



**APPLICATION FOR A DEVELOPMENT
CONSENT ORDER**

YORK POTASH HARBOUR FACILITIES ORDER

LOCAL IMPACT REPORT

REDCAR AND CLEVELAND BOROUGH COUNCIL

LPA Ref: R/2015/0218/DCO

PINS Ref: TR030002

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1.0 Background

1.1 An application for a Development Consent Order (DCO) has been submitted to the Planning Inspectorate for Harbour Facilities at Bran Sands. The application site includes a Mineral Transport System (MTS).

1.2 In accordance with Section 60 of the Planning Act 2008 the Examining Authority has invited the Local Council to submit a Local Impact Report (LIR).

2.0 Associated Applications:

2.1 The Local Planning Authority has dealt with 2 associated planning applications in respect of the project, the details of which are;

- **R/2014/0626 – Wilton International Complex**
Mineral (polyhalite) granulation and storage facility involving the construction of buildings, conveyor systems, substations, water treatment plant, internal access roads, car parking, attenuation ponds, landscaping, restoration and aftercare and construction of a tunnel portal including the landforming of spoil and associated works. This application was approved on 14 August 2015 after the completion of a Section 106 Legal Agreement.
- **R/2104/0627/FF- The York Potash Project**
The winning and working of polyhalite by underground methods including the construction of a minehead at doves nest farm involving access, maintenance and ventilation shafts, the landforming of associated spoil, construction of buildings, access roads, car parking aftercare and associated works. In addition, the construction of an underground tunnel between doves nest farm and land at Wilton that links to the mine below, comprising 1 shaft at doves nest farm, 3 intermediate access shaft sites, each with associated landforming of associated spoil, construction of buildings, access roads and car parking, landscaping, restoration and aftercare, the construction of a tunnel portal at Wilton comprising buildings, landforming of spoil and associated works. The application was approved, subject to a Section 106 Legal Agreement. At the time of the preparation of the LIR the agreement had not been completed and so planning permission for the development had not been issued, although completion was imminent.

2.2 In addition, the North York Moors National Park Authority (NYMNP) has dealt with the main application for the minehead (NYM/2014/0676/MEIA) which was approved subject to a Section 106 Legal Agreement on 30 June 2015. At the time of the completion of this LIR the Agreement had not been signed and the permission had not been issued.

3.0 The York Potash Project

Key Elements

3.1 The Project as a whole comprises the following key elements:-

- (i) A underground mine with surface infrastructure at Dove's Nest Farm and Haxby Plantation, Sneatonthorpe;
- (ii) A Mineral Transport System (MTS) consisting of a 36.5km long tunnel accommodating a series of linked conveyor belts that will transport the mineral from an underground point at the minehead beneath Dove's Nest Farm to Wilton at Teesside, including three intermediate surface sites along the route to provide access for tunnel construction, ongoing maintenance, ventilation and emergency access;
- (iii) A Materials Handling Facility (MHF), comprising a granulation and storage facility at the Wilton International Complex that will receive and process the polyhalite transported via the MTS, preparing it for onward transport to market; and
- (iv) Harbour Facilities at Teesside linked to the MHF by a conveyor system. The Harbour Facilities are an essential component of the project given the overseas nature of the predicted polyhalite export markets.

Other Developments

3.2 Other developments associated with the project include:-

- (i) A Temporary Park & Ride facility to transport construction workers to the mine construction site. This is proposed at land to the south of Stainsacre Lane, directly opposite the existing Whitby Industrial Estate, south east of Whitby. The option to provide a construction village at the site is also provided for; and
- (ii) A Mine Operations Park & Ride facility, west of Whitby. This would involve the creation of additional car parking spaces for mine employees as part of the existing Cross Butts Park & Ride Facility and allow for the provision of a private bus connection directly to the mine at Dove's Nest Farm.

4.0 Proposed Harbour Facilities DCO

Proposed Works

4.1 The proposed works as identified in Schedule 1 of the Draft DCO are:

- **Works No. 1**
Dredging within the River Tees, the creation of a berth pocket and demolition of an existing jetty and associated infrastructure;
- **Works No. 2**
A quay (constructed in two phases) being either (a) of solid construction, comprising a quay wall and reclamation land behind it on the south side of the River Tees or (b) of open construction comprising a suspended deck supported by piles and a revetment on the re-graded slope on the south side of the River Tees along with the erection of three bridge approaches. In addition ship loaders and associated infrastructure; surge bins and transfer towers; extension, modification or replacement of a pipe connecting Works No. 3 and Works No. 1 and a below ground waste water treatment facility;
- **Works No. 3**
Lagoon enhancement works and extension, modification or replacement of a pipe and provision of an additional pipe for flow control between the lagoon and Works No. 2;
- **Works No. 4**
Parallel conveyors on supports to transfer polyhalite from the MHF to the ship loaders and surge bins (situated in Works No 2), including development of transfer stations;
- **Works No. 5**
The development of works in association with Works 1-4 and 5-11 including vehicular and pedestrian access, construction space, access for construction and maintenance, conveyor footings and supports, transfer towers, surface and foul water disposal arrangements, signage, lighting, security and acoustic fencing, CCTV, services and security control;
- **Works Nos. 6A, 7, 8, 10 and 11**
Works in various locations within the DCO boundary identified for temporary material storage and preparation and plant areas, temporary parking, temporary offices, temporary stores and temporary lighting, security fencing and gating;
- **Works No. 6B**
An area for the provision of a sub-station and car parking;

- **Works No. 9**
Works to develop a general service building, parking, ancillary infrastructure, below ground waste water storage tank and a substation; and
- **Works No. 12**
Improvements to the western arm of the A1085 roundabout, including widening the carriageway, construction of a new splitter island and re- construction and resurfacing works.

Development Delivery

4.2 Construction of the harbour facilities will be phased to coincide with the production output from the mine. The initial operations will be capable of accommodating a mineral throughput of up to 6.5 million tonnes per annum (Mtpa) (Phase 1). As the mining operations ramp-up the harbour facilities infrastructure required to receive and transfer the mineral for export will be extended and supplemented to achieve an end throughput of 13 Mtpa (Phase 2).

4.3 The documentation advises of flexibility as to the final development in the following ways:

(i) Dredging – creation of maximum envelopes for each phase within which capital dredging of parts of the River Tees will be required to create both the berth pocket (to a maximum length of 490m, width of 51m and depth of 18.85m OD) and a suitable approach channel (to a depth of 16.95m OD) and any works necessary in the construction of the quay;

(ii) Quay Structure Parameters and Operations – the documentation identifies two options; the open quay structure and the solid quay structure. Maximum built parameters in the draft DCO currently enable the construction of either option.

(ii) Harbour facility buildings and structures – zones of development have been identified within which new temporary and operational buildings, structures and surge bins and transfer towers will be located and constructed. Surge bins will be to a maximum height of 35m and diameter of 7.5m and transfer towers will be to a maximum height of 30m and 7.5m square; and

(iv) Primary Conveyor System – whilst the form of the conveyor (two parallel belt conveyors running in a single elevated conveyor bridge) is identified in the draft DCO, a route corridor has been identified with maximum height parameters, including maximum bridge heights across the A1085 within which the final route of the system and precise location of any transfer stations will eventually be determined. Two possible conveyor route options within the Bran Sands site have been identified to allow for the conveyor to run to the north or south of the sewage treatment works/lagoon areas.

5.0 Site Description

5.1 The site extends from the Wilton International complex north-westwards to Bran Sands on the south bank of the River Tees, an area of approximately 92.44 hectares. The site is located adjacent to the Redcar Bulk Terminal Facility and fronts the River Tees. The site incorporates an area of the River Tees that will be required to be dredged.

5.2 The majority of the area included within the site boundary is undeveloped land and is not in use but is crossed by infrastructure including roads, rail and pipelines. The Bran Sands Lagoon occupies a large area to the west of the site. A number of other water bodies are also present, including Dabholm Gut, a drainage channel on the southern boundary of the site into which the local area drains.

5.3 The NWL Treatment Plant is located directly adjacent to the site (with the conveyor system running to its north or south) the SSI Steel Works is to the north and Teesport to the south.

5.4 Teesport includes 'roll on roll-off' bulk facilities and the Tees Dock Bulk terminal operated by Cleveland Potash for the distribution of potash and salt. To the east is located the residential area of Dormanstown.

5.5 The nearest road access to the site is via the A1085 (trunk road) that runs in a south west / north easterly direction bisecting the application site and separating the Wilton International complex and the Bran Sands site. A railway line that provides a passenger service between Middlesbrough and Saltburn runs from the south-west to the north-east and lies adjacent to the eastern boundary of the Bran Sands element of the site. The nearest passenger station is British Steel Redcar located approximately 400m east of Bran Sands. Currently, the timetable indicates only one train stops in the morning for the service towards Saltburn at 0804 with only one service stopping in the afternoon for the service towards Middlesbrough at 1646 Mondays to Fridays with only one service the 1646 towards Middlesbrough on Saturdays.

5.6 A small section of public footpath enters the Bran Sands site from the south and heads in a north-westerly direction before terminating south of Dabholm Gut. A section of the Teesdale Way enters the application site running in a north-easterly direction parallel to the A1085 in between Wilton International complex and Bran Sands.

5.7 The south eastern end of the application site connects to the planning application site boundary for the MHF (LPA reference R/2014/0626/FFM).

6.0 Consultation

6.1 This Council has responded to each stage of the consultation process and confirms that the pre-application consultation has been undertaken in accordance with the legal requirements of the Planning Act 2008. The Council continues to work with the applicant and their consultants to resolve

outstanding issues.

7.0 Policy

7.1 The following national and local planning policies provide a context for the consideration of the DCO application.

National Planning Policy Framework.

7.2 From 27th March 2013, local planning policies in existing plans (i.e. those adopted before the NPPF) should be given due weight according to their consistency with the NPPF (the closer the policies in the plan to the policies in the Framework the greater the weight that may be given) (para 215).

National Policy Statement for Ports

Redcar and Cleveland Local Development Framework (July 2007)

Core Strategy:

- CS1 Securing a Better Quality of Life
- CS2 Locational Strategy
- CS3 Spatial Strategy for Greater Eston
- CS4 Spatial Strategy for South Tees Employment Area
- CS8 Scale and Location of New Employment Development
- CS9 Protecting Existing Employment Areas
- CS10 Steel, Chemical and Port-related Industries
- CS20 Promoting Good Design
- CS22 Protecting and Enhancing the Borough's Landscape
- CS23 Green Infrastructure
- CS24 Biodiversity and Geological Conservation
- CS25 Built and Historic Environment
- CS26 Managing Travel Demand

Development Policies DPD:

- DP1 Development Limits
- DP2 Location of Development
- DP3 Sustainable Design
- DP4 Developer Contributions
- DP6 Pollution Control
- DP7 Potentially Contaminated and Unstable Land
- DP9 Conservation Areas
- DP10 Listed Buildings
- DP11 Archaeological Sites and Monuments

Minerals and Waste Core Strategy and Development Policies DPDs

- MWC1 Minerals Strategy
- MWC10 Sustainable Transport

- MPWP1 Waste Audits

Other Policy Documents

7.3 Redcar and Cleveland Local Development Framework - Landscape Character Supplementary Planning Document March 2010.

8.0 Principle of Development

8.1 In terms of the principle of development the site the NPS for Ports and policy CS10 supports the continued development of the port.

Sustainability

8.2 The Harbour Facilities proposals inherently support sustainable development through the promotion of transport of goods by a range of transport modes, including by water.

8.3 The application documentation advises that the sustainable credentials of the project are linked to the nature of the product as an organic fertiliser, which on application has significant beneficial effects on plant growth. The carbon footprint of Polyhalite is considerably lower than that of other potassium based fertilisers.

8.4 The project exhibits sustainable credentials and the application, along with the economic advantages of the development, is consistent with wider planning policy objectives that promote sustainable development.

Landscape / Countryside

8.5 Core Strategy Policy CS22 aims to protect and enhance the Borough's landscape. CS22 states that development will not be allowed if this would lead to the loss of features important to the character of the landscape unless the need for the development outweighs the landscape considerations. Where development is justified, proposals will include measures to enhance, restore or create the special features of the landscape.

8.6 It is noted that the LVIA methodology has been developed from:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition Landscape Institute & Institute of Environmental Management and Assessment, 2013;
- Landscape Character Assessment Guidance, Land Use Consultants & University of Sheffield on behalf of the Countryside Agency & Scottish National Heritage, 2002; and
- Guidelines for Environmental Impact Assessment, Institute of Environmental Management and Assessment, 2004.

8.7 In terms of visual impact, views towards the site are relatively limited as they are obstructed by significant existing industrial structures and infrastructure, raised landforms and by screen planting. However, local views

to the conveyor corridor are possible from nearby residential areas at Dormanstown, the A1085, the Redcar to Middlesbrough Railway and from public rights of way. Distant views to the footprint of the proposed port terminal are possible from beaches and dunes across the mouth of the Tees estuary.

8.8 The proposals for the conveyor set out within the Options Study Report, (Conveying of Polyhalite from Wilton to Bran Sands, March 2015). This study examines the options considered, which include a conveyor in a tunnel, at grade or at an elevated level.

8.9 The area where the conveyor would be at grade or elevated is situated within the National Landscape Character Area 23 (Tees Lowlands)

8.10 Key characteristics of this area include:

- A broad, low-lying and open plain with low woodland cover and large fields, defined by wide views to distant hills;
- A large area of urban and industrial development around the Tees Estuary much of which is on reclaimed land;
- Major industrial installations around Teesmouth form a dramatic skyline but are juxtaposed with expansive mudflats, sand dunes and salt marshes which are nationally and internationally designated for their assemblage of waterfowl;
- Principal transport corridors, power lines and energy infrastructure are conspicuous elements in the landscape. Industrial development fringing the tidal reaches of the River Tees contrasts with the surrounding rural landscape; and
- Green corridors such as minor valleys and former railway lines provide links between urban areas and the surrounding countryside.

8.11 Within the York Potash Harbour Facilities Order Environmental Statement, the Landscape and Visual Impact Assessment (LVIA) details likely significant effects on the landscape character and visual amenity of the area at the point in the project where it is proposed the conveyor crosses the A1085 via a bridge structure.

8.12 As identified in the LVIA / ES, the most significant effects of the conveyor system are likely to concern impacts to the visual amenity of receptors within close proximity to the structures (Policy CS22, Protecting and Enhancing the Borough's Landscape) these include:

- Residents to the west of Dormanstown;
- Users of a number of bridleways, footpaths and the Teesdale Way long distance route that come within the DCO Order limits boundary;
- Users of the A1085 combined cycle / footway;
- Drivers on the A1085; and
- Passengers on the Middlesbrough to Redcar Railway line.

8.13 Along the A1085, many of the pathways and the rail corridor detailed above are affected by strong landscape buffers, comprising tree cover, shrubs

and grassland, which give a *green character* to these corridors. Therefore, any new structure / conveyor would be a dominating and contrasting visual element visible against the skyline, giving rise to detrimental effects on the above receptors.

8.14 A Green Wedge is situated to the east and north of the development area (Policy CS23, Green Infrastructure) that is between the Wilton Works and Redcar extending to the coast. There is also a Conservation Area to the east of the development area. Any at grade or elevated structures proposed are likely to have an impact upon the Green Wedge and the Conservation Area as the conveyor would increase the perception of the industrial influence. These features do not appear to have been assessed in the LVIA.

8.15 Any proposed at grade or elevated structure would introduce a new visually prominent industrial element to the local area, which is likely to give rise to landscape and visual effects.

8.16 As identified above, there will be a visual impact associated with the proposed at grade crossing. However, if it is satisfactorily demonstrated a tunnelling option is not possible for the crossing of the A1085 by the conveyor and that a bridging option is the only practical option, then the preferred design solution should be a gateway feature of design merit to add to the cultural / urban form interest to the area. Such a design may then be perceived as a beneficial effect in landscape and visual terms, although it would still be a prominent and visually dominating structure within the local landscape (Policy CS20 Promoting Good Design).

8.17 It is also important to note that as set out in Redcar and Cleveland Borough Council's Response to Examining Authority's First Round of Questions that there is questions surrounding the delivery of proposed mitigation in relation to visual and landscape effects. In particular, the Authority questions whether or not there is a reliance on mitigation measures that would be located on land outside the control of the Authority. If they are located on land outside of the control of the Applicant, then can these mitigation measures be considered to reduce/offset any associated impacts?

Heritage

8.18 LDF policies which protect the historic environment include CS25, DP9, DP10 and DP11. Consideration of the potential impact of proposals on nearby conservation areas such as Kirkleatham should be considered.

8.19 The Kirkleatham Conservation Area lies to the south east of the site and several Grade II listed heritage assets also lie to the northeast, east and south-east of the proposed development. The baseline archaeological information provided by the applicant is extensive and the methodology used to assess the relevant heritage assets and any impacts on significance is considered.

8.20 There is a very low risk of harm or loss of local heritage features either above or below ground with the exception of a Dolphin Mooring Bollard

located within the proposed berth pocket for the scheme. Details of this will be recorded prior to its demolition. An archaeological watching brief will be in place during the construction period to assist in the event that any further features are identified.

Archaeological Assessment

8.21 The Environmental Assessment (EA) demonstrates that no designated heritage assets are directly affected by the proposal.

8.22 The settings of the conservation areas and buildings within them, at Coatham and Kirkleatham, are considered to be unaffected. The overhead conveyor corridor will be visible from a small number of designated assets but the assessment concludes that these views would be distant glimpses only, obstructed by intervening built form and vegetation and will also include the 'expansive modern industrial facilities' at Wilton, Teesside and other steel and chemical plants around the Tees. Even in the case of the overhead conveyor there is predicted to be no material alteration to the settings of designated assets and therefore no resultant harm to the assets' significance.

(i) The main non-designated assets potentially experiencing direct effects are a putative deserted medieval settlement located in the northern most part of the Wilton Works (West Coatham), possible prehistoric deposits in peat and other land surfaces in the harbour area and wrecks and other submarine features in the Tees Estuary.

(ii) The locations of wrecks are not accurately plotted in the various heritage databases. Likewise, possible significance of the disturbance of marine sediments is impossible to assess with accuracy. As such, no site-focussed mitigation is proposed for the disturbance of non-designated assets that may be disturbed in the submarine environment, instead a reporting protocol is proposed.

(iii) Cotswold Archaeology has investigated the area of putative medieval settlement by walk over survey. The farmstead locations recorded for the area on the first edition of the Ordnance Survey map (mid nineteenth century) are reported as either now built over, or already disturbed, producing nothing more than deposits of bottles and other debris dating to the last hundred years.

(iv) Geo-archaeological assessment of vibrocore and borehole data, undertaken by Cotswold Archaeology in 2014, identified potential for in situ prehistoric archaeological material associated with mid Holocene (broadly late Mesolithic to early Iron Age) seasonal use of the estuary / marshland, associated with 'Unit 2', BHP3 and BHP6 (Estuarine alluvium and peat). It is likely that Unit 2 dates to the mid Holocene, representing a period of marine regression. These deposits are potentially of archaeological interest. Analysis could potentially allow the deposits to be compared with the mid Holocene

deposits that are recorded elsewhere on the coast and in the Tees Estuary. There are, however, no surviving samples obtained from Unit 2 suitable for further analysis i.e. by radiocarbon dating or pollen analysis.

8.23 The assessment indicates however, that peat deposits within Unit 2 are infrequent and slight and that further borehole survey is unlikely to locate additional deposits for sampling. As a result no further work has currently been recommended, as agreed in consultation with Historic England.

8.24 Suggested mitigation measures are as follows:

(i) Impact on the recorded location of a deserted medieval settlement at West Coatham (watching brief)

(ii) Removal of a Dolphin Mooring Bollard located within the proposed berth pocket (historic building recording of the structure prior to its demolition)

(iii) Impact on potential geo-archaeological or palaeoenvironmental remains indicative of former land surfaces (identification and reporting of any peat deposits should be part of the archaeological 'finds' reporting protocol)

(iv) Potential for the presence of remains associated with shipwrecks within the Tees Estuary (implementation of an archaeological finds reporting protocol, to be formalised within a written scheme of investigation for dredging and other marine related construction activity)

Economy

8.25 Core Strategy Policy CS10 supports development for port-related activity. Mineral development plan policy MWC1 aims to deliver the sustainable use of minerals resources by safeguarding the necessary infrastructure to enable the sustainable transport of minerals, in particular the use of the existing rail and port facilities in the Tees Valley.

8.26 The construction phase and the erection of the temporary winding shafts may have a negative impact on local visitor numbers and tourism within the Borough. It is proposed to mitigate this through a programme of marketing, communication and information dissemination highlighting the temporary nature of the disruption to potential visitors which will be funded via a S106 agreement.

8.27 The construction phase is likely to bring significant numbers of contractors / employees to the Borough from outside who will require accommodation and related hospitality services. This will have a positive impact on local accommodation providers and businesses engaged in the hospitality sector.

8.28 The development may place pressure on the engineering and mining skills pool within the Borough which could impact local engineering businesses and, in particular, Cleveland Potash (ICL Fertilizers) an existing

local potash mining company. It is noted that the lead in time for the construction of the mine and associated development is considerable and gives ample opportunity for the skills base to be developed to support both mining operations. The developer proposes to mitigate this through a programme of skills development delivered in conjunction with a wide range of partners. This will reduce the long term effect of pressure on existing local businesses. Training and employment initiatives are also proposed to be funded via a S106 Agreement.

8.29 The project, if approved, has the potential to attract significant new investment to the Borough in the form of supply chain firms seeking to set up operating facilities near the mine, materials handling facility and harbour facilities. There is a surplus of vacant land available for development in a number of locations close to the key elements of this project including on Wilton International, Kirkleatham Business Park and wharf sites near the port. It is accepted this project will have a positive impact on the attraction of inward investors and employment land take-up in the Borough.

8.30 The wider project has the potential to deliver significant economic benefits for Redcar and Cleveland residents and businesses by creating long term sustainable employment, training and supply chain employment opportunities. The development of the Harbour Facility in Tees Dock is, by comparison, a small but essential element of the York Potash Project.

8.31 The construction phase of the harbour facilities will engage an average of 122 employees with a peak of 175 employees. York Potash Limited are committed to maximising the number of Tees Valley companies that are able to access and succeed in tendering for opportunities in the construction phase and the partnership working already evidenced by YPL provides with confidence that a good proportion of the construction team will be drawn from the local employment market.

8.32 The investment in construction for Phase 1 of the facilities is substantial (£74m) and, through the supply chain, a further 413 indirect jobs are estimated to be supported in the sub-region.

8.33 The direct and indirect jobs created by the construction phase are a welcome addition to the labour demand in Redcar & Cleveland where unemployment is well above the regional and national averages.

8.34 Once operational, the workforce at the harbour facility will initially amount to 26 employees rising to 34 employees as production ramps up. Evidence has been provided by YPL stating that although the workforce will need relevant experience this would not need to be in the polyhalite industry.

8.35 The wider project offers employment opportunities from entry level jobs, including general labouring, through to mine operators, tradespeople and management posts. YPL is committed to ensuring that 80% of direct employment, including 50% of direct construction positions, are available to local employees, that is those resident within Scarborough and Redcar and Cleveland Local Authority areas. Redcar and Cleveland Borough has high

levels of unemployment in some of its communities including those adjacent to the proposed site and, in particular, the 18 to 24 age group in East Cleveland, Dormanstown and Greater Eston. These are communities and population groups the Council will target for training and development opportunities and job vacancies, if approval for the projects is granted.

8.36 It is noted that York Potash has also made a commitment to train and develop staff to allow progression from entry level to higher level positions.

8.37 York Potash has set up a foundation to support community interest projects. These range from bursaries, scholarships and skills training for local people to improving public spaces and facilities, environmental initiatives and community building projects. The developer will contribute an annual royalty of 0.5% of revenue from the project to the Foundation. Based on current estimates the annual payment could be £2 million at Phase 1 production and up to £6 million at full production. An initial start-up fund of £2 million will be contributed by the Company on the formal commencement of construction. Such investment would bring substantial beneficial change to local communities.

8.38 It is anticipated that from an economic development perspective, the harbour facilities element of the wider York Potash project will bring benefit to the Borough, its residents and businesses.

Ecology

8.39 Policy MWC1 from the Minerals and Waste Core Strategy DPD notes that development in this area should ensure that there will be no adverse effects on the integrity of the Teesmouth (Special Protection Area) SPA and Ramsar site.

8.40 The DCO application has been supported by a detailed Environmental Statement and a Habitat Regulations Assessment (Document No: 6.3).

8.41 The nearest European Site to the harbour facilities is the Teesmouth and Cleveland Coast SPA that includes both marine and terrestrial habitats. The site is also in proximity to the Teesmouth and Cleveland Coast Ramsar Site comprising a range of habitats (sand and mudflats, rocky shore, Saltmarsh, freshwater marsh and sand dunes).

8.42 The Habitat Regulations Assessment includes survey data that Natural England has advised is required to enable an Appropriate Assessment to be undertaken. The documentation predicts that the proposed Harbour Facilities, subject to the proposed measures to mitigate the impact of construction noise and visual disturbance together with habitat enhancement works that are proposed in the Bran Sands Lagoon, would not affect the structure and function of the SPA or Ramsar site.

8.43 Internal consultees have raised no objections to the structure, content or conclusions of the Environmental Statement in relation to ecology HRA.

Transport

8.44 Policy MWC10 states that proposals for minerals development should prioritise the use of non-road based transport.

8.45 The Council as Highway Authority has been engaged in detailed discussions with the applicant's consultants over many months to assess the impact of the proposals on the highway network and in particular the impacts of the conveyor system.

8.46 The development would result in increases in traffic and associated increases in noise levels on the local road network as a result of the construction works, with the traffic predominantly comprising workforce movements and HGVs transporting materials to site. A transport strategy, including proposals for highway improvements, has been developed to manage these traffic impacts. Measures include:

- Clearly defined delivery routes for HGV deliveries utilising the 'A' road network for all trips (save the direct access to the Mine which utilises the B1416)
- Stockpiling provision to manage the daily and hourly flows of HGVs on the network;
- Park & Ride (P&R) facilities at Whitby for mine construction personnel and/or direct bus/minibus transport to site;
- Park & Ride facilities at Whitby Cross Butts for mine operational personnel;
- Restricted parking at the mine, MTS intermediate shaft sites, MHF and harbour for both construction and operation personnel;
- A car sharing policy for direct trips to the MTS sites, MHF and harbour during construction and a car sharing policy for direct trips to the mine during operations.
- A landscape strategy to retain the majority of mine arisings on the development site;
- A landscape strategy to retain MTS arisings at shaft site locations; and
- Restricted parking at the mine, MTS intermediate shaft sites, MHF and harbour for both construction and operation personnel;

8.47 With the proposed package of mitigation in place, the residual impacts in relation to traffic and transport during the construction and operational phases are forecast to be of *minor adverse significance* at worst. Through the implementation of the transport strategy alongside a package of mitigation the impacts across the highway network would be restricted to an acceptable level.

Ongoing Highway Issues

8.48 The final option for the conveyor system, which will form the basis of highway technical and construction details, is still to be agreed. The proposals for the conveyor are within the Options Study Report, Conveying of Polyhalite from Wilton to Bran Sands, March 2015. This Study looked at the options which included a conveyor in a tunnel, and an at grade or at an elevated level crossing via a bridge structure.

8.49 The constraints encountered by an at grade level conveyor are explored and discussed in the study. These constraints as described are numerous, onerous and are explored in some depth. The conclusion that a conveyor at ground level cannot be reasonably achieved is considered to be rationally argued.

8.50 Appendix 2 of the study looks at some of the techniques that could be adopted for a tunnelling scheme. There is, however, no exploration of the benefits that a tunnelled option could bring in avoiding the constraints encountered by the at grade solution, nor in reducing the visual intrusion of a bridge structure. The study of the constraints and challenges of a tunnelled option is considered to lack rigour and, therefore, not a full and proper evaluation. It is reasonable to expect the study to have fully evaluated the available information and looked more deeply into the issues and benefits around the various options of such a tunnelled scheme.

8.51 Having set aside the options of an, at grade and tunnelled solution, the main body of the report focusses on consideration and justification of a scheme comprising an elevated conveyor. The Options Report could be argued to have prematurely dismissed a tunnelled option for the conveyor and this is reinforced by the statements in the York Potash Harbour Facilities Consultation Report, September 2014. This earlier document includes definitive statements that the scheme will include an elevated conveyor bridging over the A1085 and makes no reference to any consideration of other options previously or at any stage in the future.

8.52 As identified in the Outline of Representation, the Authority is concerned that the implications of such a conveyor crossing in terms of impact protection and the impact of failure of the structure, however low risk, on the main road network, has not been fully assessed.

Drainage and Flood Risk

8.53 The Tees estuary contains both formal and informal flood defences which contribute to minimising the risk of flooding to adjacent developments. The Environment Agency's Tees Tidal Flood Risk A Management Strategy has identified the requirement to raise existing flood defences within the estuary, upstream to the Tees Barrage.

8.54 The footprint of the proposed port terminal is within Flood Zone 3. It is accepted that it comprises 'water-compatible' development and would be

constructed in a high flood risk area.

8.55 The harbour facilities overall fall within Flood Zones 1, 2 and 3. The key flood risks to the site are from tidal sources, particularly in the southern and western areas. The other major flood risk is from pluvial (rain related) flooding. While the conveyor route is in Flood Zones 1, 2 and 3, the proposal is that it would be elevated to a minimum invert level of +5.25m AOD and would not be at risk of flooding.

8.56 It is noted that hydrodynamic modelling has shown that the open quay structure is predicted to fully transmit wave energy through to the shore protection behind the quay. A highly localised strip of increased wave height is predicted adjacent to this structure due to the dredging required for the scheme. The solid quay structure has higher deflection properties than the existing shoreline. The effect of it in deflecting wave energy towards the north would result in localised increases in significant wave height. However, based on the predicted increases, an impact of negligible significance is predicted with regard to increased flood risk due to these alternations.

8.57 No objections have been raised by internal consultees to the proposal on the grounds of drainage and flooding.

Environmental Protection

Nuisance

8.58 Policy DP2 is relevant when considering the impact of proposals on surrounding areas, including residential amenity.

8.59 The Council's Environmental Protection Team has considered the application in terms of noise and vibration, particularly from the construction and operation of the Harbour Facility development upon existing residential properties. The applicant has produced a noise and vibration survey as part of the Environmental Statement. This has been considered and the methodology used has been found to be acceptable. It has been identified that during the construction phase, specifically piling operations, there is the potential for impact to residential properties within the Dormanstown area. Mitigation measures have been suggested to reduce the impact to a negligible level. The mitigation may be achieved via the requirements incorporated in the DCO. Environmental Protection officers advise that noise levels from the construction of the proposed development shall not exceed Category A threshold values based on the methodology outlined in BS5228: 2009 at Marsh House Farm, Foxrush Farm and residential properties on the junction of Broadway West and Wilton Avenue. BS5228: 2009 Category A threshold values are as follows: Night time (23.00 to 07.00) LAeq 45dB; Daytime (07.00 to 19.00) and Saturdays (07.00 to 13.00) LAeq 55dB; Evening (19.00 to 23.00) and weekends (13.00 to 23.00 Saturdays and 07.00 to 23.00 Sundays) LAeq 65dB.

8.60 The Environmental Protection Team would also require clarification on what monitoring for noise and vibration will be carried out during operational

and construction works to ensure that actual noise levels comply with predicted noise calculations. The Environmental Protection Team should also be notified of any instances of non-compliance, or of complaints from local residents, as soon as possible.

8.61 As part of any construction works there is the potential for smoke to become a nuisance to surrounding premises if construction contractors burn waste on-site. YPL has developed an outline Construction Environmental management Plan (CEMP) which if implemented would be effective in controlling any potential smoke emissions.

8.62 As part of any construction works there is the potential for dust to become a nuisance to surrounding premises if construction contractors do not have adequate controls in place during dusty construction operations. YPL has developed an outline CEMP which if implemented would be effective in controlling any potential dust emissions.

8.63 Consideration has been given by the Environmental Protection team to odour and there are no comments to make regarding this issue.

Contamination

8.64 With regard to contamination a pre-application meeting on 20 May 2015 between RCBC (Environmental Protection) and Royal HaskoningDHV discussed previous investigations and studies carried out for the proposed development area and agreed that the site in general is of low sensitivity (commercial end use) and also agreed the proposed approach for reviewing and corroborating the existing data from previous studies and, if deemed necessary, carrying out a further risk assessment / intrusive investigation.

8.65 Section 6 of the Environmental Statement relates to contaminated land. Section 6 provides details of a further investigation carried out in July/August 2014 and a subsequent further site characterisation and risk assessment. Conclusions of the site characterisation and risk assessment pertaining to this further investigation are as follows:-

Risk to Human Health

8.66 Asbestos was detected in the made ground and is considered to represent a high risk to construction workers and any operatives undertaking works that would result in made ground disturbance. However, risks associated with asbestos can be mitigated through appropriate working practices and personal protective equipment.

Risk Associated with Ground Gas

8.67 Ground gas monitoring is undertaken as required by the Environmental Permit for the Bran Sands Landfill. Significantly elevated gas concentrations have been recorded adjacent to the landfill; although a monitoring well adjacent to the proposed quay did not exhibit elevated ground gas concentrations. However, the monitoring data does not present gas flows or a

gas risk assessment.

Risk to Controlled Waters

8.68 Based on the data presented it would appear that although potential COC are present in the made ground, they are not leachable at concentrations that would represent an unacceptable risk to controlled waters. A limited number of potential COCs have been recorded in the shallow groundwater at concentrations exceeding the Water Quality Standards (WQS), however, it is considered likely that the concentrations are indicative of the background concentrations in the area and would not represent an unacceptable risk to the surface waters.

8.69 Whilst piling will be undertaken at the site as part of the works which could create preferential pathways to the bedrock aquifer the risk of this would be managed through the use of appropriate techniques determined by a piling risk assessment

8.70 In the light of the information available an asbestos management plan for the proposed works should be developed and implemented. The asbestos management plan should set out the procedures to be adopted to mitigate potential risks to human health e.g. further sampling, measures to prevent fibre generation, monitoring requirements, disposal options etc.

8.71 The CDM hazard log/ Safety File for the site should be informed and updated. A piling risk assessment should be carried out to ensure potential risks to controlled waters as a result of the piling activities are mitigated.

8.72 A Materials Management Plan is also required in accordance with the Waste Regulations to ensure soils are assessed, re-used or disposed of correctly and in agreement with the waste hierarchy.

8.73 Monitoring of the ground gas regime is required to establish gas flow rates and to inform mitigation measures.

8.74 It should be noted that shallow groundwater at the site is impacted by a range of determinants at concentrations that exceed their respective WQS. It is likely that de-watering of the excavations will be required to facilitate construction of the proposed Harbour Facility. Abstracted groundwater will need to be stored on-site tested and disposed of appropriately. Liaison with the Environment Agency or the local water utility company will be required to establish an appropriate disposal location and methodology. It should be noted that any abstracted groundwater may require pretreatment prior to discharge.

8.75 An outline Construction Environmental Management Plan (CEMP) to act as a management framework to reduce environmental risk and meet the environmental requirements, commitments and performance targets associated with the construction phase of the development is proposed. To ensure that the ground gas regime is fully characterised and that asbestos identified is managed in the proper manner it is recommended that the full

contaminated land condition is applied and that the outline Construction Environmental Management Plan (CEMP) shall be further detailed and submitted to the Planning Authority and agreed prior to any on-site development which outlines methods of working to be implemented to avoid any impact upon nearby sensitive receptors during construction phase activities.

Conclusion

9.1 The development proposals would have a variety of impacts, not all of which are adverse and significant but for those that are, the EIA process has identified mitigation measures to avoid such impacts where possible. There remains a continuing concern with regard to the conveyor bridge, including an issue surrounding the integrity of the structure and negotiations with York Potash and their consultants are ongoing. The EIA has also identified positive benefits such as the economic benefits including long- term job creation and biodiversity enhancements.