

PLANNING ACT 2008 INFRASTRUCTURE PLANNING (APPLICATIONS: PRESCRIBED FORMS AND PROCEDURE) REGULATIONS 2009 REGULATION 5 (2) (q)

## PROPOSED PORT TERMINAL AT FORMER TILBURY POWER STATION

## **TILBURY2**

TR030003

**VOLUME 7** 

MITIGATION ROUTE PLAN

**DOCUMENT REF: 7.3** 







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- This mitigation route map has been prepared in relation to the application by Port of Tilbury London Limited ("PoTLL") under section 37 of the Planning Act 2008 ("the Act") for an order granting development consent ("DCO") for the construction, operation and maintenance of a new port terminal and associated facilities in Tilbury, Essex known as 'Tilbury2' ("the proposals"). The mitigation route map aims to demonstrate that all environmental controls and mitigation measures necessary for the proposals have been identified and secured. The purpose of this document is to:
  - provide an audit trail of the controls and mitigation measures on which the Environmental Statement (ES) (including related assessment documents) relies to avoid, reduce and/or offset significant (i.e. moderate or major) impacts of the proposal (columns (3) and (4) of the table); and;
  - set out the way in which they have been, or will be, translated into clear and enforceable controls (Column (6)); either via Development Consent Order (DCO) requirements, development consent obligations or other consent regimes.
- This mitigation route map is not proposed to have any formal status, but is submitted to assist the
  Examining Authority and interested parties to understand how and where mitigation is to be
  secured. This document is intended to be a live document which will be updated throughout the
  examination process.
- The route map is structured as follows:
  - Column (1) provides an item number for each relevant impact and mitigation measure;
  - Column (2) provides a location reference for the description of the impact and mitigation measure(s) in the ES;
  - Column (3) describes the potential significant effect (moderate or major);
  - Column (4) provides a description of the mitigation measure(s) proposed in the ES and associated documents. These measures include the following;
  - Construction methods or controls, e.g. measures included in the Construction Environmental Management Plan (CEMP), or other measure that is proposed to avoid or reduce significant impact during construction.
  - Mitigation incorporated into the scheme design and operation, e.g. landscape planting, operational controls
  - Column (5): identifies the timing or 'trigger' for when an mitigation measure should be in place;
  - Column (6): refers to the relevant securing mechanism(s). Where relevant, compliance with the relevant section of the CEMP, or other relevant control document, is identified.
- The structure of the mitigation route map follows the same order as the topic chapters in the ES.



## 2.0 MITIGATION ROUTE MAP

| (1)    | (2) Source                    | (3) Issue  | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger  | (6) Securing mechanism   |  |  |  |  |
|--------|-------------------------------|--|---|--|--|--|--|--|--|
|        |                               |  |   |  |  |  |  |  |  |
| Socio- | Socio-economics               |  |   |  |  |  |  |  |  |
| 1      | ES Chapter 7 Socio- economics | Impacts from construction traffic on local communities and tourism receptors | The use of roads by construction traffic could lead to restricted access to business and community or delays in journey times. The draft Construction Traffic Management Plan (CTMP) outlines the measures for the management of construction traffic and proposed lorry routes that have been developed in consultation with TC and HE to minimise the impacts of construction traffic on the road network, local communities and tourism receptors. The final CTMP must include the following measures:  The use of appropriate and approved routes for larger construction vehicles, deliveries and for staff including approved routing plans; and  The management of working hours and delivery times to minimise disturbance caused by traffic (e.g. avoiding deliveries during peak hours).  The CEMP (Chapter 5) will require the Contractor to undertake the following measures to reduce the potential impacts on | Prior to commencement of works and during construction | The draft CTMP is an appendix of the CEMP  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |  |  |  |  |



| (1) | (2) Source | (3) Issue                        | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger      | (6) Securing mechanism  |
|-----|------------|----------------------------------|---|------------------|---|
|     |            |                                  | <ul><li>indirect amenity effects:</li><li>Appropriate screening should be installed at all times.</li></ul>   |                  |   |
| 2   |            | Impacts on landowners and groups | PoTLL have listed a range of potential further mitigation measures with include:  • The retention of a strip of existing vegetation along the western boundary; and  • Adopting a 'good neighbour' operational approach with Gravesham Rowing and Sailing clubs . | During operation | The planting and ongoing management of landscaping (which includes the western strip) is set out in the Landscape and Ecological Management Plan, compliance with which is secured by a requirement in Schedule 2 to the DCO.  The Operational Community Engagement Plan, compliance with which is secured by a requirement in Schedule 2 to the DCO secures a range of communication |



| (1)    | (2) Source                 | (3) Issue                                     | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger  | (6) Securing mechanism  |
|--------|----------------------------|---|--|--|---|
|        |                            |   |  |  | measures to be undertaken by PoTLL during operation.  |
| Health |                            |   |  |  |   |
| 3      | ES Chapter 8 -<br>– Health | Impacts on health from noise                  | <ul> <li>Introduction of a temporary noise barrier while the construction of the permanent noise barrier for the Infrastructure Corridor is undertaken</li> <li>Restricted working hours during the weekdays and weekends; and</li> <li>Implementing a community awareness campaign as to noisy activity.</li> </ul>   | Prior to commencement of works and during construction | These measures are set out in the CEMP.  Compliance with the CEMP is secured by requirement 11 in Schedule 2 to the DCO |
| 4      |                            | Impacts on health from noise during operation | <ul> <li>Construction of noise barriers for the new road and rail links, and the Tilbury2 site access road</li> <li>Operational noise management measures (such as design of buildings) through an Operational Management Plan.</li> <li>An at-receptor monitoring and mitigation scheme including the offer of noise insulation or improved glazing, to be agreed with Thurrock and Gravesham Borough Council.</li> </ul> | During operation                                       | Noise barriers, Operational Management Plan and monitoring and management scheme all secured by DCO requirement.        |



| (1) | (2) Source | (3) Issue                          | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger                       | (6) Securing mechanism  |
|-----|------------|------------------------------------|--|-----------------------------------|---|
| 5   |            | Impacts on health from lighting    | The Preliminary Lighting Strategy and Impact Assessment describes several proposals for the mitigation of lighting impacts that includes all high output floodlights and streetlights to be fully cut-off meaning there would be no direct upward light from their mounted location.  The lighting details will be finalised in detailed design as part of the finalised lighting strategy to be approved by Thurrock Council in consultation with Gravesham Council and the MMO. This must be developed in general accordance with the Preliminary Lighting Strategy. | During construction and operation | Secured by a requirement in Schedule 2 to the DCO   |
| 6   |            | Impacts on health from air quality | Mitigation measures during construction will be secured through the CEMP (Chapter 11) which will include:  dust monitoring;  measures relating to the preparation of the site, operation, earthworks, construction and trackout; and  switching vehicles off when stationary, avoiding the use of diesel and petrol powered generators, imposing speed limits  |                                   | CEMP Chapter 11  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO  Operational Management Plan secured by a requirement in Schedule 2 to the |



| (1) | (2) Source | (3) Issue                      | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger         | (6) Securing mechanism   |
|-----|------------|--------------------------------|---|---------------------|--|
|     |            |                                | <ul> <li>in accordance with the Construction Logistics Plan or equivalent.</li> <li>Operational Management Plan to include a range of good practice measures such as:</li> <li>Provision of a sufficient water supply to meet the site demand for mitigation damping;</li> <li>Provision of an internal road network that minimises haul route distances;</li> <li>A separate paved parking area for off-site vehicles, such as staff cars, with no access to the working areas, to prevent track-out onto the public highway.</li> <li>Trees and bushes to be retained as far as possible and new planting to reduce transfer of dust off site.</li> </ul> |                     | DCO.   |
| 7   |            | Impacts on health from traffic | Mitigation measures from impacts from traffic during construction are outlined in the draft CTMP and further details are described in the Landside Transport section below.  Operational noise and air quality management measures are detailed in the Operational Management Plan. The OMP   | During construction | The draft CTMP is an appendix of the CEMP  Compliance with the CEMP is secured by a requirement in Schedule 2 to the |



| (1) | (2) Source | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger                       | (6) Securing mechanism  |
|-----|------------|---|---|-----------------------------------|---|
|     |            |   | includes a range of good practice measures including site layout aspects and adoption of lower emission engines and electric vehicles as technology improves.   |                                   | DCO   |
| 8   |            | Impacts on health from neighbourhood quality (open space, active travel, physical activity) | The Landscape Character and Visual Amenity section below describes the mitigation measures (i.e. installing appropriate screening) designed to address the visual amenity impacts.  The development of an Active Travel Study will outline improved amenity and access to the riverside and elsewhere for pedestrians and cyclists. | During construction and operation | Measures within the Active Travel Study are secured as follows:  In the Order limits; through their inclusion in the DCO (and the approval of Thurrock Borough Council of new highway under their protective provisions.  Outwith the Order limits, through the proposed section 106 agreement with |



| (1)    | (2) Source   | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger  | (6) Securing mechanism   |
|--------|--|---|--|--|--|
|        |  |   |  |  | Thurrock<br>Council.   |
| 9      |  | Impacts on health from employment and economic impacts                | The Skills and Employment Strategy set of the Ports strategy for achieving increased levels of employees both on-port and off-port from the local area, as well as educational opportunities for the local population including youth employment opportunities, apprenticeships, traineeships, school educational visits, veteran recruitment proposals, and graduate recruitment programmes. These initiatives have successfully been used already to engage with the local population to increase employment and education. This strategy will maximise the health benefit for the local population. | During operation                                       | The Skills and Employment Strategy will be secured through a section 106 agreement with Thurrock Borough Council |
| Landso | ape Character an   | d Visual Amenity  |  |  |  |
| 10     | ES Chapter 9 -<br>Landscape<br>Character and<br>Visual Amenity | Impacts on visual amenity and landscape character during construction | <ul> <li>The CEMP (Chapter 5) will require the Contractor to undertake the following measures to reduce the potential impacts on visual amenity and landscape character:</li> <li>Appropriate screening should be installed at all times, particularly on the infrastructure corridor. This should include the retention of the existing Monterrey Pine trees on the western boundary where design permits.</li> </ul>   | Prior to commencement of works and during construction | CEMP Chapter 5  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO                    |



| (1) | (2) Source                                   | (3) Issue  | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger      | (6) Securing mechanism                                   |
|-----|--|--|---|------------------|--|
|     |  |  | The works should be phased so as to retain as much of the vegetation and soil mounds that exist on the northern part of the Tilbury2 site as is practicable during construction.  |                  |  |
|     |  |  | Where operationally practicable, taller concrete and asphalt related plant and buildings should be constructed within the southern half of the areas designated for these uses.   |                  |  |
|     |  |  | Where operationally practicable, retain as<br>many existing mature trees and scrub as<br>practicable within the designated general<br>storage areas, and land to the south of the<br>proposed general storage areas.  |                  |  |
|     |  |  | Unobtrusive construction lighting should<br>be used in construction where it is<br>practicable to do so. Lighting equipment<br>that is used must be designed in<br>accordance with Institute of Lighting<br>Professionals (ILP) Guidance Notes for the<br>Reduction of Obtrusive Light GN01:2011. |                  |  |
| 10  | ES Chapter 9 -<br>Landscape<br>Character and | Impacts on visual amenity and landscape character during | A Landscape Strategy summarises the description of effects on the visual amenity and identifies mitigation measures that have been adopted in the proposals as well as  | During operation | The Landscape<br>Strategy is located<br>in ES Chapter 9, |



| (1) | (2) Source     | (3) Issue  | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger                    | (6) Securing mechanism   |
|-----|----------------|--|--|--------------------------------|--|
|     | Visual Amenity | operation  | additional primary and secondary landscape mitigation measures. Maintenance and management of the Strategy will be secured through the Landscape and Ecological Management Plan. |                                | Figure 9.9.  The landscape Strategy and its maintenance and management will be secured through the Landscape and Ecological Management Plan (LEMP), compliance with which is secured through the DCO.  Those measures outwith the Order limits are included in the Active Travel Study, which is secured through a section 106 agreement with Thurrock Council |
| 11  |                | Access to riverside<br>and elsewhere for<br>pedestrians and<br>cyclists during and<br>after construction | Development of an Active Travel Study will outline improved amenity and access to the riverside and elsewhere for pedestrians and cyclists.                                      | Prior to commencement of works | Measures within the Active Travel Study are secured as follows:  In the Order limits; through  |



| (1)     | (2) Source                          | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger                    | (6) Securing mechanism  |
|---------|-------------------------------------|---|--|--------------------------------|---|
|         |                                     |   |  |                                | their inclusion in the DCO (and the approval of Thurrock Borough Council of new highway under their protective provisions.  Outwith the Order limits, through the proposed section 106 agreement with Thurrock Council. |
| Terrest | rial Ecology                        |   |  |                                |   |
| 12      | ES Chapter 10 - Terrestrial Ecology | Terrestrial Ecology effects prior to construction | A pre-construction survey will take place by a suitably qualitied ecologist to ascertain the detailed species protection and legal compliance measures that will need to be employed during works (especially works near or on watercourses). These surveys will include; presence of water voles, fish/eels and Invasive Non-Native Species (INNS).  Following this study, a detailed method statement will be drawn up for each area. This will be circulated in draft to relevant stakeholders including the Environmental Agency (EA), Thurrock Council (TC) | Prior to commencement of works | CEMP Chapter 6  Compliance with the CEMP is secured by requirement 4 in Schedule 2 to the DCO   |



| (1) | (2) Source | (3) Issue  | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger                    | (6) Securing mechanism  |
|-----|------------|--|---|--------------------------------|---|
|     |            |  | drainage team and (where water voles may be affected) Natural England (NE) for approval prior to the commencement of any works.   |                                |   |
| 13  |            | Translocation of species prior to construction             | All translocations of species and habitats required as a result of the proposals, must take place prior to the commencement of the relevant construction phase, and in consultation with NE and/or TC as appropriate (including in compliance with any licences that may be required). As such, all receptor areas for such species and habitats must be prepared to an extent that is suitable for the reception of translocated species or habitats prior to the commencement of the relevant construction phase. | Prior to commencement of works | CEMP Chapter 6  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |
| 14  |            | Translocation of<br>Eels and Fish prior<br>to construction | Translocation of Eels and fish will need to be undertaken before work can be undertaken on the river realignments and culverts. A fish and eel rescue will need to be undertaken and the channel drained and left for a few hours to remove any remaining eels from the system before works can start.  | Prior to commencement of works | CEMP Chapter 6  Compliance with the CEMP which is secured through the DCO                     |
| 15  |            | Translocation of water voles prior to construction         | Where water voles currently occur in areas identified for channel works and diversions, these will either have been translocated from these areas in advance of any works   | Prior to commencement of works | CEMP Chapter 6  Compliance with the CEMP is secured by  |



| (1) | (2) Source | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger  | (6) Securing mechanism  |
|-----|------------|---|--|--|---|
|     |            |   | commencing (in accordance with the licences referred to above) or where works are sufficiently small scale, habitat manipulation measures will be employed to ensure no animals are within the area at risk from construction activities, in conjunction with exclusion fencing where necessary to ensure no recolonisation of such areas prior to those works being completed.  |  | a requirement in<br>Schedule 2 to the<br>DCO  |
| 16  |            | Protection of nesting birds prior construction                                | Clearance of vegetation with the potential to support nesting birds should aim to avoid the peak nesting months of mid-February to July wherever possible. In situations where this is not possible, surveys and/or monitoring by specialist ornithologists will be employed to assess whether nests are present or likely to be present in affected vegetation, and whether appropriate measures such as temporary stand-offs will be deployed to work around such constraints in a legally compliant manner. | Prior to commencement of works                         | CEMP Chapter 6  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |
| 17  |            | Prevent spread of<br>non-native<br>invasive species<br>during<br>construction | If Invasive non-native species are found to be present, appropriate isolation, removal and post-construction control measures will be drawn up and implemented in conjunction with prevailing best practice protocols. The EA will be notified and agreement on methodological approach to such species will   | Prior to commencement of works and during construction | CEMP Chapter 6  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |



| (1) | (2) Source | (3) Issue                                 | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger      | (6) Securing mechanism   |
|-----|------------|---|--|------------------|--|
|     |            |   | be sought in that scenario.  |                  |  |
| 18  |            | On-site and off-site habitat compensation | On-site habitat compensation  New habitat creation forms part of both the On-site Ecological Mitigation and Compensation Strategy and the Landscape Strategy. It is a condition of the project that these features are constructed and managed in accordance with the Landscape and Ecology Management Plan (LEMP). Details of the construction of created habitats will be set out in the Ecological Mitigation and Compensation Plan (EMCP).  Newly created or restored habitat features include the following S41 Habitats (Habitats of Principal Importance further to section 41 of the NERC Act 2006) or ecologically similar equivalents:  Open Mosaic Habitat on Previously Developed Land;  Coastal and Floodplain Grazing Marsh;  Lowland Mixed Deciduous Woodland / Hedgerows3;  Ponds (2 no.); and | During operation | On-site compensation will be secured through the LEMP (which will be secured through the DCO) and ECMP.  Off-site compensation compliance will be secured by the DCO requirement for off- site compensation. |



| (1) | (2) Source                      | (3) Issue                              | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger  | (6) Securing mechanism  |
|-----|---------------------------------|--|--|--|---|
|     |                                 |  | Reedbed.   |  |   |
|     |                                 |  | Other newly created habitat and landscape features will include the following:   |  |   |
|     |                                 |  | Wet ditches (suitable for water voles);  |  |   |
|     |                                 |  | Dry ditches (including surface water / highway drainage attenuation); and  |  |   |
|     |                                 |  | Scrub and woodland planting  |  |   |
|     |                                 |  | A number of other species specific measures of new ecological features will include:   |  |   |
|     |                                 |  | Artificial sett creation for badger; and   |  |   |
|     |                                 |  | Replacement bat roosts (bat boxes).  |  |   |
|     |                                 |  | Off-site compensation  |  |   |
|     |                                 |  | An Ecological Mitigation and Compensation Plan is being prepared as part of the off-site compensation package which will be discussed with stakeholders. |  |   |
|     | Ecology                         |  |  |  |   |
| 19  | ES Chapter 11  – Marine Ecology | Construction impacts on marine ecology | The following measures are included in the CEMP (Chapter 7) to minimise adverse effects from the construction on the marine ecology:                     | Prior to commencement of works and during construction | CEMP Chapter 7  Compliance with the CEMP is secured by a requirement in |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|--|-------------|------------------------|
|     |            |           | Use and operate vessels and plant in<br>accordance with industry best practice and<br>OSPAR, IMO and MARPOL guidance for<br>pollution at sea.  |             | Schedule 2 to the DCO  |
|     |            |           | <ul> <li>Maintain machinery in good working order<br/>to minimise the risk of leaks and use of<br/>drip trays where necessary;</li> </ul>  |             |                        |
|     |            |           | Bund of vehicle wash-down areas and routing of run-off through interceptors;   |             |                        |
|     |            |           | <ul> <li>Undertake refuelling operations in<br/>appropriately bunded and managed areas<br/>within compound sites;</li> </ul>   |             |                        |
|     |            |           | <ul> <li>Put robust measures and equipment in<br/>place for dealing with any unexpected<br/>pollution events that will be in place at all<br/>times (such as those set out elsewhere in<br/>this document);</li> </ul>   |             |                        |
|     |            |           | <ul> <li>Through the Materials Management Plan<br/>referred to below, implement controls on<br/>construction materials brought to site such<br/>that these are free from contaminated<br/>material, so as to avoid potential run-off<br/>contamination;</li> </ul> |             |                        |
|     |            |           | Mange INNS introduction through<br>preventative measures identified through a<br>biosecurity risk assessment and set out in  |             |                        |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|---|-------------|------------------------|
|     |            |           | a biosecurity plan (in liaison with the MMO, PLA, NE and EA as necessary). This will follow best practice guidelines such as the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM), and NE's biosecurity planning guidance. |             |                        |
|     |            |           | <ul> <li>Ensure that all construction materials used<br/>will be safe for use in the marine<br/>environment.</li> </ul>   |             |                        |
|     |            |           | JNCC protocol for piling will be followed which will include the following:   |             |                        |
|     |            |           | <ul> <li>Soft start will be used for percussive piling.</li> </ul>  |             |                        |
|     |            |           | <ul> <li>There will be no night time piling.</li> </ul>   |             |                        |
|     |            |           | <ul> <li>Pre-piling search for marine mammals</li> </ul>  |             |                        |
|     |            |           | <ul> <li>The commencement of percussive<br/>piling will be delayed if marine<br/>mammals are detected</li> </ul>  |             |                        |
|     |            |           | <ul> <li>There will be breaks in piling activity</li> </ul>   |             |                        |
|     |            |           | Where practicable (and in conformance with health and safety requirements), new lighting  |             |                        |



| (1)    | (2) Source  | (3) Issue                             | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger  | (6) Securing mechanism  |
|--------|---|---------------------------------------|--|--|---|
|        |   |                                       | will be installed on the jetty which will be directed away from the Thames.  |  |   |
| 20     |   | Operational impacts on marine ecology | Mitigation measures will be secured through<br>the Deemed Marine Licence (DML) and PLA<br>Protective Provisions.   | During operations                                      | Measures secured by the DML and PLA Protective Provisions.                  |
| Archae | ology and Cultura                                 | al Heritage                           |  |  |   |
| 21     | ES Chapter 12 - Archaeology and Cultural Heritage | Impacts on archaeology                | A programme of archaeological mitigation measures will be required to mitigate against the impact of the proposed development on the known and potential terrestrial and marine archaeological receptors.  Mitigation measures are secured through the implementation of Written Scheme of Investigations (WSI). Two Written Schemes of Investigation have been prepared to align with the relevant regulatory control: the Written Scheme of Investigation for Archaeological Mitigation, to be secured as a requirement of the DCO (Technical Appendix 12.D) addresses the terrestrial mitigation measures and the Written Scheme of Investigation for Archaeological mitigation to be secured as a condition of the Deemed Marine Licence within the DCO (Technical Appendix 12.E) addresses the intertidal and marine mitigation measures. | Prior to commencement of works and during construction | ES Chapter 12  The WSI is secured by a requirement in Schedule 2 to the DCO |



| (1)   | (2) Source    | (3) Issue  | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger       | (6) Securing mechanism  |
|-------|---------------|--|---|-------------------|---|
| 22    |               | Impacts on built heritage assets during operations | Possible further mitigation measure to potentially reduce effects on the settings of the surrounding build assets could include the following:  Retention of mature Monterrey Pines trees on the western boundary to reduce and potentially screen views of the RoRo container operations  Colour proposed 100 m high silo and other taller buildings light grey to reduce visual impacts. To secure this, surface treatment of the silo and the CMAT facilities will be required by the DCO to be approved by TC and HE and GBC.  Provide low key lighting to illuminate waterside elements of the proposals to reduce impacts on the setting of Tilbury Fort and heritage assets. This will be secured through the DCO requirement for detailed lighting strategy to be approved by TC, HE, MMO and GBC in accordance with the Preliminary Lighting Strategy and Impact Assessment. | During operations | Trees secured by Landscape and Ecological Management Plan which is secured by a DCO requirement.  Surface treatment of facilities is secured by a DCO requirement.  A DCO requirement sets out the requirement for the detailed lighting strategy to be approved by TC, HE, MMO and GBC in accordance with the Preliminary Lighting Strategy and Impact Assessment. |
| Lands | ide Transport |  | 1   |                   |   |



| (1) | (2) Source                         | (3) Issue                           | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger  | (6) Securing mechanism   |
|-----|------------------------------------|-------------------------------------|---|--|--|
| 23  | ES Chapter 13 - Landside Transport | Impacts from construction traffic   | A draft CTMP has been prepared which sets out measures for the management of construction traffic and proposed lorry routes that have been developed in consultation with TC and HE to minimise the impacts of construction traffic on the road network, local communities and tourism receptors (Tilbury Fort). The final CTMP must include the following measures:  The use of appropriate and approved routes for larger construction vehicles, deliveries and for staff including approved routing plans;  The management of working hours and delivery times to minimise disturbance caused by traffic (e.g. avoiding deliveries during peak hours);  Covering loads coming to and leaving the development;  Provision of wheel washing / vehicle cleaning facilities on site; and  Inspection of local highway network and cleaning as necessary. | Prior to commencement of works and during construction | The draft CTMP is an appendix of the CEMP  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO  The CEMP requires that the draft CTMP must be finalised with approval by Thurrock Council. |
| 24  |                                    | Impacts on local residents' amenity | The CTMP outlines measures to reduce impacts on the local resident's amenity  | Prior to commencement of works and during              | The draft CTMP is an appendix of the   |



| (1) | (2) Source | (3) Issue              | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger  | (6) Securing mechanism   |
|-----|------------|------------------------|--|--|--|
|     |            | values                 | <ul> <li>Values which include:</li> <li>Established site working hours,</li> <li>Established construction delivery times and pre-determined routes</li> <li>Any vehicle onsite must not leave prior to using the on-site wheel washing facilities to reduce dust impacts on the nearby roads. Adjoining roads will be regularly inspected for any soil or debris deposited by construction traffic associated with the site. If necessary, roads will be cleaned.</li> </ul> | construction   | CEMP  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO  Working hours are set out in Chapter 3 of the CEMP.  The CEMP requires that the draft CTMP must be finalised with approval by Thurrock Council. |
| 25  |            | Impacts on road safety | <ul> <li>The draft CTMP outlines the following measures will be put in place to any road incidents:</li> <li>Security hoardings would be placed along the compound boundaries</li> <li>Access to the site will be securely locked at the end of the working day</li> <li>The contractor would use companies with Fleet Operator Recognition Scheme (FORS) accreditation when selecting companies to make deliveries</li> </ul>   | Prior to commencement of works and during construction | The draft CTMP is an appendix of the CEMP  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO  The CEMP requires that the draft CTMP must be finalised with approval by                                   |



| (1)     | (2) Source                 | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger   | (6) Securing mechanism  |
|---------|----------------------------|---|---|---|---|
|         |                            |   | to the site and give preference to those meeting the Construction Logistics and Community Safety (CLOCS) standard for construction logistics.   |   | Thurrock Council.   |
| 26      |                            | Construction impacts on the marine environment              | In constructing the marine elements of the proposals, to ensure that construction vessels do not impact on navigation, the Contractor must comply with the recommendations set out in the Navigation Risk Assessment (NRA).   | Prior to commencement of works and during construction and operation. | Compliance with the NRA is secured by a requirement in Schedule 2 to the DCO                        |
| 27      |                            | Transport related effects from the completed development    | To mitigate the transport related effects of the completed development, as a Framework Travel Plan (FTP) and Sustainable Distribution Plan (SDP) have been developed. These documents comply with the aims of national, regional and local transport policy guidance with the aim to deliver sustainable new development, whilst providing assistance in resolving existing transport issues in the area. | During operation  | Compliance with the FTP and the SDP is secured by requirements in Schedule 2 to the DCO             |
| Navigat |                            |   |   |   |   |
| 28      | ES Chapter 14 - Navigation | Impacts on navigation from movement of construction vessels | A Navigation Risk Assessment (NRA) has been prepared for the proposals which identifies five hazards and proposals to deal with them, as well as a number of plans following detailed design.   | Prior to commencement of works and during construction and operation. | Compliance with the recommendations of the NRA is secured by a requirement in Schedule 2 to the DCO |



| (1)         | (2) Source   | (3) Issue  | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger  | (6) Securing mechanism  |  |  |  |  |  |
|-------------|--|--|---|--|---|--|--|--|--|--|
| Hydro       | lydrogeology and Ground Conditions                 |  |   |  |   |  |  |  |  |  |
| Hydro<br>29 | ES Chapter 15 - Hydrogeology and Ground Conditions | Impacts on ground conditions underlying the site | The CEMP (Chapter 8) identifies that the contractor must incorporate various steps into the pre-construction design process. This includes a further assessment of the ground conditions underlying the Site and incorporation of mitigation/remedial measures in the design to reduce impacts from ground instability, soil compaction/settlement and contamination. This assessment should involve:  • Additional ground investigation the scope of which will be agreed with TC's Contaminated Land Officer and an EA Groundwater and Contaminated Land Officer prior to the works.  • Following the investigation, a Generic Quantitative Risk Assessment (GQRA) will be undertaken, with the findings submitted to TC's Contaminated Land Officer and an EA Groundwater and Contaminated Land Officer for approval.  • If the findings of the GQRA determine that a Detailed Quantitative Risk Assessment, remediation strategy and verification report are required, these will also be completed and submitted to TC's Contaminated Land Officer and an EA Groundwater and | Prior to commencement of works and during construction | CEMP Chapter 8  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |  |  |  |  |  |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|---|-------------|------------------------|
|     |            |           | Contaminated Land Officer for approvalConsideration as to whether any ground stabilisation is required to reduce settlement to acceptable design levels.  |             |                        |
|     |            |           | Consideration as to whether any piles, ground bearing floor slabs and reinforced concrete paving may be required to manage physical effects of the proposals and ensure appropriate bearing capacity. |             |                        |
|     |            |           | Efforts should be made to ensure-use soil on site and source local materials.   |             |                        |
|     |            |           | Efforts should be made to reduce the transportation of materials on and off site, and the storage of materials on site for significant time.  |             |                        |
|     |            |           | Efforts should be made to minimise impacts to identified important mineral resources.   |             |                        |
|     |            |           | Efforts should be made to maximise off-<br>site construction which will reduce both<br>materials used and waste generated on<br>site.   |             |                        |
|     |            |           | Where practicable, recycled and<br>secondary aggregates such as those<br>currently stockpiled at the existing port<br>should be specified in the design and   |             |                        |



| (1) | (2) Source | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger         | (6) Securing mechanism  |
|-----|------------|---|--|---------------------|---|
|     |            |   | used, thereby reducing the demand for virgin material.   |                     |   |
|     |            |   | Efforts should be made to actively reduce<br>the amount of materials of a hazardous<br>nature where viable.  |                     |   |
| 30  |            | Impacts on ground conditions from construction activities | <ul> <li>The CEMP states the contractor must carry out the construction activities in the following ways:</li> <li>Limit the area of earthworks at any one time to reduce temporary effects on topography, soil compaction and erosion.</li> <li>Limit the duration of soil exposure and timely reinstatement of vegetation or hardstanding to prevent soil erosion.</li> <li>Manage stockpiles (with measures such as water spraying) and remove them in a timely fashion to prevent windblown dust and surface water run-off.</li> <li>Implementation of appropriate dust suppression measures to prevent migration of contaminated dust and asbestos fibres (as set out in the Air Quality section of the CEMP).</li> <li>Appropriately manage groundwater and surface water and ensure that there is no</li> </ul> | During construction | CEMP Chapter 8  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |



| (1) | (2) Source | (3) Issue                          | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger         | (6) Securing mechanism  |
|-----|------------|------------------------------------|--|---------------------|---|
|     |            |                                    | run-off from the works, any material / waste stockpiles, and storage containers into adjacent surface watercourses; in accordance with Pollution Prevention Guideline (PPG): Working at Construction and Demolition Sites.  • Implementation of appropriate pollution control measures, to include but not limited to:  o plant drip trays;  spill kits;  appropriate and safe storage of fuel, oils and equipment.  |                     |   |
| 31  |            | Impacts from materials used onsite | The CEMP states that a Materials Management Plan (MMP), to manage excavated and dredged materials that are used on site or used on another site and not disposed of to landfill, must be produced by the Contractor. The Contractor must implement the MMP, which shall include:  • A description of the materials in terms of potential use and relative quantities of each category underpinned by an appropriate risk assessment;  • Details of where and if appropriate, how | During construction | CEMP Chapter 8  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |



| (1) | (2) Source                                      | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger  | (6) Securing mechanism  |  |  |
|-----|---|---|--|--|---|--|--|
|     |   |   | <ul> <li>these materials should be stored;</li> <li>Details of the intended final destination and use of these materials;</li> <li>Details of how these materials are to be tracked; and</li> <li>Contingency arrangements that must be put in place prior to movement of these materials (methods for separation and quarantine of non-permitted wastes (e.g. asbestos).</li> </ul> |  |   |  |  |
| 32  |   | Impacts from asbestos                                     | The Contractor must implement the asbestos mitigation/remediation recommendations detailed within the Idom MereBrook asbestos investigation and recommendations report (Appendix 15C) and any other recommendations made by Idom MereBrook following completion of the additional asbestos investigations and risk assessments to be completed pursuant to those recommendations.    | During construction                                    | CEMP Chapter 8  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |  |  |
|     | Water Resources and Flood Risk                  |   |  |  |   |  |  |
| 33  | ES Chapter 16  – Water Resources and Flood Risk | Impacts to<br>groundwater and<br>surface water<br>quality | Implementation of the mitigation recommendations in the Level 2 and Level 3 Flood Risk Assessments (FRA) is required. These measures will be implemented as part of the detailed design that have been determined following consultation with the  | Prior to commencement of works and during construction | Compliance with<br>both FRAs is<br>secured by a<br>requirement in<br>Schedule 2 to the        |  |  |



| (1) | (2) Source | (3) Issue  | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger         | (6) Securing mechanism  |
|-----|------------|--|---|---------------------|---|
|     |            |  | EA. They include mitigation measures for tidal and fluvial flood risk, groundwater, surface water drainage, sewer systems and climate change.  Implementation of the recommendations in the Water Framework Directive (WFD) assessment, dredging to be controlled through provisions of the DCO are also required.  |                     | The recommendations of the WFD assessment will be secured through the operation of the Deemed Marine Licence and the protective provisions for the benefit of the Environment Agency. |
| 34  |            | Impacts to groundwater and surface water quality during construction | <ul> <li>The CEMP (Chapter 16) outlines the following measures must be followed during construction:</li> <li>Implement all works in line with the EA's 'Groundwater Protection: Principles and Practice (GP3)' document, which sets out their position on a range of activities, including the storage of pollutants and hazardous substances.</li> <li>Bund potential contaminant sources such as tanks and excavated soils.</li> <li>Ensure the provision of oil spill clean up</li> </ul> | During construction | CEMP Chapter 9  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO   |



| (1) | (2) Source | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger      | (6) Securing mechanism   |
|-----|------------|---|--|------------------|--|
|     |            |   | <ul> <li>equipment.</li> <li>Undertake construction activity to avoid disturbance or rupture of underground services such as sewers, waste water pipes or fuel lines.</li> <li>Undertake daily visual inspections of the ground for evidence of contamination.</li> <li>Undertake earth moving operations that have potential to give rise to contaminated drainage to be undertaken in compliance with BSI Code of Practice for Earthworks BS6031, 2009.</li> <li>Undertake all works in accordance with the Environment Agency's (EA) Pollution Prevention Guidance (PPG).</li> <li>Prepare an incident response plan prior to construction, which shall be present on site throughout construction to inform workers of required actions in the event of</li> </ul> |                  |  |
|     |            |   | a pollution incident.  |                  |  |
| 35  |            | Impacts on groundwater quality including the groundwater quality of Principal Aquifer and the | Implementation of the Drainage Strategy for the proposals which includes:      Water quality treatment such as oil/water separators and 'sediment traps' prior to any discharge into   | During operation | Compliance with the Drainage Strategy is secured by a requirement in Schedule 2 to the |



| (1) | (2) Source | (3) Issue                     | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger | (6) Securing mechanism   |
|-----|------------|-------------------------------|--|-------------|--|
|     |            | River Thames during operation | the water environment occurring. This should be applied to both discharges from the Tilbury2 site and the RoRo pavement;  Implementation of a range of SuDS techniques which can include ponds, attenuation tanks, bio-retention systems, filter drains, swales & ditches, previous pavements, trees and green roofs. The drainage strategy should refer to the Essex County Council SuDS Design Guide.  Implementation of the recommendations of the WFD Assessment;  Dredging to be controlled through provisions of the DCO (the Deemed Marine Licence and protective provisions with regulators);  As set out in the Operational Management Plan (OMP):  Bunding of potential contaminant sources such as tanks and excavated soils, where appropriate, in accordance with the Control of Pollution (Oil Storage) (England) Regulation 2001; |             | The recommendations of the WFD assessment and controls on dredging will be secured through the operation of the Deemed Marine Licence and the protective provisions for the benefit of the Environment Agency. |



| (1)     | (2) Source                           | (3) Issue  | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger         | (6) Securing mechanism   |
|---------|--------------------------------------|--|---|---------------------|--|
|         |                                      |  | Obtainment of appropriate permits in relation to surface water and groundwater;   |                     |  |
|         |                                      |  | Maintenance of ordinary site machinery in<br>good working order to minimise the risk of<br>leaks and use of drip trays where<br>necessary   |                     |  |
|         |                                      |  | The on-site treatment of water used for aggregate washing activities, and   |                     |  |
|         |                                      |  | Implementation of the recommendations of the Level 2 and Level 3 FRAs.  |                     |  |
| Noise a | and Vibration                        |  |   |                     |  |
| 36      | ES Chapter 17  – Noise and Vibration | Impacts from noise and vibration during construction | The CEMP also states that the contractor must also:  Utilise best practicable means as defined by the Control of Pollution Act 1974 specifically including:  Limiting noisy construction activities to daytime hours only;  Adoption of low noise or vibration techniques at all times;  Locating plant away from noise | During construction | CEMP Chapter 10  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |
|         |                                      |  | and vibration sensitive receptors   |                     |  |



| (1) (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger | (6) Securing mechanism |
|----------------|-----------|---|-------------|------------------------|
|                |           | where feasible;  Use of well-maintained vehicles and mobile plant such that loose body fittings or exhausts do not rattle or vibrate; and  Turning off plant and equipment when not in use.  Introduction of temporary noise screening when constructing the permanent noise barrier for the Infrastructure Corridor (which must be installed prior to the rest of the Infrastructure Corridor works) in close proximity to the sensitive receptors to the north. BS5228 advises that the approximate acoustic attenuation provided by a barrier will be 5 dB when the top of the plant is just visible to the receiver over the noise barrier and 10 dB when the barrier completely hides the noise sources from the receiver. Due to the proximity of NSR in the vicinity of the Infrastructure Corridor works, screening should be introduced around all static items of plant/work areas which have the potential to give rise to a disturbance whilst at a height which will effectively block line of sight to the surrounding receptors. |             |                        |



| (1) | (2) Source | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger      | (6) Securing mechanism   |
|-----|------------|---|--|------------------|--|
|     |            |   | Use compaction plant which generates low levels of vibration when undertaking the infrastructure corridor works in close proximity to existing sensitive receptors; i.e. within approx. 35m.   |                  |  |
| 37  |            | Impacts from noise and vibration during operation | <ul> <li>Inclusion of a 3m high noise barrier adjacent to the proposed link road within the Infrastructure Corridor.</li> <li>Inclusion of a 1.5m high noise barrier adjacent to the proposed rail spur within the Infrastructure Corridor. T</li> <li>Inclusion of a 3m high noise barrier adjacent to the proposed access road within the Tilbury2 site boundary.</li> <li>An Operational Management Plan to include requirements on PoTLL and tenants to:</li> <li>Use, where practicable, of low noise plant and equipment on the Tilbury2 site, including conveyor systems and aggregate screeners.</li> <li>Locate doors on the aggregates processing buildings that will limit noise breakout in the direction of the nearest NSR.</li> </ul> | During operation | Compliance with the OMP is secured by a requirement in Schedule 2 to the DCO  Delivery of noise barriers is secured by a requirement in Schedule 2 to the DCO. |



| (1)    | (2) Source                  | (3) Issue                        | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger  | (6) Securing mechanism   |
|--------|-----------------------------|----------------------------------|--|--|--|
|        |                             |                                  | •  |  |  |
| Air Qu | ality                       |                                  |  |  |  |
| 38     | ES Chapter 18 – Air Quality | Impacts on air quality from dust | The Contractor will implement dust control measures through a Dust Management Plan based on IAQM Construction dust guidance. This will be confirmed and agreed with Thurrock Council. Measures to include the following:  Dust Monitoring  | Prior to commencement of works and during construction | CEMP Chapter 11  Compliance with the CEMP is secured by a requirement 4 in Schedule 2 to the DCO |
|        |                             |                                  | Regular (as a minimum on a daily basis) on-site and off-site visual inspections to monitor dust. Inspection results will be recorded, and the log book made available to the local authority when asked. This will include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning provided if necessary. |  |  |
|        |                             |                                  | Monitoring of dust deposition will be undertaken including a three month baseline prior to commencement of works. Locations will be agreed in advance with Thurrock Council and the results shared. The dust deposition monitoring methodology involves using a passive DustDisc-Bracket (DD-B)  |  |  |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|---|-------------|------------------------|
|     |            |           | depositional dust gauge passive monitoring system which is a recommended method in the Institute of Air Quality Management guidance. It is considered to be the most appropriate method for monitoring at nearby properties as it does not require a power supply and provides a good indication of dust deposition on horizontal surfaces such as window sills.  • The DD-B uses a clear adhesive dust collection 'sticky pad' which collects dust depositing from the air onto a horizontal surface; typically over seven day intervals. The DustDisc gauge holder comprises a plastic disc with a recess for the DustDiscs and a wooden base with a 90° angle bracket. DustDisc holders will |             |                        |
|     |            |           | <ul> <li>be installed at unobstructed positions within reach to facilitate sample change over, so that the replacement sticky pads can be slid into place horizontally, but high enough to discourage tampering. Records will be kept of any apparent interference, in that eventuality.</li> <li>All dust and air quality complaints to be recorded, cause(s) identified and appropriate measures applied to reduce emissions in a timely manner, and the</li> </ul>   |             |                        |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|---|-------------|------------------------|
|     |            |           | <ul> <li>Complaints log to be made available to Thurrock Borough Council when asked.</li> <li>Any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation to be recorded in the log book.</li> <li>Regular site inspections to monitor compliance with the DMP with inspection results recorded. The Inspection log to be made available to Thurrock Borough Council when asked.</li> <li>Frequency of site inspections by the person responsible for air quality and dust issues on site to be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.</li> </ul> |             |                        |
|     |            |           | <ul> <li>Site layout to be planned so that machinery and dust causing activities are located away from receptors, as far as is possible.</li> <li>Where practicable, screening to be placed around dusty activities or the site</li> </ul>  |             |                        |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|--|-------------|------------------------|
|     |            |           | boundary that are at least as high as any stockpiles on site or where not possible, dust suppression equipment will be made available.   |             |                        |
|     |            |           | Site specific operations with a high potential for dust production and where the site is active for an extensive period to be enclosed where feasible.   |             |                        |
|     |            |           | Site runoff of water or mud to be avoided.   |             |                        |
|     |            |           | Site fencing, barriers and scaffolding to<br>be kept clean using wet methods in<br>accordance with an agreed cleaning<br>regime.   |             |                        |
|     |            |           | Materials that have a potential to produce<br>dust from site to be removed as soon as<br>possible, unless being re-used on site. If<br>they are being re-used on-site, they will<br>be covered as described below. |             |                        |
|     |            |           | Material stockpiles to be covered, seeded or fenced to prevent wind whipping.  |             |                        |
|     |            |           | Construction operations  |             |                        |
|     |            |           | Cutting, grinding or sawing equipment only to be used where fitted or in conjunction with suitable dust suppression techniques such as water   |             |                        |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|---|-------------|------------------------|
|     |            |           | sprays or local extraction, e.g. suitable local exhaust ventilation systems.  |             |                        |
|     |            |           | An adequate water supply on the site to<br>be maintained for effective<br>dust/particulate matter<br>suppression/mitigation, using non-potable<br>water where possible and appropriate.         |             |                        |
|     |            |           | Where appropriate, chutes and conveyors to be enclosed and skips covered.   |             |                        |
|     |            |           | Drop heights from conveyors, loading<br>shovels, hoppers and other loading or<br>handling equipment to be minimised and<br>fine water sprays on such equipment<br>applied wherever appropriate. |             |                        |
|     |            |           | Equipment to be readily available on site to clean any dry spillages, and spillages cleaned up as soon as reasonably practicable after the event using wet cleaning methods.                    |             |                        |
|     |            |           | <ul> <li>No bonfires and burning of waste materials on site.</li> </ul>   |             |                        |
|     |            |           | Measures specific to earthworks and construction  |             |                        |
|     |            |           | Earthworks and exposed areas/soil stockpiles to be re-vegetated to stabilise  |             |                        |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|--|-------------|------------------------|
|     |            |           | <ul> <li>surfaces as soon as practicable.</li> <li>Hessian, mulches or trackifiers to be used where it is not possible to re-vegetate or cover with topsoil, as soon as practicable</li> <li>Where feasible, soil cover only to be removed in small areas during work and not all at once</li> <li>Scabbling (roughening of concrete surfaces) to be avoided where possible</li> </ul> |             |                        |
|     |            |           | Sand and other aggregates to be stored<br>in bunded areas and not allowed to dry<br>out, unless this is required for a particular<br>process, in which case the contractor will<br>ensure that appropriate additional control<br>measures are in place.  |             |                        |
|     |            |           | Bulk cement and other fine powder materials to be delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.  |             |                        |
|     |            |           | Measures specific to trackout  |             |                        |
|     |            |           | Water-assisted dust sweeper(s) to be used on the access and local roads, to remove, as necessary, any material   |             |                        |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|---|-------------|------------------------|
|     |            |           | tracked out of the site. This may require the sweeper being continuously in use.  |             |                        |
|     |            |           | <ul> <li>Dry sweeping of large areas to be avoided.</li> </ul>  |             |                        |
|     |            |           | <ul> <li>Vehicles entering and leaving sites to be<br/>covered to prevent escape of materials<br/>during transport.</li> </ul>  |             |                        |
|     |            |           | On-site haul routes to be inspected for integrity and any necessary repairs to the surface undertaken as soon as reasonably practicable.  |             |                        |
|     |            |           | <ul> <li>Inspections of haul routes and any<br/>subsequent action to be recorded in a site<br/>log book.</li> </ul>   |             |                        |
|     |            |           | Hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.   |             |                        |
|     |            |           | A wheel washing system to be installed at<br>all site access points (with rumble grids to<br>dislodge accumulated dust and mud prior<br>to leaving the site where reasonably<br>practicable). |             |                        |
|     |            |           | An area of hard surfaced road to be available between the wheel wash facility   |             |                        |



| (1) | (2) Source | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger         | (6) Securing mechanism   |
|-----|------------|---|---|---------------------|--|
|     |            |   | <ul> <li>and the site exit, wherever site size and layout permits.</li> <li>Access gates to be located at least 10 m from residential receptors.</li> <li>Any on-site crushing of materials to be undertaken as far as practicable from the boundary of the Site, to minimise the potential for soiling of property, including vehicles in nearby car parks. Crushing and screening equipment will be subject to regulation under the Pollution Prevention and Control (Scotland) Regulations 2000 (SSI 200/323). Equipment should be designed and operated in accordance with DEFRA's PG Note 3/16 for Mobile Crushing and Screening.</li> </ul> |                     |  |
| 43  |            | Impacts on air quality from construction traffic and NRMM Emissions | <ul> <li>The CEMP states the following will be required to be undertaken by the Contractor regarding construction traffic and NRMM emissions:</li> <li>All contractors to switch off vehicle engines when stationary - no idling vehicles.</li> <li>The use of diesel or petrol powered generators to be replaced with use mains electricity or battery powered equipment</li> </ul>  | During construction | CEMP Chapter 11  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |



| (1)   | (2) Source                           | (3) Issue   | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger         | (6) Securing mechanism   |
|-------|--------------------------------------|---|---|---------------------|--|
|       |                                      |   | <ul> <li>where practicable.</li> <li>A maximum-speed-limit of 10 mph on haul roads and work areas will apply.</li> <li>NRMM used on site will be fitted with a type approved engine which meets the emission standards set in the Non-Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) Regulations 1999 (SI 1999/1053) (as amended).</li> <li>The placement of diesel or petrol powered generators should consider proximity to nearby receptors and exhausts should discharge vertically and unimpeded.</li> <li>Based on the plant equipment to be used, engine emissions limits must be established, in consultation with TC.</li> </ul> |                     |  |
| Waste | and Materials                        |   |   |                     |  |
| 44    | ES Chapter 19  – Waste and Materials | Impacts from waste during construction, demolition and excavation | The CEMP states the following:  The Contractor must ensure that Waste Electrical and Electronic Equipment produced in the CD&E should be segregated and managed separately from other wastes, with relevant paperwork kept (waste transfer/ consignment notes)  | During construction | CEMP Chapter 12  Compliance with the CEMP is secured by a requirement in Schedule 2 to the DCO |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|--|-------------|------------------------|
|     |            |           | <ul> <li>or an electronic transfer note system).</li> <li>The Contractor must ensure that all batteries produced in the CD&amp;E should be segregated and managed separately from other wastes. The management processes for batteries and accumulators should be documented.</li> <li>The Contractor must prepare and maintain a MMP and update the draft SWMP so that waste generation and management can be logged and audited in accordance with the most up to date methodology.</li> </ul> |             |                        |
|     |            |           | <ul> <li>The Contractor must undertake the following best practice measures:</li> <li>Design out waste at the initial stage of the project by utilising standardised sizes and materials where possible, and engaging with the designers on the importance of this. This should include working to reduce</li> </ul>   |             |                        |
|     |            |           | the wastage rates of the construction waste streams which arise in the greatest quantities and considering options regarding the potential re-use of dredged and excavated material;  • Set targets for waste recovery and recycling to enable those working on the  |             |                        |



| (1) | (2) Source | (3) Issue                    | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts   | (5) Trigger      | (6) Securing mechanism                  |
|-----|------------|------------------------------|---|------------------|---|
|     |            |                              | project to have a clear understanding of what is expected;  |                  |   |
|     |            |                              | Where practicable, use precast concrete<br>and other materials that can be prepared<br>off site (prior to construction of the<br>concrete manufacturing plant) to minimise<br>waste generation on site; |                  |   |
|     |            |                              | Not over order materials and using<br>materials brought to site as efficiently as<br>possible;  |                  |   |
|     |            |                              | <ul> <li>Organising deliveries so materials arrive<br/>on site as they are needed to reduce the<br/>possibility of damage and wastage<br/>occurring;</li> </ul>   |                  |   |
|     |            |                              | Having clearly defined and separated<br>skips on site and a clearly demarked<br>waste area(s); and  |                  |   |
|     |            |                              | Training staff to understand how they should sort any waste material and providing regular reminders and updates.   |                  |   |
| 45  |            | Operational impacts on waste | Measures are captured within the OMP and include:   | During operation | Compliance with the OMP is secured by a |
|     |            | OII Wasie                    | <ul> <li>Source segregation of residual and recyclable waste;</li> <li>Source segregation of hazardous waste;</li> </ul>  |                  | requirement in Schedule 2 to the DCO    |
|     |            |                              | <ul> <li>Development of an environmental</li> </ul>   |                  |   |



| (1) | (2) Source | (3) Issue | (4) Mitigation or measure to prevent, reduce, offset and minimise impacts  | (5) Trigger | (6) Securing mechanism |
|-----|------------|-----------|--|-------------|------------------------|
|     |            |           | <ul> <li>management plan or incorporating waste or a standalone operational waste management plan; and</li> <li>Provision of regular training for staff/subcontractors.</li> </ul> |             |                        |