REPORT

Boston Alternative Energy Facility

Register of Environmental Actions and Commitments

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Boston Alternative Energy Facility

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Project related

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1 Register of Environmental Actions and Commitments

1.1.1 This Register of Environmental Actions and Commitments (REAC) summarises the committed impact avoidance, mitigation and enhancement measures within the chapters of the Environmental Statement (ES) (document reference 6.2), and associated appendices, that are to be adopted in relation to the Facility and its potential identified effects.

1.1.2 **Table 1-1** below contains the actions and commitments relating to the construction and operation of the Facility. Where relevant, cross-references are provided to the method of securing these commitments. This REAC should be read in conjunction with the full text in the relevant chapters in Volume II of the ES (document reference 6.2), cross references to which are provided in the table.

Table 1-1 Register of Environmental Actions and Commitments

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
1	ES Chapter 8 Cultural Heritage – Table 8-11	Pre-construction	A phase of archaeological monitoring on the section of the Roman Bank requiring removal will be undertaken. This will follow the methodology detailed within the agreed Written Scheme of Investigation (WSI) and a separate method statement.	DCO Requirement 6, Archaeology. (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline WSI (document reference 7.3)
2	ES Chapter 8 Cultural Heritage – Table 8-11	Pre-construction	Geoarchaeological monitoring and assessment of boreholes and geotechnical test pits associated with the wharf and main facility will be undertaken. This will ensure any buried deposits of geoarchaeological interest (e.g. peat layers and historic alluvium) will be identified and reported upon. Further geoarchaeological analysis and fieldwork could take place dependant on initial results. The work would follow the methodology detailed within the WSI and a separate method statement.	DCO Requirement 6 Archaeology. (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline WSI (document reference 7.3)
3	ES Chapter 8	Pre-construction	If areas of archaeological interest are identified during	DCO Requirement 6

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	Cultural Heritage – Table 8-11		the monitoring and assessment of geotechnical works, a phase of archaeological trial trenching could be undertaken across the area(s) of interest.	Archaeology. (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline WSI (document reference 7.3)
4	ES Chapter 8 Cultural Heritage – Table 8-11	Pre-construction	Monitoring of the wharf and Facility piling to allow for identification of any remains or deposits of archaeological interest, following the methodology detailed in the agreed WSI. If foreshore remains are identified during the monitoring, excavation during low-tide would be possible, detailed within the agreed WSI.	DCO Requirement 6 Archaeology. (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline WSI (document reference 7.3)
5	ES Chapter 8 Cultural Heritage – Table 8-11	Pre-construction	Monitoring of the dredging of The Haven will be undertaken to the specification set out in the agreed Outline WSI (document reference 7.4).	DCO Requirement 6 Archaeology. (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline WSI (document reference 7.3)
6	ES Chapter 8 Cultural Heritage – Table 8-11	Construction and Operation	To reduce noise, design of the Facility would include noise restrictions via implementation of conditions associated with the Environmental Permit for the Facility – reducing noise impact on the surrounding area.	Construction noise: DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1) Operational noise: DCO Requirement 19, Control of operational noise (Draft DCO,

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				Schedule 2, Part 1) (document reference 2.1). The Environmental Permit(s) for the Facility will require operational noise limits.
7	ES Chapter 8 Cultural Heritage – Table 8-11	Construction	A muted colour palette on the outer cladding will reduce the visual impact of the Facility.	Design and Access Statement (DAS) (document reference 5.3) DCO Requirement 3, Detailed design approval (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
8	ES Chapter 8 Cultural Heritage – Table 8-11	Construction and Operation	Lights within the grounds of the Facility will be on timers and motion sensors, to ensure limited visual impact upon the setting of assets within the vicinity during the evening and night.	Operational lighting: DCO Requirement 15, Operational lighting scheme (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline Lighting Strategy (document reference 7.5) Construction lighting: DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
9	Chapter 9 LVIA –	Construction	To reduce the potential effects of the Facility, retention	DCO Requirement 5 Landscape

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	Paragraph 9.7.2		and reinforcement of existing woodland / scrub and hedgerow along the sea banks will be considered. Existing vegetation provides some visual structure to the Principal Application Site and potentially screens or filters views to ground level features and activity. Existing vegetation belts may be reinforced by the introduction of tree planting; taller growing species providing long-term screening benefits.	and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline LEMS (document reference 7.4)
10	Chapter 9 LVIA – Paragraph 9.7.2	Construction	To reduce the potential effect of the Facility, building facades were designed to be clean and uncluttered. The colour palette for the external cladding will be based around a complimentary series of muted 'grey / greens', or other similar colour palette agreed with the local authority. The stacks will be a light grey to reduce their prominence when seen against the sky.	DCO Requirement 3 Detailed design approval, (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Design and Access Statement. (document reference 5.3)
11	Chapter 9 LVIA – Paragraph 9.7.2	Construction	To reduce the potential effects of the Facility, external lighting will be designed to minimise night time light spill.	Construction lighting: DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
12	Chapter 9 LVIA - Paragraph 9.7.3	Construction	Proposed landscape mitigation measures include the establishment of mixed species woodland planting along the southern, western and northern margins of the Principal Application Site. Planting along southern and western margins would be on low earth mounds and provide effective screening more quickly in the short-term and enhance screening in the long-term. Mounding would improve the screening	DCO Requirement 5 Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline LEMS (document reference 7.4)

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			of close-range views of proposed ground level features.	
13	Chapter 9 LVIA - Paragraph 9.7.4 – 9.7.5	Construction	Native species hedgerow with hedgerow trees would also be established along certain boundaries to the Principal Application Site. Hedgerows would provide screening towards site in certain local views and reinforce local landscape character. Other measures include the introduction of species rich grassland, scrub and enhancement of existing ditches and waterbodies. These measures would further increase biodiversity and landscape value. Faster growing tree species such as willow, birch and poplar would be used to provide quicker screening / filtering effects.	DCO Requirement 5 Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline LEMS (document reference 7.4)
14	Chapter 9 LVIA – Paragraph 9.8.30	Construction and operation	The impact of night-time lighting during construction and operation will be minimised as best practice lighting principles will be employed as embedded mitigation.	Construction lighting: DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1) Operational lighting: DCO Requirement 15, Operational lighting scheme (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline Lighting Strategy (document reference 7.5)
15	Chapter 9 LVIA –	Operation	Long-term establishment of proposed woodland planting	DCO Requirement 5 Landscape

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	Paragraph 9.11.15		belts would introduce some limited beneficial effect upon local landscape character.	and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline LEMS (document reference 7.4)
16	Chapter 10 Noise and Vibration – Table 10-31	Construction	A Construction Phase Noise and Vibration Monitoring and Management Plan will be submitted to and approved by the Local Planning Authority and form part of the final Code of Construction Practice (CoCP). Best practice noise mitigation measures, to be implemented and controlled through the Construction Phase Noise and Vibration Monitoring and Management Plan, will typically include: • Management of construction operating hours; • Implementation of traffic management measures such as agreed routes for construction traffic. • Use of screens and noise barriers / acoustic screens. • Construction site layout to minimise or avoid reversing with use of banksmen where appropriate. Output noise from reversing alarms set at levels for health and safety compliance. • Use of modern, fit for purpose, well maintained plant and equipment to minimise noise generation. Plant and vehicles will be fitted with mufflers / silencers maintained in good working order. Use of silenced equipment, as far as possible and low impact type compressors and	Construction vibration and noise: DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)

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			generators fitted with lined and sealed acoustic covers. Doors and covers housing noise emitting plant will be kept closed when machines are in use. • No audible music or radios to be played outdoors on site. • Ensuring engines are switched off when machines are idle. • Regular communication with site neighbours to inform them of the construction schedule, and when noisy activities are likely to occur. Use of pre-construction survey to identify road surface irregularities which require remediation in order to mitigate vibration impacts.	
17	Chapter 10 Noise and Vibration – Table 10-31	Operation	The Facility will operate and be managed by adhering to Development Consent Order (DCO) Requirements at the site. Applying the principles of Best Available Techniques (BAT) when designing the Facility and for any sound emitting mobile and fixed plant. The principle of BAT ensures that suitable mitigation measures will be embedded into the design and operation of the installation, detailed in Section 10.7.53.	Operational noise: DCO Requirement 19, Control of operational noise Draft DCO, Schedule 2, Part 1) (document reference 2.1). The Environmental Permit(s) for the Facility will require operational noise limits.
18	Chapter 10 Noise and Vibration – Paragraph 10.7.23	Construction	Noise associated with piling noise is predicted to be the largest contributor of noise at receptor locations. Mitigation in the form of a piling shroud, enclosing the length of the pile and the point of impact, is required to reduce the noise levels associated with piling; should this be required during the BS 5228 evening and weekend reference period.	Construction noise: DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)

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				Operational noise: DCO Requirement 19, Control of operational noise (Draft DCO, Schedule 2, Part 1) (document reference 2.1). The Environmental Permit(s) for the Facility will require operational noise limits.
19	Chapter 10 Noise and Vibration – Paragraph 10.7.34	Construction	Development of a Construction Traffic Management Plan (CTMP) to reduce the traffic flows along Nursery Road / Lealand Way will reduce the impact magnitude and the relative noise change.	DCO Requirement 12, Construction Traffic Management Plan (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CTMP (document reference 7.2)
20	Chapter 10 Noise and Vibration – Paragraph 10.7.39	Construction	'Best practice' measures should be implemented to minimise vibration impacts while retaining productive efficiency including: • choosing alternative, lower impact equipment or methods wherever possible; • scheduling the use of vibration-causing equipment, at the least sensitive time of day; • routing, operating or locating high vibration sources as far away from sensitive areas as possible; • sequencing operations so that vibration-causing activities do not occur simultaneously; • isolating the equipment causing the vibration on resilient mounts; and • keeping equipment well maintained.	Construction vibration and noise: DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)
21	Chapter 10 Noise and Vibration –	Operation	Mitigation to reduce the impact of operational noise levels include:	Operational noise: DCO Requirement 19, Control of

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	10.7.52		• Attenuating the Air-Cooled Condenser noise level at source by 15 dBA; • Reducing the CO2 Capture facility Chillers to a Sound Power Level of 85 dBA; • Reducing the site Transformers to a Sound Power Level of 80 dBA; • Reducing the Power Export Zone to a Sound Power Level of 80 dBA; • Upgrading the Sound Reduction Index of the main site plant to an Rw 41 dB; • Reducing the Wharf Cranes to a Sound Power Level of 97 dBA. These mitigation measures also apply to night-time noise.	operational noise Draft DCO, Schedule 2, Part 1) (document reference 2.1). The Environmental Permit(s) for the Facility will require operational noise limits.
22	Chapter 10 Noise and Vibration – Paragraph 10.7.53	Operation	Effective mitigation measures can also include partial or full enclosure, screening through natural topography or intervening buildings, reducing the sound power level of the unit, a reduction in noise break-out from building elements, along with best practice measures.	Operational noise: DCO Requirement 19, Control of operational noise Draft DCO, Schedule 2, Part 1) (document reference 2.1). The Environmental Permit(s) for the Facility will require operational noise limits.
23	Chapter 11 Contaminated Land, Land Use and Hydrogeology – Table 11-14	Construction	Environmental best practice would include the (now-revoked) Environment Agency best practice guidelines (e.g. Pollution Prevention Guidance (PPG) PPG1, PPG5, PPG6 and PPG22) and current best practice guidelines. The methods adopted will also follow the Environment Agency's approach to groundwater protection. Adherence to a Pollution Prevention and Incident Response plan which will be drafted in advance of any construction works.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			An outline CoCP (OCoCP) document will be drafted that will be a dynamic document updated as the detail of design progresses prior to construction and will provide a protocol under which the environmental risk mitigation and other specific remedial measures will be defined and executed.	
24	Chapter 11 Contaminated Land, Land Use and Hydrogeology – Table 11-14	Construction	All works/operations to be carried out by appropriately trained personnel. Appropriate personal protective equipment (PPE) and working practices to be adopted by construction workers, including subcontractors, and health and safety measures would be implemented to mitigate any short term risk during construction. CDM site specific risk assessments will be identified and implemented prior to construction.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)
25	Chapter 11 Contaminated Land, Land Use and Hydrogeology – Table 11-14	Construction	The Environment Agency's approach to groundwater protection (Environment Agency, 2018) and current best practice guidance for the groundwater protection pollution prevention guidance will be considered. A hydrogeological risk assessment will be produced pre-construction to ensure protection of ground and surface waters where construction activity including piling and is in hydraulic continuity with sensitive receptors. This will include method statements and detailed hydrogeological risk assessment of the effects of pilling activities.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)
26	Chapter 11 Contaminated Land, Land Use and Hydrogeology – Table 11-14	Construction	General environmental best practices to be followed include: • Oils and fuel will only be stored within designated areas above ground in impervious storage bunds with a minimum of 110% capacity to contain any leaks or spillages;	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)

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			• Oil and fuel storage areas will be regularly inspected; • Refuelling activities will only take place within designated areas where impermeable surfaces and drip trays are utilised; • Spill kits will be made available for use on site at key locations; • All staff to have site inductions covering the appropriate use of chemical and fuels on site; • A pollution prevention plan and incident response plan will be incorporated into the CoCP. This is to be agreed with the Environment Agency and will follow industry best practice; • Storage of hazardous materials will be done with due care using adequate store locations in accordance with Health and Safety Executive guidelines; and • A protocol for dealing with potentially contaminated materials will be utilised during the construction works.	
27	Chapter 11 Contaminated Land, Land Use and Hydrogeology – Table 11-14	Construction	The potential for cross contamination as a result of soil movements would be mitigated following the principles of the CL:AIRE Code of Practice incorporating the development of a Materials Management Plan. Excavated soils would be chemically tested and screened against regulatory-approved assessment criteria to demonstrate the soils are suitable for use prior to re-placement on-site.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)
28	Chapter 11 Contaminated Land, Land Use	Construction	Subject to further ground investigation and assessment, if asbestos is identified within the Principal Application Site at levels that could pose an unacceptable risk to	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document

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	and Hydrogeology – Table 11-14		human health, an asbestos management strategy would be developed in liaison with an appropriately qualified and experienced asbestos contractor to ensure the risks associated with asbestos are appropriately mitigated. Mitigation measures may require the works to be undertaken by specialist operatives, the provision of decontamination units, atomisers to prevent dust generation and monitoring during the works. The strategy would be agreed with the relevant regulators prior to commencing works on the Principal Application Site.	reference 2.1). Outline CoCP (document reference 7.1)
29	Chapter 11 Contaminated Land, Land Use and Hydrogeology – Table 11-14	Construction	The following soil quality and management mitigation measures should be followed: • Soils handling, storage and reinstatement would be carried out by a competent contractor under Defra (2009) Construction Code of Practice for the Sustainable Use of Soils on Construction Sites; • Topsoil stripping will be carried out within all construction areas and will be stored adjacent to where it is extracted, where practical; • Textural classification of soils will be undertaken in accordance with BS3882 and grading in accordance with BS1377; • Excavated subsoil will be stored separately from the topsoil, with sufficient separation to ensure segregation; • Soils will be handled according to their characteristics; • Where necessary, tree roots would be removed by screening; • For most after-uses, subsoils may be treated as a single resource for stockpiling;	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)

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			• During wet periods, mechanised soil handling would be limited in areas where soils are highly vulnerable to compaction; • Movements of heavy plant and vehicles would be restricted to specific routes and trafficking of construction vehicles in areas of the site which are not subject to construction phase earthworks would be avoided; and • In circumstances where construction has resulted in soil compaction, further remediation may be provided, through an agreed remediation strategy.	
30	Chapter 11 Contaminated Land, Land Use and Hydrogeology – Paragraph 11.7.21	Construction	Should a significant ground gas and vapour risk be identified following a Phase 2 investigation works, the risks posed during the constructions phase can be managed via the use of appropriate working methods, and appropriate PPE.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1)
31	Chapter 12 Terrestrial Ecology – Paragraph 12.7.24	Construction and Operation	Embedded mitigation measures have been identified and presented in the OLEMS and OCoCP. The OLEMS and OCoCP will be secured through DCO Requirements. Examples of the types of mitigation measures that are included in the OLEMS and OCoCP are: • Pre-construction survey to confirm the presence of roosting bats; • Replanting of hedgerows lost during construction works within alternative locations;	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline CoCP (document reference 7.1) DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline LEMS (document reference 7.4)

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			• Opportunities to enhance retained hedgerows through increasing their existing species diversity or in-filling any gaps; • All temporary lighting to be designed line with the BCT Bats and Lighting in the UK guidance (2018). This to include the use of directional lighting during construction; • Construction phase lighting will be limited to permitted working hours in low light conditions, with lower-level security lighting outside of these times; and • Ensure that dark corridors remain in place during the construction phase.	
32	Chapter 12 Terrestrial Ecology – Paragraph 12.7.29 – 12.7.30	Construction and Operation	Mitigation measures, as included in the OLEMS, will include the adherence to a pre-cautionary method of working (PMoW) during construction, including tool box talk, habitat manipulation and ecological supervision. This PMoW comprises the implementation of a reptile sensitive clearance methodology (under ecological supervision) prior to any construction works within the Principal Application Site. This will ensure that any reptiles are safeguarded from the construction process. The reptile sensitive clearance methodology involves habitat manipulation followed by a destructive search. Habitat manipulation will be carried out a maximum of one week prior to works commencing on-site. Any potential sheltering features will be inspected (visually and by hand) before entire removal by an ecologist. Any reptiles present can then be rescued and moved to an	DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline LEMS (document reference 7.4)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			identified and suitable location (which has been identified prior to works commencing). Any vegetation removal works should start from the furthest extent so that any reptiles, should they be present, can move into an area that will not be accessed or disturbed by the works. All arisings should be removed from the works area immediately and either taken off-site or placed in a predetermined location well away from the works area (and any access). A method statement for these actions will be prepared by an ecologist in advance of any works starting on site. This work will be undertaken within the reptile activity season (March-October inclusive).	
33	Chapter 12 Terrestrial Ecology – Paragraph 12.7.32	Construction and Operation	As part of the embedded mitigation (and included in the OLEMS), all areas of vegetation will be planned to be removed outside of the nesting bird season. Where this is not possible, pre-work checks will be undertaken at least 24 to 48 hours before the vegetation is removed to check for active nests. Furthermore, as outlined in the OLEMS, a landscape mitigation planting scheme will be implemented that will include proposed replacement planting of removed hedgerows as well as enhancing retained hedgerows.	Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1) DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline LEMS (document reference 7.4)
34	Chapter 12 Terrestrial Ecology – Paragraph 12.7.37	Construction and Operation	The Facility will consider the potential to integrate suitable habitat for invertebrate species in its design. This could include measures such as a varied planting regime comprising scrub fringes such as hawthorn, field maple, blackthorn and ivy, which provide sheltered elevated temperatures for invertebrates, foraging areas for predatory wasps, and nectar and pollen for flower-	DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline LEMS (document reference 7.4)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			dependent invertebrates.	
35	Chapter 12 Terrestrial Ecology – Paragraph 12.7.53	Construction and Operation	Mitigation of lighting impacts on bats and birds should include the use of low pressure sodium lighting which will be located away from areas that could be used by bat/bird species (i.e. hedgerow and woodland habitats) where possible. All lights should also be pointed away from these features and designed in accordance with the BCT guidance relating to bats and artificial lighting.	Construction lighting: DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1) Operational lighting: DCO Requirement 15, Operational lighting scheme (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline Lighting Strategy (document reference 7.5)
36	Chapter 13 Surface Water, Flood Risk and Drainage Table 13-7	Construction	A CoCP will be developed for the construction activities and will adhere to construction industry good practice guidance. Specific measures to control sediment supply that will be captured within the CoCP include: • Temporary works areas (e.g. mobilisation and storage areas) within the development area will comprise hardstanding of permeable gravel aggregate underlain by geotextile, or other suitable material to a minimum of 50% of the total area to minimise the area of open ground. • Subsoil exposure will be minimised and strips of undisturbed vegetation will be retained on the edge	Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)

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			of the working area where possible (e.g. buffer zones along the drainage ditches). • On-site retention of sediment will be maximised by routing all drainage through the site drainage system. • The drainage system will include silt fences at the foot of soil storage areas to intercept sediment runoff at source. Where practicable, runoff will be routed into swales, which incorporate check dams to further intercept sediment and/or attenuation ponds which incorporate sediment forebays. Suitable filters will be used to remove sediment from any water discharged into the surface drainage network. • Additional silt fences will be included in parts of the working area that are in proximity to surface drainage channels. • Soil and sediment accumulation on road surfaces will be minimised as far as reasonably practicable by washing the wheels of vehicles leaving site and, where required, clearance of the road surface. Traffic movement would be restricted to minimise the potential for surface disturbance. • Minimise unnecessary sediment run-off from the Principal Application Site during construction by intercepting surface drainage and, if necessary, employing silt traps (e.g. Sedimats) adjacent to the banks of The Haven within the designated work areas. • Dampen areas of dryness to reduce the risk of windblown dust particles entering the water body. • All concreting works to use concrete with an anti-washout additive.	

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			• Heras screens with debris netting to be erected to prevent errant concrete from entering The Haven with the designated work areas.	
37	Chapter 13 Surface Water, Flood Risk and Drainage Table 13-7	Construction	Specific measures to manage site drainage that will be captured within the CoCP and associated plans include: • Changes in surface water runoff as a result of the increase in impermeable area from the development will be attenuated and discharged at a controlled rate, in consultation with the LLFA, Black Sluice IDB and Environment Agency. • The controlled runoff rate will be equivalent to the greenfield runoff rate. • A Surface and Foul Water Drainage Plan (SFWDP) will be developed prior to construction and implemented to minimise water within the construction areas and ensure ongoing drainage of surrounding land.	Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
38	Chapter 13 Surface Water, Flood Risk and Drainage Table 13-7	Construction	Specific measures relating to pollution prevention that will be captured within the CoCP include: • Concrete and cement mixing and washing areas will be situated at least 10 m away from the nearest watercourse. • All fuels, oils, lubricants and other chemicals will be stored in an impermeable bund with at least 110 % of the stored capacity. Damaged containers will be removed from site. All refuelling will take place in a dedicated impermeable area, using a bunded bowser. The refuelling and fuel storage area will be	Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			located at least 10 m from the nearest watercourse. Biodegradable oils will be used where possible. • Spill kits will be available on-site at all times. Sand bags or stop logs will also be available for deployment on the outlets from the site drainage system in case of emergency spillages. • Foul drainage (e.g. from construction welfare facilities) will be collected through a mains connection to an existing mains sewer (if a suitable connection is identified as being available or a spur connection to the site can be implemented from an existing mains sewer line, following consultation with Anglian Water during the design process), or collected in a septic tank located within the development boundary and transported off-site for disposal at a licensed facility.	
39	Chapter 13 Surface Water, Flood Risk and Drainage Table 13-7	Post-construction	Post construction surface water drainage Requirements will be presented in a surface and foul water drainage strategy for the operation of the Facility and will be designed to meet the Requirements of the NPPF and NPS EN-1, with runoff limited, where feasible, through the use of infiltration techniques which can be accommodated within the area of development. The drainage strategy will be developed according to the principles of the SuDS discharge hierarchy.	DCO Requirement 8, Surface and foul water drainage (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
40	Chapter 13 Surface Water, Flood Risk and Drainage	Construction	Once construction is complete, geomorphological improvements and habitat creation could be implemented in the channels of the artificial water bodies and in the attenuation pond (e.g. planting of native	DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1).

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	Paragraph 13.7.15		species and targeted naturalisation of the channel banks) in order to mitigate the loss of water bodies elsewhere. This would help to reduce potential effects on biodiversity.	Outline LEMS (document reference 7.4)
41	Chapter 13 Surface Water, Flood Risk and Drainage Paragraph 13.7.40	Construction	Surface water from the Principal Application Site shall be managed through the use of an existing attenuation pond located to the south of the Principal Application Site before discharging via surface water ditches at a controlled rate into the IDB drain adjacent to the Principal Application Site.	DCO Requirement 8, Surface and foul water drainage (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
42	Chapter 13 Surface Water, Flood Risk and Drainage – Paragraph 13.7.48	Operation	Surface water from the Principal Application Site shall be managed through the use of a SuDS which includes a sealed surface water drainage system and water used in the LWA plant. Only a small amount will be discharged via surface water ditches at a controlled rate into the IDB drain adjacent to the Principal Application Site. The use of an attenuation pond will also provide an opportunity to incorporate biodiversity enhancements to the project.	DCO Requirement 8, Surface and foul water drainage (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
43	Chapter 14 Air Quality – Paragraph 14.8.2	Construction	It is recommended that the good practice measures outlined in the IAQM guidance are followed to mitigate construction phase dust emissions.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
44	Chapter 14 Air Quality – Paragraph 14.8.3	Construction	The recommendations below will be detailed in an Air Quality and Dust Management Plan (AQDMP) to prevent or minimise the release of dust and/or dust being deposited on nearby receptors. The AQDMP will be included within the Code of Construction Practice (CoCP) before construction can begin.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
45	Chapter 14 Air Quality – Paragraph 14.8.4	Construction and Operation	Communications • Develop and implement a stakeholder communications plan that includes community engagement before work commences on site. • Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary and the head or regional office contact information. This may be the environment manager/engineer or the site manager. • Display the head or regional office contact information.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1) The Environmental Permit will include conditions requiring management systems to cover air quality and dust management
46	Chapter 14 Air Quality – Paragraph 14.8.4	Construction	Dust Management • Develop and implement an Air Quality and Dust Management Plan (AQDMP) approved by Boston Borough Council, which may include measures to control other emissions. • Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. • Make the complaints log available to Boston Borough Council when asked. • Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book. • Carry out regular site inspections to monitor compliance with the AQDMP, record inspection results and make an inspection log available to BBC when asked. • Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			dust are being carried out and during prolonged dry or windy conditions. • Plan the site layout so that machinery and dust causing activities are located away from receptors, as far as is practicable. • Erect solid screens or barriers around dusty activities, or the site boundary, that are at least as high as any stockpiles on site. • Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period. • Take measures to control site runoff of water or mud. • Keep site fencing, barriers and scaffolding clean using wet methods. • Remove materials that have a potential to produce dust from site as soon as possible. • Cover, seed or fence stockpiles to prevent wind whipping. • Ensure all vehicles switch off engines when stationary - no idling vehicles. • Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable. • Produce a CTMP to manage the sustainable delivery of goods and materials. • Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems. • Ensure an adequate water supply on the site for effective dust/particulate matter	

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			suppression/mitigation, using non-potable water where possible and appropriate. • Use enclosed chutes and conveyors and covered skips. • Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate. • Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods. • Bonfires and burning of waste materials should not be permitted.	
47	Chapter 14 Air Quality – Paragraph 14.8.4	Construction	Measures Specific to Construction • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
48	Chapter 14 Air Quality – Paragraph 14.8.4	Construction	Measures Specific to Trackout • Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. • Avoid dry sweeping of large areas. • Ensure loaded vehicles entering and leaving sites are covered to prevent escape of materials during transport. • Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			• Record all inspections of haul routes and any subsequent action in a site log book. • Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned. • Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud) prior to leaving the site where reasonably practicable. • Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits. • Locate site access gates at least 10 m from receptors where possible.	

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
49	Chapter 14 Air Quality – Paragraph 14.8.5	Construction and Operation	Dust Management • Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to note any dust deposition, record inspection results, and make the log available to Boston Borough Council when asked. • Impose and signpost a maximum-speed-limit of 15 mph on surfaced, and 10 mph on unsurfaced, haul roads and work areas. • Implement the Travel Plan that has been produced for the Facility, which supports and encourages sustainable travel for contractor operatives and staff (public transport, cycling, walking, and car-sharing).	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1) The Environmental Permit will include conditions requiring management systems to cover air quality and dust management
50	Chapter 14 Air Quality – Paragraph 14.8.5	Construction	Measures Specific to Earthworks • Re-vegetate or cover earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable. • Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable. • Only remove the cover in small areas during work and not all at once.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
51	Chapter 14 Air Quality – Paragraph 14.8.5	Construction	Measures Specific to Construction • Avoid scabbling (roughening of concrete surfaces) if possible. • Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery. • For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
52	Chapter 14 Air Quality – Paragraph 14.8.6	Construction	Non-Road Mobile Machinery (NRMM) and plant would be well maintained. If any emissions of dark smoke occur, then the relevant machinery should stop immediately, and any problem rectified. In addition, the following controls should apply to NRMM: • All NRMM should use fuel equivalent to ultralow sulphur diesel (fuel meeting the specification within EN590:2004). • All NRMM should comply with regulation (EU) 2016/1628 of the European Parliament and of the Council on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery. • All NRMM should be fitted with Diesel Particulate Filters (DPF) conforming to defined and demonstrated filtration efficiency (load/duty cycle permitting). • The ongoing conformity of plant retrofitted with DPF, to a defined performance standard, should be ensured through a programme of on-site checks. • Fuel conservation measures should be	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			implemented, including instructions to: ○ throttle down or switch off idle construction equipment; ○ switch off the engines of trucks while they are waiting to access the site and while they are being loaded or unloaded; and ○ ensure equipment is properly maintained to ensure efficient fuel consumption.	
53	Chapter 14 Air Quality – Paragraph 14.8.8	Construction	A commitment will be included within the Construction Traffic Management Plan (CTMP) which will require all construction vehicles to comply with the Euro VI emission standard where practicable (it is noted that some specialist vehicles may not be able to comply with this requirement).	DCO Requirement 12, Construction traffic management plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CTMP (document reference 7.2)
54	Chapter 15 Marine Water and Sediment Quality – Paragraph 15.7.1	Construction	The volume of capital dredging will be minimised by setting the quay wall as close to the channel as possible, whilst maintaining a safe distance from the berthing point to the navigable channel to allow vessels to pass safely.	DCO Requirement 3, Detailed Design Approval; and Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1)
55	Chapter 15 Marine Water and Sediment Quality – Paragraph 15.7.1	Construction	As much of the capital dredging as possible will be completed using land-based equipment to reduce impacts in The Haven water column (these techniques reduce the spill from bucket thus reducing plume generation).	DCO Requirement 3, Detailed Design Approval; and Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
56	Chapter 15 Marine Water and Sediment Quality – Paragraph 15.7.1	Construction	Disposal of capital dredged sediment on land rather than at sea.	DCO Requirement 3, Detailed Design Approval; and Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1)
57	Chapter 15 Marine Water and Sediment Quality – Paragraph 15.7.1	Construction	An OCoCP has been prepared to set out principles, controls and management measures to be implemented during the construction phase to manage potential significant effects on the marine environment.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
58	Chapter 15 Marine Water and Sediment Quality – Paragraph 15.7.1	Construction	To manage the risk of spillages and pollution from marine vessels, all work practices would adhere to the requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78; specifically Annex 1 Regulations for the prevention of pollution by oil concerning machine waters, bilge waters and deck drainage and Annex IV Regulations for the prevention of pollution by sewage from ships concerning black and grey waters.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
59	Chapter 15 Marine Water and Sediment Quality – Paragraph 15.7.1	Construction	No discharge for the construction works is anticipated to be required. However, it is anticipated that surface water discharge from the part of the Facility that is to the east of Sea (Roman) Bank is likely to be required. This discharge will require an Environmental Permit to control any potential pollution incidents.	Environmental permit for any discharge required for construction

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
60	Chapter 15 Marine Water and Sediment Quality – Paragraph 15.7.40	Construction	To reduce impacts on water quality as a result of pouring concrete in situ, Temporary Works Risk Assessments will be carried out to inform Temporary Works Method Statements to reduce any accidental risk to the environment in general. All wash down of mixers and forms will take place away from site in designated wash down areas which will be bunded to prevent leaks.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
61	Chapter 16 Estuarine Processes – Paragraph 16.7.2	Construction	Three main embedded mitigation measures have been proposed to reduce the potential impacts on estuarine processes: • the volume of capital dredging would be minimised by setting the quay wall of the wharf as close to the channel as possible, but without compromising the ability for safe passage of vessels, nor compromising the safety of moored vessels; • complete as much of the capital dredging and maintenance dredging as possible using land-based equipment to reduce impacts in The Haven water column; and • capital dredged sediment would be disposed of on land rather than at sea and maintenance dredged sediment would be used as a binding agent for aggregate production at the Facility.	DCO Requirement 3, Detailed Design Approval; and Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
62	Chapter 17 Marine and Coastal Ecology – Paragraph 17.7.2	Construction and Operation	Five main embedded mitigation measures have been proposed to reduce potential effects on marine and coastal ecology, as outlined below: • The volume of capital dredging will be minimised by setting the wharf as close to the channel as possible, whilst still allowing safe passage of other vessels when vessels are moored at the wharf; • The design of the wharf will likely be an open structure (e.g. a suspended deck), as opposed to the other option of a double sheet-piled wall (see Chapter 5 Project Description for more detail on the design); • Capital dredged sediment will be managed on land rather than disposed at sea; • The majority (about two-thirds) of the capital dredging will be carried out from land and will be undertaken with a mechanical dredge, in order to minimise the resulting sediment plume and minimise impacts on fish due to suction if other techniques were used; • Use of maintenance dredged sediment as a binding agent for aggregate production at the Facility; and • Use of the water run-off from maintenance dredged sediment in the aggregate production at the Facility.	DCO Requirement 3, Detailed Design Approval; and Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
63	Chapter 17 Marine and Coastal Ecology – Paragraph 17.7.4	Construction and Operation	All work practices and vessels would adhere to the requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78; specifically Annex 1 Regulations for the prevention of pollution by oil concerning machine waters, bilge waters and deck drainage and Annex IV Regulations for the prevention of pollution by sewage from ships concerning black and grey waters.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
64	Chapter 17 Marine and Coastal Ecology – Paragraph 17.7.5	Construction	All works relating to the marine environment will be bunded, concrete sealed, and a Sustainable Drainage System installed. If a discharge for the construction works is needed, a permit would be applied for to the Environment Agency to control any potential pollution incidents. Relevant parties would be informed of any pollution events. All management with regards to managing water pollution will be carried out through the Internal Drainage Board (IDB).	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1) Environmental permit for any discharge required for construction (if required)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
65	Chapter 17 Marine and Coastal Ecology – Paragraph 17.7.6	Construction and Operation	A contingency plan for any possible spillages during both construction and operation will be produced and will include potential for impacts, and all possible clean-up measures, and will be agreed with the nature conservation organisations.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1) Environmental permit for any discharge required for construction (if required)
66	Chapter 17 Marine and Coastal Ecology – Paragraph 17.7.7	Construction and Operation	The risk of spreading marine invasive non-native species (INNS) would be mitigated through use of best-practice techniques, including appropriate vessel maintenance following guidance from The International Maritime Organisation (IMO). These commitments would be secured in the NMP, which will be developed after the ES is submitted, in order to incorporate any conditions associated with the DCO	DCO Requirement 14, Navigational management plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1)
67	Chapter 17 Marine and Coastal Ecology – Paragraph 17.7.9	Construction	Mitigation will be undertaken for piling works undertaken during high tides, to ensure that any potential for impact to marine mammals (and fish species) are reduced as far as is possible.	Deemed Marine Licence Condition 14, Piling (Draft DCO Schedule 11, Part 4)) (document reference 2.1)
68	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.30	Construction	The area of mudflat and saltmarsh affected will be restricted to only what is necessary for the construction of the wharf.	DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
69	Chapter 17 Marine and	Construction	In order to mitigate the habitat loss specifically for the birds using this area, habitat enhancement in the Habitat	DCO Requirement 5, Landscape and Ecological Mitigation Strategy

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	Coastal Ecology – Paragraph 17.8.32		Mitigation Area will provide additional foraging and roosting habitat to ensure that the birds will still be able to use this localised area. Existing shallow scrapes that are becoming overgrown will be reinstated and new scrapes dug in the marsh area providing habitats that are a common component of saltmarsh habitats. Shallow pools already exist in this area and the works would increase the number of pools. In addition, re-profiling of some of the low banks will be undertaken to provide clear lines of sight for redshank and the number of rocks along the frontage of the marsh (where rocks already exist) will be increased (using the rocks from Area A) to provide additional roosting habitat. Figure 17.9 illustrates the proposed mitigation measures.	(LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
70	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.33	Construction	The Habitat Mitigation Works are relatively minor and it is expected that they could be undertaken through both landward and seaward works and either retaining material in the marsh where this benefits the habitat or removing to use within the Principal Application Site. The re-profiling of the banks would be undertaken on low profile banks currently in the marsh. The works are reinstating or increasing habitats that generally occur in healthy marsh systems and the works would be undertaken outside the overwintering period to avoid disturbing any birds using these habitats at this time. Works would include one long-reach excavator on-site for a week at most would take place in advance of the wharf construction.	DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
71	Chapter 17 Marine and Coastal Ecology – Paragraph	Construction	As the habitat loss is considered to be permanent (given the beaching of vessels on part of the intertidal adjacent to the wharf), measures to provide a net gain of biodiversity should be put in place. A calculation for the	DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1).

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	17.8.34 – 17.8.35		loss of biodiversity has been undertaken and the results are provided in the OLEMS. Habitat restoration and creation measures will be developed to provide a net gain, and in this respect, the measures should aim to provide at least 10% increase in biodiversity units. The potential for such measures is currently under discussion with the relevant conservation organisations (Natural England, Lincolnshire Wildlife Trust and the Royal Society for the Protection of Birds) and is expected to include measures to improve or create habitat for birds at the Frampton Marshes and Freiston Shore Reserves run by RSPB. The measures would aim to provide habitat for feeding, roosting and nesting for those bird species know to use The Haven. The proposed measures discussed to date are outlined in the OLEMS. The specific measures that will be carried out at the Reserves would continue to evolve post-DCO submission and would be documented in detail within the final LEMS which will be agreed with the conservation organisations detailed above and is secured by Requirement 5 of the DCO.	
72	Marine and Coastal Ecology – Paragraph 17.8.56	Construction	Increased levels of suspended sediments due to capital dredging may impact fish migration and behaviour. Mitigation should include avoidance of seasonal sensitivities and key migration periods wherever possible to potentially minimise the impacts.	Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1)
73	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.63	Construction	Increased levels of suspended sediments due to capital dredging could be mitigated by only undertaking turbidity inducing works during least sensitive times which would involve avoidance of dredging between March and June.	Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
74	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.86 and Table 17-42	Construction	Some of the disturbance will be mitigated by ensuring that the noisiest activities (such as the piling works) are undertaken during periods which are not so sensitive for birds feeding on the mudflats or roosting on the saltmarsh. This would include undertaking the piling works during May to September.	Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1) Deemed Marine Licence Condition 14, Piling (Draft DCO Schedule 11, Part 4)) (document reference 2.1)
75	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.87	Construction	In addition, given the success of the mitigation undertaken for the Ground Investigation works by the Environment Agency, for general construction works, monitoring and adherence to thresholds as recommended in the findings for this project is recommended. This would involve monitoring of bird numbers and behaviour associated with any noisy activities and stopping works if a threshold value is exceeded for numbers of birds within a 250m radius. The thresholds of bird numbers will be agreed with Natural England but is expected to be the same as for the works by the Environment Agency.	DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
76	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.104	Construction	Mitigation measures have been included for piling works, as a precautionary approach to ensure that the potential impact to fish species (and marine mammals as set out below) is reduced as far as is possible. This includes a soft-start and ramp-up procedure for any piling activities taking place at high tides. This would allow for any fish species to move away from piling activities prior to them reaching full hammer energies. Mitigation could also include seasonal windows for any piling in the water to	Deemed Marine Licence Condition 14, Piling (Draft DCO Schedule 11, Part 4)) (document reference 2.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			avoid the periods of maximum abundance of the sensitive species.	
77	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.117	Construction	As a precautionary approach, mitigation will be undertaken for piling works during high tides, to ensure that any potential for impact to marine mammals (and fish species) are reduced as far as is possible. This mitigation would include: • Pre-piling watch for marine mammals, when piling activities are undertaken during high tides, following the JNCC protocol for minimising the risk of injury to marine mammals from piling noise. • Soft-start and ramp-up procedures, for piling activities undertaken during high tides, following the standard JNCC protocol for minimising the risk of injury to marine mammals from piling noise.	Deemed Marine Licence Condition 14, Piling (Draft DCO Schedule 11, Part 4)) (document reference 2.1)
78	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.126, 17.8.217 and 17.8.221	Construction and Operation	Best practice measures will be put in place in order to minimise the disturbance that is caused to marine mammals from the vessel traffic. This will mainly be in the form of an observer on board each vessel, looking out for marine mammals as the vessel makes its way through The Wash and up The Haven.	DCO Requirement 14, Navigational Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
79	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.142 and Table 17-42	Construction and Operation	The vessels moving to and from the Facility would be restricted to a speed of 4 knots within The Haven, and 6 knots through the shipping channel and anchorage area within The Wash. Vessel movements to be incorporated in to recognised vessel routes.	DCO Requirement 14, Navigational Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1)
80	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.209 – 17.8.210	Construction and Operation	There is a loss of habitat at the development site and as a result there is a proposal to provide enhancement in the Habitat Mitigation Area to ensure no net loss of roosting and foraging opportunities in this localised area. There is also a biodiversity net gain proposal for the project to be achieved through habitat creation works to provide alternative feeding and roosting areas within the Frampton Marsh and Freiston Shore RSPB reserves. The proposed habitat net gain measures are currently under discussion with the RSPB, Natural England and Lincolnshire Wildlife Trust. An agreed package will be developed with the relevant stakeholders during the DCO process and will be detailed in the Landscape and Ecological Mitigation Strategy (LEMP), which is secured by a requirement of the DCO.	DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
81	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.220	Operation	It is recommended that bathymetric surveys be undertaken every six months to monitor any potential erosion of the intertidal habitats.	Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1).

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
82	Chapter 17 Marine and Coastal Ecology – Paragraph 17.8.221	Operation	Vessel movements will be incorporated into recognised vessel routes where marine mammals are accustomed to vessel presence, to reduce any disturbance and any increased collision risk. An observer would also be on board either the pilot vessel or the Facility-related vessel to watch for any marine mammals. These measures will be secured within the Navigational Management Plan which will be produced in conjunction with the Port of Boston as a requirement of the DCO.	DCO Requirement 14, Navigational Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1)
83	Chapter 17 Marine and Coastal Ecology – Table 17-42	Operation	Dredging works to be minimised according to best practice and monitor the seabed and habitat level through regular bathymetric and habitat surveys.	DCO Requirement 5, Landscape and Ecological Mitigation Strategy (LEMS), (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
84	Chapter 17 Marine and Coastal Ecology – Table 17-42	Operation	Shipping to be kept to a minimum, as necessary.	DCO Requirement 14, Navigation management plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
85	Chapter 17 Marine and Coastal Ecology – Table 17-42	Operation	Increased emissions to air and deposition on marine and estuarine habitats mitigation includes continuous monitoring of emissions from the stack.	This will be a condition of the Environmental Permit for the Facility
86	Chapter 18 Navigational Issues – Paragraph 18.7.1 Chapter 24 Major Accidents and Risks – Paragraph 24.8.6	Construction and Operation	Carrying out capital and maintenance dredging of the wharf from land, using land-based equipment.	DCO Requirement 3, Detailed Design Approval; and Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1).

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
87	Chapter 18 Navigational Issues – Paragraph 18.7.1 Chapter 24 Major Accidents and Risks – Paragraph 24.8.6	Construction and Operation	Carrying out construction of the wharf from land.	DCO Requirement 3, Detailed Design Approval; and Deemed Marine Licence Condition 13, Prior approval of Licenced Activities (Draft DCO Schedule 11, Part 4)) (document reference 2.1).
88	Chapter 18 Navigational Issues – Paragraph 18.7.3	Construction and Operation	In order to manage the potential impacts which could arise from the construction and operation of the Facility it is proposed that a Navigation Management Plan (NMP) will be produced in conjunction with the Port of Boston to manage navigational safety.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
89	Chapter 18 Navigational Issues – Paragraph 18.7.3, 18.7.14 and Paragraph 18.7.28	Construction	The NMP will set out the procedures to be followed and aids to navigation to be provided to mitigate risks to navigation arising from the construction of the Facility. Specifically, the NMP will define how communication with the users of The Haven will be undertaken and how often and how each stage of the construction process will be managed to ensure a minimal impact on the safety of navigation in The Haven.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
90	Chapter 18 Navigational Issues – Paragraph 18.7.15; Paragraph 18.7.29; and Paragraph 18.7.129	Construction	Prior to the works commencing, and in advance of any new activities occurring, a Notice to Mariners (NtM) will be published by the Port to inform the users of the Haven of the nature and duration of the activity. The NtM will also advise caution to mariners while passing the wharf location, reducing their speed to minimise the effects of shipwash on construction plant.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) and Deemed Marine Licence Condition 11 (Draft DCO, Schedule 11, Part 4) (document reference 2.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
91	Chapter 18 Navigational Issues – Paragraph 18.7.48 and Paragraph 18.7.119	Construction and Operation	Lighting will have to comply with the minimum safety standards required on a construction site, however, mitigation can be employed to reduce the significance of this impact by: • the careful locating of lighting columns within the Facility; • the careful design of the lighting columns to ensure that they are no taller than needed; • angling the face of lights downwards, away from the river and avoiding angling them up or downstream to prevent light spilling down The Haven; • ensuring the lighting is passive, i.e. it automatically dims when there is no movement within the Facility such as when there is no construction activity at night; and • restricting the use of mobile lighting that is taller than any fixed lighting columns and not operating such lighting outside of normal construction hours.	Operational lighting: DCO Requirement 15, Operational lighting scheme (Draft DCO, Schedule 2, Part 1) (document reference 2.1). Outline Lighting Strategy (document reference 7.5) Construction lighting: DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
92	Chapter 18 Navigational Issues – Paragraph 18.7.49	Construction	In addition to the measures outlined above there will be regular communication between the contractor and river users to ensure that any concerns of the lighting are shared at the earliest opportunity and can therefore be remedied as soon as possible to prevent any navigational issues. Communication routes for complaints relating to navigational safety will be provided within the NMP and the Code of Construction Practice.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1). DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
93	Chapter 18 Navigational Issues –	Operation	As part of the management of safe navigation on The Haven, the NMP will set out procedures, windows of movement for the vessels and communication channels	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	Paragraph 18.7.74		to be used between the Facility, the Port, the fishermen and other users of The Haven.	reference 2.1).
94	Chapter 18 Navigational Issues – Paragraph 18.7.75	Operation	All vessels will request passage to the Port and have a Pilot on board in the same manner as all other cargo vessels. Open and frequent communication between the Facility and the Port, as set out in the NMP, will be maintained throughout the lifetime of the project to ensure the safety of navigation on The Haven and the continued safe operation of the Port.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
95	Chapter 18 Navigational Issues – Paragraph 18.7.76	Operation	The NMP will also set out communication channels between the Facility, Port and fishermen to ensure that there are no operational or business impacts to any user of The Haven.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
96	Chapter 18 Navigational Issues – Paragraph 18.7.78	Operation	Clear communication methods, including the establishment of any messaging boards, will be set out in the NMP.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
97	Chapter 18 Navigational Issues – Paragraph 18.7.87	Construction and Operation	On completion of the first phase of the wharf the Port will issue a NtM which will advise vessels to take a slower speed of less than 4 knots through this section of the river. The NtM will also advise caution in the area so all mariners are aware and can take appropriate measures in the vicinity of the Facility.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
98	Chapter 18 Navigational Issues – Paragraph 18.7.101	Operation	The operational effect on the Port and Pilots can be mitigated through the implementation of the NMP which will set out careful, regular and thorough communication methods with the Captains of vessels visiting / departing the Facility to allow the effective management of the	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			turning requirement.	
99	Chapter 18 Navigational Issues – Paragraph 18.7.103	Operation	The NMP will set out clear management procedures for the use of the turning circle to ensure that the Requirements of the fishermen especially when sailing to / returning from fishing grounds to land their catch are taken into account when scheduling turning vessels including use of turning within the Wet Dock. The NMP will also set out the communication avenues that should be used between the Port, Captains of vessels visiting / departing the Facility and fishermen to ensure everyone an optimal window that allows passage of all vessels.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
100	Chapter 18 Navigational Issues – Paragraph 18.7.113	Operation	A NtM will be published prior to the commencement of any dredging activities to notify river users and advice caution when transiting past the wharf.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
101	Chapter 18 Navigational Issues – Paragraph 18.7.114	Operation	During the first five operational years of the Facility bathymetric surveys will be undertaken every six months to monitor the build-up of silt and inform dredging requirements.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
102	Chapter 18 Navigational Issues – Paragraph 18.7.129	Operation	A catch-screen or net will be provided under the movement of the crane-arm to catch any dropped bale, or material that could potentially fall from a damaged bale. A re-baling facility is provided directly behind the wharf. Any bales that are damaged will be immediately transferred to the re-baling facility.	Part of the management system requirements to prevent litter. This will be a condition of the Environmental Permit(s) for the Facility.
103	Chapter 19 Traffic and Transport –	Construction	No HGV construction traffic to route through the A52 Liquorpond Street as a result of the feedback received from the initial PEIR impact assessment.	DCO Requirement 12, Construction Traffic Management Plan (CTMP) (Draft DCO,

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	Table 19-15			Schedule 2, Part 1) (document reference 2.1) Outline CTMP (document reference 7.2)
104	Chapter 19 Traffic and Transport – Paragraph 19.7.99	Construction	To reduce any impacts on A16/A52 (Liquorpond Street) (and consequently all junctions in the study area) the Outline Construction Traffic Management Plan (OCTMP) includes details of measures to encourage car sharing to reduce daily employee vehicle movements.	DCO Requirement 12, Construction Traffic Management Plan (CTMP) (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CTMP (document reference 7.2)
105	Chapter 19 Traffic and Transport – Paragraph 19.7.38, Paragraph 19.7.125 and 19.7.126	Construction and Operation	A fenced public footbridge to be provided across the existing gap in the Roman Bank which will enhance pedestrian safety.	Identified in DCO Work No. 6(d)
106	Chapter 19 Traffic and Transport – Table 19-15	Operation	The operational access strategy consists of three accesses. Two primary access include a main site access on Nursery Road for employees and HGVs and an 'Exit Only' access is provided on Bittern Way leading to Marsh Lane for HGVs. This strategy reduces HGV conflicts at the main site entrance and along Nursery Road increasing site safety and reducing traffic delay. A secondary access is provided at the end of the un-	DCO Requirement 12, Construction Traffic Management Plan (CTMP) (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CTMP (document reference 7.2)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			named spur road leading to the wharf and will only be utilised for very infrequent maintenance vehicles at the wharf and Lightweight Aggregate Plant.	
107	Chapter 19 Traffic and Transport – Paragraph 19.7.99	Construction	To mitigate and to allow pedestrians to safely cross over the unnamed spur road within the construction site boundary and continue their journey along BOST/14/11, there is potential to use traffic lights, barrier gates or banksmen to monitor the crossing of BOST/14/11 by potential construction traffic during the construction period.	DCO Requirement 12, Construction Traffic Management Plan (CTMP) (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CTMP (document reference 7.2)
108	Chapter 19 Traffic and Transport – Paragraph 19.7.99	Operation	The OCTMP includes details of measures to encourage car sharing to reduce daily employee vehicle movements. These measures will further reduce the potential for employee vehicle movements that could occur during peak hours, ensuring that delays are managed to low magnitude levels.	DCO Requirement 12, Construction Traffic Management Plan (CTMP) (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CTMP (document reference 7.2)
109	Chapter 23 Waste – Paragraph 23.6.8	Construction	Good environmental practices during construction works will be followed in accordance with Considerate Contractor Scheme (CCS) principles and wastes will be managed in accordance with the Code of Construction Practice (CoCP) which will be submitted prior to construction and secured by a Requirement in the DCO.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
110	Chapter 23 Waste – Paragraph 23.6.10	Construction	A Site Waste Management Plan (SWMP) will be prepared prior to construction to record any decisions given to materials resource efficiency when designing and planning the works. Any assumptions on the nature	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			of the project; its design; the construction method or materials employed, to minimise the quantity of waste produced on-site; or maximise the amount of waste reused, recycled or recovered, will be captured within the SWMP.	Outline CoCP (document reference 7.1)
111	Chapter 23 Waste – Paragraph 23.6.12	Construction	Certain principles of waste management can be applied to most of the wastes that would be created during the construction phase. These are: • Adhere to waste legislation for storage and handling on-site; and also ensure that the relevant regulatory controls have been applied to the reuse, recycling or recovery of waste on-site. • No waste from the Facility shall be deposited outside the boundary of the site, unless it is at a facility that holds a valid Environmental Permit or suitable authorised exemption. Off-site waste management facilities are legally obliged to operate under an Environmental Permit (or an authorised exemption), which is in place to ensure that the site is operated in a manner to prevent emissions causing harm to human health or the environment. • Ensure that those who remove waste from Application Site have the appropriate authorisation (i.e. are registered waste carriers); and those facilities that receive waste from the site hold a valid Environmental Permit or authorised exemption. • Allocate space on-site for the storage of waste materials and ensure that storage areas and containers are clearly labelled so site workers know which wastes should be put there. • Hazardous waste must be stored separately from non-hazardous wastes to avoid contamination. The	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			Hazardous Waste Regulations make it illegal to mix hazardous waste with non-hazardous waste. • Provide separate containers for dry recyclables, such as paper & cardboard, plastic, glass, wood and metal. This would encourage recycling and increase the potential value of the recyclable items by avoiding contamination. • Monitor the actual quantities of wastes produced during construction and update the SWMP to allow comparison with waste arisings estimated prior to construction. Record the proposed waste management option (e.g. reuse on-site, recycle off-site, or dispose off-site) for each waste produced. • All wastes that are removed off the Application Site would be described on a waste transfer note or hazardous waste consignment note (as appropriate) that tracks the movement of the waste to the specified disposal or recycling facility. • The appointed contractors should identify appropriate staff that are responsible for waste management; and ensure that all contractor staff are aware of the appropriate reuse, recycling or disposal routes for each waste. These measures would promote sustainable waste management practices by maximising waste prevention, re-use and recycling for material destined for offsite waste management. This would actively discourage sending waste to landfill and would promote the Waste Hierarchy, which is a legal requirement. These measures will be incorporated into the CoCP for the Facility.	
112	Chapter 23	Construction	Waste inert materials (for example concrete, bricks,	DCO Requirement 10, Code of

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	Waste – Paragraph 23.6.14		rubble) could be crushed and processed in accordance with the Waste and Resources Action Programme (WRAP) Aggregates Quality Protocol (Environment Agency, 2013). This would allow for on-site reuse as engineering fill material complying with an appropriate engineering standard for fill (for example the Manual of Contract Documents for Highway Works Volume 1 - Specification for Highway Works, Department for Transport (DfT), 2009).	Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
113	Chapter 23 Waste – Paragraph 23.6.27	Construction	Some biodegradable waste is anticipated to be generated from the site clearance part of the construction works. This would be effectively managed by being sent for recovery at a local composting or an anaerobic digestion facility. None of this material is anticipated to require landfill disposal	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
114	Chapter 23 Waste – Paragraph 23.6.28	Construction	Any excavated material that is deemed by ground investigation to be contaminated would require assessment to determine whether the contaminants were present at or above hazardous waste thresholds. Any contaminated excavated material that was hazardous waste would be stockpiled and dealt with separately to other non-hazardous excavated material (see below).	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
115	Chapter 23 Waste – Paragraph 23.6.	Construction	It is anticipated that most excavated soil would be retained on-site for reuse as general fill as part of the cut and fill balance associated with the construction process and for moving the flood defence to enable the construction of the wharf. Any excavated soil that is surplus to requirements would be sent to a soil conditioning facility or local landfill for beneficial use as	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			restoration material or daily cover, where possible as a preference over landfill depending upon availability.	
116	Chapter 23 Waste – Paragraph 23.6.	Construction	Effective stockpile management would be essential within the Application Site. It would maximise the amount of material that can be beneficially reused on-site. Where excavated material is proposed to be used on-site for construction purposes (e.g. backfill), the appropriate regulatory mechanism must be followed prior to use to demonstrate that it will not cause unacceptable harm to the environment when used.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
117	Chapter 23 Waste – Paragraph 23.6.	Construction	It is anticipated that bitumen-based surface planings would be treated at an authorised mobile treatment unit by crushing, grinding and screening, and used again on-site in the construction of paving structures similar to those from which the waste arose, in accordance with a 'U1' Waste Exemption (Use of Waste for Construction).	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
118	Chapter 23 Waste – Paragraph 23.6.43 – 23.6.47	Construction	Space should be made available to provide receptacles to collect different waste streams and allow the separate collection of dry recyclables from residual waste. Segregation of the different streams of plastic waste would maximise opportunities for recycling. Card and paper should be separately collected as should aluminium and steel cans. Glass should be separated into different receptacles where possible. These measures would ensure that the maximum amount of waste is diverted for reuse, recycling and recovery. The food waste should also be separately collected and sent for anaerobic digestion.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			All receptacles for contractor waste should be clearly labelled and have lids to prevent wind-blown litter. Frequent collections of waste should be arranged to ensure that quantities on the Application Site are within the capacity of one skip and waste is not retained on the Application Site for long periods to reduce scavengers and vermin; and to reduce odour issues. The remaining residual waste should be sent to an off-site materials recycling facility.	
119	Chapter 23 Waste – Paragraph 23.6.49 – 23.6.51	Construction	Timely procurement and buying only the required amount of material should ensure that the material is delivered at the time when it is needed and only in sufficient quantities. This would prevent waste from unused or spoiled items because of bulk purchasing. Ensure that perishable materials are stored so that they are protected from the local climate. All damaged or off-specification material should be immediately returned to the supplier where possible, which would reduce the amount of waste held on the Application Site.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
120	Chapter 23 Waste – Paragraph 23.6.53	Construction	Metal waste (i.e. from overhead line modifications, off-cuts and scrap metal that cannot be reused) should be collected in containers/skips or stored in an allocated area and removed off-site for recycling.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
121	Chapter 23 Waste – Paragraph 23.6.54	Construction	Local and sustainable products would be used to minimise the effects on the environment by reducing carbon emissions from transport, promoting local businesses and saving natural resources.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
122	Chapter 23 Waste – Paragraph 23.6.55 – 23.6.57	Construction	To minimise the effects of packaging, suppliers should be required to take back any packaging associated with their products. Packaging materials that cannot be returned should be kept for on-site use (e.g. use of pallets for storage). Any residual packing that cannot be used on-site should be segregated into distinct dry recyclable waste streams and sent for recycling off-site. No waste packaging would be landfilled.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
123	Chapter 23 Waste – Paragraph 23.6.58 – 23.6.59	Construction	Waste timber will arise from waste packaging e.g. pallets. This should be returned to suppliers as described above. The condition of any other timber waste would determine whether they can be recycled at a wood processing facility; or whether they would have to be chipped or treated and prepared for recovery at a biological treatment facility, such as composting; or prepared for use as a fuel in an energy from waste facility.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
124	Chapter 23 Waste – Paragraph	Construction	Empty fuel or oil drums should be retained for reuse on the Application Site for storing waste oil where possible. Those that cannot be retained should be sent to a drum	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	23.6.60		reconditioning facility to enable the container to be prepared for re-use. Damaged drums should be sent for recycling.	reference 2.1) Outline CoCP (document reference 7.1).
125	Chapter 23 Waste – Paragraph 23.6.62	Construction	The use of an active maintenance regime on plant and equipment should reduce the potential for machinery to cause leaks. Valves, stopcocks and pipes should be regularly checked for leakages. Fuelling activities should be carried out in bunded areas, or off-site.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
126	Chapter 23 Waste – Paragraph 23.6.63	Construction	The storage of fuels and liquids should be in accordance with the Oil Storage Regulations 2001 (HMSO, 2001) and the appropriate pollution prevention control guidelines to protect the environment from both storage and spillages of hazardous substances.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
127	Chapter 23 Waste – Paragraph 23.6.65	Construction	Hazardous materials should be stored securely, away from non-hazardous or incompatible materials. Small items of hazardous waste should be prevented from being disposed of in general waste skips to avoid contamination. Hazardous material should be collected frequently to minimise the total volume on-site at any one time.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
128	Chapter 23 Waste – Paragraph 23.6.70 - 23.6.71	Construction	A watching brief would be maintained during construction, in accordance with the CoCP, and any excavated material that is suspected of contamination (e.g. because of staining or odour) would be stockpiled separately and samples taken for analysis.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			Any excavated material that is found to be contaminated (including material classified as hazardous) would be assessed against the principles of the CL:AIRE CoP and reused where there is a need for the material; and it is demonstrated to be suitable for use. This would reduce the amount of material on-site that is waste.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1).
129	Chapter 23 Waste – Paragraph 23.7.4 - 23.7.7	Operation	The supplier of the RDF bales will have several contractual requirements to minimise waste impacts. The supplier will be required to check the bales to ensure that there are no unacceptable wastes (for example hazardous wastes, gas cannisters, infectious wastes etc.) baled along with the RDF. This is to ensure bales are not rejected at the Facility. The supplier of the RDF will not be permitted to load any damaged bales onto the vessels prior to shipping to the Application Site. This will be confirmed in the contractual arrangements between the Applicant and the RDF supplier. At the wharf, it is proposed that there would be a cover underneath the swept path of the mobile crane arm whilst bales are off-loaded from the vessel. This is to prevent litter from damaged bales falling into The Haven.	During operation, the Environmental Permit will require management system to cover waste management practices and procedures.
130	Chapter 23 Waste – Paragraph 23.7.8	Operation	Any bale that is damaged whilst in transit to the storage area, or whilst being loaded onto the conveyors will be removed and taken to the re-baling facility behind the wharf.	During operation, the Environmental Permit will require management system to cover waste management practices and procedures.

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
131	Chapter 23 Waste – Paragraph 23.7.9	Operation	Thermal cameras and thermal lances will be used to monitor temperature of bales and bale stockpiles. Thermal cameras will also be located along the sealed conveyor lines. Any bale that is detected to be increasing in temperature to unacceptable levels will be removed and dealt with in accordance with a Fire Prevention Plan, which will be developed in accordance with Environment Agency guidelines and form part of the Environmental Permit.	During operation, the Environmental Permit will require a Fire Prevention Plan.
132	Chapter 23 Waste – Paragraph 23.7.18 – 23.7.20	Operation	The operators of the Facility would be under a legal obligation to comply with the waste duty of care to ensure that they handle waste safely and in compliance with the appropriate regulations. The duty of care involves making sure that the waste has been described properly and that all of the properties associated with the waste are known; and to ensure that persons involved in the transfer of waste hold the necessary authorisation to do so. The basic responsibilities that the commercial occupiers would be expected to follow are: • Know whether waste is hazardous or non-hazardous; • Store waste in suitable containers at a secure location, in a manner that prevents releases of the waste; • Label the waste containers so that it is clear what is in them; • Check that the waste is subsequently handled by those who hold an appropriate environmental authorisation. This means checking that the waste	Required by English law (Waste (England and Wales) Regulations 2011 (as amended)). During operation, the Environmental Permit will require management system to cover waste management practices and procedures.

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			carrier is registered (or is exempt from having to be a registered waste carrier). It is also good practice to check that the facility that will receive the waste holds a suitable Environmental Permit that allows the waste to be handled on their site; • Provide documentation with any waste transfer that accurately describes the waste and contains the relevant code for the waste; and • Keep records of all waste transfers in a register.	
133	Chapter 23 Waste – Paragraph 23.7.21	Operation	Servicing and maintenance personnel would be required to know the difference between hazardous waste and non-hazardous waste. The controls that are applied to hazardous waste are stricter. All hazardous waste must be segregated from non-hazardous wastes or other non-waste materials. All hazardous wastes must be accompanied by a hazardous waste consignment note when removed from site.	Required by English law (Waste (England and Wales) Regulations 2011 (as amended); and the Hazardous Waste (England and Wales) Regulations 2005 (as amended). During operation, the Environmental Permit will require management system to cover waste management practices and procedures.
134	Chapter 23 Waste – Paragraph 23.7.24 - 23.7.26	Operation	Waste electrical and electronic equipment (WEEE) must be collected separately from other wastes and sent to the appropriate recycling facilities. If a business does have WEEE to recycle, it has a Duty of Care to act responsibly and ensure that the contractor it appoints to collect it is legitimate and has the appropriate licences and permits. A business should ensure that the waste is taken to a suitable facility to be treated and recycled. The site must have a permit or licence that allows them to accept trade waste. For WEEE waste, it must obtain and keep proof	During operation, the Environmental Permit will require management system to cover waste management practices and procedures.

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			that WEEE was given or sold to a waste management (or asset management) business and was treated and recycled appropriately. All WEEE from a business should go through Approved/Authorised Treatment Facilities for treatment and recycling.	
135	Chapter 23 Waste – Paragraph 23.7.30 – 23.7.33	Operation	The design and location of waste storage areas would be confirmed at detailed design stage. The required storage provision for the Facility would ensure that: • The space would be adequate to store the predicted accumulation of waste between waste collections; • The bin storage would be easily accessible to users of the facility; • Waste collected from the bins would be accumulated in a waste compound for temporary storage prior to collection; • The waste compound storage would be easily accessible to waste collectors; and • The storage would be adequate to accommodate all of the different types of storage containers to meet current and proposed residual waste and waste recycling regimes by waste management companies collecting the waste. Consideration would be given to vehicle access and egress to ensure the facilities can be easily serviced; and that waste compound areas are secure and can be accessed by waste collection vehicles. All wastes shall be stored in dedicated areas which should be: • Identified by appropriate signage;	Design and Access Statement (DAS) (document reference 5.3) DCO Requirement 3, Detailed design approval, (Draft DCO, Schedule 2, Part 1) (document reference 2.1)

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
			• Paved or protected from direct contact with the ground; and • Protected from bad weather conditions (rain, wind, extreme temperatures).	
136	Chapter 23 Waste – Paragraph 23.7.34	Operation	The Packaging Waste Regulations 2007 (as amended) (HMSO, 2007) require businesses or organisations to: • Reduce packaging; • Reduce how much waste packaging goes to landfill; and • Increase the amount of packaging waste that is recycled and recovered.	UK Law - The Packaging Waste Regulations 2007 (as amended)
137	Chapter 23 Waste – Paragraph 23.7.39 – 23.7.42	Operation	Before any waste can be sent to landfill, the waste producer/holder must ensure that the option for landfill has been justified in accordance with the Waste Hierarchy. It is a legal Requirement that all wastes going for landfill must be pre-treated, unless treatment is not technically possible	UK Law Environmental Permitting (England and Wales) Regulations 2016 (as amended) Waste (England and Wales) Regulations 2011 (as amended)
138	Chapter 24 Major Accidents and Risks Paragraph 23.8.4	Construction and Operation	In order to mitigate residual flood risk to the Facility due to storm surge, should there be a storm surge forecast or flood warning issued, users of the site should take action to ensure safe egress from the Principal Application Site. Additionally, an emergency flood warning and evacuation plan will be implemented for the Principal Application Site which includes the identification of areas for safe refuge.	DCO Requirement 13, Flood risk emergency plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1) During operation, the Environmental Permit will require management system to cover emergencies, including flood risk via an Accident Prevention and Management Plan.

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
139	Chapter 24 Major Accidents and Risks – Paragraph 24.8.9	Operation	During operation, open and frequent communication between the Facility and the Port, as set out in the NMP, will be maintained throughout the lifetime of the project to ensure the safety of navigation on The Haven and the continued safe operation of the Port.	DCO Requirement 14, Navigation Management Plan, (Draft DCO, Schedule 2, Part 1) (document reference 2.1).
140	Chapter 24 Major Accidents and Risks – Paragraph 24.8.10	Operation	In addition to the DCO, the Facility will be required to operate under an Environmental Permit issued by the Environment Agency. This permit will require a written management system for procedures to minimise the risk of pollution from activities covered by the permit. This will include an Accident Prevention and Management Plan to identify potential accidents and measures taken to avoid the accident happening and measures to minimise the impacts if an accident does occur. Contingency plans will also be included which will plan for minimising the impact on the environment in the event of a breakdown, enforced shutdown or other changes to normal operations (such as flooding or extreme weather). These plans will also consider changes due to climate change. A Fire Prevention Plan will also be included as part of this application.	During operation, the Environmental Permit will require management system to cover emergencies, including flood risk via an Accident Prevention and Management Plan. A Fire Prevention plan will be required as part of the Environmental Permit.
141	Chapter 24 Major Accidents and Risks – Paragraph 24.8.11	Construction	The final Code of Construction Practice (CoCP) would provide mechanism by which environmental impacts associated with the construction of the Facility will be formally controlled and mitigated. The Outline Code of Construction Practice (OCoCP) summarises general principles and control measures which provides a framework for the final CoCP, developed post-consent.	DCO Requirement 10, Code of Construction Practice (Draft DCO, Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)
142	Chapter 24 Major Accidents and	Construction	Appropriate legislative procedures such as the Construction (Design and Management) Regulations	DCO Requirement 10, Code of Construction Practice (Draft DCO,

Ref	Source	Project Stage	Mitigation / commitment (including specific location and any monitoring required)	How the action is to be implemented / secured
	Risks – Paragraph 24.8.12		2015 will also be in place.	Schedule 2, Part 1) (document reference 2.1) Outline CoCP (document reference 7.1)