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Our Ref: RDH/918/19

Ms. C Griffiths
Development Services Manager
Redcar and Cleveland Borough Council
Redcar and Cleveland House
Kirkleatham Street
Redcar
TS10 1RT

20th May 2019

By Post & E-mail

Dear Ms. Griffiths

Re: Request for Scoping Opinion
Town and Country Planning (Environmental Impact Assessment) Regulations 2017
Proposed Port based development for the Offshore Marine Energy Sector (offshore wind turbines)
Land at South Bank, South Tees Area, Redcar

I write further to our meeting of 20th February regarding the above attended by yourself, your colleague, David Pedlow, myself and my colleague, Steve Barker. As you are aware, Prism Planning has been engaged to prepare a planning application submission in respect of land at South Bank, South Tees Area, Redcar for a development to support the assembly, installation and servicing of the offshore wind power sector.

It was agreed and confirmed during the meeting that the proposed development is classed as Schedule 1 development under the Environmental Impact Assessment (EIA) Regulations, by reason of the size of vessels which will access the proposed new quayside. As such the proposals requires assessment in accordance with the Regulations. Screening of the proposed development is not required, and the purpose of this letter and accompanying documentation is to seek the Local Planning Authority's Scoping Opinion as to the required content and level of detail of information to be provided in the supporting Environmental Statement.

The Site

The application site forms part of the former Redcar Steelworks site and extends to an area of approximately 72 hectares. The site is centred on Ordnance Survey National Grid Reference 453550(E), 521975(N). The boundaries of the site are broadly as follows: the River Tees forms the northern (north western) boundary; the former Steelworks coke ovens forms the southern boundary with the Darlington to Saltburn railway line beyond; Smith's Dock Road broadly forms the western boundary; and, the Teesport area and SSI Tip, Impetus Tip and the South Lackenby Environmental Management Site (SLEMS) forms the eastern boundary.

The opposite bank of the River Tees is dominated by industrial development. However, there is an area of mudflat within the river channel; this is exposed at high tide and attracts some feeding birds, it is part of the Tees and Hartlepool Foreshore and Wetlands SSSI, which forms part of the Teesmouth and Cleveland Coast SPA and Ramsar Site.

Figure 1. Proposed applications site.

The application site is also identified on the attached location plan, with operational areas denoted.

The Proposed Development

The broad aim of the development is to serve the renewable offshore marine energy sector, which is making a substantial contribution to a new secure, low carbon and balanced energy mix for the UK. The sector is currently dominated by offshore wind turbines, which comprise a number of component parts manufactured at different locations by different suppliers. These individual parts need to be brought together at a construction port close to their offshore point of installation. Given the location of the North Sea offshore wind farms, the application site provides on optimal location for a number of offshore projects. The use of the port will include heavy load operations and handling of the various elements that comprise an offshore wind turbine.

The proposed development essentially has four parts to it: the construction of new quays; dredging of the River Tees to provide a berthing pocket, deep enough approach channel and turning area; the setting out of the operational area; and, the operation of the site. It is acknowledged that the first two parts will require a Licence from the Marine Management Organisation, which will be dealt with

by separate application although it is the intention that the Environmental Statement will refer to all elements of the proposed development.

Quays

Briefly, the 950m frontage will be constructed on land behind the existing derelict quays that form the South Bank Wharf. The quay is proposed to be a solid berth structure with a front wall that either comprises a contiguous series of steel tubes or a combination of large diameter tubular piles alternating with steel sheet piles. This latter arrangement is commonly referred to as a combi-pile wall. The tubular piles will be tied back to an anchor wall with high strength steel anchor rods.

The quays need to be designed with a minimum of 10t/m^2 along the full length and with heavy load-out pads capable of taking a minimum of 40t/m^2.

I attach a plan which shows a cross section of how we might construct they quay.

The quay will be drained by a network of land drains that discharge into the River Tees. Drainage water will pass through oil interceptors where a high risk of oil spillage exists.

Quay Construction

Large diameter tubular piles that will form part of the quay wall, will be installed from plant operating on land. Given what is known about the ground conditions, we hope to be able to drill piles, to minimise the use of percussive piling. The tubular piles will be fixed close to their top by anchors fixed to an anchor wall. To facilitate installation of these anchors, material will be excavated from behind the new pipe line, set aside and re-used as backfill over the anchors.

We expect to have discussions with the LPA and others over the timing of construction in relation to both the seasonal impacts and the day to day tidal impacts.

Dredging

To enable vessel access to the operational quay and allow berthing alongside its length over a commercially viable tidal range, capital dredging will be required from three distinct areas as described below. Dredge arisings will generally be deposited at sea outside the Tees Estuary.

Berthing Pocket: Based on current knowledge of the emerging designs for new generation wind turbine installation vessels, an operational draught of 12m has been adopted. Accordingly, the quay will have a dredged berthing pocket that will be maintained up to -12.5 mCD. The berthing pocket will be 70 m wide. The side slopes of the berth will have a gradient appropriate to the in-situ properties of the bed material.

Approach Channel: The existing river channel is dredged to -14.1mCD up to the Norsea Oil Terminal on the north bank, approximately 2.7km downstream from the proposed quay. From that point the dredged level reduces in steps to a minimum depth -5.7 mCD at the downstream end of the development site. The channel will be reduced to -12.5mCD from the Norsea Oil Terminal over approximately 3.5km in order to provide a maintained depth of -12mCD.

Turning Area: A Turning Circle is located outside of Tees Dock. This is partly dredged to -10.4 mCD, and partly to -8.8 mCD. Due to the narrowness of the river at the new Quay, vessels will need to utilise this facility and the shallow section will need to be deepened to -12.5 mCD and maintained at -12.0mCD.

We attach a plan of the proposed dredged area which you will appreciate overlaps to a large extent with the area proposed to be excavated for the approved Northern Gateway Terminal. The capital dredge for the project would be 2.5Mm^3 (gross) or 1.6 Mm^3 if carried in conjunction with the Northern Gateway project. The latter involved a capital dredge of 4.5Mm^3.

Significant Operational Plant

The offshore energy sector is characterised by very heavy components, significantly in excess of 1,000T which need to be moved to and from storage locations at a construction port.

The heavy lift operations that will be undertaken on site require a particular plant spread and an appropriately designed pavement. The upper sections of fill on the site, will comprise imported stone to provide a drained heavy-duty pavement for operational plant. Plant will include cranes such as:

- Liebherr LHM800; a wheeled mobile harbour crane with a lift capacity of 300T.
- Liebherr LR1300; a crawler crane with a lift capacity of 300T.
- Terex CC8800-1; a crawler crane with a load capacity of 1,600T
- Liebherr LR13000; this is the most powerful conventional crawler crane in the world. The ability to hoist extreme component weights is a particular requirement for an offshore wind construction port. It has a lift capacity of 3,000T.

Quay Rail Crane

To facilitate loading and unloading of vessels, a rail crane will be provided along the quayside and into the site. This will have a maximum gib height of 170m high and run the full length of the quay and be able to travel back into the site. We have attempted to put this crane into context with the Transporter bridge below.

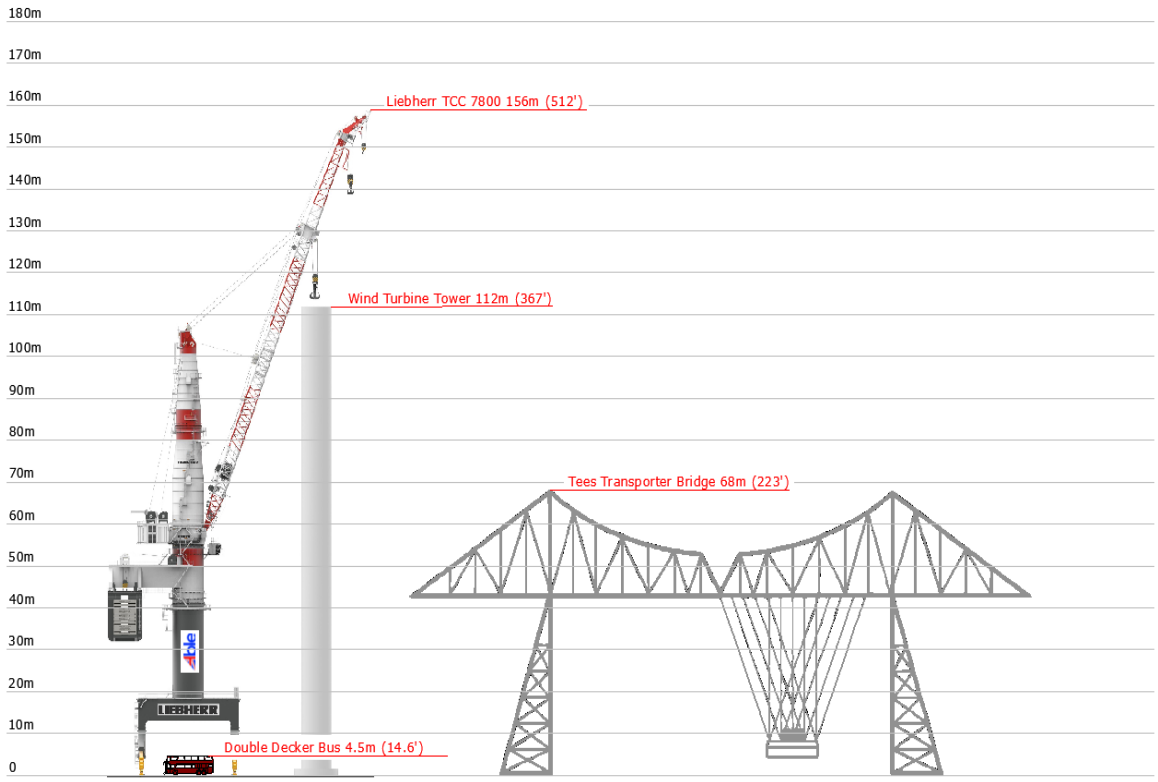


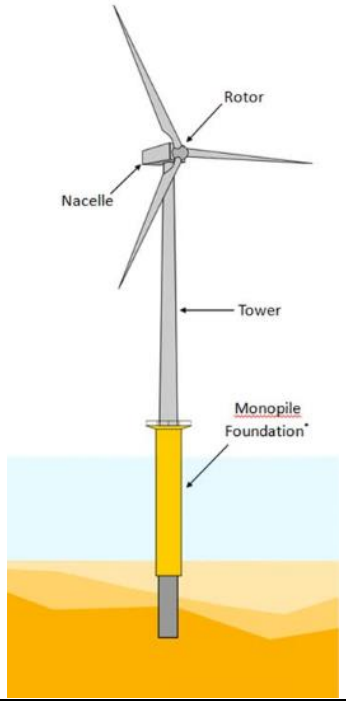
Figure 2 – Proposed Rail Crane

Construction Programme

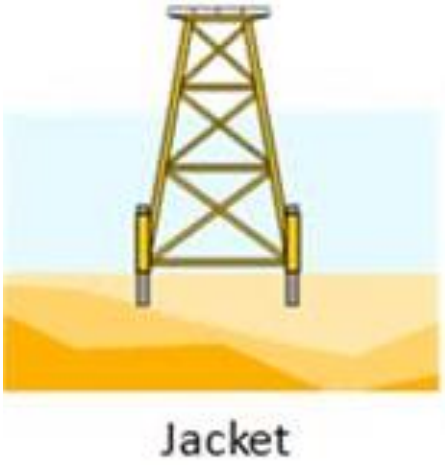
Construction of the quay and the development of the hinterland is expected to take up to 24 months, with a peak workforce of around 250 people.

Operation of the Site as an Offshore Wind Turbine Installation Facility

The development will provide facilities which will be primarily used for the installation of foundations and topsides for offshore wind turbine (OWTs); the topside comprises tower, nacelle and rotors (or blades). The principal components of an OWT are illustrated at Figure 1 overleaf.



OWT with Monopile Foundation (Transition Piece coloured yellow)



Alternative Jacket Foundation

Figure 3: The principal components of an offshore wind turbine

Foundation packages comprise of: Jacket foundations with Transition Pieces (TPs) attached, or Monopiles (MPs) with TPs fixed separately. It is expected that the jackets dimensions will be up to 120m high, up to 50m wide and weighing c. 2,500t. MPs dimension are expected to be up to 95m long, up to 12m diameter. At their base, weighing up to 2,500t. TPs (which will be stored on site vertically) will be up to 8m wide and 60m high. These are generally painted yellow.

MPs and TPs will be delivered by Heavy Lift Vessel (HLV), see Figure 2 overleaf. These are vessels circa 160m long, 30m wide with their own cranes. They will deliver the MPs and TPs and unload onto the quay. Some TPs will be delivered by HLV and Barge from manufacturing facilities on the Tees They will be unloaded onto self-propelled modular transporters (SPMT), see Figures 2 and 3 overleaf, and transported across the site to a storage location where they will be set down onto steel or concrete stillage, see Figure 4 overleaf. Occasionally, minor works will be carried out on the MPs and TPs whilst in storage then, when ready for collection they will be transported back to the quay.

Jackets will be delivered either as complete jackets or in pieces to be assembled. In the majority of cases, the jackets (or sections of jackets) will need to be unloaded with a shore crane onto site where they will be put onto stillages 1.5m high so that they can be collected by SPMT and transported to a storage location. The assembly on site will be undertaken assisted by cranes.

We have tried to illustrate the various components involved in the following imagery. However the components that will be used in the majority of the offshore projects serviced from the facility will be around 20% larger/heavier than those shown in the photographs.

Figure 4: A Monopile (c. 1,000T) being unloaded onto a SPMT at Able Seaton Port

Figure 5: A Transition Piece being transported on a SPMT at Able Seaton Port

Figure 6: Monopiles, Transition Pieces and Anodes in typical storage at ASP

Figure 7: Tripod base on SPMT vehicles.

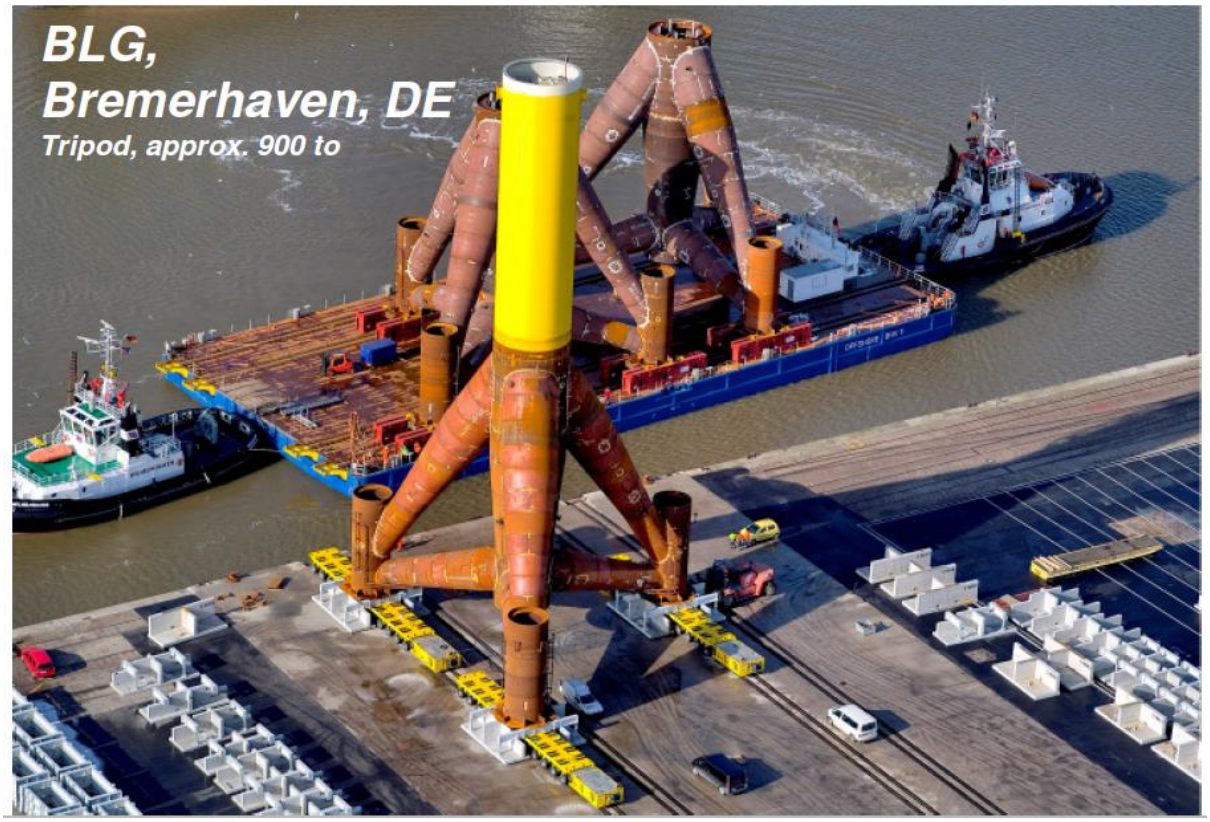


Figure 8: Tripod base being assembled on land with bases being delivered in foreground.

Towers normally consist of three tapered parts and the total height will vary between 90m-120m. To bolt the three sections together, the lower part will be set down on a specially prepared large steel grillage. The intermediate section will be delivered by SPMT, tilted vertical then lifted and placed onto the bottom section. Once bolted together, the upper section will be installed. Once the tower is completed, fitting out work lasting 2-3 weeks will be undertaken. This will include filling with oils, pulling cables through, connecting electrical equipment, etc.

Figure 9 Blade being lifted onto SPMT.

The blades being handled on site will be in racks up to 22m high, 7m wide and 120m long. Blades will be delivered either as singular items or in stacks up to 3 high. They will be delivered with varying types of vessels and be unloaded using the vessel's crane or the shore crane onto grillage or bogies where they will then be transferred across the site to a storage location. Minor works to the blades may be undertaken and then when ready for collection they will be transported back to the quay and put onto stillages in readiness for collection.

Figure 9: Nacelle on SPMT

Nacelles are the generators and weigh between 400t-900t. The size varies from between 8m-12m wide, 16m-25m long and 8m-13m high. They will be unloaded from the delivery vessel using the onshore cranes or by HLV, they will be transported by SPMT to the storage location where they will be lowered onto blocks. In the storage location, there will be an electricity supply to ensure appropriate ventilation and minor works may be undertaken.

Site operations will vary according to the specifics of a particular contract. Each installation contract will take c.18 months.

Operational Lighting

To enable the quay to operate twenty-four hours a day, sufficient LED lighting will be provided to enable personnel to access, egress and carry out their work safely and to identify any hazards or obstacles in the workplace. Accordingly, external lighting over the quay frontage will comprise 50m towers that will be fitted with directional luminaires to limit spill outside the working areas. Over the operational areas of the quay (notionally taken to be that area within 50m of the quay edge), the lighting will provide average luminance of 50 lux, with a minimum of 20 lux. Elsewhere, on the storage areas behind the quay, lighting will be designed to provide an average luminance of 40 lux with a minimum of 20 lux.

Security

Perimeter fencing is to be 3m high and electrified.

Site Access

Vehicular access to the site will benefit from a new roundabout to be constructed at the junction of Tees Dock Road and Smith's Dock Road, and existing accesses at either end of Smith's Dock Road, refer

to attached plan.

There will be a limited amount of hard paving on the site, this will be within the offices, welfare and parking areas and also immediately behind the quay to support exceptional loadings.

The Operational Workforce

Suitable office and welfare accommodation will be provided for up to 600 workers and management. Accommodation will generally be provided in permanent steel-clad buildings. Car parking will be provided for up to 600no. vehicles.

We have set out below CGI imagery of how the site might look and be laid out. The imagery is indicative at this stage and should be treated as such.

Planning Context

Policy ED6, 'Promoting Economic Growth' of the adopted Redcar & Cleveland Local Plan (May 2018) is the key local planning policy relevant to the proposed development. The lies within the South Tees Area, as identified by under Policy ED6.2 and is to be developed and safeguarded for employment purposes. The area is identified as being suitable for specialist uses, such as heavy processing industries and port logistics falling within Use Classes B1, B2, B8. The Policy also advises that suitable employment related sui-generis uses will be supported.

Further guidance is provided in the adopted South Tees Area Supplementary Planning Document (SPD) (May 2018), which seeks to support the economic and physical regeneration of the South Tees Area. The SPD sets out the vision and core objectives for the Area and provides greater detail on how adopted planning policies will be interpreted during the decision-making process for planning applications. In this regard, the key reference point is Development Principle STDC14, 'South Industrial Zone', which indicates that development proposals for port-related uses, including port-based fabrication, offshore energy industries, including manufacturing, materials processing and manufacturing, contract fabrication and energy generation and, potentially, rig and large equipment decommissioning within the area will be encouraged.

Development of the former steelwork site is being managed by the South Tees Development Corporation (STDC), the first Mayoral Development Corporation outside of London. It has been set up to promote the economic growth and commercial development of the Tees Valley by converting assets in the South Tees area into opportunities for business investment and economic growth. The STDC area covers approximately 4,500 acres of land to the south of the River Tees, within the Borough of Redcar and Cleveland. The handling of planning application and related matters remains with Redcar & Cleveland Council, acting as Local Planning Authority, however.

The purpose of the STDC is to further the economic development of the area through physical, social and environmental regeneration so that it becomes a major contributor to the Tees Valley economy, bringing the former SSI site, and other underutilised land in the area, back into economic use. By seeking to attract private sector investment the STDC aims to secure additional, high quality jobs for the people of Tees Valley and provide a safe environment for the workforce.

STDC has prepared a Master Plan for the area, setting out its vision. The application site lies within the South Industrial Zone which the Master Plan describes in the following terms:

> *SOUTH INDUSTRIAL ZONE*
> *The South zone is comprised of three areas - South Bank, Grangetown Prairie and the Lackenby Steelmaking complex - the latter including an area of land fronting Tees Dock Road and the Trunk Road offering an opportunity for a gateway commercial and/or mixed use development.*
>
> *The total development area on offer amounts to 880 acres (356 hectares), in balance with the North Industrial Zone from a size perspective, albeit the South Bank site does include an area presently given over to waste management facilities that is planned for inclusion in the long-term proposals.*
>
> *The zone includes river frontage extending to over 1km in length, mainly comprised of South Bank Wharf. Virtually the entire length of this frontage is dilapidated and non-usable, yet it makes up almost 30% of the entire river frontage of the STDC area. <u>The establishment of new port facilities along this stretch of river represents a major infrastructure opportunity for the regeneration programme and is seen as essential to realising the full development potential of the South Industrial Zone</u>.* [Prism Planning's emphasis]

> *The Zone is characterised by recycling and manufacturing uses, largely reliant on good access to multi-purpose port facilities and the availability of existing rail connections. The retention of the steelmaking facilities at Lackenby offers opportunity for future metals manufacturing. Consideration is therefore given to raw materials storage and processing within the South zone. With new port facilities, <u>the zone lends itself to offshore energy industries manufacturing</u>* [again, Prism Planning's emphasis]*, a use supported by early investor interest in the STDC area',* (Master Plan, page 78).

It is our firm opinion that the proposed development is entirely consistent with local planning policy and guidance as set out in the adopted Redcar & Cleveland Local Plan and the adopted South Tees Area SPD and with the current ambitions of STDC as set out in their Master Plan.

Request for Scoping Opinion

It has been agreed and confirmed that the proposed development requires environmental impact assessment, we move on to request the formal scoping opinion of the LPA. In this regard we refer you to the description of the proposed development provided above, the diagram and photos and the appended location plan.

An Environmental Statement (ES) is required to contain the information specified by Regulation 18(3) and described in greater detail in Schedule 4 of the Regulations. Schedule 4 sets out the information to be included in an ES, in summary form:

1. A description of the site and development;
2. A description of reasonable alternatives considered;
3. A description of the relevant aspects of the current environment of the site and an outline of the likely evolution thereof without implementation of the proposed development;
4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development
5. A description of the likely significant effects of the development on the environment;
6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment;
7. A description of measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects;
8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned;
9. A Non-Technical Summary of the information provided; and
10. A reference list detailing the sources used for the descriptions and assessments included in the ES.

<u>The Proposed Format of the Environmental Statement</u>

The ES will be prepared in the context of relevant legislation and guidance under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. The ES will provide all the relevant information required under the Regulations to allow the LPA, consultees and interested parties to assess the project and its likely effect on the environment. It is noted that the emphasis of the regulations (as evidenced by Schedule 4) is the need to determine the significant environmental effects that a development is likely to have on the environment with other effects of little or no significance requiring only brief consideration in the ES.

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It would be proposed that the ES will include a description of the site and surrounding area and of the proposed development and a summary of relevant development plan policies and national planning guidance. With regards to likely environmental effects of the development, we would propose to address the topic areas indicated below. For each topic area the likely magnitude and significance of impacts on the environment would be identified and appropriate mitigation measures will be promulgated together with an appropriate management plan. The proposed topic areas are as follow:

- Landscape and Visual Impact Assessment;
- Traffic & Transportation;
- Ecology, including marine ecology;
- Hydrodynamic and Sedimentary Regime;
- Noise and Vibration;
- Air Quality;
- Hydrology and Hydrogeology;
- Socio-Economic Effects; and
- Cumulative Impacts.

We look forward to receiving the LPA's advice as regards the scope of the Environmental Impact Assessment.

Throughout the environmental impact assessment, each environmental discipline specialist will liaise and consult with key stakeholders relevant to their discipline.

Other Documentation to accompany the Planning Application

Other documents that it is proposed to submit with the planning application (in addition to the necessary and appropriate plans and drawings) include a Planning Statement, a Transport Statement and associated Travel Plan, a Flood Risk Assessment and a Contaminated land risk assessment and remediation strategy. Please advise if any additional supporting documentation will be required for the planning application submission.

I look forward to hearing from you. Should you wish to discuss this matter further, please do not hesitate to contact me on my direct line: 01325 740612 or e-mail me: rod@prism-planning.com.

Yours sincerely

Rod Hepplewhite BSc (Hons) MRTPI
Director
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Enc.

c.c. Marine Management Organisation