Gransmoor and Park Farm are fluvio-glacial deposits in the form of a beaded esker of sub-glacial origin. This is shown in graphical form on **Plan 1**. The esker can be projected for a distance of at least 6 km from Kelk Hill in the north to east of Lisset Bridge in the south and is associated with kame deposits (e.g. Yew Hills) and possibly with subsidiary channel deposits. The plan shows clearly where minerals workings have previously taken place along this route and will take place.
44. The deposit at Barf Hill and Park Farm is particularly thick. The operator's experience over many years in this area confirms that the base of the deposit is at a uniform height of –10.5 metres AOD. Observation of the existing quarry and the old quarry in the woodland at Barf Hill demonstrate that from this base the deposit varies from 15 meters in depth to over 23 metres on rising ground. There is a known deposit on the northern side of the woodland, evidence of old workings within the woodland and a deposit between Park Farm and the woodland making a contiguous deposit well in excess of 1.5 million tonnes.
45. The quality of the deposit worked in the two locations is uniformly of a clean sand and gravel with a ratio of sand to gravel of 70/30 with an average silt content of 10-15%. There is very little overburden and there is typically no interburden of clay. This is consistent with the description of the deposit as an esker since this was formed in a high pressure and high energy depositional environment which scoured the bedrock beneath the retreating glacier leaving clean sand and gravel behind. The principal products are single size gravel, coarse concreting sand, and washed soft sand and asphalt sand. The products are suitable for all strengths of concrete, and for asphalt and mortar. The site produces an average 100,000 tonnes of aggregate per year.

The Gransmoor Operation

46. W Clifford Watts Ltd is an SME employing 103 people and its operations are professional and highly integrated. The Gransmoor/Park Farm operation supplies an internal market for material to an on-site ready mixed concrete plant on land to the north and east of Park House. The company also operates a recycling plant on land to the north of Barf Hill at the former Gransmoor Quarry which works in tandem with the sand and gravel extraction operation, producing a range of blended materials for the local market, which maximises the use of the available material. The

continued operation of both sides of the operation is also essential to ensure a cost effective operation for both the company and its customers along with minimising traffic movements by backhauling.

47. Reserves in the current extraction operation to the south of the proposed pipeline route north of Park House are virtually exhausted with the next phase of operations being at Turtle Hill to the north of the recycling site with a confirmed 4 years of reserves. The company's strategic development plan which is being undertaken in conjunction with Burton Agnes Estates is to extract the mineral through Barf Hill thereby linking the two existing operational areas. It is envisaged that this operation may need to commence within 2 years to guarantee continuity of supply.
48. On the assumption that this extraction was to go ahead, the company have made significant investments in installing a new state of the art programmed logic controller (plc) sand processing plant at the quarry (primarily to remove lignite as required for meeting the specifications of the Givlon liquid screed produced at Malton) and a new washing plant and effluent treatment system at the recycling operation. Not only this, but the company has also installed a multi million pound dry silo mortar plant which is being constructed at one of its chalk quarries some 30 miles to the south that is dependent upon the internal lignite-free sand supply from this location.
49. The company is also in the process of a planning application at one of its limestone quarries some 30 miles to the west to erect an asphalt plant which will also be dependent upon sand from this location to supplement the internal supply of filler.
50. The business also has three other ready mixed concrete plants within the area at Hunmanby, South Cave and Malton as well as a pre cast operation which rely predominantly on its internal supply of both sand and gravel from this location.
51. The company is thus very heavily reliant upon minerals from this area, the cessation of which would inevitably result in closure of large sections of the business.

The Aggregates Market in East Riding

52. The East Riding is a large county which is relatively isolated in terms of accessibility from the major population centres of England. It has thus become largely dependant on its own resources of aggregates and has traditionally been self sufficient. It is a net exporter of sand and gravel, mainly to adjoining eastern parts of North Yorkshire and to Hull.

53. The 2013 Local Aggregates Assessment (LAA) says of the East Riding, “In 2012 there were six sites extracting sand and gravel. The most important areas for working are near Gransmoor, North Cave and Brandesburton in East Riding.” (para 2.15) The county is notable for being largely free of the aggregates ‘majors’, which are the four largest national companies who dominate the aggregates market. In the county there are no extractive sites run by the majors and all sites are operated by independent SMEs, all of which are local firms.
54. W Clifford Watts Ltd also operates one other site apart from Park Farm – Turtle Hill (north of Gransmoor) and is one of the largest operators in the county.
55. Of the other operating sites mentioned, Brandesburton is almost exhausted having received a permission to extend operations in 2012 for about 40,000 tonnes. North Cave is an important unit but it differs from the Gransmoor operation by having a more restricted product range.
56. The 2013 LAA says that in 2011 the output of sand and gravel from the Humber area was 900,000 tonnes, 800,000 of which came from the East Riding (para 3.4). The East Riding is therefore a regionally important source of sand and gravel. In terms of reserves of sand and gravel the Humber total is 16.5 Million tonnes, the majority of which are in the East Riding (para 3.8).
57. Although the landbank is a comfortable 16.6 years across the Humber area it is unevenly distributed. The Gransmoor operation can only draw on reserves from its Turtle Hill site for the immediate future, which must in due course be replaced with other contiguous reserves if the business and its contribution to regional aggregates output, is to continue.
58. In summary, the Gransmoor operation is acknowledged as one of three sand and gravel workings in the county which are of most importance. This is enhanced by being able to produce a wide range of material, especially for high strength concrete, which is in generally short supply.

The Impact of the Pipeline on the Gransmoor Operation

59. The operator has a long term development plan which would in normal circumstances have involved applying for planning permission to extend the Park Farm and Gransmoor operational areas towards each other in about 5 years time. However, the advent of the pipeline scheme has brought these plans forward. The operator submitted an application to work the deposit north of Park Farm towards Barf Hill wood including the pipeline corridor, to the East Riding County Council on 12th December 2014. This application if permitted, would release 616,000 tonnes of mineral.

60. However, if the pipeline is confirmed on its applied for alignment across the field to the south of Barf Hill wood, it would seriously compromise the Gransmoor operation. The development plan includes the provision of a public benefit of straightening the Gransmoor Road at the double bend by the quarry access north of Barf Hill wood, releasing mineral under the road, and additionally working beneath the wood itself, and recreating it as a landscape feature north of its present position on excavated and refilled ground.
61. The company estimate that the capital costs of this work will be more than £1,200,000. The Park Farm extension is viable as it stands being a straight extension of existing activity. However, the 616,000 tonnes applied for includes the route of the pipeline, and if the DCO is confirmed the pipeline would sterilise 250,000 tonnes, or 40% of the available mineral. The company has assumed that all of the deposit between the pipeline and the wood would be sterilised as well as the pipeline corridor itself. Additionally, an assumed minimum 1 in 3 batter would be required with additional mineral lost at the toe to prevent wave cut action from the restored Park Farm lake to its southern boundary undermining the embankment, and for the estimated 15 metre depth of water within it. Thus if the pipeline is confirmed the company would only have assured reserves for 7 years if permission is granted for this extension.
62. That would leave 1.38 Million tonnes in situ in the wood and south of Gransmoor that could be liberated by the realignment of the road (**Appendix MPA 3 – Barf Hill Report**). This represents a recoverable mineral quantity of 1.17 Million tonnes, which means that the capital cost of the additional public benefits would add £1.06 to the price of the mineral, making it uneconomic. This would be compared with 1.70 Million tonnes recoverable if the pipeline were to be relocated at Park Farm.
63. The loss of mineral of this scale would threaten the long term development of the business. At present if the development plan is implemented, the company would have assured reserves for about 24 years including existing permitted reserves. Without it, the company would be faced with finding replacement reserves much sooner than planned, most probably in just 7 years. There is a dearth of available resources locally of the quality of the Gransmoor deposit and if the pipeline is confirmed over the ground at Stonehills as well, proven alternatives would of necessity be available only at greater distances (in the Scarborough area of North Yorkshire 40 miles away) at much greater cost. Other possible sources could be crushed fines or marine aggregates but these are again much more expensive and/or involve longer haulage distances and would result in a less sustainable outcome.

64. The applicant has suggested that Barf Hill wood would never be given planning permission for mineral working. This is the only significant constraint to working on the entire site. The company has had the wood surveyed recently and recommendations have been made by the ecologist for further work in due season. As explained, the company was not intending to apply for planning permission on this land yet and also has not yet carried out all of the work necessary to inform an Environmental Assessment. However, there does not yet appear to be any reason to suppose that the wood has anything more than a local ecological interest. The wood is also a local landscape feature which the company would propose to replicate on another part of the site nearby as compensation. The mineral planning authority may also require other compensatory action in addition to this. The company's conclusion is that the wood poses no insuperable impediment to mineral working in the future. In any case, any future planning application will be decided on its merits and in accordance with the development plan. Even should there be found a conflict with the development plan in removing this feature, this would need to be balanced against the need for the mineral and the great weight attaching to its benefits.

65. The applicant has responded to some of these points and these will be addressed later in this Statement.

The Impact of the Mineral Resource at Gransmoor on the Pipeline Route

66. The company has suggested an alternative route for the pipeline which would not involve an unacceptable effect on the mineral operation. This was to locate the pipeline across a largely already constructed causeway within the Park Farm quarry. Following a severe flooding event in 2007 which led to a goit breaking its banks and flooding the workings, the company reconstructed a channel for it and realigned the confluence of the goit with the Barmston drain, which has been in use for almost four years and has successfully solved the flooding problem. The company has offered to widen this causeway (indeed, it is already nearly 50 metres wide and up to full height) to accommodate the pipeline in an area of the quarry which has already been worked and where the pipeline would not conflict with future mineral operations.

67. The company has commissioned a geotechnical study of the causeway (see **Appendix MPA 4 – Geotechnical Study**) and has offered the applicant tests to see if it meets the applicant's requirements or to agree to a legally binding obligation to construct it to whatever specification the applicant desires and to indemnify the causeway against failure for a period of three years after construction.

68. The company believes that this represents a realistic alternative solution. If however, this is deemed not to be acceptable then there are other alternatives including diverting the pipeline to

the north along the realigned Gransmoor Road. The company would be prepared to sacrifice some mineral at this location since it is thinner and would have less impact on the future of the operation, although it would rather not lose any mineral at all.

The objection & Subsequent Responses

69. The following Table contains extracts from the applicant's agent's letter and the MPA / W Clifford Watts observations on aspects touching the Gransmoor/Lissett area which illustrate its case.

Table 2 Fisher German letter & Observations of the MPA & WCW on Site Specific Matters

Quotations from Agent's letter	WCW observations
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.) However despite being identified in the 2004 JMLP there does not appear to have been any further investigation through this 10 year period as to whether economically viable extraction could take place within this Area of Search, nor have any proposals been put in front of East Riding of Yorkshire Council for such extraction.</p>	<p>The medium term strategy of the company was to formulate a planning application to extract the mineral in the area between the quarries including Barf Hill to commence operations in 2021. To this end, discussions were held with the land and mineral owners concerned with a view to a planning application being submitted within the next 1 to 2 years. The early application was planned so that there would be sufficient time to divert the road to the north and to build another woodland area of similar nature to Barf Hill in which habitats could be recreated for wild life. Options and leases are in place for the whole of this area.</p> <p>Since the advent of the CCS pipeline, copies of communications as well as discussions have been held with Shirley Ross at ERYC with copies of communications also sent to Andy Wainwright at ERYC.</p> <p>Importantly, all of the above was reported on more than one occasion to the applicant's agents.</p>
<p>British Geological Survey data suggests that large parts of this Area of Search have a superficial geology of boulder clay or sand and gravel with laminated clay. Deposits containing such laminated clay are expensive to process and result in large quantities of waste to be dealt with. It should be noted that there are no operational quarries within this area of search, suggesting that the market does not believe there are economically viable deposits in this area.</p>	<p>There are extraction areas both to the north and south of Barf Hill wood with very consistent geology. The geology of the area between the two quarries is extrapolated to be a continuation of the same deposit which very rich in prime quality sand and gravel.</p> <p>Not only was all this communicated to the applicant's agents, but a visual inspection of the two sites would make this apparent to anyone with some knowledge of geology.</p>
<p>It is noted that the operator of this quarry does not have any detailed site investigation information into the mineral deposit at Barf Hill, no planning application has been submitted for its development, nor has it been promoted as a preferred area to the Mineral Planning Authority.</p>	<p>Planning and further investigation of the deposit has not been a priority due to the anticipated timing of utilising this reserve. In addition, the company has used its long experience of working in this locality and would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>

<p>National Grid has carried out borehole investigation at this point to verify the accuracy of the information shown on BGS records. BGS suggest a narrow, linear alluvium deposit of sand and gravel running south from Barf Hill. Borehole analysis by National Grid suggests that this area is subject to laminated clay deposits within the sand and gravel.</p>	<p>The company has asked for this information, drilling logs and a location plan of the borehole but to date it has not been supplied. The company disputes this interpretation of the Barf Hill deposit.</p>
<p>Due to the narrowness of this deposit the actual volume of material likely to be sterilised is very modest and has been estimated, adopting some high range assumptions, at 41,000 tonnes. Depending on the level of clay contamination the actual loss of sterilised mineral may be significantly less and this calculation assumes that material is sterilised on both sides of the pipeline – given the proximity to Barf Hill Wood this may not be the case. In terms of production throughout the local authority area this volume has a de minimis effect.</p>	<p>A copy of the reserve calculation of National Grid would be required to demonstrate how a figure as low as this has been achieved. Working on the basis of the deposits to the north and south of Barf Hill which stretch over 2 kilometres between them, it is estimated that they have an approximate surface width of 100 metres, base width of 40 metres and depth from surrounding ground level of 17 metres. In addition to this, any rise in ground level above surrounding ground level enhances the recoverable mineral proportionately. Barf Hill stands an additional 6 metres above surrounding ground level.</p> <p>In addition, the company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>
<p>Furthermore to the extent that a claim for loss can be established and subject to valuation principles, the arrangements for taking rights either voluntarily through the pipeline easement, or via the development consent order process would lead to an entitlement to compensation, which might include Mining Code compensation in any given case, and thus it should not be assumed that minerals are being “lost” to the scheme.</p>	<p>Relying on the Mining Code does not absolve the applicant from following national policy on safeguarding mineral. The objective of national policy is not compensation since this is already well provided for. Rather, it is a sustainability issue of preserving a scarce nationally important resource from needless sterilisation. National Grid will be glad of such scarce resources in constructing its pipeline. The statement made by the agent demonstrates the low priority that the applicant has given to mineral safeguarding.</p>
<p>National Grid submits that in the light of this they have complied with the requirements of para 5.10.9 of EN - 1 as the vast majority of the land which the operator may wish to extract in the future will be unaffected by the proposed development. Crossing points of the pipeline for site machinery will be available subject to the usual pipeline protection measures and the pipeline has been designed to be as close as possible to Barf Hill Wood – a local landscape feature which is subject to local environmental designations and which is unlikely to be permitted for mineral extraction. By following this boundary the volume of material affected is again minimised.</p>	<p>Evidence in this Statement confirms the very real impact that sterilisation via the pipeline will have on the company’s long term business prospects. The company submits that the applicant has completely misunderstood the local geology, under-estimated the impact of its proposals on an important local business and failed to engage seriously in discussions about mitigation. It has demonstrably not complied with para 5.10.9 of EN-1 since it cannot show how it has accommodated the considerable mineral interest in this location ‘as far as possible’.</p> <p>Barf Hill wood is not designated as environmentally important although it is accepted that it is a local landscape feature. The wood is not subject to any national or international designation that the company knows of, and consequently it must be viewed as a local constraint. The company will in due course fully survey the wood and propose appropriate mitigation for the loss of a local landscape and wildlife feature in</p>

	line with Local Plan policy. It is thus not true that it is unlikely to be permitted for mineral extraction.
Discussions have been held with the operator of the quarry at Gransmoor regarding the utilisation of alternative routes across areas that have previously been extracted. However no such routes have been restored at the current time to enable them to be used by the proposed development.	On the contrary, one area had been restored for some 3 years to carry the Nutholmes dyke. This had been inspected regularly by a geotechnical consultant but National Grid appeared to have very little interest in pursuing this option because “they had already drawn up a pipeline corridor”. This restored area has now been extended significantly as can be seen from the latest survey (see Plan 2) and a geotechnical report is appended to this Statement (Appendix MPA 4).
Discussions were held regarding areas of the existing quarry that may be restored in the future but due to a lack of certainty as to the timing of their restoration and the stability of the material involved (and thus the security of the pipeline) no acceptable option was available.	An option of restoring another section to the north of the existing quarry to specifications required by National Grid was suggested. This was ruled out at the time by National Grid because there would not be anything there in time for the submission of the planning application. The fact that a new embankment could have been created to its specifications well within the timescale of the pipeline being constructed was of no interest to its representatives. The suggestion was made that should the company go into liquidation then there was no guarantee that the embankment would be in place.
The prior extraction of the preferred route carries these uncertainties as well as the additional unknown as to when the mineral extraction might be completed. That timescale is also dependent upon a successful planning consent being obtained and the timescales for all of this make such an approach incompatible with the scheme generally.	Once again, National Grid was not prepared to discuss this option based upon the 2 points raised above.
The scheme is a nationally significant infrastructure project, and to route the scheme through the existing quarry would introduce unnecessary and undesirable uncertainty and impediment.	The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation. It has taken a highhanded approach to the issue.
There are no proven reserves of economically viable minerals within the MSA, although with reference to the adjacent deposit identified in para 3 above investigations carried out by National Grid at Barf Hill indicate a modest reserve of up to 41,000 tonnes of sand and gravel contaminated with clay. It is not intended to remove any of this material for use within the scheme.	Demonstration of the sterilised reserve tonnage is required. A new state of the art plc controlled washing plant is operational at the adjacent quarry to process the mineral. Part of the justification for his plant being purchased was on the basis that reserves at Barf Hill would eventually be processed through it.
Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.	If National Grid was not prepared to discuss this with the operator how has this conclusion been reached?
The impact upon known mineral reserves and the MSA was taken into account in the route selection process and the final route has sought to minimize the impact upon these.	The MPA did not assert that mineral <u>reserves</u> had not been taken into account; it asserted that mineral <u>resources</u> had been ignored – a very real and important difference.

<p>There is no evidence of viable reserves within the Areas of Search and despite being designated as such for 10 years there does not appear to be any appetite from operators to promote any of these areas. This may be due to the uncertain geology of the area.</p>	<p>This is a disingenuous half truth since the applicant has already acknowledged that it has had discussions with the operator and heard of its future plans (see Appendix MPA 5 – Correspondence between the applicant & WCW). There is no doubt about resource quality as a visual inspection of the quarry and its surroundings would have demonstrated. The applicant has wilfully ignored the evidence.</p>
<p>It is worth noting that in the Humber Area Local Aggregates Assessment 2013, the average sand and gravel production volume within the region on average over the previous 10 years was 0.99 million tonnes (excluding silica sand sales.) This is despite the sharp downturn during the recession. Prior to that average sales volume were consistently above 1.1 million tonnes per annum.</p> <p>Thus the potential loss of 41,000 tonnes at the site at Gransmoor is equivalent to two weeks supply which will have very limited effect on the mineral supply situation in the area</p>	<p>The comment is meaningless if the calculated tonnage is wrong. The whole site which may now be jeopardised is over 1.5 million tonnes equating to more than 15 years life for the operator. Not only is the pipeline going to sterilise reserves in the mid term strategic plan at Barf Hill, but the next area in the long term strategic plan was at Stonehills Farm to the east which is also in the proposed path of the pipeline, and which is also within the area of search and subject to objections from the landowners.</p>
<p>The remaining reserves at this site will be unaffected by the proposed development and will be available for extraction. As a result it is submitted that National Grid has sought to safeguard mineral resources as far as is possible in line with the requirement in EN-1.</p>	<p>The company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p> <p>The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation.</p>

Other Impacts on Mineral Areas

70. Representations have also been made by landowners of the Stonehills deposit (see Objections from Claire Jackson, Peter Mawer and Christopher Marshall on behalf of the Glendon Estate IDs: 3, 4 & 5) and also see **Appendix MPA 6 – Stonehills Report and Plan 1**, which confirms the existence of exploitable quantities of mineral. Although this site has already been worked for sand and gravel as shown on **Plan 1**, it is apparent from the report produced for the company that there are significant remaining resources to be exploited in the site. The project land plans (Sheet 24) shows that the pipeline traverses the middle of this area of interest. The company have a long term plan which would go to that area once the Gransmoor deposits are exhausted. It should be clear that although there is no immediate prospect of working these deposits, it would be prudent to keep access to them clear, and reserving the largest deposit possible for working, by having the pipeline avoid the minerals as much as possible. For reasons already argued in this Statement, this has not been demonstrated. The MPA and the company submit that the pipeline route should be diverted to accommodate this clear interest.

Summary of Issue

71. The objectors have established that

- The Gransmoor Deposit is not as the applicant supposes, a thin contaminated deposit of limited value, but is part of a projected esker deposit of sometimes great thickness and exceptional quality sand and gravel.
- There are proven deposits of up to 23 metres in thickness and 1.7 million tonnes to be exploited at Gransmoor.
- W Clifford Watts (the company) has one of the most important sand and gravel operations in the Humber area at Gransmoor which produces typically 12.5% of the output for the East Riding. It is a highly integrated enterprise that employs ultimately 103 people, and added value plants across the East Riding area are dependent on the site for resources.
- The company has made significant investment in the site and in dependent operations on the assumption that its medium term plan to progress through the Barf Hill deposit will be realised.
- The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation to demonstrate the seriousness of its intentions and to supplement its remaining reserves at Turtle Hill.
- The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes of mineral or 40% of the mineral to the south of Barf Hill wood, leaving the company with reserves for only 3 years if the planned extension is permitted.
- Company plans to join the two operations at Gransmoor and Park Farm through the Barf Hill deposit would be compromised to the extent that it would not be viable to divert the road and relocate the wood as planned.
- There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.
- The company has proposed an alternative alignment for the pipeline on a causeway already constructed at Park Farm quarry that can be assured to be suitable for the location of the pipeline. This can be achieved either by demonstration of stability by testing or by a legal agreement to ensure that it is provided to a suitable specification.
- However, if necessary, there are other alternative routes should that not be acceptable to the applicant.

Conclusions and Recommendation

72. National policy supports the conservation of scarce mineral resources, recognises the importance of them to the national economy and requires mineral safeguarding and policies for prior

extraction. It therefore advises that non mineral developers should carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality before applications should be determined. Local polices are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.

73. The applicant has not confirmed that mineral assessments have been carried out to a professional standard along the 40 linear km of MSAs that the pipeline corridor crosses, and therefore the applicant has not demonstrated that it has complied with national planning policy to conserve minerals, or national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures, or that it complies with national or local planning policy in considering seriously, prior extraction of mineral.

74. In respect of Gransmoor the deposit is a valuable proven deposit of up to 23 metres in thickness and over 1.7 million tonnes of recoverable mineral. W Clifford Watts has one of the most important sand and gravel operations in the Humber area with a highly integrated enterprise and added value plants across the East Riding area are dependent on the site for resources. The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation.

75. The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes or 40% of the mineral to the south of Barf Hill wood, and prevent the company from joining the two operations at Gransmoor and Park Farm through the Barf Hill deposit. There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.

76. The company has proposed an alternative alignment for the pipeline on a causeway already constructed that can be assured to be suitable for the location of the pipeline.

77. The objectors therefore ask that the DCO should not be confirmed.

Written Representations
of the
Mineral Products Association (MPA),
W Clifford Watts Ltd (WCW), and Others
to the
Yorkshire and Humber (CCS Cross Country Pipeline)
Development Consent Order
Examination
(IDs 22, 74, 75, 85, 86)

18th December 2014

Written Representations of the Mineral Products Association (MPA), W Clifford Watts, and Others to the Yorkshire and Humber (CCS Cross Country Pipeline) Development Consent Order Examination

Introduction

1. These joint representations are made on behalf of the following objectors,
 - Mineral Products Association (objector ID: 22),
 - W Clifford Watts Ltd (objector ID: 85),
 - The Trustees of the Burton Agnes Estate Trust (objector ID: 74),
 - The Hon Mrs S Cunliffe-Lister (objector ID: 75), and
 - Mr & Mrs P Conner (objector ID: 86).
2. The Mineral Products Association is taking the lead in the representations on these matters at the Examination.
3. The Mineral Products Association (MPA) is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. With the recent addition of The British Precast Concrete Federation (BPCF) and the British Association of Reinforcement (BAR), it has a growing membership of 450 companies and is the sectoral voice for mineral products. MPA membership is made up of the vast majority of independent SME companies throughout the UK, as well as the 9 major international and global companies. It covers 100% of GB cement production, 90% of aggregates production and 95% of asphalt and ready-mixed concrete production and 70% of precast concrete production. Each year the industry supplies £9 billion of materials and services to the £120 billion construction and other sectors. Industry production represents the largest materials flow in the UK economy and is also one of the largest manufacturing sectors.
4. Given the NPPF's recognition of the economic and employment benefits of the extractive industries (paras 28 & 144) we should like to direct your attention to 'Making the Link', a document produced by the MPA to highlight the contribution that the sector makes to the economy. The document can be downloaded from the following website.
http://www.mineralproducts.org/documents/MPA_MTL_Document.pdf
3. This evidence covers two aspects of the objections. First, it addresses the need to observe national policy for mineral safeguarding and second, it examines the effect of the DCO on a member company's operations (W Clifford Watts Ltd) which include the interests of the mineral and land owners of the sterilised section.

The Objections

4. The **MPA** has objected to the draft DCO, not because it wishes to stop development, but to ensure that the procedure for mineral safeguarding has been respected and that the applicant demonstrates with certainty that it has fully evaluated the impact of development on mineral interests and has taken the appropriate action in line with national policy. The project crosses many kilometres of MSA within the East Riding¹. In addition, the MPA objected in support of one of its member companies, W Clifford Watts Ltd, who operate two quarries at Gransmoor and Park Farm near the village of Kelk, East Riding. The pipeline lies in the centre of an Area of Search for minerals in the adopted Mineral Local Plan (2004) and therefore threatens the future of these quarries and the MPA and the company wish the installation to be moved to accommodate future mineral need.

5. **W Clifford Watts** objected to the draft DCO because there are few areas in the locality where exploitation of sand and gravel is economically viable and traditional mineral working areas are becoming exhausted. In order to secure future supplies, the Company has entered into three option agreements to take a lease and work sand and gravel over land at Great Kelk. It is estimated that in total, the current route of the pipeline would sterilise a significant and strategically important tonnage of sand and gravel in the areas covered by those option agreements. In addition, the Company believes it would be possible to re route the pipeline so as to minimise the disruption and volume of minerals sterilised within the Barf Hill and Great Kelk areas helping to preserve the future supply of minerals to the local market place. The applicant has failed to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission Document which proposes Minerals Safeguarding Areas.

6. **The Trustees of the Burton Agnes Estate Trust, the Hon Mrs S Cunliffe-Lister and Mr & Mrs P. Conner** all presented similar objections to the intent that the current route of the pipeline would sterilise a significant and strategically important tonnage by crossing the deposit. It would be possible to re-route the pipeline so as to minimise the disruption and volume of minerals sterilised, helping to preserve the future supply of minerals to the local market. In the market served by minerals extracted from this locality there is a recognised shortage of sand and gravel and without developing local reserves there will be a need to import sand and gravel from outside of the locality resulting in the generation of additional road traffic and possibly disruption to supply. There are few areas in the locality where exploitation of sand and gravel is economically viable. Traditional mineral working areas are becoming exhausted and there is a need to preserve future reserves of minerals in this locality which is not met in the proposed

¹ The MPA calculates that the project traverses over 25 km of sand and gravel MSAs and 19 km of Industrial Chalk MSA within the East Riding.

scheme. The proposed pipeline route fails to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission which proposes Minerals Safeguarding Areas.

Part 1: The Mineral Safeguarding Objection

The Mineral Safeguarding Regime Nationally

7. Mineral safeguarding is recognised as “,,essential to ensure that the ability of future generations to meet their needs for minerals is not compromised by planning decisions that are being made in the present day. The essence of any safeguarding process is that it should introduce the consideration of minerals into the decision making balance, so that access to mineral resources for future generations is preserved as far as possible. The first part of that process is the identification of mineral resources and the definition of Mineral Safeguarding Areas (MSAs). “²
8. Although National Infrastructure Projects are subject to a separate policy document, projects will rely on the planning system to inform them of planning constraints and policies for conservation that will in turn inform an EIA process.
9. NPPF para 122 says, “Minerals are essential to support sustainable economic growth and our quality of life...However, since minerals are a finite natural resource, and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation.”
10. NPPF para 143, bullet point 3 says that in preparing Local Plans local planning authorities should, “define Minerals Safeguarding Areas and adopt appropriate policies in order that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked”.
11. Bullet point 5 of the same paragraph in NPPF says that local planning authorities should, “set out policies to encourage the prior extraction of minerals, where practicable and environmentally feasible, if it is necessary for non-mineral development to take place;”
12. NPPF para 144 says, “When determining planning applications, local planning authorities should give great weight to the benefits of the mineral extraction, including to the economy” (bullet point

² Mineral safeguarding in England: good practice advice, British Geological Survey Open Report OR/11/046, October 2011, para 1.1.2

1); and “not normally permit other development proposals in mineral safeguarding areas where they might constrain potential future use for these purposes;” (bullet point 7).

13. NPPG paragraph: ID: 27-004 says “Mineral planning authorities should adopt a systematic approach for safeguarding mineral resources, which...adopts clear development management policies which set out how proposals for non-minerals development in Minerals Safeguarding Areas will be handled, and what action applicants for development should take to address the risk of losing the ability to extract the resource. This may include policies that encourage the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in Minerals Safeguarding Areas and to prevent the unnecessary sterilisation of minerals”.
14. The BGS good practice guidance is the bedrock of identifying and delineating MSAs. This guidance advises local planning authorities on the methodology to adopt for this task, and proposes a seven step approach from identifying the geological resources (usually from the BGS’s own mineral resources maps), through to proposing draft MSA boundaries, undertaking consultation and then the most appropriate way of formalising them in strategic local plan documents and development management policies. This is followed up by including safeguarding requirements in local plans and finally the requirements of mineral assessments in local validation lists (para 1.1.3).
15. The BGS guidance also explains the role of the BGS in providing baseline information. “Mineral resource maps of each English county have been compiled by the BGS on behalf of the Office of the Deputy Prime Minister (now DCLG). These maps show the geological distribution of all onshore mineral resources together with additional information on the location of mineral extraction sites, the extent of mineral planning permissions...and the extent of selected landscape and nature-conservation designations. The primary objective is to produce baseline data in a consistent format that can be updated, revised and customised to suit planning needs, including use in the preparation of LDDs.” (para 2.2.1)
16. It is important that “sufficient information on mineral resources is necessary for local authorities to determine non-mineral planning applications submitted in MSAs. The requirement for a Mineral Assessment to accompany these applications could be administered through inclusion on the local list of information requirements” (para 6.1.).
17. The BGS guidance also confirms the normal content of such an assessment. The two levels of Mineral Assessment are:

1. "A site-specific desk-based assessment of the existing surface and solid geological and mineral resource information. This may comprise information on the mining and quarrying history, mineral assessments and market appraisals, boreholes, site investigations, geological memoirs, technical reports, mining plans and the thickness of superficial geological deposits.
2. Analysis of the site-specific information derived from level 1 including:
 - An estimate of the economic value (for example quality and quantity) of the mineral resource.
 - Its potential for use in the forthcoming development and an assessment of whether it is feasible and viable to extract the mineral resource ahead of development to prevent unnecessary sterilisation.
 - Where prior extraction can be undertaken, an explanation of how this will be carried out as part of the overall development scheme.

Level 2 should be prepared by a suitably qualified and competent person. Should an applicant believe that some or all of the information is not necessary, advice should be sought from the MPA."³

18. A further key concept of mineral safeguarding is proximal sterilisation. It is a common mistake made by developers and local planning authorities that mineral safeguarding is expressed only in the principle of prior extraction. If developers consider the area sterilised by development to be too small for such prior extraction, they often believe they have done their job. This is possibly because specific requirements are laid down by NFFP paragraph 143 bullet point 5 for policies on prior extraction. However, it cannot be stressed too strongly that this is not the be-all and end-all of mineral safeguarding. The BGS document makes clear that even small developments in mineral safeguarding areas covering much less land than would be viable for prior extraction, is very likely to sterilise mineral. This is through the influence of sterilisation by proximity. Figure 2 in the BGS document shows graphically the potential for sterilisation of large quantities of mineral underground by land development out of all proportion to its footprint. Thus there is a real danger that mineral might be sterilised by small development that severs larger deposits, or requires standoffs which would prevent mineral working taking place later or that closes off access to deposits entirely.

³ BGS guidance; recommended text for inclusion in the local list of information requirements

The Mineral Safeguarding Regime Locally

19. MSAs in the East Riding were first proposed and consulted on through the preparation of the Hull and East Riding Joint Minerals Local Plan at Issues and Options stage, the Preferred Approach stages, as well as through the Draft Strategy Document and Policies Map, and the Proposed Submission Strategy Document and Policies Map. These will be refined through the Joint Minerals Local Plan. However, they are largely complete pending the outcome of the Submission Strategy Document Examination. Having regard to the advanced stage of adoption of this plan the MPA believes the Examining Authority should accord it more weight.

20. Technical evidence for defining Mineral Safeguarding Areas has been progressed through the Joint Minerals Plan. The approach taken to defining these Areas is largely set out in paras 8.3 - 8.12 of the Preferred Approach Joint Minerals Plan. This recognises that, in defining Minerals Safeguarding Areas, it is important to consider the extent and nature of the mineral resource. Within the East Riding these resources comprise:
 - i. Sand and Gravel;
 - ii. Crushed Rock (Limestone);
 - iii. Crushed Rock (Chalk);
 - iv. Clay;
 - v. Industrial Chalk; and
 - vi. Silica Sand.

21. For sand and gravel Mineral Safeguarding Areas have been defined based on the full extent of glaciofluvial, sand and gravel of unknown origin, and glaciolacustrine deposits shown on the British Geological Survey Geological Resources Map for the area. This approach has been used because of the economic importance of the resource, as demonstrated by the significant number of active sand and gravel workings in the East Riding, as well as the sales of sand and gravel resources in the Humber area shown by the draft Local Aggregates Assessment.

22. One of the unfortunate results of relying on that information base is that the deposits at Barf Hill were missed off the resources map due to the inadequacies of geological mapping in the area, and even though they are clearly being worked and there is direct evidence of their existence. This is no doubt one of the refinements to MSA boundaries that the Submission Strategy Document mentions is the task of the forthcoming Joint Minerals Local Plan.

23. MSAs have therefore existed in draft form since 2010 and are being used by the mineral planning authority in decision making. Prospective applicants would be expected to respect the requirements of mineral safeguarding in formulating proposals.

24. Policy for mineral safeguarding is contained within the East Riding Proposed Submission Strategy Document which is under examination. Hearings have been completed and the Inspector's report is awaited. Policy EC 6 deals with mineral safeguarding and this proposes MSAs which are shown on the Policies Map and that non mineral development located within or adjacent to MSAs will only be supported where a number of criteria are met. These include where the mineral is of limited economic value, or the need for the development outweighs the need to safeguard mineral, the mineral resource will not be affected in the future, or development is temporary, or where the proposal is an allocated site in the development plan, or where prior extraction can take place. Although the MPA objected to this policy, it was in the form of suggesting additions to it. In general the Association was happy with the approach adopted by the County Council, and indeed the safeguarding policies are not the subject of much uncertainty due to the extent or weight of objection.

25. Clearly, these criteria cannot be met without recourse to investigation of the mineral potential, which the supporting text makes clear. Paragraph 7.77 of the draft Plan states,

“The safeguarding of mineral resources will ensure that the importance of the mineral can be balanced against the importance of the proposed non-mineral development. It does not provide a presumption in favour of minerals development. Therefore, non-mineral development, which would adversely affect the viability of exploiting an underlying or adjacent deposit in the future, will be supported in a Mineral Safeguarding Area where:

- *Test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, suggest the underlying or adjacent mineral is of limited economic value, and its value is unlikely to become significantly greater in future, for example, by being of insufficient amount or quality. Documented attempts to market the mineral may be required to demonstrate that the mineral resource is not viable;*
- *The need for the development outweighs the need to safeguard the minerals for the future, for example, the surface development is an essential piece of infrastructure and alternative sites are not available without a disproportionate cost;*
- *It can take place without preventing the mineral resource from being extracted in the future. This could include development covering a smaller area, such as householder development. Some larger proposals containing only limited built development could also take place without sterilising the resource, for example, golf courses or some types of agricultural development. This will depend on the nature of the proposal and the extent, nature and economic value of the mineral concerned...*”

National Policy for Infrastructure Projects

26. National infrastructure projects are regulated by separate policy (Overarching National Policy Statement for Energy [EN -1]) and the Local Plan may be a material consideration in determining any proposals made under EN - 1. The MPA considers that the Local Plan provides the local context for policy statements in EN -1 with regard to mineral safeguarding, and describes how the Policy should be implemented.
27. EN -1 requires the safeguarding of any mineral resources on the proposed site *'as far as possible taking into account the long-term potential of the land use after any future decommissioning has taken place'* (para 5.10.9) and *'where a proposed development has an impact upon a Mineral Safeguarding Area (MSA)...appropriate mitigation measures have been put in place to safeguard mineral resources'* (para 5.10.22).
28. These two brief statements are the only references to mineral safeguarding in EN – 1. However, other policy statements on the general subject of land use may be relevant. Paragraph 5.10.5 states, *"The ES (see Section 4.2) should identify existing and proposed¹³² land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan."* The reference in the text (132) is to the following statement, *"For example, where a planning application has been submitted."*
29. Thus in the case of a more immediate prospect of future mineral working such as at Gransmoor which lies in an adopted Area of Search for minerals, it would be expected that an analysis of the effects of the project on this land use would be undertaken. Although one indication of a proposed land use might be a planning application, the existence of the Area of Search should have alerted the applicant to the likelihood of workable mineral in the area.
30. The test of safeguarding minerals 'as far as possible' in para 5.12.9 is very high and requires much more than a cursory examination of mineral safeguarding. It should be noted that this is not couched in terms of what is feasible, or viable or practicable, but what is possible. Therefore, the policy requires more effort in finding solutions to potential conflicts and widening the scope of potential mitigation to overcome unsustainable outcomes. The appropriate mitigation mentioned by para 5.10.22 should be seen in the context of the mineral interest encountered, so the solution might differ depending on the mineral and from place to place. If solutions are suggested they should be looked into in all seriousness.

The Application, Objection & Subsequent Responses

31. The application for the pipeline was accompanied by an Environmental Statement, and the submitted documents contained details of the route corridor study. The initial objection to the project was made following a search of the application documents in which we could find no reference to mineral assessments having been carried out.
32. Following the Preliminary meeting, the MPA received a communication from Fisher German dated 21 November 2014, the agents for National Grid setting out a response to the objection and an invitation to participate in a Statement of Common Ground (**Appendix MPA 1 – Fisher German letter**). The MPA made a response to this letter in the form of a number of questions (**Appendix MPA 2 – MPA/objector response**) dated 26 November 2014. Since then, although promised, a draft Statement of Common Ground has not been received by the MPA. Therefore, at the time of writing we have had to make certain assumptions about the corridor selection process which may be clarified when we finally receive a response from the agents or the matters are discussed at a Hearing.
33. In Fisher German's letter reference is made to the application (Proposed Scheme Report Section 7.8) which contains the Route Corridor Study and to Appendix C Selection of the Preferred Route Corridor Report November 2011. Paragraph 4.4.2 of the Route Corridor Study (November 2011, Appendix B) mentions a number of active mineral sites, Gransmoor among them. Paragraph 4.4.6 discusses mineral resource protection in more detail. This lists *"Four preferred areas for future sand and gravel workings that are within the Area of Search were identified from the East Riding of Yorkshire Joint Minerals Local Plan", one of which is An extensive area of search for sand and gravel working, a large proportion of which is within the Area of Search, has been designated around Gransmoor and Lissett."*
34. Minerals were accorded a secondary constraint status in the route corridor study (para 2.5). Paragraph 8.1.2 categorises constraints into avoidable or unavoidable. Where a feature is unavoidable, it is further categorised according to a number of 'guidelines'. These range from very High, High, Moderate to Minor. Minor is defined as *" - any substantial conflict should be capable of successful resolution through the adoption of standard construction techniques or mitigation measures."*
35. Furthermore, in Appendix C Selection of the Preferred Route Corridor Report paragraph 8.5.24 mentions unavoidable development plan allocations. The report says, "No development plan allocations, for uses other than mineral extraction were identified within the route corridor options that are unavoidable through routeing of the pipeline." Table 8.5 lists those unavoidable

allocations and nineteen times in the table it is reported that concerns for mineral safeguarding and mineral features (presumably working sites) are minor. They are further mentioned in paragraphs 8.5.31 & 32 and again in the Comparison Tables in Chapter 10.1.8 (ref. para 8.5.33).

36. These references are very opaque. The following information is not provided as part of the study results,

- It is not known why minerals were down graded to secondary status as a constraint
- It is not known why despite crossing several tens of kilometres of MSA, minerals were scoped out of the EIA process
- It is not known what 'unavoidable' means in the context of mineral resources and whether this justifies not carrying out mineral assessments
- In the context of minor impacts it is not known what might be involved in 'construction techniques or mitigation measures' which would lead to 'successful resolution' of conflict with mineral interests
- It is not known what constitutes 'unavoidable' in the context of the Gransmoor operation where clearly an installation could go round it

37. The objectors are left with a sanitised and incomplete picture of how effects on mineral interest were assessed if at all. Further light may be shed on this from the agent's letter of 21 November 2014 which addressed the objections as submitted (**Appendix MPA 1**).

38. The letter asserts that minerals was fully considered in the pipeline corridor study and we agree that the applicants have identified the relevant active mineral sites and resources as shown in MSAs across the study area. However, it is not this that is at dispute. It is how the subject has been treated and whether the applicants have done sufficient work to comply with national and local policy and demonstrate clearly that there are no unavoidable impacts on minerals, and further that investigations show that no substantial conflict arises that is not capable of being overcome.

39. The overall tone of the agent's response suggests that the treatment of minerals was mostly a desk top exercise with very little (if any) field investigation or detailed analysis as required by policy. The following Table contains extracts from the letter and the MPA's observations on aspects touching the MSAs. Comments directed to the Gransmoor/Lissett area are dealt with in the second part of this Statement,

Table 1 Fisher German letter & Observations of the MPA on General Matters (Appendices MPA 1 & 2)

Quotations from Agent's letter	MPA observations
<p>The consideration of 'mineral extraction' areas is included in this appraisal as can be identified in application document 7.8 Appendix B. The report makes reference to relevant minerals planning policy and identifies minerals interest throughout the whole area of search. This study, along with the Selection of Preferred Route Corridor Report (published in November 2011 and available in Document 7.8 Appendix C of the application) demonstrates an early consideration of the region's mineral resource in the development of the project.</p>	<p>It is agreed that some consideration of mineral interests in the identification of active mineral sites and MSA boundaries has been carried out. It is in dispute that any mineral assessments required by policy have been carried out, or that prior extraction has been seriously considered.</p>
<p>Both reports identify that the preferred aim was and remains to avoid an adverse effect on minerals. However the reports also recognise that given the extent of the mineral safeguarding areas in the Holderness Plain, avoidance of all such areas would not be possible given the need for the pipeline to make landfall at a point along the Holderness coast.</p>	<p>It is agreed that it is reasonable to avoid adverse effects on mineral. However, this must be informed by a detailed study of where the most sensitive mineral areas are (i.e. where the deposit is commercially exploitable) by recourse to field investigations and economic mineral assessment. It cannot be assumed that because impacts are generally unavoidable it is permitted to cross MSAs anywhere and that unacceptable impacts will not arise.</p>
<p>Having regard to the breadth of the considerations it is noted that the final route selected does not impact upon any existing operational mineral areas, no existing consented areas of extraction nor any preferred areas of extraction as identified in the Joint Minerals Local Plan 2004."</p>	<p>This is a half truth that omits reference to the potential impacts on the MSA as a whole and on the Areas of Search allocated in the Gransmoor/Lissett area.</p>
<p>National Grid did not consider that a significant effect on mineral resources was likely to occur as a result of the construction, operation or decommissioning of the project and therefore this issue has not been assessed within the environmental statement.</p>	<p>The letter does not say why it was thought there would be no significant effect on mineral resources when the pipeline crosses over linear 40 km of MSA. The MPA submits that this is a pre-judgment which has coloured subsequent decisions about impacts on specific areas.</p>
<p>The complexities of the route selection process have been covered in point 1 above and the Route Corridor Study (published May 2011) makes reference to relevant minerals planning policy and identifies 'sporadic' minerals interest throughout the whole area of search.</p>	<p>The reference to sporadic minerals interest is irrelevant since the MSAs are by definition areas where economic minerals are known to exist. The reference seeks to downplay the importance of minerals and leads to them being dismissed as a constraint on development, and seeks to justify the inadequate approach taken by the corridor selection process.</p>
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.)</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). Proving whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>

<p>In terms of EN-1 and para 5.10.9, the scheme has been designed to minimise impacts upon the MSA and known deposits outside of these areas by seeking to avoid them where possible, crossing by the shortest route where unavoidable due to the linear nature of the scheme and allowing site machinery to cross the proposed pipeline where required subject to the usual pipeline protection measures.</p>	<p>This a half truth that omits the responsibility of the non mineral developer to carry out a mineral assessment on direct and indirect effects on the mineral resource and assess the prospects for prior extraction.</p>
<p>There are no proven reserves of economically viable minerals within the MSA</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). <u>Proving</u> whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>
<p>Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.</p>	<p>If prior extraction is taken seriously (as it should) it would have formed part of the DCO and be included within the overall timescale for the development. The applicant has made a pre-judgment that prior extraction is not possible when national and local policy requires that it be considered, and now pleads that it cannot be accommodated.</p>

Summary of Issue

40. The objectors have established that

- National policy supports the conservation of scarce mineral resources and recognises the importance of them to the national economy
- National policy for mineral safeguarding requires the local identification of MSAs, and policies for prior extraction
- National guidance on mineral safeguarding advises that non mineral developers carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality
- Local policies are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.
- This Local Plan Strategy Document has reached examination stage and should be accorded more weight in the planning balance
- EN – 1 requires applicants to safeguard minerals 'as far as possible', which is a high bar to development that requires significant effort and investigation to satisfy.
- EN – 1 also requires applicants to put in place appropriate mitigation measures when developments have an impact on MSAs to safeguard mineral resources.
- The EIA scoped out minerals but the reasons for this decision remain unknown.
- The corridor route selection process logged the existence and location of active mineral sites and MSA boundaries.
- The project crosses over 40 linear km of MSAs in the East Riding alone, 25 km of which are sand and gravel MSAs.

- The applicant should recognise that notwithstanding the national importance of its project national policy also accords great weight to the benefits of mineral extraction, and by implication, mineral safeguarding.

41. The objectors await confirmation of the following ,

- The corridor route selection process assumes that where the development impacts on mineral resource areas were 'unavoidable' that this justified not carrying out mineral assessments.
- There is no clarity about why impacts on mineral impacts were accorded 'minor' status which would involve successful mitigation of impacts.
- Whether any field investigations were carried out as required by Local Plan policy, viz, test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, the value of the underlying or adjacent mineral now or in future, documented attempts to market the mineral or the use of it in the development.

42. The objectors submit that without confirmation that mineral assessments have been carried out to a professional standard, the applicant cannot demonstrate that it has complied with national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures. Neither can it demonstrate that it complies with national or local planning policy in considering seriously, prior extraction of mineral. The MPA therefore asks that in this respect, the DCO should not be confirmed until this work has been carried out, consulted on and examined.

Part 2: The Effect on the Mineral Deposits at Gransmoor

The Gransmoor Deposits

43. The mineral deposits at Gransmoor are not uniformly shown on the BGS minerals resources map but evidence of their existence and exploitation is present to confirm them with confidence. The deposits being worked at Gransmoor and Park Farm are fluvio-glacial deposits in the form of a beaded esker of sub-glacial origin. This is shown in graphical form on **Plan 1**. The esker can be projected for a distance of at least 6 km from Kelk Hill in the north to east of Lisset Bridge in the south and is associated with kame deposits (e.g. Yew Hills) and possibly with subsidiary channel deposits. The plan shows clearly where minerals workings have previously taken place along this route and will take place.
44. The deposit at Barf Hill and Park Farm is particularly thick. The operator's experience over many years in this area confirms that the base of the deposit is at a uniform height of –10.5 metres AOD. Observation of the existing quarry and the old quarry in the woodland at Barf Hill demonstrate that from this base the deposit varies from 15 meters in depth to over 23 metres on rising ground. There is a known deposit on the northern side of the woodland, evidence of old workings within the woodland and a deposit between Park Farm and the woodland making a contiguous deposit well in excess of 1.5 million tonnes.
45. The quality of the deposit worked in the two locations is uniformly of a clean sand and gravel with a ratio of sand to gravel of 70/30 with an average silt content of 10-15%. There is very little overburden and there is typically no interburden of clay. This is consistent with the description of the deposit as an esker since this was formed in a high pressure and high energy depositional environment which scoured the bedrock beneath the retreating glacier leaving clean sand and gravel behind. The principal products are single size gravel, coarse concreting sand, and washed soft sand and asphalt sand. The products are suitable for all strengths of concrete, and for asphalt and mortar. The site produces an average 100,000 tonnes of aggregate per year.

The Gransmoor Operation

46. W Clifford Watts Ltd is an SME employing 103 people and its operations are professional and highly integrated. The Gransmoor/Park Farm operation supplies an internal market for material to an on-site ready mixed concrete plant on land to the north and east of Park House. The company also operates a recycling plant on land to the north of Barf Hill at the former Gransmoor Quarry which works in tandem with the sand and gravel extraction operation, producing a range of blended materials for the local market, which maximises the use of the available material. The

continued operation of both sides of the operation is also essential to ensure a cost effective operation for both the company and its customers along with minimising traffic movements by backhauling.

47. Reserves in the current extraction operation to the south of the proposed pipeline route north of Park House are virtually exhausted with the next phase of operations being at Turtle Hill to the north of the recycling site with a confirmed 4 years of reserves. The company's strategic development plan which is being undertaken in conjunction with Burton Agnes Estates is to extract the mineral through Barf Hill thereby linking the two existing operational areas. It is envisaged that this operation may need to commence within 2 years to guarantee continuity of supply.
48. On the assumption that this extraction was to go ahead, the company have made significant investments in installing a new state of the art programmed logic controller (plc) sand processing plant at the quarry (primarily to remove lignite as required for meeting the specifications of the Givlon liquid screed produced at Malton) and a new washing plant and effluent treatment system at the recycling operation. Not only this, but the company has also installed a multi million pound dry silo mortar plant which is being constructed at one of its chalk quarries some 30 miles to the south that is dependent upon the internal lignite-free sand supply from this location.
49. The company is also in the process of a planning application at one of its limestone quarries some 30 miles to the west to erect an asphalt plant which will also be dependent upon sand from this location to supplement the internal supply of filler.
50. The business also has three other ready mixed concrete plants within the area at Hunmanby, South Cave and Malton as well as a pre cast operation which rely predominantly on its internal supply of both sand and gravel from this location.
51. The company is thus very heavily reliant upon minerals from this area, the cessation of which would inevitably result in closure of large sections of the business.

The Aggregates Market in East Riding

52. The East Riding is a large county which is relatively isolated in terms of accessibility from the major population centres of England. It has thus become largely dependant on its own resources of aggregates and has traditionally been self sufficient. It is a net exporter of sand and gravel, mainly to adjoining eastern parts of North Yorkshire and to Hull.

53. The 2013 Local Aggregates Assessment (LAA) says of the East Riding, “In 2012 there were six sites extracting sand and gravel. The most important areas for working are near Gransmoor, North Cave and Brandesburton in East Riding.” (para 2.15) The county is notable for being largely free of the aggregates ‘majors’, which are the four largest national companies who dominate the aggregates market. In the county there are no extractive sites run by the majors and all sites are operated by independent SMEs, all of which are local firms.
54. W Clifford Watts Ltd also operates one other site apart from Park Farm – Turtle Hill (north of Gransmoor) and is one of the largest operators in the county.
55. Of the other operating sites mentioned, Brandesburton is almost exhausted having received a permission to extend operations in 2012 for about 40,000 tonnes. North Cave is an important unit but it differs from the Gransmoor operation by having a more restricted product range.
56. The 2013 LAA says that in 2011 the output of sand and gravel from the Humber area was 900,000 tonnes, 800,000 of which came from the East Riding (para 3.4). The East Riding is therefore a regionally important source of sand and gravel. In terms of reserves of sand and gravel the Humber total is 16.5 Million tonnes, the majority of which are in the East Riding (para 3.8).
57. Although the landbank is a comfortable 16.6 years across the Humber area it is unevenly distributed. The Gransmoor operation can only draw on reserves from its Turtle Hill site for the immediate future, which must in due course be replaced with other contiguous reserves if the business and its contribution to regional aggregates output, is to continue.
58. In summary, the Gransmoor operation is acknowledged as one of three sand and gravel workings in the county which are of most importance. This is enhanced by being able to produce a wide range of material, especially for high strength concrete, which is in generally short supply.

The Impact of the Pipeline on the Gransmoor Operation

59. The operator has a long term development plan which would in normal circumstances have involved applying for planning permission to extend the Park Farm and Gransmoor operational areas towards each other in about 5 years time. However, the advent of the pipeline scheme has brought these plans forward. The operator submitted an application to work the deposit north of Park Farm towards Barf Hill wood including the pipeline corridor, to the East Riding County Council on 12th December 2014. This application if permitted, would release 616,000 tonnes of mineral.

60. However, if the pipeline is confirmed on its applied for alignment across the field to the south of Barf Hill wood, it would seriously compromise the Gransmoor operation. The development plan includes the provision of a public benefit of straightening the Gransmoor Road at the double bend by the quarry access north of Barf Hill wood, releasing mineral under the road, and additionally working beneath the wood itself, and recreating it as a landscape feature north of its present position on excavated and refilled ground.
61. The company estimate that the capital costs of this work will be more than £1,200,000. The Park Farm extension is viable as it stands being a straight extension of existing activity. However, the 616,000 tonnes applied for includes the route of the pipeline, and if the DCO is confirmed the pipeline would sterilise 250,000 tonnes, or 40% of the available mineral. The company has assumed that all of the deposit between the pipeline and the wood would be sterilised as well as the pipeline corridor itself. Additionally, an assumed minimum 1 in 3 batter would be required with additional mineral lost at the toe to prevent wave cut action from the restored Park Farm lake to its southern boundary undermining the embankment, and for the estimated 15 metre depth of water within it. Thus if the pipeline is confirmed the company would only have assured reserves for 7 years if permission is granted for this extension.
62. That would leave 1.38 Million tonnes in situ in the wood and south of Gransmoor that could be liberated by the realignment of the road (**Appendix MPA 3 – Barf Hill Report**). This represents a recoverable mineral quantity of 1.17 Million tonnes, which means that the capital cost of the additional public benefits would add £1.06 to the price of the mineral, making it uneconomic. This would be compared with 1.70 Million tonnes recoverable if the pipeline were to be relocated at Park Farm.
63. The loss of mineral of this scale would threaten the long term development of the business. At present if the development plan is implemented, the company would have assured reserves for about 24 years including existing permitted reserves. Without it, the company would be faced with finding replacement reserves much sooner than planned, most probably in just 7 years. There is a dearth of available resources locally of the quality of the Gransmoor deposit and if the pipeline is confirmed over the ground at Stonehills as well, proven alternatives would of necessity be available only at greater distances (in the Scarborough area of North Yorkshire 40 miles away) at much greater cost. Other possible sources could be crushed fines or marine aggregates but these are again much more expensive and/or involve longer haulage distances and would result in a less sustainable outcome.

64. The applicant has suggested that Barf Hill wood would never be given planning permission for mineral working. This is the only significant constraint to working on the entire site. The company has had the wood surveyed recently and recommendations have been made by the ecologist for further work in due season. As explained, the company was not intending to apply for planning permission on this land yet and also has not yet carried out all of the work necessary to inform an Environmental Assessment. However, there does not yet appear to be any reason to suppose that the wood has anything more than a local ecological interest. The wood is also a local landscape feature which the company would propose to replicate on another part of the site nearby as compensation. The mineral planning authority may also require other compensatory action in addition to this. The company's conclusion is that the wood poses no insuperable impediment to mineral working in the future. In any case, any future planning application will be decided on its merits and in accordance with the development plan. Even should there be found a conflict with the development plan in removing this feature, this would need to be balanced against the need for the mineral and the great weight attaching to its benefits.

65. The applicant has responded to some of these points and these will be addressed later in this Statement.

The Impact of the Mineral Resource at Gransmoor on the Pipeline Route

66. The company has suggested an alternative route for the pipeline which would not involve an unacceptable effect on the mineral operation. This was to locate the pipeline across a largely already constructed causeway within the Park Farm quarry. Following a severe flooding event in 2007 which led to a goit breaking its banks and flooding the workings, the company reconstructed a channel for it and realigned the confluence of the goit with the Barmston drain, which has been in use for almost four years and has successfully solved the flooding problem. The company has offered to widen this causeway (indeed, it is already nearly 50 metres wide and up to full height) to accommodate the pipeline in an area of the quarry which has already been worked and where the pipeline would not conflict with future mineral operations.

67. The company has commissioned a geotechnical study of the causeway (see **Appendix MPA 4 – Geotechnical Study**) and has offered the applicant tests to see if it meets the applicant's requirements or to agree to a legally binding obligation to construct it to whatever specification the applicant desires and to indemnify the causeway against failure for a period of three years after construction.

68. The company believes that this represents a realistic alternative solution. If however, this is deemed not to be acceptable then there are other alternatives including diverting the pipeline to

the north along the realigned Gransmoor Road. The company would be prepared to sacrifice some mineral at this location since it is thinner and would have less impact on the future of the operation, although it would rather not lose any mineral at all.

The objection & Subsequent Responses

69. The following Table contains extracts from the applicant's agent's letter and the MPA / W Clifford Watts observations on aspects touching the Gransmoor/Lissett area which illustrate its case.

Table 2 Fisher German letter & Observations of the MPA & WCW on Site Specific Matters

Quotations from Agent's letter	WCW observations
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.) However despite being identified in the 2004 JMLP there does not appear to have been any further investigation through this 10 year period as to whether economically viable extraction could take place within this Area of Search, nor have any proposals been put in front of East Riding of Yorkshire Council for such extraction.</p>	<p>The medium term strategy of the company was to formulate a planning application to extract the mineral in the area between the quarries including Barf Hill to commence operations in 2021. To this end, discussions were held with the land and mineral owners concerned with a view to a planning application being submitted within the next 1 to 2 years. The early application was planned so that there would be sufficient time to divert the road to the north and to build another woodland area of similar nature to Barf Hill in which habitats could be recreated for wild life. Options and leases are in place for the whole of this area.</p> <p>Since the advent of the CCS pipeline, copies of communications as well as discussions have been held with Shirley Ross at ERYC with copies of communications also sent to Andy Wainwright at ERYC.</p> <p>Importantly, all of the above was reported on more than one occasion to the applicant's agents.</p>
<p>British Geological Survey data suggests that large parts of this Area of Search have a superficial geology of boulder clay or sand and gravel with laminated clay. Deposits containing such laminated clay are expensive to process and result in large quantities of waste to be dealt with. It should be noted that there are no operational quarries within this area of search, suggesting that the market does not believe there are economically viable deposits in this area.</p>	<p>There are extraction areas both to the north and south of Barf Hill wood with very consistent geology. The geology of the area between the two quarries is extrapolated to be a continuation of the same deposit which very rich in prime quality sand and gravel.</p> <p>Not only was all this communicated to the applicant's agents, but a visual inspection of the two sites would make this apparent to anyone with some knowledge of geology.</p>
<p>It is noted that the operator of this quarry does not have any detailed site investigation information into the mineral deposit at Barf Hill, no planning application has been submitted for its development, nor has it been promoted as a preferred area to the Mineral Planning Authority.</p>	<p>Planning and further investigation of the deposit has not been a priority due to the anticipated timing of utilising this reserve. In addition, the company has used its long experience of working in this locality and would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>

<p>National Grid has carried out borehole investigation at this point to verify the accuracy of the information shown on BGS records. BGS suggest a narrow, linear alluvium deposit of sand and gravel running south from Barf Hill. Borehole analysis by National Grid suggests that this area is subject to laminated clay deposits within the sand and gravel.</p>	<p>The company has asked for this information, drilling logs and a location plan of the borehole but to date it has not been supplied. The company disputes this interpretation of the Barf Hill deposit.</p>
<p>Due to the narrowness of this deposit the actual volume of material likely to be sterilised is very modest and has been estimated, adopting some high range assumptions, at 41,000 tonnes. Depending on the level of clay contamination the actual loss of sterilised mineral may be significantly less and this calculation assumes that material is sterilised on both sides of the pipeline – given the proximity to Barf Hill Wood this may not be the case. In terms of production throughout the local authority area this volume has a de minimis effect.</p>	<p>A copy of the reserve calculation of National Grid would be required to demonstrate how a figure as low as this has been achieved. Working on the basis of the deposits to the north and south of Barf Hill which stretch over 2 kilometres between them, it is estimated that they have an approximate surface width of 100 metres, base width of 40 metres and depth from surrounding ground level of 17 metres. In addition to this, any rise in ground level above surrounding ground level enhances the recoverable mineral proportionately. Barf Hill stands an additional 6 metres above surrounding ground level.</p> <p>In addition, the company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>
<p>Furthermore to the extent that a claim for loss can be established and subject to valuation principles, the arrangements for taking rights either voluntarily through the pipeline easement, or via the development consent order process would lead to an entitlement to compensation, which might include Mining Code compensation in any given case, and thus it should not be assumed that minerals are being “lost” to the scheme.</p>	<p>Relying on the Mining Code does not absolve the applicant from following national policy on safeguarding mineral. The objective of national policy is not compensation since this is already well provided for. Rather, it is a sustainability issue of preserving a scarce nationally important resource from needless sterilisation. National Grid will be glad of such scarce resources in constructing its pipeline. The statement made by the agent demonstrates the low priority that the applicant has given to mineral safeguarding.</p>
<p>National Grid submits that in the light of this they have complied with the requirements of para 5.10.9 of EN - 1 as the vast majority of the land which the operator may wish to extract in the future will be unaffected by the proposed development. Crossing points of the pipeline for site machinery will be available subject to the usual pipeline protection measures and the pipeline has been designed to be as close as possible to Barf Hill Wood – a local landscape feature which is subject to local environmental designations and which is unlikely to be permitted for mineral extraction. By following this boundary the volume of material affected is again minimised.</p>	<p>Evidence in this Statement confirms the very real impact that sterilisation via the pipeline will have on the company’s long term business prospects. The company submits that the applicant has completely misunderstood the local geology, under-estimated the impact of its proposals on an important local business and failed to engage seriously in discussions about mitigation. It has demonstrably not complied with para 5.10.9 of EN-1 since it cannot show how it has accommodated the considerable mineral interest in this location ‘as far as possible’.</p> <p>Barf Hill wood is not designated as environmentally important although it is accepted that it is a local landscape feature. The wood is not subject to any national or international designation that the company knows of, and consequently it must be viewed as a local constraint. The company will in due course fully survey the wood and propose appropriate mitigation for the loss of a local landscape and wildlife feature in</p>

	line with Local Plan policy. It is thus not true that it is unlikely to be permitted for mineral extraction.
Discussions have been held with the operator of the quarry at Gransmoor regarding the utilisation of alternative routes across areas that have previously been extracted. However no such routes have been restored at the current time to enable them to be used by the proposed development.	On the contrary, one area had been restored for some 3 years to carry the Nutholmes dyke. This had been inspected regularly by a geotechnical consultant but National Grid appeared to have very little interest in pursuing this option because “they had already drawn up a pipeline corridor”. This restored area has now been extended significantly as can be seen from the latest survey (see Plan 2) and a geotechnical report is appended to this Statement (Appendix MPA 4).
Discussions were held regarding areas of the existing quarry that may be restored in the future but due to a lack of certainty as to the timing of their restoration and the stability of the material involved (and thus the security of the pipeline) no acceptable option was available.	An option of restoring another section to the north of the existing quarry to specifications required by National Grid was suggested. This was ruled out at the time by National Grid because there would not be anything there in time for the submission of the planning application. The fact that a new embankment could have been created to its specifications well within the timescale of the pipeline being constructed was of no interest to its representatives. The suggestion was made that should the company go into liquidation then there was no guarantee that the embankment would be in place.
The prior extraction of the preferred route carries these uncertainties as well as the additional unknown as to when the mineral extraction might be completed. That timescale is also dependent upon a successful planning consent being obtained and the timescales for all of this make such an approach incompatible with the scheme generally.	Once again, National Grid was not prepared to discuss this option based upon the 2 points raised above.
The scheme is a nationally significant infrastructure project, and to route the scheme through the existing quarry would introduce unnecessary and undesirable uncertainty and impediment.	The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation. It has taken a highhanded approach to the issue.
There are no proven reserves of economically viable minerals within the MSA, although with reference to the adjacent deposit identified in para 3 above investigations carried out by National Grid at Barf Hill indicate a modest reserve of up to 41,000 tonnes of sand and gravel contaminated with clay. It is not intended to remove any of this material for use within the scheme.	Demonstration of the sterilised reserve tonnage is required. A new state of the art plc controlled washing plant is operational at the adjacent quarry to process the mineral. Part of the justification for his plant being purchased was on the basis that reserves at Barf Hill would eventually be processed through it.
Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.	If National Grid was not prepared to discuss this with the operator how has this conclusion been reached?
The impact upon known mineral reserves and the MSA was taken into account in the route selection process and the final route has sought to minimize the impact upon these.	The MPA did not assert that mineral <u>reserves</u> had not been taken into account; it asserted that mineral <u>resources</u> had been ignored – a very real and important difference.

<p>There is no evidence of viable reserves within the Areas of Search and despite being designated as such for 10 years there does not appear to be any appetite from operators to promote any of these areas. This may be due to the uncertain geology of the area.</p>	<p>This is a disingenuous half truth since the applicant has already acknowledged that it has had discussions with the operator and heard of its future plans (see Appendix MPA 5 – Correspondence between the applicant & WCW). There is no doubt about resource quality as a visual inspection of the quarry and its surroundings would have demonstrated. The applicant has wilfully ignored the evidence.</p>
<p>It is worth noting that in the Humber Area Local Aggregates Assessment 2013, the average sand and gravel production volume within the region on average over the previous 10 years was 0.99 million tonnes (excluding silica sand sales.) This is despite the sharp downturn during the recession. Prior to that average sales volume were consistently above 1.1 million tonnes per annum.</p> <p>Thus the potential loss of 41,000 tonnes at the site at Gransmoor is equivalent to two weeks supply which will have very limited effect on the mineral supply situation in the area</p>	<p>The comment is meaningless if the calculated tonnage is wrong. The whole site which may now be jeopardised is over 1.5 million tonnes equating to more than 15 years life for the operator. Not only is the pipeline going to sterilise reserves in the mid term strategic plan at Barf Hill, but the next area in the long term strategic plan was at Stonehills Farm to the east which is also in the proposed path of the pipeline, and which is also within the area of search and subject to objections from the landowners.</p>
<p>The remaining reserves at this site will be unaffected by the proposed development and will be available for extraction. As a result it is submitted that National Grid has sought to safeguard mineral resources as far as is possible in line with the requirement in EN-1.</p>	<p>The company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p> <p>The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation.</p>

Other Impacts on Mineral Areas

70. Representations have also been made by landowners of the Stonehills deposit (see Objections from Claire Jackson, Peter Mawer and Christopher Marshall on behalf of the Glendon Estate IDs: 3, 4 & 5) and also see **Appendix MPA 6 – Stonehills Report and Plan 1**, which confirms the existence of exploitable quantities of mineral. Although this site has already been worked for sand and gravel as shown on **Plan 1**, it is apparent from the report produced for the company that there are significant remaining resources to be exploited in the site. The project land plans (Sheet 24) shows that the pipeline traverses the middle of this area of interest. The company have a long term plan which would go to that area once the Gransmoor deposits are exhausted. It should be clear that although there is no immediate prospect of working these deposits, it would be prudent to keep access to them clear, and reserving the largest deposit possible for working, by having the pipeline avoid the minerals as much as possible. For reasons already argued in this Statement, this has not been demonstrated. The MPA and the company submit that the pipeline route should be diverted to accommodate this clear interest.

Summary of Issue

71. The objectors have established that

- The Gransmoor Deposit is not as the applicant supposes, a thin contaminated deposit of limited value, but is part of a projected esker deposit of sometimes great thickness and exceptional quality sand and gravel.
- There are proven deposits of up to 23 metres in thickness and 1.7 million tonnes to be exploited at Gransmoor.
- W Clifford Watts (the company) has one of the most important sand and gravel operations in the Humber area at Gransmoor which produces typically 12.5% of the output for the East Riding. It is a highly integrated enterprise that employs ultimately 103 people, and added value plants across the East Riding area are dependent on the site for resources.
- The company has made significant investment in the site and in dependent operations on the assumption that its medium term plan to progress through the Barf Hill deposit will be realised.
- The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation to demonstrate the seriousness of its intentions and to supplement its remaining reserves at Turtle Hill.
- The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes of mineral or 40% of the mineral to the south of Barf Hill wood, leaving the company with reserves for only 3 years if the planned extension is permitted.
- Company plans to join the two operations at Gransmoor and Park Farm through the Barf Hill deposit would be compromised to the extent that it would not be viable to divert the road and relocate the wood as planned.
- There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.
- The company has proposed an alternative alignment for the pipeline on a causeway already constructed at Park Farm quarry that can be assured to be suitable for the location of the pipeline. This can be achieved either by demonstration of stability by testing or by a legal agreement to ensure that it is provided to a suitable specification.
- However, if necessary, there are other alternative routes should that not be acceptable to the applicant.

Conclusions and Recommendation

72. National policy supports the conservation of scarce mineral resources, recognises the importance of them to the national economy and requires mineral safeguarding and policies for prior

extraction. It therefore advises that non mineral developers should carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality before applications should be determined. Local polices are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.

73. The applicant has not confirmed that mineral assessments have been carried out to a professional standard along the 40 linear km of MSAs that the pipeline corridor crosses, and therefore the applicant has not demonstrated that it has complied with national planning policy to conserve minerals, or national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures, or that it complies with national or local planning policy in considering seriously, prior extraction of mineral.

74. In respect of Gransmoor the deposit is a valuable proven deposit of up to 23 metres in thickness and over 1.7 million tonnes of recoverable mineral. W Clifford Watts has one of the most important sand and gravel operations in the Humber area with a highly integrated enterprise and added value plants across the East Riding area are dependent on the site for resources. The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation.

75. The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes or 40% of the mineral to the south of Barf Hill wood, and prevent the company from joining the two operations at Gransmoor and Park Farm through the Barf Hill deposit. There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.

76. The company has proposed an alternative alignment for the pipeline on a causeway already constructed that can be assured to be suitable for the location of the pipeline.

77. The objectors therefore ask that the DCO should not be confirmed.

Written Representations
of the
Mineral Products Association (MPA),
W Clifford Watts Ltd (WCW), and Others
to the
Yorkshire and Humber (CCS Cross Country Pipeline)
Development Consent Order
Examination
(IDs 22, 74, 75, 85, 86)

18th December 2014

Written Representations of the Mineral Products Association (MPA), W Clifford Watts, and Others to the Yorkshire and Humber (CCS Cross Country Pipeline) Development Consent Order Examination

Introduction

1. These joint representations are made on behalf of the following objectors,
 - Mineral Products Association (objector ID: 22),
 - W Clifford Watts Ltd (objector ID: 85),
 - The Trustees of the Burton Agnes Estate Trust (objector ID: 74),
 - The Hon Mrs S Cunliffe-Lister (objector ID: 75), and
 - Mr & Mrs P Conner (objector ID: 86).
2. The Mineral Products Association is taking the lead in the representations on these matters at the Examination.
3. The Mineral Products Association (MPA) is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. With the recent addition of The British Precast Concrete Federation (BPCF) and the British Association of Reinforcement (BAR), it has a growing membership of 450 companies and is the sectoral voice for mineral products. MPA membership is made up of the vast majority of independent SME companies throughout the UK, as well as the 9 major international and global companies. It covers 100% of GB cement production, 90% of aggregates production and 95% of asphalt and ready-mixed concrete production and 70% of precast concrete production. Each year the industry supplies £9 billion of materials and services to the £120 billion construction and other sectors. Industry production represents the largest materials flow in the UK economy and is also one of the largest manufacturing sectors.
4. Given the NPPF's recognition of the economic and employment benefits of the extractive industries (paras 28 & 144) we should like to direct your attention to 'Making the Link', a document produced by the MPA to highlight the contribution that the sector makes to the economy. The document can be downloaded from the following website.
http://www.mineralproducts.org/documents/MPA_MTL_Document.pdf
3. This evidence covers two aspects of the objections. First, it addresses the need to observe national policy for mineral safeguarding and second, it examines the effect of the DCO on a member company's operations (W Clifford Watts Ltd) which include the interests of the mineral and land owners of the sterilised section.

The Objections

4. The **MPA** has objected to the draft DCO, not because it wishes to stop development, but to ensure that the procedure for mineral safeguarding has been respected and that the applicant demonstrates with certainty that it has fully evaluated the impact of development on mineral interests and has taken the appropriate action in line with national policy. The project crosses many kilometres of MSA within the East Riding¹. In addition, the MPA objected in support of one of its member companies, W Clifford Watts Ltd, who operate two quarries at Gransmoor and Park Farm near the village of Kelk, East Riding. The pipeline lies in the centre of an Area of Search for minerals in the adopted Mineral Local Plan (2004) and therefore threatens the future of these quarries and the MPA and the company wish the installation to be moved to accommodate future mineral need.

5. **W Clifford Watts** objected to the draft DCO because there are few areas in the locality where exploitation of sand and gravel is economically viable and traditional mineral working areas are becoming exhausted. In order to secure future supplies, the Company has entered into three option agreements to take a lease and work sand and gravel over land at Great Kelk. It is estimated that in total, the current route of the pipeline would sterilise a significant and strategically important tonnage of sand and gravel in the areas covered by those option agreements. In addition, the Company believes it would be possible to re route the pipeline so as to minimise the disruption and volume of minerals sterilised within the Barf Hill and Great Kelk areas helping to preserve the future supply of minerals to the local market place. The applicant has failed to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission Document which proposes Minerals Safeguarding Areas.

6. **The Trustees of the Burton Agnes Estate Trust, the Hon Mrs S Cunliffe-Lister and Mr & Mrs P. Conner** all presented similar objections to the intent that the current route of the pipeline would sterilise a significant and strategically important tonnage by crossing the deposit. It would be possible to re-route the pipeline so as to minimise the disruption and volume of minerals sterilised, helping to preserve the future supply of minerals to the local market. In the market served by minerals extracted from this locality there is a recognised shortage of sand and gravel and without developing local reserves there will be a need to import sand and gravel from outside of the locality resulting in the generation of additional road traffic and possibly disruption to supply. There are few areas in the locality where exploitation of sand and gravel is economically viable. Traditional mineral working areas are becoming exhausted and there is a need to preserve future reserves of minerals in this locality which is not met in the proposed

¹ The MPA calculates that the project traverses over 25 km of sand and gravel MSAs and 19 km of Industrial Chalk MSA within the East Riding.

scheme. The proposed pipeline route fails to adequately safeguard minerals within National Energy Policy ENI and the East Riding Local Plan Submission which proposes Minerals Safeguarding Areas.

Part 1: The Mineral Safeguarding Objection

The Mineral Safeguarding Regime Nationally

7. Mineral safeguarding is recognised as “,,essential to ensure that the ability of future generations to meet their needs for minerals is not compromised by planning decisions that are being made in the present day. The essence of any safeguarding process is that it should introduce the consideration of minerals into the decision making balance, so that access to mineral resources for future generations is preserved as far as possible. The first part of that process is the identification of mineral resources and the definition of Mineral Safeguarding Areas (MSAs). “²
8. Although National Infrastructure Projects are subject to a separate policy document, projects will rely on the planning system to inform them of planning constraints and policies for conservation that will in turn inform an EIA process.
9. NPPF para 122 says, “Minerals are essential to support sustainable economic growth and our quality of life...However, since minerals are a finite natural resource, and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation.”
10. NPPF para 143, bullet point 3 says that in preparing Local Plans local planning authorities should, “define Minerals Safeguarding Areas and adopt appropriate policies in order that known locations of specific minerals resources of local and national importance are not needlessly sterilised by non-mineral development, whilst not creating a presumption that resources defined will be worked”.
11. Bullet point 5 of the same paragraph in NPPF says that local planning authorities should, “set out policies to encourage the prior extraction of minerals, where practicable and environmentally feasible, if it is necessary for non-mineral development to take place;”
12. NPPF para 144 says, “When determining planning applications, local planning authorities should give great weight to the benefits of the mineral extraction, including to the economy” (bullet point

² Mineral safeguarding in England: good practice advice, British Geological Survey Open Report OR/11/046, October 2011, para 1.1.2

1); and “not normally permit other development proposals in mineral safeguarding areas where they might constrain potential future use for these purposes;” (bullet point 7).

13. NPPG paragraph: ID: 27-004 says “Mineral planning authorities should adopt a systematic approach for safeguarding mineral resources, which...adopts clear development management policies which set out how proposals for non-minerals development in Minerals Safeguarding Areas will be handled, and what action applicants for development should take to address the risk of losing the ability to extract the resource. This may include policies that encourage the prior extraction of minerals, where practicable, if it is necessary for non-mineral development to take place in Minerals Safeguarding Areas and to prevent the unnecessary sterilisation of minerals”.
14. The BGS good practice guidance is the bedrock of identifying and delineating MSAs. This guidance advises local planning authorities on the methodology to adopt for this task, and proposes a seven step approach from identifying the geological resources (usually from the BGS’s own mineral resources maps), through to proposing draft MSA boundaries, undertaking consultation and then the most appropriate way of formalising them in strategic local plan documents and development management policies. This is followed up by including safeguarding requirements in local plans and finally the requirements of mineral assessments in local validation lists (para 1.1.3).
15. The BGS guidance also explains the role of the BGS in providing baseline information. “Mineral resource maps of each English county have been compiled by the BGS on behalf of the Office of the Deputy Prime Minister (now DCLG). These maps show the geological distribution of all onshore mineral resources together with additional information on the location of mineral extraction sites, the extent of mineral planning permissions...and the extent of selected landscape and nature-conservation designations. The primary objective is to produce baseline data in a consistent format that can be updated, revised and customised to suit planning needs, including use in the preparation of LDDs.” (para 2.2.1)
16. It is important that “sufficient information on mineral resources is necessary for local authorities to determine non-mineral planning applications submitted in MSAs. The requirement for a Mineral Assessment to accompany these applications could be administered through inclusion on the local list of information requirements” (para 6.1.).
17. The BGS guidance also confirms the normal content of such an assessment. The two levels of Mineral Assessment are:

1. "A site-specific desk-based assessment of the existing surface and solid geological and mineral resource information. This may comprise information on the mining and quarrying history, mineral assessments and market appraisals, boreholes, site investigations, geological memoirs, technical reports, mining plans and the thickness of superficial geological deposits.
2. Analysis of the site-specific information derived from level 1 including:
 - An estimate of the economic value (for example quality and quantity) of the mineral resource.
 - Its potential for use in the forthcoming development and an assessment of whether it is feasible and viable to extract the mineral resource ahead of development to prevent unnecessary sterilisation.
 - Where prior extraction can be undertaken, an explanation of how this will be carried out as part of the overall development scheme.

Level 2 should be prepared by a suitably qualified and competent person. Should an applicant believe that some or all of the information is not necessary, advice should be sought from the MPA."³

18. A further key concept of mineral safeguarding is proximal sterilisation. It is a common mistake made by developers and local planning authorities that mineral safeguarding is expressed only in the principle of prior extraction. If developers consider the area sterilised by development to be too small for such prior extraction, they often believe they have done their job. This is possibly because specific requirements are laid down by NFFP paragraph 143 bullet point 5 for policies on prior extraction. However, it cannot be stressed too strongly that this is not the be-all and end-all of mineral safeguarding. The BGS document makes clear that even small developments in mineral safeguarding areas covering much less land than would be viable for prior extraction, is very likely to sterilise mineral. This is through the influence of sterilisation by proximity. Figure 2 in the BGS document shows graphically the potential for sterilisation of large quantities of mineral underground by land development out of all proportion to its footprint. Thus there is a real danger that mineral might be sterilised by small development that severs larger deposits, or requires standoffs which would prevent mineral working taking place later or that closes off access to deposits entirely.

³ BGS guidance; recommended text for inclusion in the local list of information requirements

The Mineral Safeguarding Regime Locally

19. MSAs in the East Riding were first proposed and consulted on through the preparation of the Hull and East Riding Joint Minerals Local Plan at Issues and Options stage, the Preferred Approach stages, as well as through the Draft Strategy Document and Policies Map, and the Proposed Submission Strategy Document and Policies Map. These will be refined through the Joint Minerals Local Plan. However, they are largely complete pending the outcome of the Submission Strategy Document Examination. Having regard to the advanced stage of adoption of this plan the MPA believes the Examining Authority should accord it more weight.

20. Technical evidence for defining Mineral Safeguarding Areas has been progressed through the Joint Minerals Plan. The approach taken to defining these Areas is largely set out in paras 8.3 - 8.12 of the Preferred Approach Joint Minerals Plan. This recognises that, in defining Minerals Safeguarding Areas, it is important to consider the extent and nature of the mineral resource. Within the East Riding these resources comprise:
 - i. Sand and Gravel;
 - ii. Crushed Rock (Limestone);
 - iii. Crushed Rock (Chalk);
 - iv. Clay;
 - v. Industrial Chalk; and
 - vi. Silica Sand.

21. For sand and gravel Mineral Safeguarding Areas have been defined based on the full extent of glaciofluvial, sand and gravel of unknown origin, and glaciolacustrine deposits shown on the British Geological Survey Geological Resources Map for the area. This approach has been used because of the economic importance of the resource, as demonstrated by the significant number of active sand and gravel workings in the East Riding, as well as the sales of sand and gravel resources in the Humber area shown by the draft Local Aggregates Assessment.

22. One of the unfortunate results of relying on that information base is that the deposits at Barf Hill were missed off the resources map due to the inadequacies of geological mapping in the area, and even though they are clearly being worked and there is direct evidence of their existence. This is no doubt one of the refinements to MSA boundaries that the Submission Strategy Document mentions is the task of the forthcoming Joint Minerals Local Plan.

23. MSAs have therefore existed in draft form since 2010 and are being used by the mineral planning authority in decision making. Prospective applicants would be expected to respect the requirements of mineral safeguarding in formulating proposals.

24. Policy for mineral safeguarding is contained within the East Riding Proposed Submission Strategy Document which is under examination. Hearings have been completed and the Inspector's report is awaited. Policy EC 6 deals with mineral safeguarding and this proposes MSAs which are shown on the Policies Map and that non mineral development located within or adjacent to MSAs will only be supported where a number of criteria are met. These include where the mineral is of limited economic value, or the need for the development outweighs the need to safeguard mineral, the mineral resource will not be affected in the future, or development is temporary, or where the proposal is an allocated site in the development plan, or where prior extraction can take place. Although the MPA objected to this policy, it was in the form of suggesting additions to it. In general the Association was happy with the approach adopted by the County Council, and indeed the safeguarding policies are not the subject of much uncertainty due to the extent or weight of objection.

25. Clearly, these criteria cannot be met without recourse to investigation of the mineral potential, which the supporting text makes clear. Paragraph 7.77 of the draft Plan states,

“The safeguarding of mineral resources will ensure that the importance of the mineral can be balanced against the importance of the proposed non-mineral development. It does not provide a presumption in favour of minerals development. Therefore, non-mineral development, which would adversely affect the viability of exploiting an underlying or adjacent deposit in the future, will be supported in a Mineral Safeguarding Area where:

- *Test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, suggest the underlying or adjacent mineral is of limited economic value, and its value is unlikely to become significantly greater in future, for example, by being of insufficient amount or quality. Documented attempts to market the mineral may be required to demonstrate that the mineral resource is not viable;*
- *The need for the development outweighs the need to safeguard the minerals for the future, for example, the surface development is an essential piece of infrastructure and alternative sites are not available without a disproportionate cost;*
- *It can take place without preventing the mineral resource from being extracted in the future. This could include development covering a smaller area, such as householder development. Some larger proposals containing only limited built development could also take place without sterilising the resource, for example, golf courses or some types of agricultural development. This will depend on the nature of the proposal and the extent, nature and economic value of the mineral concerned...”*

National Policy for Infrastructure Projects

26. National infrastructure projects are regulated by separate policy (Overarching National Policy Statement for Energy [EN -1]) and the Local Plan may be a material consideration in determining any proposals made under EN - 1. The MPA considers that the Local Plan provides the local context for policy statements in EN -1 with regard to mineral safeguarding, and describes how the Policy should be implemented.
27. EN -1 requires the safeguarding of any mineral resources on the proposed site *'as far as possible taking into account the long-term potential of the land use after any future decommissioning has taken place'* (para 5.10.9) and *'where a proposed development has an impact upon a Mineral Safeguarding Area (MSA)...appropriate mitigation measures have been put in place to safeguard mineral resources'* (para 5.10.22).
28. These two brief statements are the only references to mineral safeguarding in EN – 1. However, other policy statements on the general subject of land use may be relevant. Paragraph 5.10.5 states, *"The ES (see Section 4.2) should identify existing and proposed¹³² land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan."* The reference in the text (132) is to the following statement, *"For example, where a planning application has been submitted."*
29. Thus in the case of a more immediate prospect of future mineral working such as at Gransmoor which lies in an adopted Area of Search for minerals, it would be expected that an analysis of the effects of the project on this land use would be undertaken. Although one indication of a proposed land use might be a planning application, the existence of the Area of Search should have alerted the applicant to the likelihood of workable mineral in the area.
30. The test of safeguarding minerals 'as far as possible' in para 5.12.9 is very high and requires much more than a cursory examination of mineral safeguarding. It should be noted that this is not couched in terms of what is feasible, or viable or practicable, but what is possible. Therefore, the policy requires more effort in finding solutions to potential conflicts and widening the scope of potential mitigation to overcome unsustainable outcomes. The appropriate mitigation mentioned by para 5.10.22 should be seen in the context of the mineral interest encountered, so the solution might differ depending on the mineral and from place to place. If solutions are suggested they should be looked into in all seriousness.

The Application, Objection & Subsequent Responses

31. The application for the pipeline was accompanied by an Environmental Statement, and the submitted documents contained details of the route corridor study. The initial objection to the project was made following a search of the application documents in which we could find no reference to mineral assessments having been carried out.
32. Following the Preliminary meeting, the MPA received a communication from Fisher German dated 21 November 2014, the agents for National Grid setting out a response to the objection and an invitation to participate in a Statement of Common Ground (**Appendix MPA 1 – Fisher German letter**). The MPA made a response to this letter in the form of a number of questions (**Appendix MPA 2 – MPA/objector response**) dated 26 November 2014. Since then, although promised, a draft Statement of Common Ground has not been received by the MPA. Therefore, at the time of writing we have had to make certain assumptions about the corridor selection process which may be clarified when we finally receive a response from the agents or the matters are discussed at a Hearing.
33. In Fisher German's letter reference is made to the application (Proposed Scheme Report Section 7.8) which contains the Route Corridor Study and to Appendix C Selection of the Preferred Route Corridor Report November 2011. Paragraph 4.4.2 of the Route Corridor Study (November 2011, Appendix B) mentions a number of active mineral sites, Gransmoor among them. Paragraph 4.4.6 discusses mineral resource protection in more detail. This lists *"Four preferred areas for future sand and gravel workings that are within the Area of Search were identified from the East Riding of Yorkshire Joint Minerals Local Plan", one of which is An extensive area of search for sand and gravel working, a large proportion of which is within the Area of Search, has been designated around Gransmoor and Lissett."*
34. Minerals were accorded a secondary constraint status in the route corridor study (para 2.5). Paragraph 8.1.2 categorises constraints into avoidable or unavoidable. Where a feature is unavoidable, it is further categorised according to a number of 'guidelines'. These range from very High, High, Moderate to Minor. Minor is defined as *" - any substantial conflict should be capable of successful resolution through the adoption of standard construction techniques or mitigation measures."*
35. Furthermore, in Appendix C Selection of the Preferred Route Corridor Report paragraph 8.5.24 mentions unavoidable development plan allocations. The report says, "No development plan allocations, for uses other than mineral extraction were identified within the route corridor options that are unavoidable through routeing of the pipeline." Table 8.5 lists those unavoidable

allocations and nineteen times in the table it is reported that concerns for mineral safeguarding and mineral features (presumably working sites) are minor. They are further mentioned in paragraphs 8.5.31 & 32 and again in the Comparison Tables in Chapter 10.1.8 (ref. para 8.5.33).

36. These references are very opaque. The following information is not provided as part of the study results,

- It is not known why minerals were down graded to secondary status as a constraint
- It is not known why despite crossing several tens of kilometres of MSA, minerals were scoped out of the EIA process
- It is not known what 'unavoidable' means in the context of mineral resources and whether this justifies not carrying out mineral assessments
- In the context of minor impacts it is not known what might be involved in 'construction techniques or mitigation measures' which would lead to 'successful resolution' of conflict with mineral interests
- It is not known what constitutes 'unavoidable' in the context of the Gransmoor operation where clearly an installation could go round it

37. The objectors are left with a sanitised and incomplete picture of how effects on mineral interest were assessed if at all. Further light may be shed on this from the agent's letter of 21 November 2014 which addressed the objections as submitted (**Appendix MPA 1**).

38. The letter asserts that minerals was fully considered in the pipeline corridor study and we agree that the applicants have identified the relevant active mineral sites and resources as shown in MSAs across the study area. However, it is not this that is at dispute. It is how the subject has been treated and whether the applicants have done sufficient work to comply with national and local policy and demonstrate clearly that there are no unavoidable impacts on minerals, and further that investigations show that no substantial conflict arises that is not capable of being overcome.

39. The overall tone of the agent's response suggests that the treatment of minerals was mostly a desk top exercise with very little (if any) field investigation or detailed analysis as required by policy. The following Table contains extracts from the letter and the MPA's observations on aspects touching the MSAs. Comments directed to the Gransmoor/Lissett area are dealt with in the second part of this Statement,

Table 1 Fisher German letter & Observations of the MPA on General Matters (Appendices MPA 1 & 2)

Quotations from Agent's letter	MPA observations
<p>The consideration of 'mineral extraction' areas is included in this appraisal as can be identified in application document 7.8 Appendix B. The report makes reference to relevant minerals planning policy and identifies minerals interest throughout the whole area of search. This study, along with the Selection of Preferred Route Corridor Report (published in November 2011 and available in Document 7.8 Appendix C of the application) demonstrates an early consideration of the region's mineral resource in the development of the project.</p>	<p>It is agreed that some consideration of mineral interests in the identification of active mineral sites and MSA boundaries has been carried out. It is in dispute that any mineral assessments required by policy have been carried out, or that prior extraction has been seriously considered.</p>
<p>Both reports identify that the preferred aim was and remains to avoid an adverse effect on minerals. However the reports also recognise that given the extent of the mineral safeguarding areas in the Holderness Plain, avoidance of all such areas would not be possible given the need for the pipeline to make landfall at a point along the Holderness coast.</p>	<p>It is agreed that it is reasonable to avoid adverse effects on mineral. However, this must be informed by a detailed study of where the most sensitive mineral areas are (i.e. where the deposit is commercially exploitable) by recourse to field investigations and economic mineral assessment. It cannot be assumed that because impacts are generally unavoidable it is permitted to cross MSAs anywhere and that unacceptable impacts will not arise.</p>
<p>Having regard to the breadth of the considerations it is noted that the final route selected does not impact upon any existing operational mineral areas, no existing consented areas of extraction nor any preferred areas of extraction as identified in the Joint Minerals Local Plan 2004."</p>	<p>This is a half truth that omits reference to the potential impacts on the MSA as a whole and on the Areas of Search allocated in the Gransmoor/Lissett area.</p>
<p>National Grid did not consider that a significant effect on mineral resources was likely to occur as a result of the construction, operation or decommissioning of the project and therefore this issue has not been assessed within the environmental statement.</p>	<p>The letter does not say why it was thought there would be no significant effect on mineral resources when the pipeline crosses over linear 40 km of MSA. The MPA submits that this is a pre-judgment which has coloured subsequent decisions about impacts on specific areas.</p>
<p>The complexities of the route selection process have been covered in point 1 above and the Route Corridor Study (published May 2011) makes reference to relevant minerals planning policy and identifies 'sporadic' minerals interest throughout the whole area of search.</p>	<p>The reference to sporadic minerals interest is irrelevant since the MSAs are by definition areas where economic minerals are known to exist. The reference seeks to downplay the importance of minerals and leads to them being dismissed as a constraint on development, and seeks to justify the inadequate approach taken by the corridor selection process.</p>
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.)</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). Proving whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>

<p>In terms of EN-1 and para 5.10.9, the scheme has been designed to minimise impacts upon the MSA and known deposits outside of these areas by seeking to avoid them where possible, crossing by the shortest route where unavoidable due to the linear nature of the scheme and allowing site machinery to cross the proposed pipeline where required subject to the usual pipeline protection measures.</p>	<p>This a half truth that omits the responsibility of the non mineral developer to carry out a mineral assessment on direct and indirect effects on the mineral resource and assess the prospects for prior extraction.</p>
<p>There are no proven reserves of economically viable minerals within the MSA</p>	<p>The purpose of a MSA is to delineate 'known resources of economic mineral' (BGS guidance). <u>Proving</u> whether they exist in exploitable quantities and quality is the task of the non mineral developer in assessing whether the minerals should be safeguarded or sterilised.</p>
<p>Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.</p>	<p>If prior extraction is taken seriously (as it should) it would have formed part of the DCO and be included within the overall timescale for the development. The applicant has made a pre-judgment that prior extraction is not possible when national and local policy requires that it be considered, and now pleads that it cannot be accommodated.</p>

Summary of Issue

40. The objectors have established that

- National policy supports the conservation of scarce mineral resources and recognises the importance of them to the national economy
- National policy for mineral safeguarding requires the local identification of MSAs, and policies for prior extraction
- National guidance on mineral safeguarding advises that non mineral developers carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality
- Local policies are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.
- This Local Plan Strategy Document has reached examination stage and should be accorded more weight in the planning balance
- EN – 1 requires applicants to safeguard minerals 'as far as possible', which is a high bar to development that requires significant effort and investigation to satisfy.
- EN – 1 also requires applicants to put in place appropriate mitigation measures when developments have an impact on MSAs to safeguard mineral resources.
- The EIA scoped out minerals but the reasons for this decision remain unknown.
- The corridor route selection process logged the existence and location of active mineral sites and MSA boundaries.
- The project crosses over 40 linear km of MSAs in the East Riding alone, 25 km of which are sand and gravel MSAs.

- The applicant should recognise that notwithstanding the national importance of its project national policy also accords great weight to the benefits of mineral extraction, and by implication, mineral safeguarding.

41. The objectors await confirmation of the following ,

- The corridor route selection process assumes that where the development impacts on mineral resource areas were 'unavoidable' that this justified not carrying out mineral assessments.
- There is no clarity about why impacts on mineral impacts were accorded 'minor' status which would involve successful mitigation of impacts.
- Whether any field investigations were carried out as required by Local Plan policy, viz, test drilling, test pits or other evidence, including the quantity of mineral, overburden, mineral depth, mineral thickness, and how fine the deposits are, the value of the underlying or adjacent mineral now or in future, documented attempts to market the mineral or the use of it in the development.

42. The objectors submit that without confirmation that mineral assessments have been carried out to a professional standard, the applicant cannot demonstrate that it has complied with national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures. Neither can it demonstrate that it complies with national or local planning policy in considering seriously, prior extraction of mineral. The MPA therefore asks that in this respect, the DCO should not be confirmed until this work has been carried out, consulted on and examined.

Part 2: The Effect on the Mineral Deposits at Gransmoor

The Gransmoor Deposits

43. The mineral deposits at Gransmoor are not uniformly shown on the BGS minerals resources map but evidence of their existence and exploitation is present to confirm them with confidence. The deposits being worked at Gransmoor and Park Farm are fluvio-glacial deposits in the form of a beaded esker of sub-glacial origin. This is shown in graphical form on **Plan 1**. The esker can be projected for a distance of at least 6 km from Kelk Hill in the north to east of Lisset Bridge in the south and is associated with kame deposits (e.g. Yew Hills) and possibly with subsidiary channel deposits. The plan shows clearly where minerals workings have previously taken place along this route and will take place.
44. The deposit at Barf Hill and Park Farm is particularly thick. The operator's experience over many years in this area confirms that the base of the deposit is at a uniform height of –10.5 metres AOD. Observation of the existing quarry and the old quarry in the woodland at Barf Hill demonstrate that from this base the deposit varies from 15 meters in depth to over 23 metres on rising ground. There is a known deposit on the northern side of the woodland, evidence of old workings within the woodland and a deposit between Park Farm and the woodland making a contiguous deposit well in excess of 1.5 million tonnes.
45. The quality of the deposit worked in the two locations is uniformly of a clean sand and gravel with a ratio of sand to gravel of 70/30 with an average silt content of 10-15%. There is very little overburden and there is typically no interburden of clay. This is consistent with the description of the deposit as an esker since this was formed in a high pressure and high energy depositional environment which scoured the bedrock beneath the retreating glacier leaving clean sand and gravel behind. The principal products are single size gravel, coarse concreting sand, and washed soft sand and asphalt sand. The products are suitable for all strengths of concrete, and for asphalt and mortar. The site produces an average 100,000 tonnes of aggregate per year.

The Gransmoor Operation

46. W Clifford Watts Ltd is an SME employing 103 people and its operations are professional and highly integrated. The Gransmoor/Park Farm operation supplies an internal market for material to an on-site ready mixed concrete plant on land to the north and east of Park House. The company also operates a recycling plant on land to the north of Barf Hill at the former Gransmoor Quarry which works in tandem with the sand and gravel extraction operation, producing a range of blended materials for the local market, which maximises the use of the available material. The

continued operation of both sides of the operation is also essential to ensure a cost effective operation for both the company and its customers along with minimising traffic movements by backhauling.

47. Reserves in the current extraction operation to the south of the proposed pipeline route north of Park House are virtually exhausted with the next phase of operations being at Turtle Hill to the north of the recycling site with a confirmed 4 years of reserves. The company's strategic development plan which is being undertaken in conjunction with Burton Agnes Estates is to extract the mineral through Barf Hill thereby linking the two existing operational areas. It is envisaged that this operation may need to commence within 2 years to guarantee continuity of supply.
48. On the assumption that this extraction was to go ahead, the company have made significant investments in installing a new state of the art programmed logic controller (plc) sand processing plant at the quarry (primarily to remove lignite as required for meeting the specifications of the Givlon liquid screed produced at Malton) and a new washing plant and effluent treatment system at the recycling operation. Not only this, but the company has also installed a multi million pound dry silo mortar plant which is being constructed at one of its chalk quarries some 30 miles to the south that is dependent upon the internal lignite-free sand supply from this location.
49. The company is also in the process of a planning application at one of its limestone quarries some 30 miles to the west to erect an asphalt plant which will also be dependent upon sand from this location to supplement the internal supply of filler.
50. The business also has three other ready mixed concrete plants within the area at Hunmanby, South Cave and Malton as well as a pre cast operation which rely predominantly on its internal supply of both sand and gravel from this location.
51. The company is thus very heavily reliant upon minerals from this area, the cessation of which would inevitably result in closure of large sections of the business.

The Aggregates Market in East Riding

52. The East Riding is a large county which is relatively isolated in terms of accessibility from the major population centres of England. It has thus become largely dependant on its own resources of aggregates and has traditionally been self sufficient. It is a net exporter of sand and gravel, mainly to adjoining eastern parts of North Yorkshire and to Hull.

53. The 2013 Local Aggregates Assessment (LAA) says of the East Riding, “In 2012 there were six sites extracting sand and gravel. The most important areas for working are near Gransmoor, North Cave and Brandesburton in East Riding.” (para 2.15) The county is notable for being largely free of the aggregates ‘majors’, which are the four largest national companies who dominate the aggregates market. In the county there are no extractive sites run by the majors and all sites are operated by independent SMEs, all of which are local firms.
54. W Clifford Watts Ltd also operates one other site apart from Park Farm – Turtle Hill (north of Gransmoor) and is one of the largest operators in the county.
55. Of the other operating sites mentioned, Brandesburton is almost exhausted having received a permission to extend operations in 2012 for about 40,000 tonnes. North Cave is an important unit but it differs from the Gransmoor operation by having a more restricted product range.
56. The 2013 LAA says that in 2011 the output of sand and gravel from the Humber area was 900,000 tonnes, 800,000 of which came from the East Riding (para 3.4). The East Riding is therefore a regionally important source of sand and gravel. In terms of reserves of sand and gravel the Humber total is 16.5 Million tonnes, the majority of which are in the East Riding (para 3.8).
57. Although the landbank is a comfortable 16.6 years across the Humber area it is unevenly distributed. The Gransmoor operation can only draw on reserves from its Turtle Hill site for the immediate future, which must in due course be replaced with other contiguous reserves if the business and its contribution to regional aggregates output, is to continue.
58. In summary, the Gransmoor operation is acknowledged as one of three sand and gravel workings in the county which are of most importance. This is enhanced by being able to produce a wide range of material, especially for high strength concrete, which is in generally short supply.

The Impact of the Pipeline on the Gransmoor Operation

59. The operator has a long term development plan which would in normal circumstances have involved applying for planning permission to extend the Park Farm and Gransmoor operational areas towards each other in about 5 years time. However, the advent of the pipeline scheme has brought these plans forward. The operator submitted an application to work the deposit north of Park Farm towards Barf Hill wood including the pipeline corridor, to the East Riding County Council on 12th December 2014. This application if permitted, would release 616,000 tonnes of mineral.

60. However, if the pipeline is confirmed on its applied for alignment across the field to the south of Barf Hill wood, it would seriously compromise the Gransmoor operation. The development plan includes the provision of a public benefit of straightening the Gransmoor Road at the double bend by the quarry access north of Barf Hill wood, releasing mineral under the road, and additionally working beneath the wood itself, and recreating it as a landscape feature north of its present position on excavated and refilled ground.
61. The company estimate that the capital costs of this work will be more than £1,200,000. The Park Farm extension is viable as it stands being a straight extension of existing activity. However, the 616,000 tonnes applied for includes the route of the pipeline, and if the DCO is confirmed the pipeline would sterilise 250,000 tonnes, or 40% of the available mineral. The company has assumed that all of the deposit between the pipeline and the wood would be sterilised as well as the pipeline corridor itself. Additionally, an assumed minimum 1 in 3 batter would be required with additional mineral lost at the toe to prevent wave cut action from the restored Park Farm lake to its southern boundary undermining the embankment, and for the estimated 15 metre depth of water within it. Thus if the pipeline is confirmed the company would only have assured reserves for 7 years if permission is granted for this extension.
62. That would leave 1.38 Million tonnes in situ in the wood and south of Gransmoor that could be liberated by the realignment of the road (**Appendix MPA 3 – Barf Hill Report**). This represents a recoverable mineral quantity of 1.17 Million tonnes, which means that the capital cost of the additional public benefits would add £1.06 to the price of the mineral, making it uneconomic. This would be compared with 1.70 Million tonnes recoverable if the pipeline were to be relocated at Park Farm.
63. The loss of mineral of this scale would threaten the long term development of the business. At present if the development plan is implemented, the company would have assured reserves for about 24 years including existing permitted reserves. Without it, the company would be faced with finding replacement reserves much sooner than planned, most probably in just 7 years. There is a dearth of available resources locally of the quality of the Gransmoor deposit and if the pipeline is confirmed over the ground at Stonehills as well, proven alternatives would of necessity be available only at greater distances (in the Scarborough area of North Yorkshire 40 miles away) at much greater cost. Other possible sources could be crushed fines or marine aggregates but these are again much more expensive and/or involve longer haulage distances and would result in a less sustainable outcome.

64. The applicant has suggested that Barf Hill wood would never be given planning permission for mineral working. This is the only significant constraint to working on the entire site. The company has had the wood surveyed recently and recommendations have been made by the ecologist for further work in due season. As explained, the company was not intending to apply for planning permission on this land yet and also has not yet carried out all of the work necessary to inform an Environmental Assessment. However, there does not yet appear to be any reason to suppose that the wood has anything more than a local ecological interest. The wood is also a local landscape feature which the company would propose to replicate on another part of the site nearby as compensation. The mineral planning authority may also require other compensatory action in addition to this. The company's conclusion is that the wood poses no insuperable impediment to mineral working in the future. In any case, any future planning application will be decided on its merits and in accordance with the development plan. Even should there be found a conflict with the development plan in removing this feature, this would need to be balanced against the need for the mineral and the great weight attaching to its benefits.

65. The applicant has responded to some of these points and these will be addressed later in this Statement.

The Impact of the Mineral Resource at Gransmoor on the Pipeline Route

66. The company has suggested an alternative route for the pipeline which would not involve an unacceptable effect on the mineral operation. This was to locate the pipeline across a largely already constructed causeway within the Park Farm quarry. Following a severe flooding event in 2007 which led to a goit breaking its banks and flooding the workings, the company reconstructed a channel for it and realigned the confluence of the goit with the Barmston drain, which has been in use for almost four years and has successfully solved the flooding problem. The company has offered to widen this causeway (indeed, it is already nearly 50 metres wide and up to full height) to accommodate the pipeline in an area of the quarry which has already been worked and where the pipeline would not conflict with future mineral operations.

67. The company has commissioned a geotechnical study of the causeway (see **Appendix MPA 4 – Geotechnical Study**) and has offered the applicant tests to see if it meets the applicant's requirements or to agree to a legally binding obligation to construct it to whatever specification the applicant desires and to indemnify the causeway against failure for a period of three years after construction.

68. The company believes that this represents a realistic alternative solution. If however, this is deemed not to be acceptable then there are other alternatives including diverting the pipeline to

the north along the realigned Gransmoor Road. The company would be prepared to sacrifice some mineral at this location since it is thinner and would have less impact on the future of the operation, although it would rather not lose any mineral at all.

The objection & Subsequent Responses

69. The following Table contains extracts from the applicant's agent's letter and the MPA / W Clifford Watts observations on aspects touching the Gransmoor/Lissett area which illustrate its case.

Table 2 Fisher German letter & Observations of the MPA & WCW on Site Specific Matters

Quotations from Agent's letter	WCW observations
<p>There are no proven mineral resources along the route, although the proposed route does cross a Mineral Safeguarding Area at Gransmoor and Lissett (ref AOS02 JMLP 2004.) However despite being identified in the 2004 JMLP there does not appear to have been any further investigation through this 10 year period as to whether economically viable extraction could take place within this Area of Search, nor have any proposals been put in front of East Riding of Yorkshire Council for such extraction.</p>	<p>The medium term strategy of the company was to formulate a planning application to extract the mineral in the area between the quarries including Barf Hill to commence operations in 2021. To this end, discussions were held with the land and mineral owners concerned with a view to a planning application being submitted within the next 1 to 2 years. The early application was planned so that there would be sufficient time to divert the road to the north and to build another woodland area of similar nature to Barf Hill in which habitats could be recreated for wild life. Options and leases are in place for the whole of this area.</p> <p>Since the advent of the CCS pipeline, copies of communications as well as discussions have been held with Shirley Ross at ERYC with copies of communications also sent to Andy Wainwright at ERYC.</p> <p>Importantly, all of the above was reported on more than one occasion to the applicant's agents.</p>
<p>British Geological Survey data suggests that large parts of this Area of Search have a superficial geology of boulder clay or sand and gravel with laminated clay. Deposits containing such laminated clay are expensive to process and result in large quantities of waste to be dealt with. It should be noted that there are no operational quarries within this area of search, suggesting that the market does not believe there are economically viable deposits in this area.</p>	<p>There are extraction areas both to the north and south of Barf Hill wood with very consistent geology. The geology of the area between the two quarries is extrapolated to be a continuation of the same deposit which very rich in prime quality sand and gravel.</p> <p>Not only was all this communicated to the applicant's agents, but a visual inspection of the two sites would make this apparent to anyone with some knowledge of geology.</p>
<p>It is noted that the operator of this quarry does not have any detailed site investigation information into the mineral deposit at Barf Hill, no planning application has been submitted for its development, nor has it been promoted as a preferred area to the Mineral Planning Authority.</p>	<p>Planning and further investigation of the deposit has not been a priority due to the anticipated timing of utilising this reserve. In addition, the company has used its long experience of working in this locality and would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>

<p>National Grid has carried out borehole investigation at this point to verify the accuracy of the information shown on BGS records. BGS suggest a narrow, linear alluvium deposit of sand and gravel running south from Barf Hill. Borehole analysis by National Grid suggests that this area is subject to laminated clay deposits within the sand and gravel.</p>	<p>The company has asked for this information, drilling logs and a location plan of the borehole but to date it has not been supplied. The company disputes this interpretation of the Barf Hill deposit.</p>
<p>Due to the narrowness of this deposit the actual volume of material likely to be sterilised is very modest and has been estimated, adopting some high range assumptions, at 41,000 tonnes. Depending on the level of clay contamination the actual loss of sterilised mineral may be significantly less and this calculation assumes that material is sterilised on both sides of the pipeline – given the proximity to Barf Hill Wood this may not be the case. In terms of production throughout the local authority area this volume has a de minimis effect.</p>	<p>A copy of the reserve calculation of National Grid would be required to demonstrate how a figure as low as this has been achieved. Working on the basis of the deposits to the north and south of Barf Hill which stretch over 2 kilometres between them, it is estimated that they have an approximate surface width of 100 metres, base width of 40 metres and depth from surrounding ground level of 17 metres. In addition to this, any rise in ground level above surrounding ground level enhances the recoverable mineral proportionately. Barf Hill stands an additional 6 metres above surrounding ground level.</p> <p>In addition, the company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p>
<p>Furthermore to the extent that a claim for loss can be established and subject to valuation principles, the arrangements for taking rights either voluntarily through the pipeline easement, or via the development consent order process would lead to an entitlement to compensation, which might include Mining Code compensation in any given case, and thus it should not be assumed that minerals are being “lost” to the scheme.</p>	<p>Relying on the Mining Code does not absolve the applicant from following national policy on safeguarding mineral. The objective of national policy is not compensation since this is already well provided for. Rather, it is a sustainability issue of preserving a scarce nationally important resource from needless sterilisation. National Grid will be glad of such scarce resources in constructing its pipeline. The statement made by the agent demonstrates the low priority that the applicant has given to mineral safeguarding.</p>
<p>National Grid submits that in the light of this they have complied with the requirements of para 5.10.9 of EN - 1 as the vast majority of the land which the operator may wish to extract in the future will be unaffected by the proposed development. Crossing points of the pipeline for site machinery will be available subject to the usual pipeline protection measures and the pipeline has been designed to be as close as possible to Barf Hill Wood – a local landscape feature which is subject to local environmental designations and which is unlikely to be permitted for mineral extraction. By following this boundary the volume of material affected is again minimised.</p>	<p>Evidence in this Statement confirms the very real impact that sterilisation via the pipeline will have on the company’s long term business prospects. The company submits that the applicant has completely misunderstood the local geology, under-estimated the impact of its proposals on an important local business and failed to engage seriously in discussions about mitigation. It has demonstrably not complied with para 5.10.9 of EN-1 since it cannot show how it has accommodated the considerable mineral interest in this location ‘as far as possible’.</p> <p>Barf Hill wood is not designated as environmentally important although it is accepted that it is a local landscape feature. The wood is not subject to any national or international designation that the company knows of, and consequently it must be viewed as a local constraint. The company will in due course fully survey the wood and propose appropriate mitigation for the loss of a local landscape and wildlife feature in</p>

	line with Local Plan policy. It is thus not true that it is unlikely to be permitted for mineral extraction.
Discussions have been held with the operator of the quarry at Gransmoor regarding the utilisation of alternative routes across areas that have previously been extracted. However no such routes have been restored at the current time to enable them to be used by the proposed development.	On the contrary, one area had been restored for some 3 years to carry the Nutholmes dyke. This had been inspected regularly by a geotechnical consultant but National Grid appeared to have very little interest in pursuing this option because “they had already drawn up a pipeline corridor”. This restored area has now been extended significantly as can be seen from the latest survey (see Plan 2) and a geotechnical report is appended to this Statement (Appendix MPA 4).
Discussions were held regarding areas of the existing quarry that may be restored in the future but due to a lack of certainty as to the timing of their restoration and the stability of the material involved (and thus the security of the pipeline) no acceptable option was available.	An option of restoring another section to the north of the existing quarry to specifications required by National Grid was suggested. This was ruled out at the time by National Grid because there would not be anything there in time for the submission of the planning application. The fact that a new embankment could have been created to its specifications well within the timescale of the pipeline being constructed was of no interest to its representatives. The suggestion was made that should the company go into liquidation then there was no guarantee that the embankment would be in place.
The prior extraction of the preferred route carries these uncertainties as well as the additional unknown as to when the mineral extraction might be completed. That timescale is also dependent upon a successful planning consent being obtained and the timescales for all of this make such an approach incompatible with the scheme generally.	Once again, National Grid was not prepared to discuss this option based upon the 2 points raised above.
The scheme is a nationally significant infrastructure project, and to route the scheme through the existing quarry would introduce unnecessary and undesirable uncertainty and impediment.	The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation. It has taken a highhanded approach to the issue.
There are no proven reserves of economically viable minerals within the MSA, although with reference to the adjacent deposit identified in para 3 above investigations carried out by National Grid at Barf Hill indicate a modest reserve of up to 41,000 tonnes of sand and gravel contaminated with clay. It is not intended to remove any of this material for use within the scheme.	Demonstration of the sterilised reserve tonnage is required. A new state of the art plc controlled washing plant is operational at the adjacent quarry to process the mineral. Part of the justification for his plant being purchased was on the basis that reserves at Barf Hill would eventually be processed through it.
Prior extraction cannot be carried out due to uncertainties with the obtaining of planning consent for the prior extraction, the timing of its extraction and subsequent restoration and the stability of the restored land and the possible hazard this might present to the pipeline.	If National Grid was not prepared to discuss this with the operator how has this conclusion been reached?
The impact upon known mineral reserves and the MSA was taken into account in the route selection process and the final route has sought to minimize the impact upon these.	The MPA did not assert that mineral <u>reserves</u> had not been taken into account; it asserted that mineral <u>resources</u> had been ignored – a very real and important difference.

<p>There is no evidence of viable reserves within the Areas of Search and despite being designated as such for 10 years there does not appear to be any appetite from operators to promote any of these areas. This may be due to the uncertain geology of the area.</p>	<p>This is a disingenuous half truth since the applicant has already acknowledged that it has had discussions with the operator and heard of its future plans (see Appendix MPA 5 – Correspondence between the applicant & WCW). There is no doubt about resource quality as a visual inspection of the quarry and its surroundings would have demonstrated. The applicant has wilfully ignored the evidence.</p>
<p>It is worth noting that in the Humber Area Local Aggregates Assessment 2013, the average sand and gravel production volume within the region on average over the previous 10 years was 0.99 million tonnes (excluding silica sand sales.) This is despite the sharp downturn during the recession. Prior to that average sales volume were consistently above 1.1 million tonnes per annum.</p> <p>Thus the potential loss of 41,000 tonnes at the site at Gransmoor is equivalent to two weeks supply which will have very limited effect on the mineral supply situation in the area</p>	<p>The comment is meaningless if the calculated tonnage is wrong. The whole site which may now be jeopardised is over 1.5 million tonnes equating to more than 15 years life for the operator. Not only is the pipeline going to sterilise reserves in the mid term strategic plan at Barf Hill, but the next area in the long term strategic plan was at Stonehills Farm to the east which is also in the proposed path of the pipeline, and which is also within the area of search and subject to objections from the landowners.</p>
<p>The remaining reserves at this site will be unaffected by the proposed development and will be available for extraction. As a result it is submitted that National Grid has sought to safeguard mineral resources as far as is possible in line with the requirement in EN-1.</p>	<p>The company would not have gone to the considerable expense of securing mineral lease options, commissioning technical work and opposing the project as it has been submitted if it was not sure that there was mineral in the ground of considerable interest.</p> <p>The applicant has not demonstrated that it has complied with para 5.10.9 & 5.10.22 of EN-1 in safeguarding mineral as far as possible and proposing appropriate mitigation.</p>

Other Impacts on Mineral Areas

70. Representations have also been made by landowners of the Stonehills deposit (see Objections from Claire Jackson, Peter Mawer and Christopher Marshall on behalf of the Glendon Estate IDs: 3, 4 & 5) and also see **Appendix MPA 6 – Stonehills Report and Plan 1**, which confirms the existence of exploitable quantities of mineral. Although this site has already been worked for sand and gravel as shown on **Plan 1**, it is apparent from the report produced for the company that there are significant remaining resources to be exploited in the site. The project land plans (Sheet 24) shows that the pipeline traverses the middle of this area of interest. The company have a long term plan which would go to that area once the Gransmoor deposits are exhausted. It should be clear that although there is no immediate prospect of working these deposits, it would be prudent to keep access to them clear, and reserving the largest deposit possible for working, by having the pipeline avoid the minerals as much as possible. For reasons already argued in this Statement, this has not been demonstrated. The MPA and the company submit that the pipeline route should be diverted to accommodate this clear interest.

Summary of Issue

71. The objectors have established that

- The Gransmoor Deposit is not as the applicant supposes, a thin contaminated deposit of limited value, but is part of a projected esker deposit of sometimes great thickness and exceptional quality sand and gravel.
- There are proven deposits of up to 23 metres in thickness and 1.7 million tonnes to be exploited at Gransmoor.
- W Clifford Watts (the company) has one of the most important sand and gravel operations in the Humber area at Gransmoor which produces typically 12.5% of the output for the East Riding. It is a highly integrated enterprise that employs ultimately 103 people, and added value plants across the East Riding area are dependent on the site for resources.
- The company has made significant investment in the site and in dependent operations on the assumption that its medium term plan to progress through the Barf Hill deposit will be realised.
- The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation to demonstrate the seriousness of its intentions and to supplement its remaining reserves at Turtle Hill.
- The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes of mineral or 40% of the mineral to the south of Barf Hill wood, leaving the company with reserves for only 3 years if the planned extension is permitted.
- Company plans to join the two operations at Gransmoor and Park Farm through the Barf Hill deposit would be compromised to the extent that it would not be viable to divert the road and relocate the wood as planned.
- There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.
- The company has proposed an alternative alignment for the pipeline on a causeway already constructed at Park Farm quarry that can be assured to be suitable for the location of the pipeline. This can be achieved either by demonstration of stability by testing or by a legal agreement to ensure that it is provided to a suitable specification.
- However, if necessary, there are other alternative routes should that not be acceptable to the applicant.

Conclusions and Recommendation

72. National policy supports the conservation of scarce mineral resources, recognises the importance of them to the national economy and requires mineral safeguarding and policies for prior

extraction. It therefore advises that non mineral developers should carry out mineral assessments to prove the existence of mineral in exploitable quantities and quality before applications should be determined. Local polices are in place in the emerging Local Plan Strategy Document which define MSAs and contain development control criteria and the requirement to submit mineral assessments.

73. The applicant has not confirmed that mineral assessments have been carried out to a professional standard along the 40 linear km of MSAs that the pipeline corridor crosses, and therefore the applicant has not demonstrated that it has complied with national planning policy to conserve minerals, or national energy policy to safeguard mineral as far as possible, or that it has put in place appropriate mitigation measures, or that it complies with national or local planning policy in considering seriously, prior extraction of mineral.
74. In respect of Gransmoor the deposit is a valuable proven deposit of up to 23 metres in thickness and over 1.7 million tonnes of recoverable mineral. W Clifford Watts has one of the most important sand and gravel operations in the Humber area with a highly integrated enterprise and added value plants across the East Riding area are dependent on the site for resources. The company has recently submitted a planning application to East Riding County Council for the extraction of 616,000 tonnes of sand and gravel in situ as an extension of its Park Farm operation.
75. The pipeline route as submitted would severely compromise the continued existence of the Gransmoor operation. It would sterilise 250,000 tonnes or 40% of the mineral to the south of Barf Hill wood, and prevent the company from joining the two operations at Gransmoor and Park Farm through the Barf Hill deposit. There is no evidence that the nature conservation and landscape interest in Barf Hill wood is an insuperable impediment to planning permission being granted for mineral working in an area of declining resources for sand and gravel.
76. The company has proposed an alternative alignment for the pipeline on a causeway already constructed that can be assured to be suitable for the location of the pipeline.
77. The objectors therefore ask that the DCO should not be confirmed.