

Portland
energy recovery
facility

Environmental statement



3 Environmental issues and methodology

Introduction

3.1 This chapter explains the identification of the environmental issues considered and outlines the overall approach taken to the EIA. Specific methodologies for each of the specialist studies are given in the relevant topic chapters.

The scope of the EIA

3.2 Scoping is the identification of the range of significant issues likely to arise as a result of the proposed development. Scoping also ensures that significant issues are addressed in detail, while those of lesser relevance are considered accordingly. This is an important exercise, undertaken at an early stage of the EIA process, which allows effort to be concentrated on significant issues and avoids unnecessarily complicated examination of minor ones.

3.3 Terence O'Rourke Ltd undertook a scoping exercise and produced an EIA scoping report in November 2019. This document provided a summary of the proposals, identified the potential main environmental effects to be addressed within the EIA and scoped out issues that did not require consideration.

3.4 The following factors influenced the breadth of the scoping exercise, and so the EIA:

- The scale and nature of the project
- The physical characteristics of the proposals
- Application site characteristics
- Neighbouring land uses
- Environmental designations

3.5 Copies of the EIA scoping report accompanied the EIA scoping opinion request made to Dorset Council. A number of statutory bodies and non-statutory organisations were also consulted (table 3.1).

Dorset Council: Planning, Natural Environment, Flood Risk Management, Landscape, Rights of Way, Conservation, Archaeology, Environmental Health, Highways
Natural England
Environment Agency
Historic England
Highways England
Marine Management Organisation
Dorset Wildlife Trust
Public Health Dorset
Jurassic Coast Trust
Dorset AONB Partnership
Table 3.1: Scoping consultees

3.6 A copy of the EIA scoping report (including details of the scoping methodology), the responses from the consultees and the council's formal scoping opinion can be found in technical appendix A.

Key issues identified during scoping

3.7 Responses were received from a number of the organisations consulted and as a result some additional potential issues were identified. A summary of the key issues raised is provided in table 3.2 and these are set out in full in technical appendix A. In accordance with the requirements of the EIA Regulations, the ES has been based on the scoping opinion and technical appendix A includes signposting for where issues raised in the opinion are addressed in the ES.

Topic	Key issues identified in the scoping report	Additional issues raised during consultation
Air quality and climate	<ul style="list-style-type: none"> Increased road traffic emissions during construction Increased road traffic emissions post-construction Generation of emissions from process plant post-construction Effect on greenhouse gas emissions 	<ul style="list-style-type: none"> Increased emissions from shipping post-construction
Community, social and economic effects	<ul style="list-style-type: none"> Generation of employment during and post-construction Effects on the local economy during and post-construction Reduced deprivation as a result of job creation during and post-construction Effects on health post-construction 	<ul style="list-style-type: none"> No additional issues raised
Cultural heritage	<ul style="list-style-type: none"> Change to settings of scheduled monuments in the vicinity of the site during and post-construction Change to settings of listed buildings / structures in the vicinity of the site during and post-construction Change to setting of Underhill conservation area during and post-construction Change to setting of Dorset and East Devon Coast World Heritage Site and heritage coast during and post-construction 	<ul style="list-style-type: none"> Change to settings of undesignated heritage assets during and post-construction
Ground conditions	<ul style="list-style-type: none"> Potential for human health effects from contact with contaminants during construction Potential for mobilisation of existing contaminants into the water environment during construction 	<ul style="list-style-type: none"> Potential for human health effects from ground gases post-construction
Land use and land take	<ul style="list-style-type: none"> It is proposed that land use and land take are not scoped into the EIA 	<ul style="list-style-type: none"> No additional issues raised
Landscape and visual effects	<ul style="list-style-type: none"> Change to landscape character of the site and effects on surrounding landscape character areas Change to sensitive views, including from designated landscapes 	<ul style="list-style-type: none"> No additional issues raised
Major accidents / disasters	<ul style="list-style-type: none"> It is proposed that major accidents and disasters are not scoped into the EIA 	<ul style="list-style-type: none"> No additional issues raised
Natural heritage	<ul style="list-style-type: none"> Effects on internationally, nationally and locally designated sites from pollution and disturbance during and post-construction 	<ul style="list-style-type: none"> Effects on designated sites from increased traffic and shipping emissions Effects on on-site ecology
Noise and vibration	<ul style="list-style-type: none"> It is proposed that noise and vibration are not scoped into the EIA 	<ul style="list-style-type: none"> No additional issues raised
Traffic and transport	<ul style="list-style-type: none"> Increased traffic generation during construction Increased traffic generation post-construction 	<ul style="list-style-type: none"> No additional issues raised
Waste and natural resources	<ul style="list-style-type: none"> Increase in Dorset's non-hazardous residual waste management capacity 	<ul style="list-style-type: none"> No additional issues raised
Water environment	<ul style="list-style-type: none"> Pollution of coastal waters and groundwater during construction Pollution of coastal waters post-construction 	<ul style="list-style-type: none"> No additional issues raised

Table 3.2: Key issues identified during scoping

Assessment methodology

Introduction

- 3.8 An environmental effect is an alteration, positive or negative, to some aspect of the environment that occurs as a result of the proposed development. It is essential that the EIA methodology is comprehensive and focused. It must predict and measure the degree of effect and identify mitigation requirements. The method used should be objective, consistent and adaptable, and as free from analytical bias as possible.
- 3.9 It is important that the assessment methodology distinguishes between the sensitivity of the receptors and the type and size of change that will affect them, either directly or indirectly. It is also important that the ES is clear and effective in communicating the results of the assessment to the determining planning authority, the general public and professionals involved with appraising the development proposals.

Guidance and best practice

- 3.10 The methodologies used for the assessment of specific issues are discussed in the relevant chapters of this ES. Where appropriate, use has been made of published guidance and information on best practice, and the Ministry of Housing, Communities and Local Government's (MHCLG) web-based National Planning Practice Guidance: *Environmental Impact Assessment* (updated 2020). The guidance has been considered in conjunction with the EIA Regulations.

Difficulties in compiling information

- 3.11 The EIA Regulations require that the ES should include an indication of any difficulties (technical deficiencies or lack of knowledge) encountered by the applicant in compiling the required information, together with the main uncertainties involved. Where such difficulties and uncertainties have been experienced, they are discussed in the relevant ES topic chapters and / or technical appendices. Restrictions associated with the COVID-19 pandemic are of particular relevance, as these have affected some of the baseline studies.

Determining the significance of effects

- 3.12 The evaluation of effect significance is fundamental to the EIA process. The degree of an effect determines the resources that should be deployed in avoiding or mitigating an adverse effect and identifies the actual value of a beneficial effect. As far as possible, standard words have been used to define degrees of effect (i.e. 'very substantial', 'substantial', 'moderate', 'slight' and 'negligible'), but not so rigorously as to stifle flexibility or particular individual requirements.
- 3.13 The degree of an effect is determined by the interaction of two factors: the magnitude, scale or severity of the impact or change, and the value, importance or sensitivity of the environmental resource being affected. This is then used to determine whether an effect is significant. If the degree of effect is moderate or above (including slight to moderate effects, as these contain elements of both slight and moderate and are therefore considered to be significant on a

precautionary basis) then the effect is considered to be significant in EIA terms. Slight or negligible effects are not considered to be significant for the purposes of the EIA.

- 3.14 Sensitivity and magnitude categories have been developed for the environmental topics, based on a combination of best practice guidance and expert judgement. These are provided in the specialist topic chapters. Any assumptions made during the assessment process have been reported in the text. Figure 3.1 shows the general matrix used to determine the degree of each identified effect, and thus whether it is significant. This matrix has been developed by Terence O'Rourke Ltd and is used in the assessment of the various environmental impacts to enable meaningful comparisons to be made. Where assessments depart from this methodology to accord with other best practice requirements, the revised methodologies are fully explained in the relevant chapters.
- 3.15 The assessment of the potential effects also takes account of timescale, permanence and whether the effects are adverse or beneficial, as appropriate (for example, 'a long term but reversible, substantial, significant adverse effect').

Identification of mitigation measures, monitoring and residual effects

- 3.16 The results of the assessment of significance have helped to guide the mitigation measures proposed. At the end of each of the environmental assessments, where relevant, there is a 'residual effects' table, which summarises the significant environmental effects remaining after mitigation. This includes a measure of the confidence placed in the prediction of each potential residual effect, such as 'absolute', 'reasonable' or 'limited'. Where appropriate, measures to monitor adverse effects have been identified.

Cumulative effects

- 3.17 The potential for cumulative effects with other proposed or consented developments in the vicinity of the site has been assessed for each environmental topic, where relevant. It was agreed with Dorset Council that the projects in table 3.3 would be included in the cumulative effects assessment. The locations of these cumulative projects are shown on figure 3.2. Not all projects are relevant to all of the environmental topics; the projects that have been considered are clarified in each assessment.

Development	Details
Ocean Views, Hardy Complex, Castle Road, Portland (phase 2)	Redevelopment of former naval accommodation block into 157 apartments, together with the development of 191 new build homes, with associated car parking (application reference: 02/00703/FUL, as amended)
Royal Manor Arts College, Weston Road, Portland	Demolition of existing buildings and erection of 98 dwellings (application reference: WP/19/00919/OUT)
Verne Common Road and Ventnor Road, Portland	Development of vacant land by the demolition of a garage and erection of 25 dwellings (application reference: WP/18/00662/FUL)
Southwell Primary School, Sweethill Lane, Portland	Demolition of existing buildings and construction of up to 58 dwellings (application reference: WP/17/00866/OUT)
Ferrybridge Inn, Portland Road, Weymouth	Demolition of existing public house and construction of up to 22 residential units (application reference: WP/14/00929/OUT)
Disused Quarry Works Stockyard, Bottom Coombe, Park Road, Portland	Development of approximately 62 dwellings (application reference: WP/14/00591/OUT)

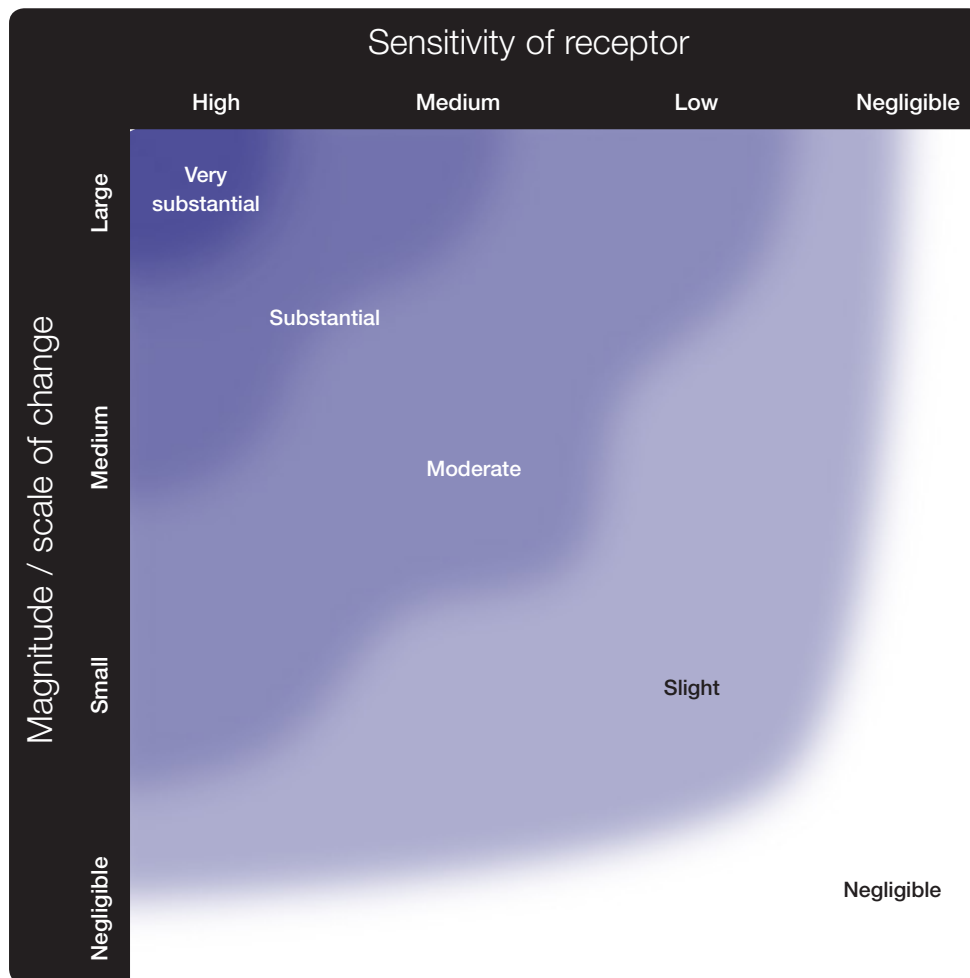
Development	Details
Redundant buildings at Bumpers Lane, Portland	Demolition of existing redundant industrial buildings and erection of approximately 64 dwellings (application reference: WP/14/00330/OUT)
Plot X, Mulberry Avenue, Portland	Erection of two blocks of two storey business units comprising three B1 units and six B8 units (total floorspace 766 m ²) with associated parking and landscaping (application reference: WP/18/00940/FUL)
Plot M1B, Hamm Beach Road, Portland	Erection of three industrial and commercial buildings (B1, B2 and B8, total floorspace 2,879 m ²) and associated external works (application reference: WP/17/00631/FUL)
Remaining development (and associated planning permissions) permitted under the 1997 Portland Harbour Revision Order	Project Osprey: construction of two animal feed storage and distribution warehouses, each 140 m x 45 m x 20 m, and an office building 16 m x 4 m x 5.15 m, to handle 250,000-300,000 tonnes per year (council reference: WP/19/00514/SCRE), which is currently under construction
	Project Inner Breakwater and Camber Area Alterations: development of operational land for the purposes of shipping and in connection with the embarking, disembarking, loading, discharging or transport of passengers, livestock or goods, including a new berth apron in the Crane Berth Apron Operational Area and a new yard pavement at the Camber Operational Yard to enable the berthing and handling of ships up to 120 m long, their cargoes and passengers (council reference: WP/15/00328/PD)
	Open storage of waste products, including waste wood and metal, on the Parade Ground area of the Rifle Range (no council reference number)
	High Speed Ferries: a cross-Channel passenger / car high speed ferry operating two to three daily sailings (round trips) over the 26-week summer season (April to October) and weekend sailings (Friday, Saturday and Sunday) over 20 weeks during the winter season (permitted under the RoRo ferries element of the HRO, but currently seeking finance; no council reference number)
	The HRO grants permitted development rights for B1 / B2 / B8 development on several areas of land at the Port that have yet to be developed (areas Port 2, Port 5, Port 6 and Port 7 on figure 3.2). While no specific proposals are available for these areas, for the purposes of the assessments it is assumed that each area could be developed for single storey warehouse buildings similar to those proposed at Project Osprey (no council reference number)
	Landside aquaculture: construction of a warehouse building for aquaculture, producing 200-300 tonnes of fish, on a site measuring 135 m x 37 m (application references: WP/14/01033 and WP/16/00150/RES) – these permissions have lapsed, but the site is being marketed as a potential development site for a similar use so, for the purposes of the assessments, it is assumed that a similar development could be constructed on the site in the future
Development (and associated planning permissions) permitted under the 2010 Portland Harbour Revision Order (no council reference numbers)	New berthing faces to the north and east of New Quay and Coaling Pier Island (Works 1 and 5 on figure 3.2) and new berthing faces to the south and west of Queen's Pier (Work 7) by the construction of concrete blockwork quay walls and / or piled and suspended deck sections and / or rock armoured rubble mound retaining embankments
	Reclamation of as much of the foreshore and seabed as is required for the above works (Works 2, 6 and 8)
	Two 30 m wide floating linkspans commencing on the new northern and eastern faces of the berthing faces adjacent to the shoreward arm of Queen's Pier (Work 3)
	A 30 m wide floating linkspan commencing on the eastern face of Work 7 (Work 9)
	A mooring dolphin lying 70 m to the east of the eastern face of Work 1, with bearing piles, mooring structures and reinforced concrete heads, connected to Work 1 by a steel access walkway (Work 4)
	Two lines of mooring dolphins up to 250 m long and up to 70 m apart, with bearing piles, mooring structures and reinforced concrete heads, connected by steel walkways and the permanent mooring at the dolphins of a floating dry-dock (Work 10)
A reinforced concrete or steel pontoon providing access to and from Work 10 (Work 11)	

Table 3.3: Projects considered in the cumulative effects assessment

3.18 The potential for cumulative effects to arise from several individual impacts on a specific receptor is inherently addressed in the assessments contained in the

topic chapters. For example, the world heritage site assessment in chapter 13 covers the potential for effects from different sources such as changes to views, landscape character, traffic, noise sources, functions and land uses and public access, referencing other chapters of the ES as required.

Determination of significance matrix



Significance

If the degree of effect is moderate or above, then the effect is considered to be significant.

