

**DELEGATED**

**AGENDA NO  
PLANNING COMMITTEE**

**DATE 13 AUGUST 2008**

**REPORT OF CORPORATE DIRECTOR,  
DEVELOPMENT AND NEIGHBOURHOOD  
SERVICES**

**07/2126/FUL**

**Norsea Pipelines Limited, Teesside Operations, Seal Sands**

**Application under Section 36 of the Electricity Act 1989 for consent to construct a 800MW combined heat and power plant**

**Expiry Date 11 September 2007**

#### **SUMMARY**

Stockton Borough Council has been consulted as the local planning authority on an application to the Secretary of State for Business Enterprise and Regulatory Reform under Section 36 of the Electricity Act 1989 for deemed consent to construct and operate a natural gas fired combined heat and power plant on the ConocoPhillips site at Seal Sands. The generating plant will provide 800MW of electricity as well as steam for local industry. Any generating station over 50MW falls to the Secretary of State to grant consent though the views of the local planning authority must first be sought and if it objects a public inquiry must be held.

The application is supported by a formal **Environmental Impact Assessment** (EIA) carried out by independent consultants, as well as a Design and Access Statement and other documents.

The proposal is part of a scheme by ConocoPhillips to establish facilities for the importation of liquefied natural gas (LNG) at their Teesside Oil Terminal at Seal Sands near Middlesbrough. These facilities would enable new sources of natural gas to enter the United Kingdom's National Transmission System.

Three related planning applications have also been submitted - Export Gas Pipeline; modifications to Jetty No. 5, LNG Delivery Pipelines and LNG Storage and Regasification Facility; and a Temporary Construction Area. Following the resolution of a number of concerns, primarily relating to the potential impact on the Teesmouth and Cleveland Coast Special Protection Area (SPA) and Ramsar site including the agreement by Natural England to mitigation measures set out the **Appropriate Assessment** under the Habitat Regulations prepared by the Council as the competent authority, these here planning applications have been approved under the delegated procedure.

The principle of the CHP development is acceptable but concerns and objections (the same as raised to the Council over the LNG part of the development) have been submitted direct to the DBERR from RSPB and Teesmouth Bird Club. They are concerned particularly about the impact, both operationally and during construction, on the local bird life within the SPA.

With regard to these issues, this is a matter for the DBERR as the competent authority to prepare another Appropriate Assessment to determine whether the impact on the surrounding SPA has been properly and fully assessed. However, on the related LNG scheme, the Council is satisfied that with agreed mitigation measures including a new wildlife habitat at Greatham Tank Farm, controlled by conditions, that the any adverse impact will be significantly reduced to a level that will not demonstrably harm the surrounding SPA and Ramsar site.

Accordingly and notwithstanding the outstanding concerns raised by the Teesmouth Bird Club which have not been withdrawn, it is considered, DBERR should be informed that Stockton on Tees Borough Council as the Local Planning Authority does not object to the development subject to appropriate planning conditions to ensure the implementation of the agreed mitigation measures to safeguard the surrounding natural environment. In addition appropriate conditions should be imposed to control matters such as full provision of other mitigation measures, facing materials, means of enclosure, piling, plant noise protection etc.

## **RECOMMENDATION**

***It is recommended that the Secretary of State for Trade and Industry be informed that Stockton on Tees Borough Council as the Local Planning Authority has no objection to the development subject to the imposition of appropriate planning controls in respect of the following matters:***

- ***Development to be carried out in full accordance with the mitigation measures specified in the Environmental Statement and the Supplementary Report and appendices to that statement dated March 2008 accompanying the application.***
- ***Development not be operated except in accordance with the full implementation of all the mitigation measures specified in the Environmental Statement and its appendices as amended by the Supplementary Report and appendices to that statement dated March 2008, accompanying the planning application and a programme to monitor the effectiveness of these mitigation measures implemented before development commences***
- ***Conditions are attached in respect of agreement over finishing materials for plant and buildings; means of enclosure; method of piling; plant noise protection measures and surface treatment***

## **BACKGROUND**

### Legal

1. Section 36 of the Electricity Act 1989 states that a generating station above 50 megawatts may not be constructed, extended or operated in England and Wales except in accordance with a consent granted by the Secretary of State for Energy (now Department of Business Enterprise and Regulatory Reform - DBERR). The proposed developer is also required to seek the views of the Local Planning Authority (LPA) sending all the relevant documentation (plans etc) to the LPA at the same time as seeking a grant of deemed approval from the Secretary of State. In addition the following procedures must be complied with:

- If the development requires a formal EIA the applicant is also required to consult Natural England (formerly English Nature) and the Environment Agency.
  - On receipt of its copy of the application the LPA is required to carry out the normal statutory consultations other than those already undertaken by the applicant.
  - Publicity (newspaper advert and site notice) is carried out by the applicant.
2. If LPA objects to the development these views are required to be passed direct to the DBERR and the Secretary of State must hold a public inquiry. Other comments are simply forwarded to the applicant utilising Form B as set out in the relevant regulations who is then required to forward the form onto the DTI.
  3. The Secretary of State cannot grant deemed planning consent unless the LPA has had the opportunity to comment.

### Planning

4. ConocoPhillips is proposing to establish facilities for the importation of liquefied natural gas (LNG) at their Teesside Oil Terminal at Seal Sands near Middlesbrough. These facilities would enable new sources of natural gas to enter the United Kingdom's National Transmission System. In addition, a Combined Heat and Power (CHP) plant is proposed to generate 800 Megawatts of electricity and process steam alongside the LNG Storage Area and Regasification Facility. Whilst the LNG part of the development falls to be determined by the Council under the normal planning procedures, the CHP facility requires government approval in accordance with the procedures outlined above.
5. Therefore in line with these procedures an application for consent to construct the CHP plant under Section 36 of the Electricity Act 1989 was submitted to the Department for Business Enterprise and Regulatory Reform (DBERR) in July 2007(07/2126/FUL) and the Council consulted for its views.
6. At the same time in July 2007, Norse Sea Pipeline Limited submitted three planning applications. These applications were:
  - 07/2120/FUL - full planning application for Export Gas Pipeline;
  - 07/2119/OUT - outline planning application for modifications to Jetty No. 5, LNG Delivery Pipelines and LNG Storage and Regasification Facility; and
  - 07/2118/OUT - outline planning application for Temporary Construction Area.
7. An Environmental Statement (ES), a Non-technical Summary, a Design and Access Statement and a Flood Risk Assessment were also submitted as part of all three planning applications. The ES also covers the CHP proposal. The intention is that the two elements of the Norse Sea project – LNG and CHP will integrate fully with the existing Teesside Oil Terminal operations.
8. Two Hazardous Substances Consents for the LNG Terminal and CHP Plant were also submitted under the Planning (Hazardous Substances) Regulations 1992 in July 2007:
9. During the consultation period, a number of comments on the three planning applications and ES from both statutory and non-statutory bodies were submitted to the Council.
10. In order to address the comments raised by the consultees, particularly those from Natural England, RSPB and Teesmouth Bird Club, ConocoPhillips withdrew the principal planning application for the modifications to Jetty No. 5, LNG Delivery Pipelines and LNG Storage

and Regasification Facility (07/2119/OUT) in October 2007. This allowed time for re-consultation with consultees to take place and enabled additional assessments to be undertaken to address the comments raised.

11. At the same time, an engineering design review of the proposed development was undertaken resulting in a number of project refinements.
12. The proposed modifications to Jetty No. 5, LNG Delivery Pipelines and LNG Storage and Regasification Facility were subsequently re-submitted but as a full application (08/0983/FUL) and additional information submitted to allow the consideration of all three applications to proceed.
13. The additional information also allowed for the planning applications for the Export Gas Pipeline (07/2120/FUL) and Temporary Construction Area (07/2118/OUT) to go forward for determination. These applications have now been approved under the delegated system.
14. Given the location, scale and nature of the proposed development and potential to impact on the Teesmouth and Cleveland Coast Special Protection Area (SPA) and Ramsar site, an **Appropriate Assessment** under the Habitat Regulations of implications of the development for conservation objectives was carried out by the Borough Council as the competent authority. This assessment related to all three planning applications and considers also the proposal for the CHP plant and other approved developments in the area to allow an in-combination assessment of the likely impacts.
15. With the resolution of the planning concerns with the LNG plant and associated works, it is considered an informed view of the related CHP plant, which is a major part of the scheme, can now be made. The matter falls to be determined by Committee as it was submitted under the old system which required applications subject to Environmental Impact Assessment to be referred for a Member decision.

## **SITE AND SURROUNDINGS**

16. The proposed LNG Terminal and CHP Plant will be located on a 37-hectare, L-shaped plot directly to the south and west of the existing Teesside Oil Terminal, on Seal Sands, in an area designated for industrial development.
17. The site is located in a highly industrialised area characterised by extensive and varied industrial features, including large-scale chemical and oil refining works, dockside container terminals, British Energy's Hartlepool Nuclear Power Station, and numerous overhead electricity transmission lines and associated pylons.
18. The nearest residential receptors to the north of the site are Marsh House Farm, which is located approximately 2.8km north-west of the proposed development site and four properties which are located adjacent to the railway line in Marsh House Lane, Greatham. These properties are located approximately 3.3km north-west of the site. The Clarences are located approximately 4km south-west of the site.

## **PROPOSAL**

19. The proposed CHP Plant will be designed to produce electricity and steam from the combustion of a range of fuels, all of which have a low sulphur content. Electricity generated by the CHP Plant will be supplied to the existing National Transmission System via Overhead Power Lines. Electricity generated by the CHP Plant will also be used in the Teesside Oil Terminal and the LNG Terminal.

20. Steam generated by the CHP Plant will be supplied to the LNG Terminal and to the existing Teesside Oil Terminal, which requires a continuous steam supply (replacing existing steam supply sources). and potentially also to third party industrial users.
21. The CHP Plant will comprise the following key components:
- CHP Plant Equipment (comprising two gas turbines, Heat Recovery Steam Generators (HRSGs), and two steam turbines); and,
  - Overhead Power Lines (to connect the CHP Plant to the National Transmission System). (Note: permission for the overhead power lines is not being sought with this application. That will be the subject of a separate application to DBERR under Section 37 of the Electricity Act).
22. The CHP gas turbines will be fuelled by natural gas supplied either directly from the adjacent LNG Terminal or via the National Transmission System depending on the availability of natural gas from the LNG Terminal. An additional source of back-up fuel supply in the form of low sulphur distillate fuel oil (DFO) will also be available on site in the event of any interruption to the natural gas supply.

23. The applicant states:

*A CHP Plant is generally considered to be the most efficient and environmentally friendly form of power generation using fossil fuels. This is particularly so when the plant uses combined cycle gas turbine technology with natural gas or other gaseous fuel. Integration of the Teesside Oil Terminal, LNG Terminal and CHP Plant will provide unique opportunities for synergy, including the reuse of waste heat from the CHP Plant within the LNG Terminal for the vaporisation of LNG. It is envisaged that the CHP Plant will have an overall efficiency of approximately 70% when the overall scheme has been fully implemented.*

## **APPROPRIATE ASSESSMENT**

24. A separate "Appropriate Assessment" needs to be drafted in accordance with the Habitat Regulations 1994 by DBERR as the competent authority determining the CHP scheme.
25. As mentioned above one has already been prepared by this Council in relation to the planning applications that that fell to the Council to determine. That assessment included the in-combination effects of the CHP with the other planning proposals. A copy of the Summary and Conclusions of that assessment is attached as an **Appendix**.
26. It revealed that without mitigation there is the potential for the proposed development to result in adverse effects during construction on bird populations through direct loss of habitat and through disturbance of adjoining areas. Mitigation measures have been proposed that will reduce any impacts so that they are not significant to SPA bird populations. These measures will be implemented through conditions on the planning permissions granted for the proposed development.
27. These mitigation measures include the management of an area of land (> 30ha) at Greatham Tank Farm located to the northwest of the development site. Management of this area of land will compensate for the loss of at least the numbers of breeding pairs of Skylark and Grey Partridge and will provide ideal inland winter-feeding habitat for Curlews. Other feeding waders such as Lapwing and Golden plover will also benefit and the open habitat will be favoured by roosting waders as it reduces predator efficiency. It is proposed to monitor the success of the habitat management area through annual breeding bird surveys and annual botanical surveys.

## THE ENVIRONMENTAL IMPACT ASSESSMENT

28. The EIA covered all the elements of the Norsesea scheme including the CHP scheme. The purpose of the EIA is to ensure that all the potential impacts associated with the site, design, construction, operation and decommissioning during normal and abnormal conditions are identified and assessed. Appropriate mitigation measures are then identified.

29. The assessment studies were:

- Human Environment
- Landscape And Visual Assessment
- Air Quality
- Noise And Vibration
- Transport Assessment
- Archaeology & Cultural Heritage
- Navigation
- Terrestrial Environment
- Hydrodynamic And Sedimentary Regime
- Marine Environment
- Ornithology
- Physical Environment

30. Following the assessment of these issues a number of mitigation measures are proposed. These include:

- An area of grazing land (> 30ha) at Greatham Tank Farm, owned by the applicants, located to the north-west of the development site will be managed as habitat to mitigate for the loss of inland breeding areas for birds.
- Within 300m of the mudflats, hammered piling, the use of pneumatic drills and concrete breaking will be restricted during November to February inclusive.
- Construction of the LNG delivery pipeline will take place during the period mid July (end of breeding season) to end of October. Construction and installation of the pipelines will be scheduled to occur within a single construction season to minimise potential disturbance impacts.
- Suitable methods, including netting and selected construction periods (i.e. between mid July (end of breeding season) and the end of October) will be used to mitigate impact on kittiwakes.
- An earth bank of at least 2m in height will be constructed & maintained around the LNG storage tanks to minimise disturbance, both visual and noise, to Seal Sands Site of Special Scientific Interest.
- In the event that not all 6 LNG tanks are required from the outset, construction will be phased to minimise impact on seals and birds, such that those tanks located furthest to the south and east will be constructed first, with those tanks located closest to the seawall constructed last.
- The footprint of the onshore section of the LNG delivery pipelines will be reduced & the system will be moved further away from the seawall.
- Although not part of this application, it is anticipated that the Overhead Power Lines will be erected outside of the breeding season to minimise disturbance effects on nearby ground nesting/breeding birds. Suitable bird diverters will be fitted by National Grid to their Overhead Power Lines.

31. The impacts predicted to remain after the adoption of mitigation measures, are summarised as follows:

#### Impacts on the Local Community

32. It is predicted that the construction period will have a beneficial impact on the local economy through an influx of workers to the area and the use of local goods and services by the facility.
33. the supply of natural gas to domestic and industrial consumers, and the supply of electricity via the National Grid, will also have a beneficial impact on the national and regional economy.
34. By siting the proposed CHP Plant (and LNG Terminal) in an area where similar structures and features are already a visible recognisable characteristic feature, the resultant significant effects in landscape and visual terms are predicted to be limited and localised.
35. Detailed atmospheric dispersion modelling undertaken for the proposed CHP Plant and LNG Terminal indicates that predicted pollutant concentrations at sensitive receptors will be well within the air quality objectives stipulated for protection of human health as well as vegetation and ecosystems.
36. With the implementation of mitigation measures to minimise potential impacts, a noise assessment has concluded that there will be no significant residual noise or vibration impact associated with the proposed construction works. Noise limits of 30dB at the closest residential receptor have been set for the plant operation. The plant associated with the normal operation of the proposed CHP Plant and LNG Terminal will therefore be engineered to meet these noise limits.
37. A draft Transport Management Plan has been prepared to minimise transport impact during the construction phase of the proposed development. Traffic management measures are anticipated at key junctions and will be agreed with the applicant. During operation of the CHP Plant (and LNG Terminal), staff are expected to operate in shift patterns which will occur outside the peak traffic periods to minimise impact upon the existing road network.

#### Impacts on the Natural Environment

38. With the implementation of the Habitat Management Plan at Greatham Tank Farm, no net loss of breeding birds is expected. Active management of land at Greatham Tank Farm is expected to enhance the area for breeding birds and result in increased breeding success. The levels of disturbance expected and the capacity for waterfowl to fully exploit food sources in a relatively short time means that there is no expected reduction in the carrying capacity of the area as a result of disturbance associated with this development.
39. For each species of SPA interest, no negative impact is expected. The loss of an area of low quality habitat is likely to be more than offset by the management of land at Greatham Tank Farm. This will provide a secure roost area supporting the populations of birds using the SPA.
40. The EIA concludes that providing that the proposed mitigation and monitoring requirements are put in place, the proposed CHP Plant (and LNG Terminal) is not predicted to have an adverse impact on the local and far-field physical, biological or social-economic environment. Overall, any adverse impacts will be balanced against the beneficial effects of the proposed development including the potential effects on the local economy.

## DESIGN AND ACCESS STATEMENT

41. The Design and Access Statement demonstrates that the proposed development has been appropriately designed and is accessible within operational requirements. The proposed new site covers approximately 37 hectares on an 'L' shaped plot to the immediate west and south of the existing Teesside Oil Terminal on Seal Sands with maximum dimensions of approximately 800 m (north-south) and 700 m (west-east).
42. The existing Teesside Oil Terminal on Seal Sands is situated in a highly industrialised area characterised by extensive and varied industrial features, including large-scale chemical and oil refining works, dockside container terminals, the British Energy's Hartlepool Nuclear Power Station, and numerous overhead electricity transmission lines and associated pylons. Such features are highly visible across the predominantly flat, lowland landscape and form a distinctive skyline. The proposal to site the development at this location, in close proximity to the existing industrial features at the Tees Estuary, respects the scale and composition of the local landscape.
43. The layout of the proposed development is such that the individual elements compliment the scale and massing of the buildings and structures existing in close proximity to the site. The proposed development will visually combine with the existing industrial buildings and as such the visual impact of the proposed development will be minimised. The LNG Storage Tanks will be the largest component of the proposed development. The tanks are likely to be self-coloured concrete, with the colour finish likely to have a natural variation due to the aggregates used. The matt finish of the concrete and the muted concrete grey colour tones will assist in integrating the new features into the background of the existing industrial structures.
44. The conceptual design for the proposed LNG Terminal and CHP Plant has been developed through an iterative process incorporating technical, health and safety, and environmental issues. The proposed conceptual design allows for integration of the existing Teesside Oil Terminal and the proposed LNG Terminal and CHP Plant providing unique opportunities for synergy between the three facilities and maximising the potential of the land as an industrial site.

## CONSULTATIONS

45. The following Consultations were made and the comments received are set out below:-

### One North East

*“Providing a clean, secure and stable energy supply is presently a key challenge and a key opportunity for the region’s economy. The efficient use of low carbon energy is the primary policy driver that the Agency is promoting through its plans and programmes to support businesses and other users reduce the impacts of a presently volatile energy market and grasp the economic opportunities it presents.*

*The Agency is currently working alongside regional stakeholders and other RDAs to assist and influence the Government during their Review of National Energy Policy. It is hoped that the current pricing mechanism in support of renewable energy will continue, allowing the North East to continue demonstrating its support for renewable and low carbon technology development and deployment.*

*As well as through investment in the research and development and business development activity of regional organisations such as NaREC, the Centre for Process Innovation and the Universities, this means encouraging the appropriate installation of technologies such as wind turbines, combined heat and power plants etc, to reduce the environmental impact of our region and increase economic benefit across business and society.*

*It is considered that the proposed combined heat and power plant represents an opportunity to demonstrate a more efficient, sustainable, lower carbon and less volatile energy and heat solution, contributing to lower energy costs on an industrial scale.”*

#### Councillors

No comment received

#### Urban Design - Engineers

*“There are no highway or landscape and visual implications for the construction of the Combined Heat and Power plant under section 36 of the Electricity Act 1989”*

#### Environmental Health Unit

No comment received

#### Northumbrian Water Limited

No comment received

#### Northern Gas Networks

*“There are specific building proximity distances fro individual Pipelines dependant on predefined risk levels and the type of equipment. If your proposals include the construction of buildings it is essential you contact [northern gas networks] to verify the actual distances for the apparatus shown*

*NGNs apparatus may be directly affected by these proposals and the information provided has been forwarded to our engineers to make an assessment of the effect and a detailed response will be sent in due course.”*

#### NEDL

Has provided information on mains record and raised no objections.

#### Environment Project Manager

No comment received

#### Development And Regeneration

No objection and would like to demonstrate our support for the project.

#### **PUBLICITY**

46. Publicity has carried out by the applicant which included newspaper advert, site notices, depositing copies of the submission for public viewing in Stockton central Library and Middlesbrough Central library, Hartlepool and Redcar Libraries and Council offices. In addition the Council has also advertised the proposal and notified neighbours.

47. As a result of this publicity a number of representations have been received from the Teemouth Club. The concerns relate to the overall LNG/CHP and the updated comments are set out below:

- For a project of this scale and high capital value, we are very disappointed at the low-key nature of the of the proposed mitigation and enhancement, most of which relate to contractual site practice, the construction of earth bunds and the creation of a wildflower meadow near the Greatham Tank Farm.
- The ES concludes that there will be no adverse impacts on birds, despite being in close proximity to sites with European designations (the Ramsar site is less than 150m away) and destroying habitat occupied by Red List and UK BAP species. We remain to be convinced that the in-combination effects of these developments will not be detrimental to the bird life of the Tees Estuary. We are very concerned about the impact on breeding Red List and UK BAP species, particularly Grey Partridge, Skylark, Linnet, Grasshopper Warbler and Reed Bunting.
- Despite the very high capital value of the project, the proposed mitigation and enhancement are very low key, being confined mainly to contractual site practices, bunds and an off-site wildflower meadow adjacent to the Greatham Tank Farm
- we strongly believe that amalgamating this area with the Environment Agency's proposed managed retreat for the Greatham North Cell would be the most beneficial mitigation. We are aware that discussions have recently taken place between ConocoPhillips, Natural England and Hartlepool Borough Council concerning the proposed off-site mitigation adjacent to the Tank Farm and believe that there is now commitment to a 'managed retreat' solution by ConocoPhillips
- Very little detail is provided on what other mitigation and enhancement will be implemented and the ES merely states that "before the start of construction, mitigation will be examined in detail". This is unsatisfactory.
- We are very concerned that more overhead power lines are proposed (in addition to those included in the Thor project). Contrary to INCA's flight-line research and the ES's assurance that they are "unlikely to have any impact on birds using the area", TBC's records over many years testify that collision with power lines is a relatively frequent occurrence. If the development goes ahead, it should be insisted as a condition of Planning Approval that prominent bird markers are placed on the wires. At present the ES is vague on this: "...it is expected that the National Grid will fit suitable bird diverters to their overhead power line."
- We would be completely opposed to Kittiwake nests being destroyed on Jetty No 5 or netting put up to deter breeding, as this would contravene the Wildlife and Countryside Act. The colony on this jetty is relatively recent, with birds possibly having been displaced from Hartlepool Fish Quay. By way of enhancement, ConocoPhillips should include the provision of additional nesting habitat on their site (and elsewhere off site) through the construction of simple ledge structures. This would constitute meaningful enhancement, which we would support.
- We question the need for a temporary lay-down/storage area so close to the plant. Lay-down areas do not have to be located within or close to a development and we feel that office space and car parking could be provided within the developing site. Whilst we acknowledge that the developers propose to reinstate the lay-down area "after 2-4 years", this does not always happen and such areas may become permanent. Removal of the lay-down area altogether would reduce further the impact on the SPA and should be a condition of Planning, should approval be granted.
- We are concerned about the cumulative impact of yet more dredging in the Tees inter-tidal area, in combination with the Northern Gateway Terminal and TERRC facility. The ES makes reference to the use of "dredged material to beneficial effect within the Tees Estuary, specifically to Curlews and Common Tern" but this is not elaborated upon.

48. The club has however indicated, "we will be prepared to review these once we have seen ConocoPhillips' proposals for the managed retreat enhancement scheme adjacent to Greatham Tank Farm."

49. In addition the Council has been copied in on representations made direct to the DBERR from the Royal Society for the Protection of Birds (RSPB). It initially objected again to the overall scheme but has now stated:

- The Supplementary Report to the ES includes a number of amendments to the proposal and additional mitigation measures to address the likely significant effects of these applications on the Teesmouth & Cleveland Coast Special Protection Area (SPA) and the Seal Sands Site of

*Special Scientific Interest (SSSI). Provided that these alterations and mitigation measures are fully implemented, in close consultation with Natural England and other relevant organisations, the RSPB believes that these applications are unlikely to have adverse effects on the SPA or SSSI.*

- *the Council will need to carry out an Appropriate Assessment ('AA') into the potential effects on the SPA's integrity that could arise from all elements of this proposal, acting alone or in combination. The AA will also need to include an assessment of the cumulative effects of the LNG terminal/CHP plant with other plans and projects that could affect the SPA. Completion of a comprehensive AA addressing these issues will be required before any of the applications listed above can be consented.*
- *The RSPB has developed considerable expertise regarding the requirements of the Habitats Regulations and would welcome the opportunity to comment on the AA.*
- *The mitigation measures set out below should be incorporated into the relevant planning*
  - 1 *A Habitat Management Plan (HMP) for the mitigation land at Greatham Tank Farm should be produced in advance of the proposal commencing. The nature of the capital works, long-term management and associated species-specific monitoring contained within the HMP should be agreed with Natural England and RSPB, and be delivered through a Section 106 agreement.*
  - 2 *Hammered piling, pneumatic drills and concrete breaking within 300 metres of the SPA and SSSI should take place outside the months of November to February inclusive*
  - 3 *Modifications to Jetty No. 5 should be carried out between August to October inclusive, unless alternative measures are agreed in advance with Natural England and RSPB*
  - 4 *LNG pipelines to follow existing route of the crude oil pipelines, as described in Paragraph 2.3.1 and shown in Figure 3.1*
  - 5 *Construction of LNG pipelines to be carried out between mid-July to October inclusive*
  - 6 *Permanent earth bunding to a height of at least 2 metres to be constructed around the LNG storage tank area before construction commences*
  - 7 *Temporary construction compound to be sited within the area marked 'Revised Temporary Construction Compound' in Figure 12.4.*
  - 8 *Deployment of mitigation measures to minimise impacts of the Temporary Construction Compound on the SPA and SSSI as described in 15.8.1. Temporary Construction Area of the Supplementary Report*
  - 9 *Production of a detailed Dredging Plan, to include design of side slope gradients to ensure slope stability and the disposal of dredged material, to be agreed with Natural England*
  - 10 *Dredging works to be carried outside the period two hours either side of low tide during the months of November to February inclusive, to prevent disturbance to wintering waterfowl*
  - 11 *All lighting associated with the construction and operation of the proposal to be directed within the site and away from the SPA/SSSI*
- *In addition, we note the Applicant's commitment to fitting bird diverters on the overhead power lines to minimise the risk of collisions to birds moving between different parts of the SPA. The Council will need to bear this mitigation measure in mind when carrying out its Appropriate Assessment.*
- *The RSPB is now in a position to withdraw its objection to the above proposals. However, the withdrawal of our objection is subject to the following:*

- i) *Completion of a comprehensive AA of the impacts of the LNG facility/CHP plant in its entirety on the integrity of the SPA, including the effects of other plans and projects, and*
- The conditions listed above forming part of the relevant planning consents should the Council be minded to approve these proposals.*

## **PLANNING POLICY**

### National Planning Policy

50. National Planning policies are set out in Planning Policy Guidance Notes (PPG) and the newer Planning Policy Statements (PPS).
51. Relevant to this application are:
- PPS 1 “Delivering Sustainable Development”
  - PPG 4 “Industrial, Commercial Development and Small Firms”
  - PPG 9 “Nature Conservation”
  - PPG 13 “Transport”
  - PPS 23 “Planning and Pollution Control”
  - PPG 24 “Planning and Noise”
  - PPG 25 “Development and Flood Risk”
52. In addition to supplementary planning guidance, the Government Energy White Paper: Meeting the Energy Challenge: A White Paper on Energy, May 2007 is also relevant.
53. Regard also has to be given to the emerging Regional Spatial Strategy the final version of which has just been published..
54. Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that if regard is to be had to the development plan for the purpose of any determination to be made under the Planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise. In this case the relevant Development Plans are the Tees Valley Structure Plan 2004 and the Stockton Borough Local Plan 1997.

### Stockton Borough Local Plan

55. Policy GP1 is the general policy and sets out ten criteria that all development proposals need to be assessed against. These criteria are as follows: -
- i. The external appearance of the development and its relationship with the surrounding area.
  - ii. The effect on the amenities of the occupiers of nearby properties.
  - iii. The provision of satisfactory access and parking arrangements.
  - iv. The contribution of existing trees and landscape features.
  - v. The need for a high standard of landscaping.
  - vi. The desire to reduce opportunities for crime.
  - vii. The intention to make development as accessible as possible to everyone.
  - viii. The quality, character and sensitivity of existing landscapes and buildings.
  - ix. The effect upon wildlife habitats.
  - x. The effect upon public rights of way.

56. Policy IN 5 of the adopted Stockton on Tees Local Plan permits within the Seal Sands area, potentially polluting or hazardous industrial uses provided they do not significantly affect neighbouring uses or discourage the development of adjacent sites.
57. Policies EN 1(a) and EN 1(b) states proposals in or likely to affect a SSSI or European (SPA) or Ramsar site will be subject to a special and rigorous scrutiny and examination to safeguard their integrity. No development will be permitted that has a significant adverse effect unless the benefits outweigh the costs and no other sites are available.

## **MATERIAL PLANNING CONSIDERATIONS**

58. In view of the of the location and nature of the development, planning policy and consultation responses, the main material planning considerations with this development are the principle of development, need for the development, landscape and visual amenity, and the likely impact on the local ecology given its location adjacent to Sites of Special Scientific Interest and the SPA.

### **Principle of Development**

59. The site is allocated in the Local Plan as suitable for potentially polluting or hazardous industrial uses, provided that they do not significantly affect neighbouring uses or discourage the development of adjacent sites, existing residential areas, prestige industrial sites or any site attracting large numbers of people. In light of this policy and given its location, it is therefore considered that in principle, the proposed development would be appropriately located on this site, but subject to the remaining individual environmental considerations, in particular the impact on the SSSI and SPA. These issues are further discussed below.

### **Need for the development**

60. The applicant states:

*“Indigenous natural gas reserves in the UK are diminishing whilst demand for gas and electricity is increasing in domestic and industrial markets. UK gas supplies come from a number of sources. The UK has its own reserves but also has pipelines linking it to the continent and Norway where extensive pipeline network exist. The UK is the final point on the pipeline supply system and any potential interruptions to supply in the long chain upstream of the UK, through market or other forces, can have a direct impact on UK supplies.*

*It is recognised that increasingly the UK will be dependent on gas supplies from abroad and investment into alternative sources of natural gas are intended to ensure the UK has sufficient access to supply for its home market, particularly during the winter peak periods. Great emphasis is now placed by Government and the markets on securing additional natural gas supplies for the UK from diverse sources to supplement existing supplies and maintain security of supply thereby reducing the growing reliance on the continental and Norwegian sources “*

61. The applicant further states:

*“The worldwide market for LNG is also growing as more remote reserves are developed where pipeline access is not feasible and export of liquefied gas by tanker is the practical solution. Therefore, LNG has developed as an easily transported bulk supply of natural gas and receiving countries have responded by developing infrastructure to receive and process LNG.*

*This growth of the LNG market along with the UK’s need for supplement, long term gas supply has led to development of new terminals (Milford Haven), conversion & expansion of existing terminals (Isle of Grain) and new importation techniques (Teesside GasPort) in the UK.*

*The proposed LNG Terminal at Teesside will enlarge the existing LNG entry point capacity to the UK by offering world scale facilities in the North of England. The facility will utilise an existing hydrocarbons terminal with excellent port operations. Additionally the LNG facility at Teesside will enhance and maintain an existing strategic natural gas entry point as North Sea supplies decline.*

*The UK Government has also focussed on using existing sources of natural gas more efficiently, especially in production of electricity. Natural gas is now used in electricity generation due to its low environmental impact from low emission levels when compared with traditional coal fired power stations. A highly efficient combined heat and power (CHP) Plant is proposed beside the LNG Terminal to provide a reliable source of electricity, using natural gas as its primary fuel, and creating large quantities of process steam for use in industry. The CHP Plant will also integrate with the existing Teesside Oil Terminal to enhance overall efficiencies by using its waste heat.*

*As well as meeting the Government's efficiency criteria it could make a significant step towards meeting the Government's target for electricity generated by CHP of 10 gigawatts by 2010. If approved, this provides the opportunity for Teesside to continue to play an important strategic role in providing fuel and power to the North of England and the UK."*

62. It is recognised that over the next 20 years, the UK will need substantial investment in new power stations to replace out dated and high carbon emitting coal power stations with about 1/3 having to close by 2015 as a result of European Union (EU) environmental legislation. Furthermore, approximately 10 gigawatts (GW) of the UK's nuclear power stations will close by 2023 as they come to the end of their lifetimes. The recent Government White Paper "Meeting the Energy Challenge" states the electricity markets we will need investment in new generation capacity of around 30-35 GW over the next two decades to replace power station retirements and meet rising electricity demand as the economy grows. The timeliness of this new investment will be key to ensuring security of electricity supplies.
63. New power stations are therefore required to come on stream in a manner consistent with the expected closure of coal and nuclear power stations to enable the supply of electricity to meet requirements during times of very high demand. The applicant argues that its plant would be a significant new electricity generation source, generating approximately 800 MW of electricity.
64. As One NorthEast notes that providing a clean, secure and stable energy supply is a key challenge and a key opportunity for the regions economy. The government's strategy set out in the Energy White 2003 for creating a low carbon economy recognised the need to update much of the country's energy infrastructure as well as promoting the benefits of combined heating and power and highlighting their efficiency advantages.
65. The development now proposed will help to meet the generation gap and the demand for cleaner and more efficient energy production. It is accepted that there is a clear need in the national interest for alternative sources of energy.

## **Landscape and Visual Impact**

66. The site, albeit close to the River Tees, is within a landscape dominated by existing industrial features, and would not result in the loss of important landscape features. The Landscape Officer raises no objection but it would be prudent to suggest to DBERR that there is control of colour and finish of the proposed development. This would tie it in with conditions attached to the LNG scheme.

## **Nature Conservation**

67. The proposed CHP plant needs to be considered in the context of the overall Norseia project. Natural England (NE) (who will forward their comments on the scheme direct to DBERR), in commenting to the LPA on the related planning applications, is satisfied that the location, scale and nature of the proposed development is unlikely to have a significant effect on interest features. However, this is subject to the mitigation and compensation proposals detailed in the Supplementary Report to the ES being implemented. The mitigation and compensation measures including the implementation off-site works at Greatham Tank Farm (within Hartlepool Borough) have been ensured by planning conditions on these applications.
68. Furthermore, an "Appropriate Assessment" was prepared in accordance with the Habitat Regulations 1994, the scope of which was determined by Natural England. This assessment concluded that without mitigation there is the potential for the proposed development to result in adverse effects during construction on bird populations through direct loss of habitat and through disturbance of adjoining areas. Mitigation measures have been proposed that will reduce any impacts so that they are not significant to SPA bird populations and it is anticipated that these would be implemented through conditions on planning permission granted for the proposed development. As part of this assessment the in-combination effects for other approved development in the area (Able UK's Teesside Environmental Reclamation and Recycling Centre (TERRC) project and the Vopak Biofuels scheme) have been assessed. The effects examined relate to:
- the impact of proposed dredging works,
  - disturbance and collision mortality impacts on the proposed electricity grid connection infrastructure on SPA bird interests;
  - the effects of the other related development proposal laydown area pipelines, CHP plant;
  - noise disturbance during construction;
  - Nitrogen Deposition during construction phase;
69. The assessment concluded that the in-combination impacts will either have no cumulative effect or unlikely to have any significant negative impact.
70. Notwithstanding the above, concerns about the ornithological impact raised by both the RSPB and the Teesmouth Bird Club need to be addressed. However, it is considered these concerns which are set out in some detail above, have largely been met with the additional mitigation measures set out in the Supplementary Report to the ES produced in March 2008. It is noted RSPB has withdrawn its objection and it is understood TBC are also likely to withdraw its objection. Both withdrawals are subject to the implementation of the mitigation measures and the imposition of appropriate conditions.
71. Nevertheless, it is recognised that the development will have an impact on the surrounding SPA and the application needs to fully address those issues and concerns. The EIA goes into some detail with regard to these matters and proposes a series of mitigation measures including the creation and management of a new habitat at Greatham Tank Farm. From the planning standpoint, it is considered adequate safeguards and mitigation measures can be secured by use of appropriate planning conditions. The measures will protect features of ecological importance, the local bird life and provide appropriate mitigation measures, sufficient to satisfy the concerns of NE and other conservation bodies.
72. It will, however, be a matter for the DBERR, as the competent authority and not Stockton on Tees Borough Council, to ensure an Appropriate Assessment under the Habitat Regulations is prepared and be satisfied that the development will not cause unreasonable damage to ecological interests. In this it will be advised by Natural England.

### Other matters

73. Matters such as noise protection, details of building materials, means of enclosure etc are normally controlled by planning conditions and it would be expected that the DBERR in granting any approval to condition the development appropriately.
74. The applicant as required by the Regulations has consulted the Environment Agency separately and it will be responding directly to the DBERR. The Agency will further advise on the need for a separate permit from the EA and that the plant must incorporate Best Available Techniques (BAT) to control emissions and maximise the efficient use of raw materials and energy. It will also advise on Flood risk issues. A flood risk assessment has been submitted with the proposal.

### **CONCLUSION**

75. This application potentially represents a conflict of the needs of industry and the national energy economy against possible damage to areas of national and international ecological interest. However the development is to be sited in an area identified as being suitable for potentially polluting or hazardous industrial uses; there is a clear national need for this facility; it will have no significant visual impact given its location within a landscape dominated by existing similar industrial features; adequate ecological safeguards and mitigation measures can be secured by use of appropriate planning conditions; and any residual concerns can also be controlled by appropriate planning conditions
76. Accordingly, on balance it is considered that the development is acceptable, notwithstanding the concerns raised by the Teesmouth Bird Club. Accordingly the DBERR should be informed that Stockton on Tees Borough Council as the local planning authority does not object to the development subject to appropriate planning conditions to safeguard the surrounding natural environment. In addition appropriate conditions should be imposed to control matters such as full provision of other mitigation measures, facing materials, means of enclosure, piling, plant noise protection etc.

**Corporate Director of Development and Neighbourhood Services  
Contact Officer Mr Peter Whaley Telephone No 01642 526061**

**Financial Implications** – As report

**Environmental Implications** – As report

**Community Safety Implications** – As report

**Background Papers :-.**

PPS 1 “Delivering Sustainable Development”

PPG 4 “Industrial, Commercial Development and Small Firms”

PPG 9 “Nature Conservation”

PPG 13 “Transport”

PPS 23 “Planning and Pollution Control”

PPG 24 “Planning and Noise”

PPG 25 “Development and Flood Risk”

Saved Policies Stockton on Tees Local Plan GP1, IN5, EN1 (a), (b)

**Human Rights Implications** - The provisions of the European Convention of Human Rights 1950 have been taken into account in the preparation of this report

**WARD AND WARD COUNCILLORS**

**Ward**                      **Billingham South**  
**Ward Councillor**      **Councillor Mrs J. O' Donnell**

**Ward**                      **Billingham South**  
**Ward Councillor**      **Councillor M. Smith**

**STOCKTON ON TEES BOROUGH COUNCIL**  
**TEESMOUTH AND CLEVELAND COAST SPECIAL PROTECTION AREA**  
**AND RAMSAR SITE**

**Appropriate Assessment carried out under Regulation 48 of the**  
**Conservation (Natural Habitats, & c.) Regulations 1994**

**Application:** Proposed Teesside LNG Terminal and CHP Plant

**Introduction**

1. Norsesea Pipelines Limited is proposing to establish facilities for the importation of Liquefied Natural Gas (LNG) at its existing Teesside Oil Terminal at Seal Sands near Middlesbrough. In addition, a highly efficient Combined Heat and Power (CHP) Plant that will generate electricity and produce process steam is being considered alongside the proposed LNG Terminal. The site lies adjacent to the Teesmouth and Cleveland Coast Special Protection Area and Ramsar Site (hereafter the SPA).
2. As the 'competent authority' with respect to the *Conservation (Natural Habitats, & c.) Regulations 1994* (hereafter the Regulations), Stockton-on-Tees Borough Council is obliged under Regulation 48 (1) to "make an appropriate assessment of the implications for the site (the SPA) in view of that site's conservation objectives".

**Interest Features**

3. The Teesmouth and Cleveland Coast Special Protection Area includes a range of coastal habitats including sand and mud-flats, rocky shore, saltmarsh, freshwater marsh and sand dunes on and around an estuary that has been considerably modified by human activities. Together these habitats provide feeding and roosting opportunities for important numbers of waterbirds in winter and during passage periods. The site qualifies for Special Protected Area status by supporting populations of European Importance of:
  - Little tern (summer breeding, 37 pairs representing at least 1.5% of the breeding population in Great Britain (four-year mean 1993–1996));
  - Sandwich tern (on passage 2,190 individuals representing at least 5.2% of the population in Great Britain (five-year mean 1991–1995));
  - Ringed plover (on passage 634 individuals representing at least 1.3% of the Europe/Northern Africa - wintering population (five-year mean spring 91–95));
  - Knot (winter, 4,190 individuals representing at least 1.2% of the wintering Northeastern Canada/Greenland/Iceland/Northwestern Europe population (five-year peak mean 1991/2 - 1995/6)); and
  - Redshank (winter, 1,648 individuals representing at least 1.1% of the wintering Eastern Atlantic - wintering population (five-year peak mean 87–91)).

*The site also qualifies for Special Protection Area status by supporting at least 20,000 waterfowl over the winter period.*

**Proposal**

4. The proposed LNG Terminal at Teesside will enlarge the existing LNG entry point capacity to the UK by offering world scale facilities in the North of England. The importation of LNG at Seal Sands will enable natural gas to be pumped into the National Transmission System to supplement existing natural gas supplies to homes and industry. The proposed CHP Plant will provide a reliable source of electricity, using natural gas as its primary fuel, and creating large quantities of process steam for use in the terminals and, potentially, local industry. CHP is generally considered to be the most efficient and environmentally friendly form of power generation using fossil fuels, having low emissions to the atmosphere compared with traditional coal-fired power stations. As well as meeting the Government's efficiency criteria, the proposed CHP Plant could make a significant step towards meeting the Government's target for electricity generated by CHP of 10 gigawatts by 2010.

The proposed LNG Terminal will comprise the following key components:

- Dredging of the existing Seaton Turning Circle and the Phillips Inset Dock;
- Modifications to the existing Jetty No. 5;
- Installation of LNG Delivery Pipelines (comprising three pipelines connecting Jetty No. 5 to the proposed LNG Storage Area);
- Installation of LNG Storage Area (comprising up to six LNG storage tanks, each 50m in height);
- Installation of a Regasification Facility (to vaporise LNG back into natural gas using hot water either supplied from the CHP Plant or produced directly at the Regasification Facility by the combustion of natural gas); and
- Installation of Export Gas Pipeline and Fuel Gas Pipeline (to supply natural gas into the National Transmission System and to fuel the CHP Plant).

The proposed CHP Plant will comprise the following key components:

- Two gas turbines, two Heat Recovery Steam Generators (HRSGs), two steam turbines and two auxiliary boilers; and
- Overhead Power Lines (to connect the CHP Plant to the National Grid). (Note that this does not form part of the current planning applications).

5. The environmental impacts resulting from the proposed development have been assessed as part of an Environmental Impact Assessment, the results of which are reported in an Environmental Statement produced by RSK Environment Limited in July 2007 plus a Supplementary Report (March 2008).

Impact of the Proposal on the SPA Interest Features

6. The scope of this Appropriate Assessment has been determined by Natural England, identifying specific elements with the potential to adversely impact upon the SPA. These are reviewed in turn below with a description of mitigating elements of the proposed development:
  - i. *Disturbance and displacement impacts on SPA bird interests (20,000 waterfowl), both on the adjacent SPA and on the development footprint itself. In particular, impacts on feeding waterbirds within the intertidal areas, and on roosting waterbirds (especially curlews) on terrestrial areas.*

The proposed development adjoins the Teesmouth SPA and will result in the disturbance and displacement of birds within these areas. It is however considered that any significant adverse impacts can be mitigated for such that any residual impacts on SPA qualifying features will not be significant, through employment of the following measures:

- All construction work performed on areas adjoining feeding areas (modification to Jetty 5 and construction of the LNG Delivery Pipelines) will be prohibited during the period November to February inclusive. This will result in disturbance from noise having no significant impact on the carrying capacity of the site and therefore no significant impact on bird populations supported by the SPA site.
  - Where practicable, capital dredging within the Seaton Turning Circle will be avoided during the period November – February inclusive to avoid disturbance to birds supported by the SPA site.
  - Any capital dredging undertaken within the Seaton Turning Circle during the period November – February inclusive will be restricted during the period 2 hours either side of low tide ensuring spatial separation of the dredging noise source and bird populations supported by the SPA site.
  - Hammered piling, pneumatic drilling and concrete breaking will not be carried out within 300m of the SPA boundary between the months of November – February inclusive to avoid disturbance to birds supported by the SPA site.
  - Construction will be limited to 07.00-19.00 hrs. For a large part of the year, this will allow day-time feeding outside of operating hours which would allow birds to exploit all areas for at least some time. Night-time feeding would remain undisturbed and would provide the opportunity for waterfowl to fully exploit resources throughout the feeding areas.
  - An area of land (> 30ha) at Greatham Tank Farm, located to the northwest of the development site, will be managed to encourage Curlews and other SPA species. The site proposed for management is relatively undisturbed and through flooding and the creation of short sward during the winter, ideal conditions for roosting will be provided. In addition, management will include annual treatment with farmyard manure. This will increase the organic content of the soil, thereby encouraging earthworm populations. The managed site at Greatham will provide improved feeding conditions, with secure areas to bathe and reduced risk from predation by foxes.
  - Management of the area of land at Greatham will also compensate for the loss of at least the numbers of breeding pairs of Skylark and Grey Partridge lost as a result of the proposed LNG/CHP development. The short sward in winter will also maximise the value of the site for other feeding waders such as Lapwing and Golden plover.
- ii. *The in-combination hydrodynamic and sedimentary impacts of the dredging activities associated with the proposed development on the intertidal components of the SPA.*

The proposed development will require dredging in the Seaton Turning Circle and within the Phillips Inset Dock.

Dredging within the Seaton Turning Circle for the proposed LNG development is within the footprint of the proposed Northern Gateway Container Terminal dredge and dredging associated with the TERRC proposal. Dredging of the Seaton Turning Circle has already been considered by an Appropriate Assessment undertaken by Hartlepool Borough Council as part of the TERRC planning application. The Appropriate Assessment included assessment of dredging within the Seaton Turning Circle, including the in-combination effects from dredging undertaken for the proposed Northern Gateway Container Terminal and the proposed LNG development. The Appropriate Assessment concluded that the proposed dredging will not create significant impacts to the designated sites (subject to mitigation being enforced through suitable conditions).

A comparison of the plumes predicted for the proposed Phillips Inset Dock dredging and Northern Gateway dredging demonstrates that there is no additional cumulative

effect of deposition of material onto designated areas should the two dredging campaigns be undertaken simultaneously. Similarly, any effect on designated sites from the proposed Phillips Inset Dock dredging and TERRC dredging in-combination will be the same as that arising from the TERRC project alone.

The small increase in suspended solids resulting from the Phillips Inset Dock dredging above that from Northern Gateway alone implies that the in-combination effects for all three projects together are effectively no greater than for the combination of TERRC and Northern Gateway alone.

iii. *The in-combination disturbance and collision mortality impacts on the proposed electricity grid connection infrastructure on SPA bird interests.*

Assessment of data from two Vantage Point Observations (VPO) in the vicinity of the proposed LNG/CHP development was undertaken. The findings of the assessment indicate that:

- The site is regularly over flown by only a limited number of species. This is likely to be, at least in part, due to the presence of existing large structures and power lines screening off 3 sides around the site;
- Of those species observed regularly, Common tern, Sandwich tern and Curlew are all SPA citation species. In view of their habits and flight behaviour these are considered very low risk from collision with power lines; and
- Other species listed as of “assemblage” interest to the SPA were observed, however in such small numbers that the development is very unlikely to have any significant negative impact on the SPA populations.

It is anticipated that National Grid will erect the overhead power line outside of the breeding season to minimise disturbance effects on nearby ground nesting /breeding birds. To improve detectability, it is expected that National Grid will fit suitable bird diverters to their overhead power line.

iv. *The disturbance and displacement impacts in combination with other elements of the Teesside LNG Terminal and CHP Plant, in particular with respect to Planning Application 07/2118/OUT (Outline application for temporary construction area consisting of offices, laydown areas during construction period of 5 years) and the S36 Electricity Act application for the CHP Plant.*

In the absence of any mitigation measures there is some potential for the proposed development to have significant impacts on SPA qualifying features through noise/visual disturbance during construction. It is however considered that such impacts can be mitigated for such that any residual impacts on SPA qualifying features will not be significant, through employment of the following mitigation measures:

Temporary Construction Area

- A buffer strip of land will be maintained along the northern boundary of the Temporary Construction Area;
- Mobile temporary offices (double storey) will be located along the northern boundary of the Temporary Construction Area providing a visual and acoustic barrier;
- Use of the Temporary Construction Area will be limited to temporary car parking and temporary offices together with laydown areas for lighter machinery and storage areas. No heavy fabrication will be undertaken on the Temporary Construction Area. Areas for laydown of heavier machinery will be accommodated within the LNG Storage Area facilitated by phasing of the construction of the LNG storage tanks.

- Noisier activities such as car-parking will be located in the southern portion of the Temporary Construction Area.

### **LNG Storage Area**

- The LNG storage area will incorporate an earth bank of at least 2m in height around the LNG storage tanks. The bank will be retained for the life of the development; and
- Construction of the LNG storage tanks is likely to be phased. Those tanks located furthest to the south and east will be constructed first, with those located closest to the seawall constructed last. In the event that construction of all six tanks is not required, disturbance impacts on birds will therefore be minimised.

### Jetty No. 5

- All construction work performed on areas adjoining feeding areas (including modification to Jetty 5) will be prohibited during the period November to February inclusive. This will result in disturbance from noise having no significant impact on the carrying capacity of the site and therefore no significant impact on bird populations supported by the SPA site.

### *v) Other in-combination impacts*

#### Construction Phase - Noise Disturbance

In terms of potential in-combination effects on SPA bird interests arising from piling and other noisy activities, the Appropriate Assessment undertaken for the proposed Teesside Environmental Reclamation and Recycling Centre (TERRC) project (also known as ABLE Shipyard) concluded that in-combination effects from the proposed LNG and CHP development and the proposed TERRC project will not result in adverse cumulative impact. Mitigation for both projects includes the requirement to avoid any dredging within the period 2 hours either side of low tide during the period November to February so as to minimise disturbance to feeding birds at the SPA site. For the proposed LNG/CHP development, hammered piling, pneumatic drilling and concrete breaking will not be carried out within 300m of the SPA boundary between the months of November – February to avoid disturbance to birds supported by the SPA site. Potential in-combination effects on SPA bird interests arising from piling and other noisy activities, from the proposed VOPAK Biofuels Project have also been considered. The Appropriate Assessment undertaken for the VOPAK Biofuels Project concluded that noise disturbance impacts arising from the Biofuels Project will not be significant with the implementation of mitigation measures. These measures include: the erection of a permanent fence along the eastern side of the proposed plant prior to construction; the use of a Continuous Flight Auger (CFA) piling rig where possible to reduce noise disturbance to SPA bird interest; no piling to take place during the winter period (November to March inclusive) where a driven piling rig is required. Taking the proposed mitigation measures into consideration for the three projects in-combination effects noise disturbance on SPA bird interests are not expected to be significant.

#### Operation Phase - Nitrogen Deposition

Cumulative assessment of potential air quality impacts, including deposition of nitrogen oxides (NO<sub>x</sub>), was undertaken as part of the Supplementary Report to the ES (March 2008). As requested by Natural England, account was taken of nitrogen oxide emissions from the proposed development, together with those from the proposed Thor Cogeneration Project. The findings of the assessment concluded that the process contributed nitrogen deposition rate is predicted to be less than 1.3% of the background deposition rate at the SPA based on the operation of the two projects. This equates to a 0.3% increase in nitrogen deposition rate when both projects at the SPA are operational. No significant

impacts on the SPA are therefore predicted from the in-combination effect of nitrogen deposition.

### **Conclusion**

7. In the absence of mitigation there is the potential for the proposed development to result in adverse effects during construction on bird populations through direct loss of habitat and through disturbance of adjoining areas. Mitigation measures have been proposed that will reduce any impacts so that they are not significant to SPA bird populations and it is anticipated that these would be implemented through conditions on planning permission granted for the proposed development. These mitigation measures include the management of an area of land (> 30ha) at Greatham Tank Farm located to the northwest of the development site. Management of this area of land will compensate for the loss of at least the numbers of breeding pairs of Skylark and Grey Partridge lost as a result of the proposed LNG/CHP development, as well as providing ideal inland winter-feeding habitat for Curlews. The short sward in winter will also maximise the value of the site for other feeding waders such as Lapwing and Golden plover. It will also provide an “open” habitat, favoured by roosting waders as it reduces predator efficiency. It is proposed to monitor the success of the habitat management area through annual breeding bird surveys and annual botanical surveys.
8. With regard to the in-combination hydrodynamic and sedimentary impacts of the dredging activities associated with the proposed development on the intertidal components of the SPA, this assessment demonstrates that there is no additional cumulative effect of deposition of material onto designated areas as a result of the proposed Phillips Inset Dock dredging.
9. With regard to in-combination disturbance and collision mortality impacts on the proposed electricity grid connection infrastructure on SPA bird interests, this assessment demonstrates that the proposed development is very unlikely to have any significant negative impact on SPA bird populations.
10. With regard to in-combination disturbance from piling and noisy activities on SPA bird interests, this assessment demonstrates that the proposed development is very unlikely to have any significant negative impact on SPA bird populations.