



OUTLINE CODE OF CONSTRUCTION PRACTICE: 7.4

DECARBONISATION

Cory Decarbonisation Project

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TABLE OF CONTENTS

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1. INTRODUCTION.....	1
1.1. Description of the Proposed Scheme.....	1
1.2. Purpose of the Document.....	2
2. GENERAL CONSTRUCTION INFORMATION.....	4
2.1. Programme	4
2.2. Construction Activities.....	4
2.3. Construction Hours	4
2.4. Temporary Construction Compounds	4
2.5. Site Boundary Fencing.....	5
2.6. Construction Lighting	6
2.7. Security Arrangements.....	6
2.8. Communications	6
2.9. Works within the River Thames.....	7
2.10. Access for Businesses and Residences.....	7
2.11. Access to Public Right of Way	8
2.12. Vehicle Movements.....	9
2.13. Emergency Planning	10
2.14. Staff and Personnel.....	10
3. AIR QUALITY	1211
3.1. Introduction	1211
3.2. Mitigation.....	1211
3.3. Monitoring	1514
4. NOISE AND VIBRATION.....	1615
4.1. Introduction	1615
4.2. Mitigation.....	1615
4.3. Monitoring	1615
5. TERRESTRIAL BIODIVERSITY	1716
5.1. Introduction	1716
5.2. Mitigation.....	1716
5.3. Monitoring	1817



6. MARINE BIODIVERSITY	1918
6.1. Introduction	1918
6.2. Mitigation.....	1918
6.3. Sediment Sampling.....	2120
6.4. Monitoring	2120
7. HISTORIC ENVIRONMENT.....	2221
7.1. Introduction	2221
7.2. Mitigation.....	2221
7.3. Monitoring	2524
8. TOWNSCAPE AND VISUAL	2625
8.1. Introduction	2625
8.2. Mitigation.....	2625
8.3. Monitoring	2827
9. WATER ENVIRONMENT AND FLOOD RISK.....	3029
9.1. Introduction	3029
9.2. Mitigation.....	3029
9.3. Monitoring	3736
10. CLIMATE RESILIENCE.....	3837
10.1. Introduction	3837
10.2. Mitigation.....	3837
10.3. Monitoring	3837
11. GREENHOUSE GASES	4038
11.1. Introduction	4038
11.2. Mitigation.....	4038
11.3. Monitoring	4139
12. POPULATION, HEALTH AND LAND USE	4240
12.1. Introduction	4240
12.2. Mitigation.....	4240
12.3. Monitoring	4442
13. SOCIO-ECONOMICS	4543
13.1. Introduction	4543



14. MATERIALS AND WASTE	4644
14.1. Introduction	4644
14.2. Mitigation.....	4644
14.3. Monitoring	4846
15. GROUND CONDITIONS AND SOILS	5048
15.1. Introduction	5048
15.2. Mitigation.....	5350
15.3. Ground Investigations	5350
15.4. Dredged Arisings.....	5552
15.5. Monitoring	5552
16. LANDSIDE TRANSPORT	5653
16.1. Introduction	5653
16.2. Framework CTMP	5653
16.3. Monitoring	5653
17. MARINE NAVIGATION	5754
17.1. Introduction	5754
17.2. Mitigation.....	5754
17.3. Monitoring	5956
18. MAJOR ACCIDENTS AND DISASTERS	6057
18.1. Introduction	6057
18.2. Mitigation.....	6057
18.3. Monitoring	60
19. REFERENCES	61

1. INTRODUCTION

1.1. DESCRIPTION OF THE PROPOSED SCHEME

1.1.1. WSP has been instructed by Cory Environmental Holdings Ltd (hereafter referred to as the Applicant) to prepare an Outline Code of Construction Practice (Outline CoCP) for the Cory Decarbonisation Project to be located at Norman Road, Belvedere in the London Borough of Bexley (LBB) (National Grid Reference/NGR 549572, 180512). The following figures are available in the Environment Statement (ES):

- **Figure 1-1: Site Boundary-Location Plan (Document Reference 6.2);** and
- **Figure 1-2: Satellite Imagery of the Site Boundary Plan (Document Reference 6.2).**

1.1.2. The Applicant intends to construct and operate the Proposed Scheme to be linked with the River Thames. It comprises of the following key components, which are described below, and further detail is provided within **Chapter 2: Site and Proposed Scheme Description** of the **Environmental Statement (Document Reference 6.1)**:

- The Carbon Capture Facility (including its associated Supporting Plant and Ancillary Infrastructure): the construction of infrastructure to capture a minimum of 95% of carbon dioxide (CO₂) emissions from Riverside 1 and 95% of CO₂ emissions from Riverside 2 once operational, which is equivalent to approximately 1.3Mt CO₂ per year. The Carbon Capture Facility will be one of the largest carbon capture projects in the UK.
- The Proposed Jetty: a new and dedicated export structure within the River Thames as required to export the CO₂ captured as part of the Carbon Capture Facility.
- The Mitigation and Enhancement Area: land identified as part of the **Outline LaBARDS (Document Reference 7.9)** to provide improved access to open land, habitat mitigation, compensation and enhancement (including forming part of the drainage system and Biodiversity Net Gain delivery proposed for the Proposed Scheme) and planting. The Mitigation and Enhancement Area provides the opportunity to improve access to outdoor space and to extend the area managed as the Crossness Local Nature Reserve (LNR).
- Temporary Construction Compounds: areas to be used during the construction phases for activities including, but not limited to office space, warehouses, workshops, open air storage and car parking, as shown on the **Works Plans (Document Reference 2.3)**. These include the core Temporary Construction Compound, the western Temporary Construction Compound and the Proposed Jetty Temporary Construction Compound.
- Utilities Connections and Site Access Works: The undergrounding of utilities required for the Proposed Scheme in Norman Road and the creation of new, or

the improvement of existing, access points to the Carbon Capture Facility from Norman Road.

- 1.1.3. Together, the Carbon Capture Facility (including its associated Supporting Plant and Ancillary Infrastructure), the Proposed Jetty, the Mitigation and Enhancement Area, the Temporary Construction Compounds and the Utilities Connections and Site Access Works are referred to as the 'Proposed Scheme'. The land upon which the Proposed Scheme is to be located is referred to as the 'Site' and the edge of this land referred to as the 'Site Boundary'. The Site Boundary represents the Order Limits for the Proposed Scheme as shown on the **Works Plans (Document Reference 2.3)**.

1.2. PURPOSE OF THE DOCUMENT

- 1.2.1. This Outline CoCP will be the mechanism that ensures the successful management of the likely environmental effects resulting from construction activities and has been prepared in support of the **Environmental Statement (Document Reference 6.1)** and its appendices (**Document Reference 6.3**). This Outline CoCP includes:
- the context and underlying principles of environmental management for the Proposed Scheme that the Contractor(s) will be required to develop into a full CoCP(s);
 - the guidelines to be used during construction and how they will be mandated and applied; and
 - the details of, or references to, the construction phase mitigation measures for each relevant environmental topic assessed in the **Environmental Statement (Document Reference 6.1)** and its appendices (**Document Reference 6.3**) and for which the full CoCP(s) will be the principal delivery mechanism.
- 1.2.2. The Applicant will appoint Contractor(s) to construct the Proposed Scheme. The Contractor(s) would be responsible for constructing the Proposed Scheme in accordance with this Outline CoCP.
- 1.2.3. The Contractor(s) will be required to prepare a full CoCP(s) for submission to London Borough of Bexley (LBB), in its role as the relevant planning authority. The full CoCP(s) would provide greater detail on the mitigation measures that cannot be finalised at this stage.
- 1.2.4. This Outline CoCP acts as an Environmental Management System (EMS) framework, under which the construction of the Proposed Scheme should be undertaken. It sets out the high-level obligations with which the Contractor(s) should follow, and it is also the mechanism by which the construction-related mitigation identified in the in the **Environmental Statement (Document Reference 6.1)** and its appendices (**Document Reference 6.3**) is secured.
- 1.2.5. A requirement of the **Draft DCO (Document Reference 3.1)** ensures that the measures identified to mitigate the effects of the construction phase are included in the full CoCP(s), to be prepared for the Proposed Scheme by the Contractor(s) prior

to the construction phase commencing. The full CoCP(s) will detail the environmental controls, environmental protection measures and safety procedures that will be adopted during the construction phase. This Outline CoCP may be developed into multiple full CoCP(s) given the marine and terrestrial aspects of the Proposed Scheme. References to 'the full CoCP' can therefore also be read as 'any' CoCP, and any full CoCP need only contain the measures relevant to the scope of the works that are the subject of that full CoCP.

- 1.2.6. The full CoCP(s) should set out the Contractor(s) roles and responsibilities as well as methods of environmental controls that would be employed, including:
- inductions, training and briefing;
 - risk assessments and mitigation;
 - stakeholder engagement; and
 - monitoring, to be undertaken during the construction of the Proposed Scheme.
- 1.2.7. The full CoCP(s) would apply to all works authorised by the DCO and undertaken by the Contractor(s) and should be in compliance with the terms of this Outline CoCP. Compliance with the full CoCP(s) is a legal requirement of the DCO and any non-compliance would be in breach of the terms of the DCO.
- 1.2.8. Nothing in this Outline CoCP precludes the full CoCP(s) amending the measures suggested in this Outline CoCP to reflect any changes to construction methodology or management measures to be employed. However, any submission for such an amendment should include evidence, including details of further mitigation, where necessary, to demonstrate that the construction method or management measures would not give rise to materially new or materially different environmental effects to those reported in the **Environmental Statement (Document Reference 6.1)**.

2. GENERAL CONSTRUCTION INFORMATION

2.1. PROGRAMME

- 2.1.1. Subject to development consent being granted by the Secretary of State, it is anticipated that construction of the Proposed Scheme would be targeted to commence in 2026 and that the Proposed Scheme would be expected to be operational in 2030, depending on which of the two construction scenarios is progressed (42 months or 60 months).

2.2. CONSTRUCTION ACTIVITIES

- 2.2.1. A draft, outline programme that shows the main construction activities from mobilisation through to Proposed Scheme opening is described in Section 2.4 of **Chapter 2: Site and Proposed Scheme Description** of the **Environmental Statement (Document Reference 6.1)**.

2.3. CONSTRUCTION HOURS

- 2.3.1. During construction, core working hours (save where otherwise agreed by the relevant planning authority, for internal works, or in emergencies) for the landside activities will be Monday to Friday 07:00 to 19:00. On Saturdays, standard working hours will be 07:00 to 13:00. No construction work will be undertaken on Sundays or Bank Holidays. The working hours do not apply to construction works where these are (a) are carried out within existing buildings or buildings constructed as part of the Proposed Scheme; (b) are carried out with the prior approval of the relevant planning authority; or (c) are associated with an emergency.
- 2.3.2. Marine construction activities will be in a tidal environment and will take place 24 hours a day and 7 days a week.
- 2.3.3. Deviations to the core working hours may be required for some activities and these would be agreed with LBB.

2.4. TEMPORARY CONSTRUCTION COMPOUNDS

- 2.4.1. Construction activities will take place across the Site. One core, Temporary Construction Compound will be required as well as two smaller Temporary Construction Compounds, with land allocated within the Site, as shown on the **Works Plans (Document Reference 2.3)**. The core Temporary Construction Compound will be located across Borax North, Borax South, Creekside, Munster Joinery and Gannon land parcels. These land parcels, other than Munster Joinery, are currently in use as part of the construction of Riverside 2. This is beneficial in that these sites are already set up, surfaced and have utilities connections (drainage, water and power). Additionally, there are a number of existing accesses from Norman Road.

- 2.4.2. Site clearance, levelling and ground preparation works for Temporary Construction Compounds (not utilised as part of the construction of Riverside 2) may be completed to provide a suitable working compound. The surface material of construction compounds will be permeable to allow rainwater to percolate to ground, with suitably bunded locations identified as storage areas for any hazardous, polluting materials or chemicals to prevent the risk of pollution.
- 2.4.3. There will be two other Temporary Construction Compounds, within the Site, as shown on the **Works Plans (Document Reference 2.3)**. The two other Temporary Construction Compounds include:
- The Western Temporary Construction Compound: Located along the western and southern boundary of Riverside 2 – to support the construction of flue gas ducting from Riverside 2.
 - Proposed Jetty Temporary Construction Compound: Located to the northeast of Riverside 1 – to support the construction of Access Trestle for the Proposed Jetty.
- 2.4.4. Of the two smaller Temporary Construction Compounds, the Western Compound will be accessible from the access roads within Riverside 2 and the Proposed Jetty Temporary Construction Compound will be accessible via the Iron Mountain Records Storage Facility and Asda Access Road. Appropriate access arrangements will be developed and included within the application for development consent.
- 2.4.5. Following completion of the construction works, the land in the Core Temporary Construction Compound will be utilised as part of the Caborn Capture Facility. Most of the western Temporary Construction Compound will be reinstated to its prior use, with a small section along the eastern border of the compound, to be utilised for the Flue Gas Supply Ductwork (see the **Works Plans (Document Reference 2.3)**). The Proposed Jetty Temporary Construction Compound will be reinstated to its prior use but will be available for maintenance access during the operation phase. However, the Applicant is seeking permanent rights to utilise part of this land in the future for any required maintenance works to the Proposed Jetty, as shown on the **Land Plans (Document Reference 2.2)**. The Applicant commits to the removal of any temporary construction plant and equipment upon completion of the construction phase for the Proposed Scheme.
- 2.4.6. Appropriate mitigation measures will be in place to prevent trackout of construction mud and dust onto the highway network and surrounding area. These are set out in **Section 3.2** of this Outline CoCP.

2.5. SITE BOUNDARY FENCING

- 2.5.1. The Proposed Scheme will have security fencing installed around the Carbon Capture Facility construction works (including the compounds). Secure fencing will include details of the Considerate Contractor Scheme. Detailed security and site access measures are to be outlined in the full CoCP(s).

- 2.5.2. International Ship and Port Security (ISPS) fencing will be provided to restrict unauthorised access to the Loading Platform and LCO₂ vessels on the Proposed Jetty.

2.6. CONSTRUCTION LIGHTING

- 2.6.1. During construction, temporary artificial lighting will be used to provide a safe working site during hours of darkness. Task lighting will be employed to minimise lighting impacts on the overall Site. Where reasonably practicable, task lighting will face away from nearby properties. The type of task lighting employed for different activities will vary depending on the nature of those activities and be commensurate with the works being undertaken.
- 2.6.2. Whilst ensuring a safe working environment, the below measures would be employed by the Contractor(s) to minimise the effect on the surrounding area and wildlife:
- lighting levels would be kept to a minimum necessary for security and safety and designed (where practicable) to avoid light spillage beyond the Site. This will include:
 - maintenance of dark corridors around designated sites and key habitats; and
 - lighting will be directed onto works areas with hoods used to prevent light spill.

2.7. SECURITY ARRANGEMENTS

- 2.7.1. Site security arrangements will be in line with the Construction (Design and Management) Regulations 2015¹.
- 2.7.2. Security arrangements will include appropriate levels of security (staff/CCTV), fencing erected during the construction phase (see **Section 2.5**), appropriate construction lighting (see **Section 2.6**), and the use of a controlled entry automated gate car park access barrier.

2.8. COMMUNICATIONS

- 2.8.1. The Contractor(s) will prepare a Community Engagement Plan for the construction phase of the Proposed Scheme prior to work commencing onsite. The Plan will provide the overall approach to community engagement and a detailed guide to the enquiries and complaints procedure. The Plan will set out how interested parties will be informed of the nature, timing and duration of particular construction activities and the duration of the construction works by newsletters/other publications/advertisements/social media and/or the project website.
- 2.8.2. This Community Engagement Plan must include measures setting out how the Applicant will engage with the local community and businesses (including Munster Joinery, Friends of Crossness Nature Reserve, Asda Belvedere Distribution Centre and Iron Mountain Record Storage Facility) and users of the PRow which pass through the Site Boundary.

- 2.8.3. The Contractor(s) will operate a 24 hour telephone line which would provide the public and any stakeholders with a number to call if they have any complaints to make about the Contractor(s) performance or if they wish to raise a concern. The Community Engagement Plan will set out the process for dealing with any complaints received.

2.9. WORKS WITHIN THE RIVER THAMES

- 2.9.1. The Contractor(s) will ensure the promulgation and dissemination of information relating to the construction phase is to be shared as widely as possible through Notices to Mariners (NtM), Vessel Traffic Services (VTS) broadcasts, updates to guidance documents, emails to key stakeholders and through social media platforms, including:
- planned vessel movements (arrivals and departures of materials barges); and
 - sequencing of construction works and proposed Marine Works mooring configurations to be shared with VTS and marine stakeholders (e.g. CLdN).
- 2.9.2. There will be a minimum passing distance (50m) for the construction area for the Proposed Jetty for vessels passing within the River Thames in addition to a requested maximum speed reduction (less than 6kts).
- 2.9.3. Within 50m of the Site Boundary, there will be a navigation exclusion zone to all vessels other than those engaged in the construction phase for the Proposed Scheme and the Applicant's vessels navigating to and from Middleton Jetty to minimise risk associated with contact and collision hazard occurrence and allow safe passage.

2.10. ACCESS FOR BUSINESSES AND RESIDENCES

- 2.10.1. As there are no residential properties along or in the vicinity of the Site Boundary, no concern over residential access is expected. The nearest residential receptors are located 170m south of the Site Boundary.
- 2.10.2. Norman Road and the Proposed Jetty Temporary Construction Compound will remain accessible and operational throughout construction and as such, nearby businesses are not anticipated to be disrupted by the construction of the Proposed Scheme.
- 2.10.3. The section of Crossness LNR to be incorporated into the Mitigation and Enhancement Area is not currently accessibly by the public. As such, no disruption to access by recreational users to that area will be caused by construction of the Proposed Scheme.

- 2.10.4. During construction, it shall be ensured that Thames Water and emergency vehicles shall be able to access the Crossness Sewage Treatment Works from Norman Road unless otherwise agreed with Thames Water. If any diversion is required of the existing access road to facilitate this, Thames Water shall be consulted on the details of that diversion before it takes place.

2.11. ACCESS TO PUBLIC RIGHT OF WAY

- 2.11.1. FP2 is located within the Site and would need to be permanently diverted as a result of the construction activities and for the operational requirements of the Carbon Capture Facility. Such diversions are likely to be localised and may differ between the construction and operational phases. In both cases, the diversion route will be approved by LBB as part of the full CoCP (for construction) and pursuant to the DCO (for operation).
- 2.11.2. Wherever practicable the England Coast Path (FP3/NCN1) will remain open. During specific construction activities for the Proposed Jetty limited closures of the England Coast Path (FP3/NCN1/FP4) may be required, the Contractor(s) will manage closures in the following priority order:
- using a banksman to provide safe escorted access across the construction area, keeping waiting times to less than: 10 minutes during peak times; and 30 minutes during off-peak times;
 - nighttime closures, between 23:00 and 05:00 (non-peak times: 23:00 - 05:00 and peak times 07:00 - 19:00) when the England Coast Path (FP3/NCN1/FP4) is infrequently used; and
 - in occasional situations, where the above options are not practicable, a signed diversion route will be provided. The diversion route will be of a hard surface and will be suitable for all users.
- 2.11.3. Footpath 1 (FP1) and Footpath 242 (FP242) will remain open throughout the construction phase.
- 2.11.4. In light of the above, the following measures are to be implemented ahead of construction to mitigate any adverse impacts on walkers and cyclists:
- clear directions/signage for any alternative routes and appropriate alternative diversions would be clearly publicised by the Contractor(s) to maintain public access; and
 - public notices would be issued in advance so to inform local residents and businesses of dates and durations of road and rights of way closures. The Contractor(s) would ensure provision and maintenance of suitable and sufficient signs and barriers indicating temporary and permanent closures to public accesses and rights of way.
- 2.11.5. When diversions are in place the Contractor(s) should ensure that the following measures are implemented:
- diversion routes would be maintained for the types of users of the public right of way that is affected including reasonable adjustments to maintain or achieve inclusive access; and
 - where the usual means of access must be diverted or blocked off alternative safe routes for persons with reduced mobility would be identified, considering existing hazards and obstructions such as pavement kerbs.

- 2.11.6. Further detail about any temporary diversions will be included within the full CoCP(s). The permanent diversions will be set out in the full CTMP.

2.12. VEHICLE MOVEMENTS

LANDSIDE TRANSPORT

- 2.12.1. Heavy Goods Vehicle (HGV) movements associated with the construction of the Proposed Scheme are expected to peak at 25 one-way movements per day (resulting in 50 two-way movements) with a maximum of two HGV unloading simultaneously (taking up to 60 minutes), with a further HGV waiting to be unloaded. These deliveries will be spread across the construction hours with up to three deliveries anticipated across the AM peak hours (07:00-10:00) and the remainder occurring throughout the day. No deliveries are expected after 18:00.
- 2.12.2. During Site establishment and groundworks, particularly when the ground raising exercise for flood risk purposes will be undertaken, there will be an estimated peak of 72 HGV movements per day (resulting in 144 two-way movements), for a period of approximately three months, depending on the construction programme.
- 2.12.3. There are likely to be Abnormal Indivisible Loads (AIL) required for the construction of the Proposed Scheme; however, the frequency of these vehicles is likely to be small and AIL movements will be actively managed under the **Framework CTMP (Document Reference 7.7)**.
- 2.12.4. A Transport Assessment (**Appendix 18-1: Transport Assessment** of the **Environmental Statement (Document Reference 6.3)**) has concluded that construction traffic (HGV and construction worker vehicles) would not have a significant effect on existing vehicle movements, however the **Framework CTMP (Document Reference 7.7)** has been produced to minimise any adverse effects.
- 2.12.5. The Contractor(s) will develop a full CTMP(s) for the construction phase.

VESSEL MOVEMENTS

- 2.12.6. The Middleton Jetty is used by the Applicant for waste deliveries and IBA export, to and from Riverside 1, operations that will intensify with Riverside 2 commencing operation. It is not practicable to use Middleton Jetty for the delivery of construction plant and materials for the landside elements of the Proposed Scheme without compromising the effectiveness of the operations at Riverside 1 and Riverside 2 (once operational).
- 2.12.7. For the construction of the Proposed Jetty (i.e. steel piles, precast concrete units and marine equipment such as fenders) transport of materials will primarily be via the River Thames wherever practicable.
- 2.12.8. The plant and materials brought in for the construction of the Proposed Jetty will be limited to the material quantities needed for construction activities being undertaken at

that time, and which are designed to be constructed within the River Thames. Where appropriate, plant and materials may be temporarily stored on a jack-up barge.

2.13. EMERGENCY PLANNING

- 2.13.1. The Contractor(s) should prepare and submit to LBB, as part of the full CoCP(s), details of the emergency procedures and processes to be followed based upon the anticipated hazards and construction activities. These emergency processes should include as a minimum:
- notification procedures for the emergency services and relevant stakeholders such as the Port of London Authority (PLA) and the Environment Agency;
 - emergency measures in the event of flood;
 - procedures for dealing with fire hazards drawn up in consultation with the London Fire Brigade; and
 - spill response procedures.
- 2.13.2. The Contractor(s) should include, as part of the full CoCP(s), emergency measures in the event of:
- severe weather including storms, gales, wave surges and extreme temperatures;
 - industrial and urban accidents such as fires, explosions and the subsequent release of contaminants;
 - targeted violence, vandalism and/or arson as a result of public disorder;
 - the discovery and/or disturbance of unexploded ordnance for both marine and terrestrial works; and
 - malicious attacks/terrorism, including a terrorism response plan and contact and agreement with the local police for procedures in the event of such targeted violence.

2.14. STAFF AND PERSONNEL

- 2.14.1. The Contractor(s) should include within the full CoCP(s) proposals for inductions for all staff. It should also include details of training and briefings required for staff, as appropriate.
- 2.14.2. It is estimated that a peak workforce of approximately 1,000 staff will be required for construction of the Proposed Scheme in both construction programme options. The Applicant would work proactively with the Contractor(s) and suppliers to provide employment opportunities and to enable access to training. The Applicant would seek to recruit locally if practicable. The process used to recruit and manage employees working to build the Proposed Scheme would be demonstrably fair and offer equal opportunities to all. A Skills and Employment Plan will be prepared prior to the Proposed Scheme commencing operation and is secured by a requirement of the DCO.



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Outline Code of Construction Practice
Application Document Number: 7.4

3. AIR QUALITY

3.1. INTRODUCTION

- 3.1.1. The commitments relating to air quality within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 5: Air Quality** of the **Environmental Statement (Document Reference 6.1)**.

3.2. MITIGATION

- 3.2.1. The following mitigation measures, taken from IAQM Dust Guidance², would form the basis (i.e. they will be applied where relevant to the detailed construction methodology) of the full CoCP(s) by the Contractor(s) to reduce potential effects to sensitive receptors.

COMMUNICATIONS

- display the name and contact details of person(s) accountable for air quality and dust issues on the Site - this may be the environment manager/engineer or the Site Manager;
- display the head or regional office contact information; and
- develop and implement a Dust Management Plan (DMP) as an appendix to the full CoCP(s) in accordance with the IAQM Dust Guidance².

SITE MANAGEMENT

- 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 the local authority 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 logbook; and
- the developer and the appointed Contractor(s) are to actively monitor the Site to ensure the control of dust and emissions. Dry and windy conditions increase the likelihood of dust and emissions being produced and dispersed; extra Site monitoring will take place during these times.

PREPARING AND MAINTAINING THE SITE

- plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible;
- site hoarding erected to minimise intrusion (including dust) from construction activities on PRow;
- erect solid screens or barriers around dusty activities or the Site Boundary that are at least as high as any stockpiles onsite;

- the Site will be bunded to prevent runoff;
- fully enclose site or specific operations where there is a high potential for dust production and the Site is active for an extensive period;
- 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, unless being reused onsite. If they are being reused onsite cover as described below;
- cover, seed or fence stockpiles to prevent wind whipping;
- hoardings, fencing, barriers and scaffolding will be regularly cleaned using wet methods; and
- a change of shoes and clothes by staff and visitors before going offsite is promoted.

OPERATING VEHICLE/MACHINERY AND SUSTAINABLE TRAVEL

- ensure all on-road vehicles comply with the requirements of the London Low Emission Zone and the London NRMM standards, where applicable;
- ensure all vehicles switch off engines when stationary – no idling vehicles;
- minimise the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable;
- ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport;
- by re-using existing access points where possible/practicable;
- impose and signpost a maximum speed limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of LBB, where appropriate); and
- plan construction site layout to locate NRMM as far from potential exposure of members of the public as practicable.

OPERATIONS

- 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 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 onsite to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods; and
- inform the Environment Agency, London Fire and Emergency Planning Authority (LFEPA) or the UK Health Security Agency (UKHSA) if harmful substances are spilled.

WASTE MANAGEMENT

- no bonfires and burning of waste materials on the Site;
- any excess material will be reused or recycled on or offsite in accordance with appropriate legislation; and
- the appointed Contractor(s) will develop and implement full Site Waste Management Plan(s) (SWMP(s)) in substantial accordance with the **Outline SWMP (Document Reference 7.10)**.

MEASURES SPECIFIC TO DEMOLITION

- soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible to provide a screen against dust);
- ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground;
- avoid explosive blasting, using appropriate manual or mechanical alternatives; and
- bag and remove any biological debris or damp down such material before demolition.

MEASURES SPECIFIC TO EARTHWORKS

- re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable;
- use hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as is practicable. Only remove the cover in small areas during work and not all at once; and
- during dry or windy weather, material stockpiles and exposed surfaces will be dampened down using a water spray to minimise the potential for wind pick-up.

MEASURES SPECIFIC TO CONSTRUCTION

- avoid scabbling (roughening of concrete surfaces) if possible;
- ensure aggregates are stored in bunded areas and, where practicable, are not allowed to dry out;
- ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems; and

- for smaller supplies of fine powder materials, ensure bags are sealed after use and stored appropriately to prevent dust.

MEASURES SPECIFIC TO TRACKOUT

- ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport;
- use water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the Site;
- install hard surfaces haul routes which are regularly damped down and cleaned;
- inspect onsite haul routes for integrity and instigate necessary repairs as soon as practicable. Record all haul route inspections and subsequent actions in a logbook;
- implement a wheel-washing system with rumble grids to dislodge accumulated dust and mud prior to leaving the Site. Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the Site exit;
- avoid dry sweeping of large areas; and
- ensure vehicles covering dusty materials are covered before leaving the Site.

3.3. MONITORING

- 3.3.1. The outcome of the construction dust assessment indicates that dust monitoring should be undertaken during the construction phase of the Proposed Scheme. This will involve:
- carrying out regular site inspections to monitor compliance with the DMP which will be developed prior to construction commencing, record inspection results, and make an inspection log available to the local authority when asked;
 - increasing the frequency of site inspections by the person accountable for air quality and dust issues onsite when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions; and
 - agree dust deposition, dust flux, or real-time PM₁₀ continuous monitoring locations with the LBB. Where possible commence baseline monitoring at least three months before work commences onsite. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction³.
- 3.3.2. Continuous dust monitoring will be undertaken at locations along the Site due to the potential effects of dust during construction of the Proposed Scheme. Alarms will be set up to alert the LBB when concentrations of dust/PM₁₀/PM_{2.5} reach a certain threshold. IAQM Guidance on Monitoring in the Vicinity of Demolition and Construction Sites³ will be used when designing the monitoring survey.

4. NOISE AND VIBRATION

4.1. INTRODUCTION

4.1.1. The commitments relating to noise and vibration within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 6: Noise and Vibration** of the **Environmental Statement (Document Reference 6.1)**.

4.2. MITIGATION

4.2.1. The adoption of Best Practicable Means (BPM), as defined in the Control of Pollution Act 1974⁴, will be a fundamental part of the construction phase of the Proposed Scheme. The manifestation of BPM will be a series of noise and vibration control measures, examples of which are included below:

- during construction, it is expected that standard working hours for the landside activities are Monday to Friday 07:00 to 19:00. On Saturdays, standard working hours will be 07:00 to 13:00. No construction work will be undertaken on Sundays or Bank Holidays. The working hours do not apply to construction works where these are (a) are carried out within existing buildings or buildings constructed as part of the Proposed Scheme; (b) are carried out with the prior approval of the relevant planning authority; or (c) are associated with an emergency;
- display the name and contact details for a nominated site contact for the public on the Site to deal with complaints and engaging with local residents;
- the selection of quiet and low noise/vibration equipment and methodologies, where practicable;
- no percussive piling will be undertaken in Works Area 1E (Supporting Plant) as shown on the **Works Plans (Document Reference 2.3)**. Any piling in Works Area 1E (Supporting Plant) will be undertaken using CFA, unless otherwise approved by LBB;
- optimal location of acoustic screening to minimise adverse noise effects;
- optimal location of equipment onsite to minimise noise/vibration disturbance; and
- the provision of acoustic enclosures around static plant, where necessary.

4.2.2. The duration of any construction works within 180m of the receptors will be limited to no more than 10 days or nights in any 15 consecutive day or night period and no more than a total of 40 days in any six consecutive months, such that significant adverse effects do not arise.

4.3. MONITORING

4.3.1. No monitoring of noise and vibration effects is considered to be proportionate or to be required.

5. TERRESTRIAL BIODIVERSITY

5.1. INTRODUCTION

- 5.1.1. The commitments relating to terrestrial biodiversity within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Document Reference 6.1)**. This section also refers to measures included in **Chapter 5: Air Quality** of the **Environmental Statement (Document Reference 6.1)** and the **Outline LaBARDS (Document Reference 7.9)**.

5.2. MITIGATION

- 5.2.1. As a starting point, impacts to biodiversity receptors will be mitigated by:
- adherence to relevant Environmental Permits, Best Practice Guidance and Regulations, British Standards, and monitoring for the protection of ecological features;
 - implementation of pollution prevention and control measures (such as those set out in **section 9**); and
 - the lighting measures set out in **section 2.6**;
- 5.2.2. Habitat creation and enhancements form the majority of additional measures to be undertaken by the Proposed Scheme in relation to effects on terrestrial biodiversity. Creation of new habitat to replace those potentially lost to the Proposed Scheme, alongside improvement of existing areas of habitat, will occur within the Mitigation and Enhancement Area located in the south and west of the Site and the BNG Opportunity Area offsite to the west. These measures are set out in the **Outline LaBARDS (Document Reference 7.9)**.
- 5.2.3. Species specific interventions will also be used to mitigate effects of the Proposed Scheme, as set out below, with details to be provided in the full CoCP(s):
- Timing of works to avoid sensitive periods for particular species, such as avoidance of the bird nesting season for habitat clearance, and the migration periods for sensitive freshwater fish species.
 - Water voles are present within the Site and will be subject to a programme of translocation to move animals present within works areas to newly created compensatory habitat within the Mitigation and Enhancement Area. This work would be carried out under a protected species mitigation licence for water vole obtained from Natural England, comprising specific mitigation and monitoring measures for this species, laid out in a method statement. The Applicant is currently seeking to obtain a Letter of No Impediment in respect of this.
 - Reptiles would be moved from works area through hand searching in combination with vegetation clearance. Captured reptiles would be released into a receptor area within the Crossness LNR, away from active works. [In addition, there would](#)

be establishment of temporary reptile exclusion fencing to avoid reptiles entering the works areas. These measures would avoid risks to reptiles by separating them spatially from works.

5.3. MONITORING

5.3.1. An Ecological Clerk of Works (ECoW) will be appointed who will undertake monitoring during the construction phase, including monitoring light spill onto adjacent habitats, quality of surface water run-off and effectiveness of implementation of dust suppression measure.

5.3.2. The Contractor(s) will:

- inspect habitat creation works to ensure groundwork and plant growth are on path to generate the expected vegetation community and contribute biodiversity value as intended;
- inspect of open water habitat creation to ensure features created hold water and suitable as replacement habitat and to support protected species (e.g. water voles);
- undertake survey of habitats subject to enhancement (deciduous woodland, floodplain grazing marsh) to demonstrate increase in biodiversity value and allow interventions as necessary;
- monitor water vole population to determine the success of habitat creation and translocation for this species pursuant to a licence - this will include survey for American mink;
- monitor aquatic invertebrate species within waterbodies and watercourses to determine value of newly created ponds;
- monitor fish species within watercourses to determine the success of habitat improvements; and
- monitor water quality parameters within the network of watercourses within the Crossness LNR.

6. MARINE BIODIVERSITY

6.1. INTRODUCTION

- 6.1.1. The commitments relating to marine biodiversity within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Document Reference 6.1)** and **Appendix 11-1: Water Framework Directive Assessment** of the **Environmental Statement (Document Reference 6.3)**.
- 6.1.2. The mitigation measures for marine biodiversity will be secured through a combination of the full CoCP(s), approvals under the Deemed Marine Licence and the Environment Agency's Protective Provisions and any construction-phase water based permits and licence.

6.2. MITIGATION

- 6.2.1. The Proposed Scheme will adhere to relevant Environmental Permits, best practice guidance and regulations, British Standards, and monitoring for the protection of marine biodiversity features and to ensure water quality impacts are minimised.
- 6.2.2. The full CoCP(s) will provide details of the robust measures and details of equipment required on Site for dealing with any unexpected pollution events (including accidental fuel leaks from construction vessels).
- 6.2.3. The full CoCP(s) will also provide that, with specific regards to piling, any construction piling that may cause direct disturbance to the marine environment should not commence unless an ECoW is present. This is to ensure sensitive species, notably marine mammals, are absent from the area. The ECoW will follow measures developed by Joint Nature Conservation Committee and set out in the 'Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise'⁵.
- 6.2.4. In combination with the measures required for fish, the following will be provided for in the full CoCP(s) for piling:
- no impact piling will occur at night, and piling activity will not be continuous (limited to 30 minutes per day for percussive piling), so a window for upstream migration will be available;
 - marine mammal observations will be carried out during piling works by an ECoW will be required to carry out marine mammal observations 30 minutes prior to any piling being undertaken to ensure that there are no marine mammals within 500m (the mitigation zone) of the proposed works;
 - where practicable, low noise piling techniques (for example pile press in technology) or vibro-piling will be used to minimise the impact on fish and marine mammals;

- a soft start to piling operations will be used to ensure an incremental increase in pile power over a period of no less than 20 minutes, until a full operational piling period is achieved. Should piling cease for a period longer than 10 minutes, the soft-start procedure may need to be repeated in line with the marine mammal observations;
- if marine mammals are detected within the mitigation zone during the search, the soft start must be delayed until they have left the mitigation zone. There must be a minimum of a 20 minute delay from the time of the last detection within the mitigation zone and the commencement of the soft-start to allow for animals unavailable for detection (i.e. not re-surfacing in that time) to have moved outside of the mitigation zone). A full soft start may be undertaken after any delay due to the presence of marine mammals within the mitigation zone;
- in situations where seals are congregating around a fixed platform within a survey area, it is best practice for the soft start to commence at a location at least 500m from the platform, where possible;
- if breaks of longer than 10 minutes are required, a full pre-search and soft start should be carried out before the construction works re-commence; and
- piling will occur outside of migratory periods, being April to September. In addition, any piling and construction activities occurring in the month of March will focus on, and be limited as much as practicable, to low tide and within a dry environment.

6.2.5. The full CoCP(s) will provide that, in respect of capital dredging:

- it will be undertaken using backhoe dredging, unless otherwise agreed with the Environment Agency and the MMO (and that it has been demonstrated that any alternative method would not lead to materially worse effects than those reported in the **Environmental Statement (Document Reference 6.1)**);
- it will occur outside of migratory periods, being April to September. In addition, any piling and construction activities occurring in the month of March will focus on, and be limited as much as practicable, to low tide and within a dry environment; and
- confirmation that, to reduce the requirement for dredging within the intertidal zone, a sheet piled wall will be installed at bed level to prevent potential erosion of intertidal sediment and reduce the size of the dredge pocket required.

6.2.6. Construction vessel speeds will be moderated by following standard operating procedures. The full CoCP(s) will provide that where practicable, there will be an implementation of reduced vessel speeds (3kts) in proximity of piers to reduce the potential for vessel strike with marine mammals and fish and to reduce the risk of any potential damage to intertidal habitats from wave wash.

6.2.7. The River Thames is subject to the control and management of ballast water as stipulated by the MMO, therefore release from ballast water is not a vector for the

spread of Invasive Non-Native Species (INNS)⁶. As part of the full CoCP(s) a Biosecurity Management Plan will be developed and implemented with standard biosecurity measures, in line with UK best practice guidance and will be discussed in liaison with the Environment Agency, Natural England, the PLA and the MMO, as appropriate. This will include the effective cleaning of all marine equipment and infrastructure (if utilised in other Water Bodies), along with preventing the release of any subsequent waste arisings back into the marine environment. Relevant guidance such as the Check, Clean, Dry campaign led by the GB Non-native Species Secretariat will also be followed. Provision of local materials will be used where practicable, and materials should be appropriately treated to minimise the potential spread of INNS.

- 6.2.8. All construction vessels will act in accordance with their own management/ accident plans, as well as those of the Port of London Authority/Maritime Coastal Agency, thus limiting the potential for accidental fuel leaks.
- 6.2.9. The full CoCP(s) will provide that the demolition of the existing Belvedere Power Station Jetty (disused) (if required) and excavation activities in the intertidal zone should, where practicable, occur during low tide to minimise the dispersion of suspended sediment.

6.3. SEDIMENT SAMPLING

- 6.3.1. As described in **Appendix 11-1: Water Framework Directive Assessment** of the **Environmental Statement (Document Reference 6.3)** sediment sampling at depth would be undertaken to inform detailed design. Information gathered through this sampling will inform subsequent additional mitigation if sediments are shown to be elevated in contaminant concentrations. Should contamination be identified which is considered to pose a risk to sensitive receptors then appropriate measures will be undertaken. Potential measures could include dredging for a reduced time period each day; use of a closed grab for dredging; dredging on a certain phase of the tide; and avoidance of very elevated levels at depth. A silt curtain will also be considered; however, it may be impractical in this location due to tidal flows. These measures would be confirmed pursuant to the discharge of conditions under the Deemed Marine Licence contained within the **Draft DCO (Document Reference 3.1)**, rather than the full CoCP(s).

6.4. MONITORING

- 6.4.1. Water quality monitoring may also be required during dredging operations (capital) to ensure no exceedance of maximum allowable limits. This is likely to be decided following completion of contaminant analysis of the sediment within the dredge pocket, down to total dredge depth. These matters will be able to be considered pursuant to discharges of the conditions of the DML in the **Draft DCO (Document Reference 3.1)**.

7. HISTORIC ENVIRONMENT

7.1. INTRODUCTION

- 7.1.1. The commitments relating to historic environment within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 9: Historic Environment** of the **Environmental Statement (Document Reference 6.1)**. This section also refers to measures included in **Appendix 9-1: Historic Environment Desk Based Assessment** of the **Environmental Statement (Document Reference 6.3)**.

7.2. MITIGATION

ABOVE GROUND HERITAGE ASSETS

- 7.2.1. Should the Belvedere Power Station Jetty (disused) be demolished, an Historic England Level 2 Historic Building Recording will be undertaken prior to demolition. Level 2 recording comprises a descriptive record where the structure will be seen, described, and photographed. It will include a drawn record, photography and a written record. This will ensure that an accurate record of the Belvedere Power Station Jetty (disused) is archived with the Greater London Historic Environment Record and Archaeology Data Service for future research and understanding of heritage significance (value). The work will be carried out in accordance with Historic England's 2016 Guidance note 'Understanding Historic Buildings: a guide to good recording practice'.

BURIED HERITAGE ASSETS

- 7.2.2. All archaeological requirements in the form of additional surveys, where required, and final mitigation will be secured via a requirement in the **Draft DCO (Document Reference 3.1)**.
- 7.2.3. Within the terrestrial part of the Site, the adverse effects will be removed or offset through a programme of archaeological mitigation (to be outlined in an Archaeological Mitigation Strategy) post-DCO determination, to be approved by LBB in consultation with GLAAS. The scope and methodology for each phase of fieldwork presented below will be presented in a specific Written Scheme of Investigation (WSI). Each WSI would need to be prepared and approved by LBB in consultation with GLAAS prior to construction commencing.
- 7.2.4. The further work required is illustrated in the diagram shown as **Figure 1: Programme of Archaeological Mitigation** below.

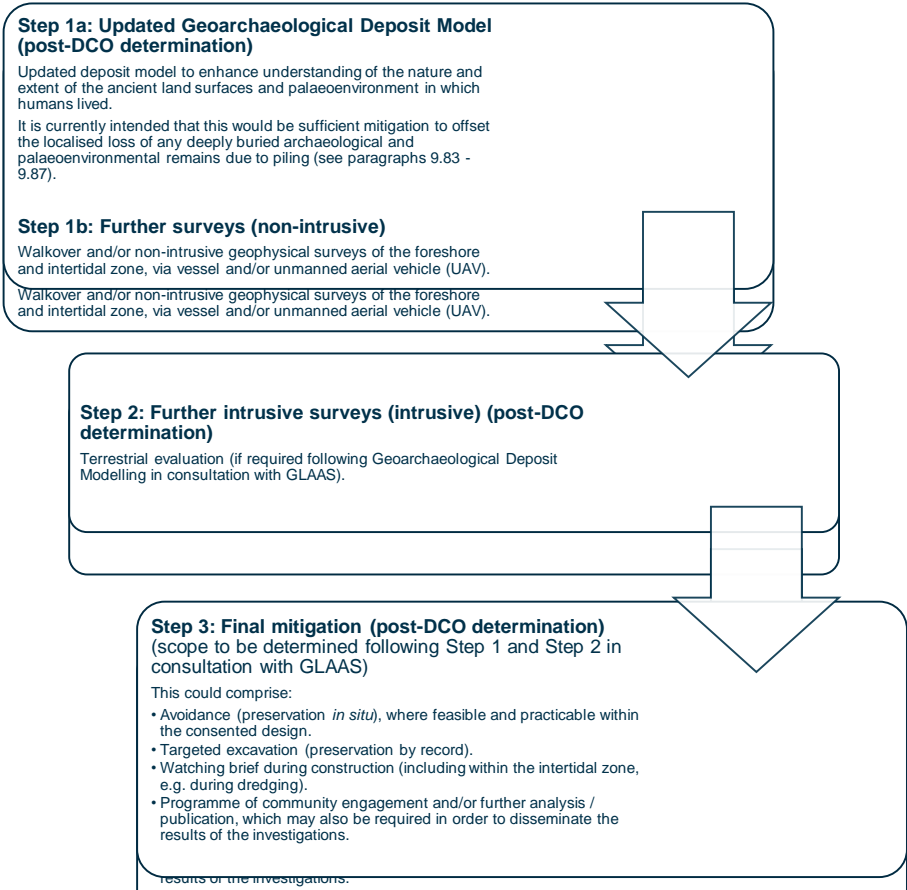


Figure 1: Programme of Archaeological Mitigation

Figure 1: Programme of Archaeological Mitigation

7.2.5. The first stage would be an updated Geoarchaeological Deposit Model that would be extended from an existing model for the northern part of the Site across the remainder of the Site (including the marine and intertidal areas within the Site). This would build on the existing information on buried sediments to map the subsurface topography in those parts of the Site not currently covered, providing an insight into the prehistoric terrain beneath any superficial deposits of made ground and alluvium along with information on hydrology, vegetation and past landscape.

- 7.2.6. The model would be used to inform further evaluation, should this be required, along with any additional mitigation measures. This could comprise avoidance in the unlikely event that nationally significant remains are identified, where this is warranted and feasible (considering consent will have been granted). It could also include targeted archaeological excavation and recording in advance of construction, where significant remains are present, and/or an archaeological watching brief during preliminary groundworks, to form preservation by record. The scope and methodology for any evaluation and subsequent mitigation would need to be outlined in specific archaeological WSI, in agreement with the relevant stakeholders. This work and any additional mitigation measures may need to be completed prior to construction commencement. Any additional mitigation to be carried out during the construction phase itself, rather than pre-construction, would be included in the full CoCP that will be secured through a requirement of the DCO.
- 7.2.7. The presence, nature, date, extent and heritage significance (value) of any archaeological wrecks or other submerged features within the River Thames foreshore/channel will be clarified by further survey, to be outlined in the Archaeological Mitigation Strategy. The survey method agreed with GLAAS will take the form of aerial foreshore survey and/or high-resolution geophysical data for archaeological analysis, comprising:
- foreshore walkover at very low tide to identify archaeological features and/or an Unmanned Aerial Vehicle (UAV) survey of the foreshore;
 - magnetometry data;
 - multi beam echo sounder (MBES); and
 - side scan sonar (SSS).
- 7.2.8. The results of the survey analysis will enable an appropriate mitigation strategy to be prepared for any significant archaeological remains that could be affected.
- 7.2.9. Although rare, in the unlikely event that archaeological remains of very high (National) heritage significance (value) are identified, there may be a requirement, where practicable in the consented design, for their preservation in-situ.
- 7.2.10. The scope and methodology for any evaluation and subsequent mitigation would need to be outlined in specific archaeological WSI, in agreement with the relevant stakeholders. This work and any additional mitigation measures may need to be completed prior to construction commencement. Any additional mitigation during the construction phase itself, rather than pre-construction, would be included in the full CoCP(s). Mitigation could take the form of targeted excavation (preservation by record) and for remains of known low heritage significance (value), an archaeological watching brief may be required (for instance during the capital dredge). This would ensure that archaeological remains were not removed without record.
- 7.2.11. As part of the Archaeological Mitigation Strategy, a programme of community engagement may also be required in order to disseminate the results of the

investigations. This would depend on the results of the initial surveys and ongoing consultation with GLAAS.

- 7.2.12. The above matters are secured through a requirement of the **Draft DCO (Document Reference 3.1)** and so will not form part of the full CoCP(s).

7.3. MONITORING

- 7.3.1. No monitoring of Historic Environment effects is considered to be proportionate or to be required. As noted above, archaeological monitoring/watching brief may be required.

8. TOWNSCAPE AND VISUAL

8.1. INTRODUCTION

- 8.1.1. The commitments relating to townscape and visual within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 10: Townscape and Visual** of the **Environmental Statement (Document Reference 6.1)**. This section also refers to measures included in **Appendix 10-3: Arboricultural Impact Assessment** of the **Environmental Statement (Document Reference 6.3)**.
- 8.1.2. It is noted that the measures in **Section 2.6**, for lighting, will mitigate TVIA impacts, but are not repeated here.

8.2. MITIGATION

- 8.2.1. The full CoCP(s) will provide that:
- Areas would be cleared for construction as close as practicable to works commencing and top soiling, reseeding and planting would be undertaken as soon as practicable after sections of work are complete.
 - Land/vegetation clearance and occupation would be limited to the minimum area necessary for the works. The applicant will ensure that when we are undertaking an oversailing of land with trees, the land will be protected, and trees will not be removed under any circumstances.
 - Temporary protection of vegetation, and other vulnerable features to be retained, would be undertaken in accordance with prevailing best practice.
 - Temporary storage of soils and other material considered of value for retention would be undertaken in accordance with prevailing best practice. Where practical, stockpiles would be sited to screen the construction works from sensitive receptors such as people using the PRow network.
 - The measures outlined in **Section 2.11** will be implemented to mitigate any adverse impacts on walkers and cyclists during the construction phase.
 - Construction area(s) would be kept tidy (e.g. free of litter and debris).
 - The roads providing access to the construction site will be kept free of excessive dust and mud as far as is reasonably practicable.
 - Lighting levels would be kept to a minimum necessary for security and safety. Directional luminaries used to limit unwanted light spill.
 - Construction areas will be laid out to minimise adverse impacts arising from temporary structures, construction activities and lighting.
 - Hoardings of appropriate appearance erected around the area of construction works to create a visual barrier to construction activities.

- 8.2.2. The full CoCP(s) will provide that all tree works must comply with British Standard 3998:2010 Tree Work – Recommendations⁸ and should therefore be carried out by skilled tree surgery contractors.
- 8.2.3. A full Arboricultural Method Statement (AMS) will be prepared as an appendix to the full CoCP(s) and should cover the duration of construction activities with appropriate levels of arboricultural supervision where work is near trees. The AMS would incorporate the following mitigation measures:
- The appointment of an Arboricultural Clerk of Works (or the Ecological Clerk of Works taking on this role as relevant).
 - To prevent above and below ground damage to arboricultural features Construction Exclusion Zones would be established within the AMS for the duration of demolition and construction which is demarcated by a tree protection fence. Where access only is required then temporary ground protection measures could be installed to prevent soil compaction and root damage.
 - It is noted that in establishing Construction Exclusion Zones, for groups of trees the Root Protection Area (RPA) is based on a distance from the plotted group extent which represents tree stem locations. The indicative RPA used for design are based on a symmetrical circle and are shown in the **Figure 10-1: Tree Removals and Protection Plan** of the **Environmental Statement (Document Reference 6.2)**. These RPAs are indicative, and the shape can be adjusted by an arboriculturist to ensure that sufficient area, and therefore soil volume, is appropriately protected. As such these would be updated and confirmed within the AMS (as updated); and
 - Tree protection fencing shall be fit for the purpose of excluding construction activity and appropriate for the degree and proximity of work taking place. An example of the type of tree protection fencing taken from BS 5837:2012⁹ which may be required is included in **Figure 2**. In all instances the following shall be adhered to:
 - tree protection fencing shall be erected prior to any works onsite including site clearance, groundwork or the importation of plant and materials;
 - tree protection fencing shall be erected in accordance with the layout shown on the **Figure 10-1: Tree Removals and Protection Plan** of the **Environmental Statement (Document Reference 6.2)**;
 - all weather notices will be attached (at eye level) to the tree protection fencing at suitable intervals and shall include suitably sized informative text stating “Tree Protection Fencing, Construction Exclusion Zone – No Access”;
 - once erected, tree protection fencing shall remain in situ until construction activities are complete;
 - no construction activities, storage of materials or pedestrian or vehicular access shall take place within the Construction Exclusion Zones; and

- regular daily checks will be carried out by an appointed person to ensure that all tree protection fencing is still in place and functioning; any damage will be rectified without delay.

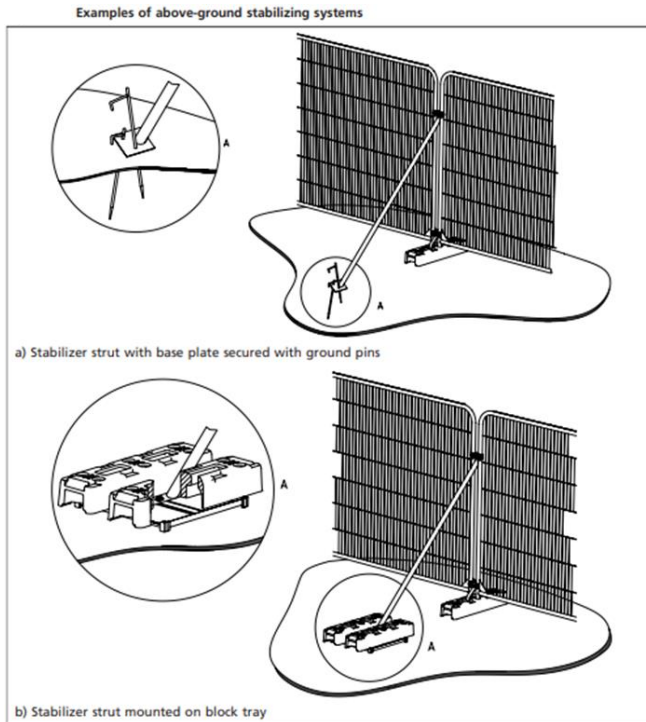


Figure 2: Example of Appropriate Tree Protection Fencing

8.3. MONITORING

- 8.3.1. The performance of embedded landscape mitigation measures and enhancement (particularly biodiversity net gain/habitat creation) will be monitored pursuant to the **Outline LaBARDS (Document Reference 7.9)** as part of the detailed design of the Proposed Scheme.
- 8.3.2. The full CoCP(s) will provide that monitoring of Arboricultural features would include:
 - once protection measures have been installed, and prior to the commencement of the development, a site inspection would be undertaken by the Arboricultural Clerk of Works to confirm that all protection measures have been installed in accordance with the AMS (as updated);



- if any arboricultural issues arise during the construction of the Proposed Scheme, then the Arboricultural Clerk of Works would be contacted for advice on how to proceed; and
- on completion of the Proposed Scheme a general survey of the trees would be undertaken to identify any remedial action necessary as a result of the works.

9. WATER ENVIRONMENT AND FLOOD RISK

9.1. INTRODUCTION

- 9.1.1. The commitments relating to water environment and flood risk within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 11: Water Environment and Flood Risk** of the **Environmental Statement (Document Reference 6.1)** and **Appendix 11-1: Water Framework Directive Assessment of the Environmental Statement (Document Reference 6.3)**.

9.2. MITIGATION

- 9.2.1. The full CoCP(s) will provide that construction activities will be undertaken in accordance with appropriate good practice guidance, such as the Construction Industry Research and Information Association's (CIRIA) control of water pollution from construction sites¹⁰ (C532) and the Environment Agency's Pollution Prevention for Businesses¹¹. Also, Guidance for Pollution Prevention (GPP)¹² which provide good practice guidance, particularly PPG1 - General guide to the prevention of water pollution; GPP 2 - Above ground oil storage tanks; GPP 5 - Works and maintenance in or near water; and GPP 6 - Working at construction and demolition sites.
- 9.2.2. The full CoCP(s) will contain construction method statements and work instructions for onsite staff that will inform them of the legal obligation to protect the water environment from contamination and the way that they should work onsite to reduce the risk of polluting the surrounding environment. It will include instructions on dealing with certain situations such as general good site practice, adverse weather conditions, environmental incidents, and complaints.
- 9.2.3. It will provide that construction staff will be equipped with the necessary equipment, Personal Protective Equipment (PPE) and substances to implement biosecurity control measures, including effective hygiene and sanitation practices.
- 9.2.4. The full CoCP(s) will contain work instructions for onsite staff that will inform them of the legal obligation to protect the water environment from contamination and the way that they should work onsite to reduce the risk of polluting the surrounding environment. It will include instructions on dealing with certain situations such as general good site practice, adverse weather conditions, environmental incidents, and complaints.
- 9.2.5. Prior to any works being undertaken near a watercourse, a pollution prevention plan will be prepared and agreed with the Environment Agency to accompany the full CoCP(s). This will include a description of the procedures that will be followed in the event of an environmental emergency such as a fuel or chemical spillage onsite. This will enable the Contractor(s) and other bodies (e.g. the Environment Agency) to rapidly manage and mitigate a pollution event should one occur during construction or operation of the Proposed Scheme. This will detail:

- the locations, names and references of the watercourses shown on **Figure 11-2: Surface Water Features6: Pollution Prevention Plan** of the **Environmental Statement (Document Reference 6.2)**;
- normal flow directions;
- key culverts/barriers to flow;
- inspection locations;
- access points;
- locations of pollution prevention measures (e.g. spill kits, silt curtains, silt traps, booms and stop boards) both embedded and reactive;
- outfalls/connections to other watercourses (including the River Thames);
- a contingency plan in case of an accident/pollution incident;
- a definition of a major pollution incident;
- methodology, to be agreed with the LLFA/Environment Agency, to shut down the Great Breach and/or Green Lake Pumping Stations; and
- that the Pollution Prevention Plan will be reviewed and revised as necessary during construction if environmental conditions change (for example excessive wet weather).

9.2.6. Ground condition information will be obtained from the ground investigation that will be undertaken prior to construction as secured by DCO requirement within the **Draft DCO (Document Reference 3.1)**.

Surface Water Features

Increased Sediment Load

9.2.7. The full CoCP(s) will provide for:

- soil and stockpiles will not be located within 10m of surface waterbodies or drainage lines without appropriate cut off features or flow barriers;
- stockpile management measures e.g. by using jute matting to mitigate release of sediment load;
- topsoil will not be stored in the parts of the Temporary Construction Compounds (as shown on the **Works Plans (Document Reference 2.3)**) which are shown to be at risk of flooding from the Marsh Dykes (shown in **Figure 11-4: Marsh Dykes Breach Model Results** of the **Environmental Statement (Document Reference 6.2)**);
- no activities would take place in the Marsh Dykes (ordinary watercourses) with the exception of infilling activities and construction of drainage outfalls, as discussed below;
- no activities would take place in the River Thames or within 16m of the toe of the flood defences without prior consent from the Environment Agency. It is proposed that consent for these activities will be sought through the DCO (via the Environment Agency's Protective Provisions), and as such that no separate Flood Risk Activity Permit will be required;

- a construction phase surface water management plan would be prepared as part of the full CoCP(s) to ensure that the run-off (in terms of both quality and quantity) is appropriately managed, so it does not increase risk of pollution to the environment.
- all loose materials will be covered.;
- construction activities including vegetation clearance, earth moving, storage of materials and equipment and plant movement in the vicinity of any surface water feature or drainage lines will be minimised;
- land clearance in the vicinity of surface water features will be minimised. When land clearance in the vicinity of surface water features is unavoidable, the features would be protected with, but not limited to, silt traps, silt fences and filter bunds;
- temporary cut-off drains will be used around the perimeter of the working areas to prevent clean runoff entering and dirty water leaving the working area without appropriate treatment;
- vegetation will only be removed when necessary and gradients kept as shallow as possible to prevent large amounts of earth being washed away during periods of heavy rainfall;
- areas of ground that have been exposed will be reseeded or surfaced as soon as reasonably practicable;
- facilities will be provided for wheel washing to prevent “track out” from vehicles. Wheel wash facilities will be appropriately contained to ensure that silt laden water would not reach surface water features;
- surface water run-off and excavation dewatering will be captured and settled out prior to water being discharged to the Marsh Dykes or Norman Road Stream. Run-off from potentially highly contaminated areas will be treated appropriately prior to discharge. The Contractor(s) will apply for construction discharge permits if required;
- cut off ditches, silt fencing or similar measures, will be provided along the perimeter of the Site to capture any runoff from the Site;
- measures to protect drains and surface water features from increased sediment load will be implemented, for example, by labelling/marketing drains or using silt traps; and
- all the existing drains and sewers within the Site will be identified and labelled and measures implemented to prevent polluting substances from entering them.

Release of Hydrocarbons and Oils and Use of Hazardous Materials

9.2.8. The full CoCP(s) will provide for:

- a construction phase surface water management plan would be prepared as part of the full CoCP(s) to ensure that the runoff is appropriately managed, so it does not increase risk of pollution to the environment.
- appropriate interceptors to be incorporated in the onsite drainage systems;
- spill containment equipment to be stored on the Site;

- hazardous substances, oil and fuel to not be located within 10m of water bodies or drainage lines and would be stored in bunded areas holding at least 110% of the container or one quarter of the combined capacity of all containers where there are more than one. Storage and bunded areas to be constructed with impervious floors;
- refuelling of machinery to be undertaken in bunded areas, which would not be located within 10m of water bodies or drainage lines;
- all refuelling to be supervised and carried out in a designated area with appropriate cut-off drainage and located away from watercourses and drainage lines;
- drip trays to be used for diesel pumps and standing plant would be regularly maintained to prevent leaks;
- construction materials, such as cement, to be mixed in designated areas located away from water bodies and drainage lines; and
- concrete wash out to only take place at designated concrete washout areas.

Infilling of Water Features

- 9.2.9. The full CoCP(s) will provide that the infilling of water features that is required during the construction phase will be undertaken in such a manner to prevent an increase in silt/sediment loads in the receiving watercourses/Marsh Dykes and with appropriate mitigation in place to prevent the creation of contaminant pathways to the receiving groundwater body and/or increase in groundwater flood risk to the new infrastructure.
- 9.2.10. The loss of water features will be offset by the enhancement/creation of new water features through the measures set out in the **Outline LaBARDS (Document Reference 7.9)**.

Moving of Water Features

- 9.2.11. Sections of OW4 and OW3 will be moved to the north in order to accommodate the Flue Gas Supply Ductwork. Details regarding the moving of water features is in the **Outline Drainage Strategy (Document Reference 7.2)**. The construction of the new watercourse will be undertaken in the dry and measures to deal with the first flush through the new watercourses, as set out in this Outline CoCP.
- 9.2.12. The new watercourses provide the opportunity for a betterment in comparison to the existing watercourses as they were observed to be vegetated during the general site walkover. The new watercourses would be designed to replicate the size of the existing watercourses. The design of the new watercourses would be undertaken during detailed design and in consultation with the LLFA.
- 9.2.13. Norman Road Stream may require diversion or protective measures due to the location of the platform. This will be developed during detailed design and in consultation with the Environment Agency.

Dust and Debris

- 9.2.14. Dust management procedures would be applied as detailed in **Section 3**.

Groundwater Features

- 9.2.15. The full CoCP(s) will provide that measures in relation to groundwater will be implemented in alignment with the Environment Agency's Approach to Groundwater Protection Guidance¹³. Specifically, Section C Infrastructure, Section D Pollutant Storage and Transmission, Section G Discharge of liquid effluents into the ground, Section J Land Contamination, Section N Groundwater resources and Section S Flooding from Groundwater, details the measures associated with construction activities.
- 9.2.16. Ground investigation would be undertaken prior to the construction phase as secured by DCO requirement within the **Draft DCO (Document Reference 3.1)**. This is likely to be led by geotechnical requirements but would include geo-environmental sampling of terrestrial soils, marine sediments, groundwater and surface water. The scope of the geo-environmental investigation would be underpinned by the CSM presented in **Appendix 17-1: Preliminary Risk Assessment of the Environmental Statement (Document Reference 6.3)**. Depending on the information gathered through this ground investigation, monitoring of groundwater and surface water may be recommended before construction commences, during construction works and post-construction.
- 9.2.17. The full CoCP(s) will provide a Piling Risk Assessment would be produced to outline measures to protect the underlying aquifers during construction phase activities (i.e. drilling, piling, excavation and dredging), and to mitigate the risk of creating preferential pathways for potential contamination to the aquifers. Additionally, risk assessments will be undertaken for any construction proposals entailing significant groundworks (especially those which are proposed to include excavations and below ground structures likely to penetrate below the groundwater table) including a Generic Quantitative Risk Assessment (GQRA) to allow assessment of identified plausible contaminant linkages and remedial measures as required (**Appendix 17-1: Preliminary Risk Assessment of the Environmental Statement (Document Reference 6.3)**).

WFD Designated Water Bodies

- 9.2.18. The WFD related mitigation measures embedded in the Proposed Scheme are those referred to in other sections of this Outline CoCP including:
- The capital/construction phase dredging works will be undertaken by a backhoe dredger. Backhoe dredging utilises an excavator mounted on the edge of a pontoon or barge, which reaches into the water and scoops bed material out. A separate vessel or barge will be moored alongside, which the dredged material is deposited directly into.

- A retaining wall will be installed (capped at bed level) within the river channel to prevent potential erosion of intertidal sediment and reduce the size of the dredge pocket required.
- The dredged arisings will be managed in accordance with relevant legislation and will be disposed of offsite (via vessel) as it is unlikely that the dredged arising will be suitable for reuse on the Proposed Scheme. The removal of the dredged arisings will be undertaken by an appropriately licenced waste carrier.
- Construction activities involving working on tidal/intertidal zones, such as sheet pile installation construction, should, where possible, occur during low tide conditions to ensure that structures are constructed within a dry working environment.
- Noise and vibration must be controlled.
- Lighting used for construction must be switched off when not in use and, where possible, positioned so as not to spill on to watercourses.
- Dredged material should not be disposed of offsite without proper treatment, as it provides a pathway for spreading marine INNS to other areas.
- It is expected that construction vessels will follow standard procedures for managing INNS in their ballast water. The full CoCP(s) will include a Biosecurity Management Plan.
- To mitigate preferential pathways to controlled waters (including WFD groundwater water bodies) that result from construction phase activities, a Piling Risk Assessment, Materials Management Plan, Earthworks Specification and/or Remediation Strategy (as appropriate) would be produced (further information is included in **Section 17.8 of Chapter 17: Ground Conditions and Soils of the Environmental Statement (Document Reference 6.1)**).

9.2.19. As described in **Appendix 11-1: Water Framework Directive Assessment** of the **Environmental Statement (Document Reference 6.3)** sediment sampling at depth will be undertaken to inform detailed design. Information gathered through this sampling will inform subsequent additional mitigation if sediments are shown to be elevated in contaminant concentrations. Sediment sampling will follow standard MMO guidelines¹⁴ and will be undertaken pursuant to the terms of the Deemed Marine Licence contained in the **Draft DCO (Document Reference 3.1)**.

Coastal Processes

- 9.2.20. The detailed design of the retaining wall to the rear of the dredge pocket proposed to help maintain the integrity of the adjacent side slopes (dredged or intertidal) will be approved pursuant to the Deemed Marine Licence, so will not be incorporated in the full CoCP(s).
- 9.2.21. The sheet pile wall will be designed to reduce disruption to the intertidal area.

Flood Risk

- 9.2.22. The full CoCP(s) will provide that no works would be carried out within the Site Boundary when there is a risk of breach of the River Thames flood defences. Furthermore, should an event larger than the standard of protection event (1 in 1000 years) be forecast then no works would be carried out within the Site Boundary.
- 9.2.23. The full CoCP will provide that a Method Statement would be developed by the Contractor(s) detailing the procedures for securing the Site and plant equipment for a flood event (breach or overtopping of the River Thames Defences), in particular with reference to safe working practises, harmful substances and fuels.
- 9.2.24. The full CoCP(s) will provide that the Contractor(s) would sign up to the Environment Agency flood warning service to receive up to date flood information and warnings.
- 9.2.25. The surface water management plan for the construction phase referred to above shall provide details on the potential increase in flood risk associated within a loss of water features that currently provide stormwater storage will be offset through providing storage within the surface water management plan.
- 9.2.26. The Environment Agency's 2018 Thames Estuary Breach model¹⁵ and the Cory Thames Estuary Breach del can be considered a worst case assessment of the residual flood risk. This is because the Thames Estuary Breach model considers a simultaneous event of failure of the network of watercourses (and associated culverts) and pumping stations occurring at the same time as the failure of the River Thames Flood Defences. This scenario is considered to have a very low probability of occurrence.
- 9.2.27. In the worst case residual risk scenario, defined by the results of the Cory Thames Estuary Breach Model, if a breach should occur between Riverside 1 and Riverside 2, then the depth of flood waters adjacent to the Carbon Capture Facility platform would be greater than the maximum breach flood level from the Cory Thames Estuary Breach Assessment and would overtop and inundate the platform of the Proposed Scheme. This is a result of the flood waters being constrained between Riverside 1 and Riverside 2 and channelled directly at the platform. As such, detailed design will need to include a Flood Defence Wall located along the top of the platform to ensure that the platform is protected to a minimum height of 300mm above the maximum flood level (noting the flood level decreases with distance from Riverside 1 and Riverside 2). This wall could tie into the proposed buildings, with demountable defences across the access roads as required.
- 9.2.28. This approach can be implemented in such a manner that disruption to the operation of the Site (changes to the one-way circulation around site roads) as a result of the demountable barriers being in place only occurs when the water levels of the River Thames are predicted to reach a level which should a breach occur could result in the platform being inundated.

- 9.2.29. The measures in **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Document Reference 6.3)** are secured via a requirement in the **Draft DCO (Document Reference 3.1)**.

9.3. MONITORING

- 9.3.1. The full CoCP(s) will provide that inspections and audits along with general monitoring and reporting of the effectiveness of control measures would be undertaken. The mitigation strategies implemented would be reviewed regularly to best suit the practices currently being undertaken onsite.
- 9.3.2. The full CoCP(s) will provide a Ground Investigation to be undertaken prior to the construction phase future ground investigations will determine mitigation requirements at detailed design including considerations of changes in groundwater abstractions (Riverside 2) adjacent to the Site and recommendations for groundwater and surface water monitoring.

10. CLIMATE RESILIENCE

10.1. INTRODUCTION

- 10.1.1. The commitments relating to climate resilience within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 12: Climate Resilience** of the **Environmental Statement (Document Reference 6.1)**.

10.2. MITIGATION

- 10.2.1. Site clearance, levelling and ground preparation works for the Temporary Construction Compounds may be completed to provide a suitable working compound. The full CoCP(s) will provide that the surface material of construction compounds will be permeable so as to allow rainwater to percolate to ground, with suitably bunded locations identified as storage areas for any hazardous, polluting materials or chemicals to prevent the risk of pollution.

10.2.2. To ensure the safety of construction staff in extreme temperatures, measures will be implemented to protect construction staff from extreme weather events. This may include providing adequate rest periods, offering shaded areas, supplying appropriate PPE like hats and sunscreen, and ensuring access to sufficient drinking water, and providing welfare facilities with adequate shading and cooling. Adjusting the programme of work activities or scheduling daily working time to account for extreme weather conditions such as high winds, heavy precipitation and high temperatures, and building additional contingency into the programme should also be undertaken.

10.2.3. Management protocols of the Contractor(s) should take effect following the forecasting of extreme weather events to allow for work activities to be adapted to the weather conditions with appropriate risk assessment completed and tied into emergency response plans.

~~10.2.2.~~10.2.4. Construction activities will be undertaken in accordance with appropriate good practice guidance such as the Guidance for Pollution Prevention (GPP), as set out in **Section 9.2**.

10.3. MONITORING

- 10.3.1. The full CoCP(s) will provide that the Contractor(s) will need to monitor the effects of extreme weather-related incidents (for example, road surface deformations, flooding, storm damage and debris, snow and ice etc.) and identify any maintenance measures required. Inspections by an appropriately qualified professional will be carried out following an intense rainfall event, heatwave, high wind or storm event to monitor any damage and implement appropriate mitigation as necessary.
- 10.3.2. Given the uncertainties inherent in climate science and projections, the full CoCP(s) will provide that the impacts and effects considered in the **Environmental Statement (Document Reference 6.1)** will be monitored throughout the construction. This would



include monitoring of local extreme weather events via the Met Office, regular (potentially annual) reviews of the State of the UK Climate Report (Met Office) to review and understand any changes in climate trends.

11. GREENHOUSE GASES

11.1. INTRODUCTION

- 11.1.1. The commitments relating to greenhouse gases within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Document Reference 6.1)**.
- 11.1.2. These measures are considered to be a Greenhouse Gas Reduction Strategy for the Proposed Scheme.

11.2. MITIGATION

- 11.2.1. Environmental mitigation required during construction will be recorded in the full CoCP(s). The full CoCP(s) will provide a tool to ensure the successful management of the likely environmental effects as a result of construction activities. **A Framework CTMP (Document Reference 7.7)** has also been prepared. These plans include for the following principles:
- Construction Contractor(s) will be expected to ensure optimal performance of plant and equipment through correct and efficient operation, maintenance, and servicing of vehicle fleet to minimise emissions. Options will be considered for using efficient low emission plant, equipment and vehicles where possible (i.e. those using electricity or lower carbon fuels).
 - The Proposed Scheme will be designed to minimise material consumption and waste generation, as far as reasonably practicable.
 - Depending on design specification requirements the Proposed Scheme will consider options to specify construction materials with lower embodied carbon (e.g. using steel with a higher than average recycled content or considering material alternatives).
 - Transportation of materials will be optimised to minimise GHG emissions, including sourcing construction materials from local suppliers, making use of local waste management facilities where practicable and ensuring the construction programme considers requirements for onsite storage of materials and waste.
 - The Proposed Scheme will take into account the potential carbon emissions and removals within the design of the onsite Mitigation and Enhancement Area and offsite BNG Opportunity Area, including opportunities to maintain natural habitats where possible and minimise impacts during construction.
 - Construction waste will be recycled or reused where practicable to avoid disposal to landfill, including the reuse of excavated arisings on the Proposed Scheme, where suitable. Further embedded measures on material reuse and recycling are outlined in **Section 14**, which will result in reductions in construction waste emissions and also embodied GHG emissions from materials where reuse of the material can be favoured onsite.



Planning Inspectorate Reference: EN010128
Outline Code of Construction Practice
Application Document Number: 7.4

11.3. MONITORING

11.3.1. No monitoring required.

12. POPULATION, HEALTH AND LAND USE

12.1. INTRODUCTION

- 12.1.1. The commitments relating to population, health and land use within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 14: Population, Health and Land Use** of the **Environmental Statement (Document Reference 6.1)**.

12.2. MITIGATION

- 12.2.1. The full CoCP(s) will provide that, with the exception of Munster Joinery, access to adjacent terrestrial businesses will be maintained throughout the construction phase, this includes the access to Asda Belvedere Distribution Centre, Lidl Regional Distribution Centre and Iron Mountain Record Storage Facility. Signage to advertise that businesses are open and operating as normal to be provided.
- 12.2.2. Access to the River Thames for recreational users will be maintained throughout the construction phase, in accordance with the measures set out in **Section 2.9**.
- 12.2.3. The full CoCP(s) will provide (or report on the same if this has already happened at the time that the full CoCP(s) is sought to be approved) that engagement must take place with the graziers who currently graze horses within the Site Boundary to seek to agree an approach to any temporary or permanent relocations required, and to the management of the return to site of horses once construction of the Proposed Scheme is complete.
- 12.2.4. The full CoCP(s) will provide that works will be screened to minimise adverse effects on the amenity value and enjoyment of the Accessible Open Land.
- 12.2.5. The design will ensure that routes used by walkers and cyclists (including PRoW, long distance walking routes and NCN routes) will, where practicable, remain open and accessible to users during construction. Where this is not practicable (such as FP2), suitable temporary diversions will be identified. Further information is provided in **Section 2.11** above.
- 12.2.6. Wherever practicable the England Coast Path (FP3/NCN1) will remain open. During specific construction activities for the Proposed Jetty limited closures of the England Coast Path (FP3/NCN1/FP4) may be required, the Contractor(s) will manage closures in the following priority order:
- using a banksman to provide safe escorted access across the construction area, keeping waiting times to less than:10 minutes during peak times; and 30 minutes during off-peak times;
 - nighttime closures, between 23:00 and 05:00 (non-peak times: 23:00 - 05:00 and peak times 07:00 - 19:00) when the England Coast Path (FP3/NCN1/ FP4) is infrequently used; and

- in occasional situations, where the above options are not practicable, a signed diversion route will be provided. The diversion route will be of a hard surface and will be suitable for all users.

- 12.2.7. The full CoCP(s) will provide the proposed temporary diversion routes.
- 12.2.8. The full CoCP(s) will also provide that clear signage and directions for any alternative routes and appropriate alternative diversions would be provided and diversions clearly publicised to maintain access.
- 12.2.9. The full CoCP(s) will provide that some areas of the Accessible Open Land may need to be closed to the public during the construction phase, but that these closures would seek to be minimised both in terms of the amount of space closed off and how long in time it is closed off. The full CoCP(s) would set out proposals for how such closures will be notified to the public and the Friends of Crossness Local Nature Reserve.
- 12.2.10. The full CoCP(s) will also provide details of any measures that will be undertaken to ensure that impacts to pedestrians and cyclists are minimised (and that they are kept safe) during the creation of any accesses from Norman Road to the Carbon Capture Facility and during any oversailing of the highway during construction.
- 12.2.11. The public will be informed of the nature, timing and duration of particular construction activities and the duration of the construction works by newsletters/other publications or advertisements.
- 12.2.12. The Applicant will reach an agreement with the grazier on an appropriate temporary location arrangement for the horses during the construction phase, as required.
- 12.2.13. The appointed Contractor(s) will prepare a Community Engagement Plan for the construction phase of the Proposed Scheme. The Plan will provide the overall approach to community engagement and a detailed guide to the enquiries and complaints procedure.
- 12.2.14. Ongoing engagement with the local community and businesses (including Munster Joinery UK Limited, Friends of Crossness Nature Reserve, Sustrans, local walking and cycling groups, local recreational groups, Asda Belvedere Distribution Centre and Iron Mountain Record Storage Facility) through that Plan would provide information which may help to reduce uncertainty and stress relating to the potential effects of the Proposed Scheme.
- 12.2.15. Engagement with the graziers will continue to be sought and undertaken.
- 12.2.16. Clear signage and instructions if banksmen are in operation and clear directions for any alternative routes and appropriate alternative diversions would be provided. Measures such as banksmen and diversions would be clearly publicised.
- 12.2.17. Mitigation measures from other sections of this Outline CoCP are also relevant to population, health and land use.



Planning Inspectorate Reference: EN010128
Outline Code of Construction Practice
Application Document Number: 7.4

12.3. MONITORING

- 12.3.1. The performance of PRow improvements and the Mitigation and Enhancement Area will be monitored pursuant to the **Outline LaBARDS (Document Reference 7.9)**.

13. SOCIO-ECONOMICS

13.1. INTRODUCTION

- 13.1.1. No socio-economics specific measures are required for the Proposed Scheme. The Applicant is continuing to negotiate with Munster Joinery with a view to facilitating relocation of the premises.
- 13.1.2. Otherwise, the measures set out in the rest of this CoCP will help to mitigate socio-economics effects.

14. MATERIALS AND WASTE

14.1. INTRODUCTION

14.1.1. The commitments relating to materials and waste within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 16: Materials and Waste** of the **Environmental Statement (Document Reference 6.1)**. This section also refers to measures included in the **Outline SWMP (Document Reference 7.10)**.

14.2. MITIGATION

- 14.2.1. To minimise as far as possible the effects of material use, waste generation and disposal, the full CoCP, the Materials Management Plan or the full Site Waste Management Plan (as appropriate) will provide that/for:
- the Contractor(s) will reuse excavated arisings on the Proposed Scheme where suitable. If not suitable, it will be taken offsite for reuse, unless circumstances dictate it must be disposed to landfill;
 - the dredged arisings will be managed in accordance with relevant legislation and will be disposed of offsite (via vessel and only if dredged arisings are deemed suitable for this disposal method and conform with the permits for disposal sites). The removal of the dredged arisings will be undertaken by an appropriately licenced waste carrier. The removal of the dredged arisings will be undertaken by an appropriately licenced waste carrier. If any arisings are identified as contaminated, the removal of the dredged arisings will be undertaken and managed by an appropriately licensed waste organisation;
 - all surplus steel used for reinforcement (rebar) and sheet piling during construction will be taken offsite for recycling;
 - The following actions to be applied to the demolition of Munster Joinery:
 - Steel framework from the demolition of Munster Joinery may be suitable for reuse on the Proposed Scheme. If not suitable, it will be taken offsite for recovery or recycling.
 - Profiled metal sheeting (from the walls and roof) and glass (windows) of Munster Joinery are not suitable for reuse on the Proposed Scheme, these items will be taken offsite for recovery or recycling.
 - The existing concrete yard slab will be lifted and crushed onsite for reuse; any metal rebar within the concrete yard slab will be removed and taken offsite for recycling.
 - The drainage pipework is not suitable for reuse on the Proposed Scheme and will be taken offsite for recycling, unless circumstances dictate it must be disposed to landfill.

- Existing palisade fencing will be retained onsite during the construction phase and the potential to align new fencing to this existing fencing is currently being explored. Any fencing that is to be removed will be taken offsite for recycling.
- The electronic gate will be retained onsite for the duration of the construction phase. This may be retained onsite following construction if suitable to meet security requirements.
- Existing galvanised steel wheel guides and ram protection bollards will be removed and taken offsite for recycling.

14.2.2. Additionally, the measures set out in the **Outline SWMP (Document Reference 7.10)** ensure that wastes will be correctly segregated to maximise recycling. Wastes will be responsibly managed in full adherence to local and national policy and legislation. The Site Waste Management Plan will be prepared in substantial accordance with the Outline SWMP.

14.2.3. A Materials Management Plan (MMP) will also be prepared prior to construction commencing (post-consent).

14.2.4. The assessment, presented in the Environmental Statement (Document Reference 6.1), concluded that the effects of material consumption and waste generation during the construction phase are not significant. However, best practice design and construction measures to minimise impacts are outlined below:

- **Materials:**
 - the specification of recycled and secondary content in imported materials (such as earthworks, aggregate, concrete and asphalt), is set out during detailed design;
 - careful estimation and ordering of the material needed on Site at any given time to be undertaken, to minimise the likelihood of surplus materials. This will also reduce the risk of material being stored on Site for long periods of time with the risk of damage or decay;
 - maximising where reasonably practicable the use of offsite construction and pre-fabrication methods to encourage a process of assembly rather than construction;
 - sourcing where reasonably practicable reusable plant, assets, and other aspects from local reuse networks or locally decommissioned projects to maximise use of secondary materials and to minimise transport mileage;
 - seeking to lease plant, assets, and other aspects, where reasonably practicable, which can then be returned to the supplier for reuse, rather than to procure new components which then have to be sold, recycled or disposed when no longer required;
 - the capture and communication of actions already undertaken (or planned) within the design for deconstruction and disassembly, to encourage reuse and recycling at the assets' end of life. For example, consideration of material

passporting to capture and retain information concerning the composition of materials and plant, with instructions on how these can be decommissioned, reused, recovered or recycled; and

- identifying opportunities to promote materials and products that afford higher sustainability performance than typical industry standards e.g., closed loop plasticised cable ducting; low carbon materials (timber), or technology that is powered through renewable energy sources.
- Waste:
 - The Contractor(s) will develop and implement a SWMP (to be prepared in substantial accordance with the **Outline SWMP (Document Reference 7.10)**) and MMP (to be prepared prior to commencement of construction of the Proposed Scheme), to drive performance in the highest tiers of the Waste Hierarchy, thereby maximising recovery, reuse and recycling. As a requirement of the MMP, testing of Site arisings will be a critical step in validating suitability for reuse in different structural and non-structural applications.
 - The full SWMP will report on progress and/or set out how the Proposed Scheme will seek to progress the following matters:
 - identifying possible enhancement and other opportunities to reduce waste through collaboration and regional synergies with third parties that are able to valorise wastes into new products;
 - engaging with local third parties, such as educational establishments, to divert surplus or spent materials into use elsewhere as supplies in local projects or as use in college courses. This will move waste up the hierarchy from recycling to reuse; and
 - consideration, where suitable and reasonably practicable, use of small-scale technologies to segregate treat or valorise wastes onsite or offsite, such as onsite composters for organic materials.
 - The full CoCP will provide that: site arisings will be suitably stockpiled to maximise reuse. Stockpiles will be designed to minimise quality degradation, damage and loss of resource:
 - Soil and stockpiles will not be located within 10m of surface waterbodies or drainage lines without appropriate cut-off features or flow barriers.
 - Stockpiles will be appropriately managed through use of tarpaulins and jute matting to mitigate release of sediment load, and damping down exposed surfaces using water spray.

14.3. MONITORING

- 14.3.1. A SWMP will be prepared by the Contractor(s) (secured by DCO requirement in accordance with the **Outline SWMP (Document Reference 7.10)**) and will include



management and monitoring of site waste to reduce associated impacts, including potential harm to the environment during the construction phase.

- 14.3.2. The MMP will also be used to monitor the maximum reuse of both natural soils and made ground (contaminated or otherwise).

15. GROUND CONDITIONS AND SOILS

15.1. INTRODUCTION

- 15.1.1. The commitments relating to ground conditions and soils within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 17: Ground Conditions and Soils** of the **Environmental Statement (Document Reference 6.1)**.
- 15.1.2. **Figure 3: Connections between the Ground Conditions and Soils Mitigation Tasks and Design** diagrammatically shows the measures undertaken throughout the ground conditions and soils assessment in the context of the design of the Proposed Scheme. The figure also depicts the relevant information from the Ground Conditions mitigation that is applicable to:
- **Section 7.2** – provision of the ground investigation logs to input into the development of the Archaeological Deposit Model;
 - **Section 9.2** – hydrogeological information obtained from the ground investigation, and environmental surface water and groundwater quality laboratory testing results; and
 - **Section 14.2** – development of the Materials Management Plan.
- 15.1.3. As shown in **Figure 3: Connections between the Ground Conditions and Soils Mitigation Tasks and Design**, geotechnical risk assessments will be completed as part of the detailed design of the Proposed Scheme. Geotechnical risk assessments will include a Geotechnical Risk Register to assess ground stability hazards.
- 15.1.4. The Phase 1 Contaminated Land Preliminary Risk Assessment (see **Appendix: 17-1 Preliminary Risk Assessment** of the **Environmental Statement (Document Reference 6.3)**) summarises potential ground stability hazards that have been identified at the Site.

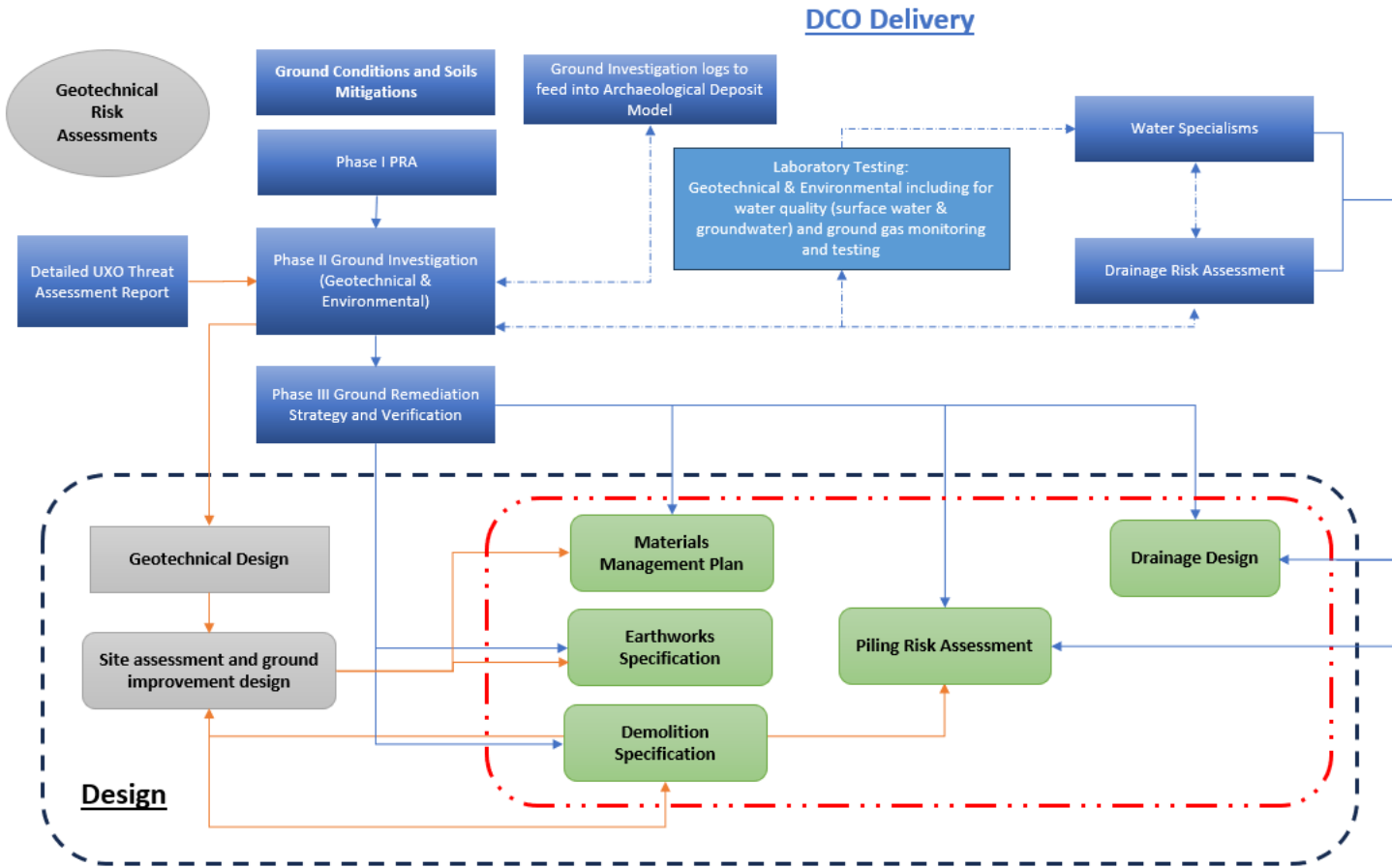


Figure 3: Connections between the Ground Conditions and Soils Mitigation Tasks and Design

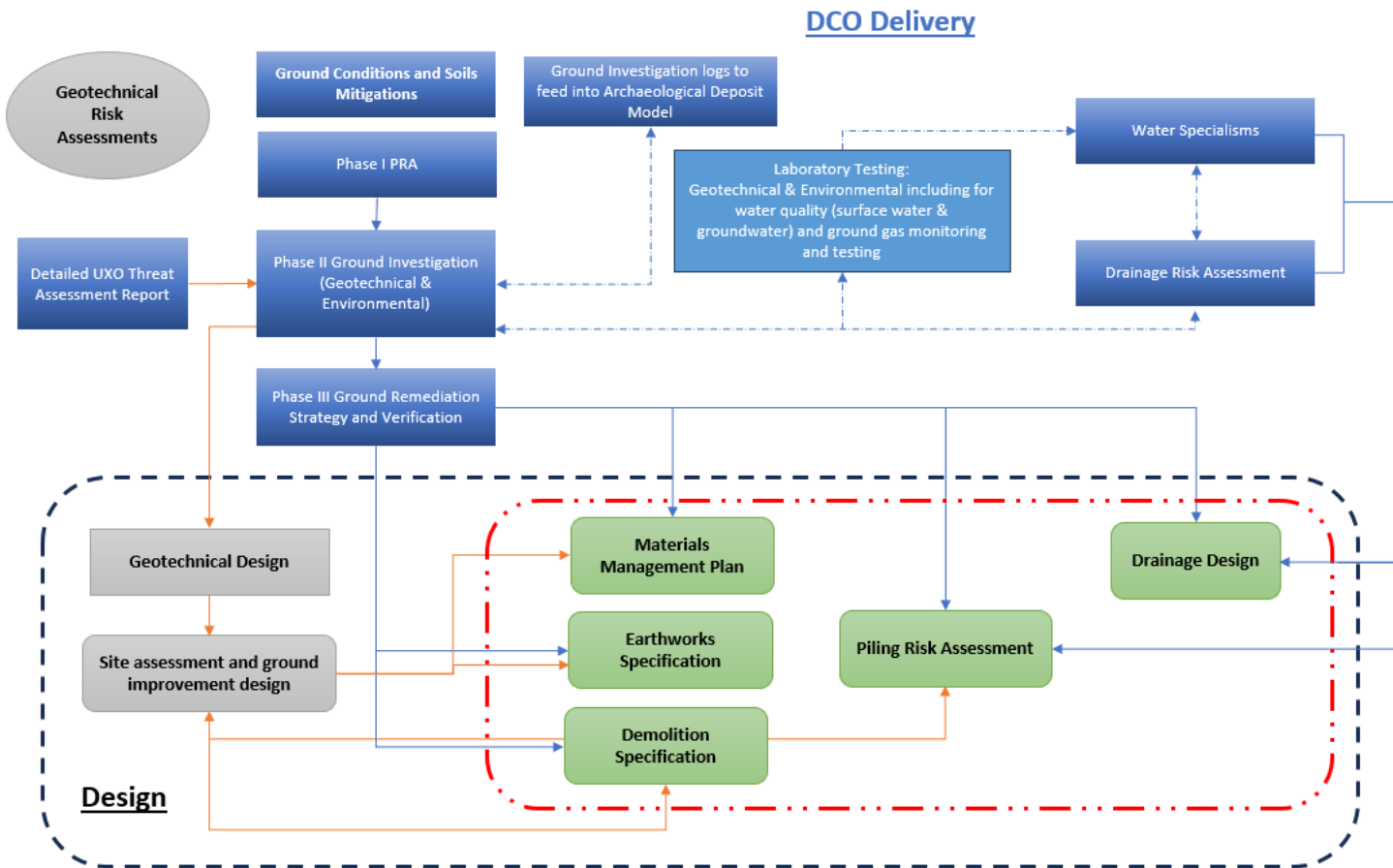


Figure 3: Connections between the Ground Conditions and Soils Mitigation Tasks and Design

15.2. MITIGATION

- 15.2.1. The following measures which would be implemented to mitigate risks to human health (site users, staff, construction staff and third party neighbours), controlled waters, below ground services and building structures and ecological receptors:
- General good construction working practices would be implemented such as dust suppression, including potentially contaminated dust, (damping down), windbreak netting around excavations and/or perimeter fencing, covering stockpiles with tarpaulins, wheel washing and road sweeping to prevent local residents and employees in the vicinity of the earthworks from being exposed to windblown dusts, vapours and asbestos fibres.
 - Appropriate stockpile segregation, locations and containment measures would be implemented to minimise the exposure of surface water and groundwater from contaminated run-off and local neighbours from windblown dusts, vapours and asbestos fibres.
 - A protocol for managing unexpected ground contamination that may be encountered during construction would be implemented.
 - Construction staff would be required to wear PPE such as gloves and face masks (where appropriate) to prevent dermal contact and inhalation or ingestion.
 - Appropriate site hygiene facilities will be put in place and the presence of contaminants, and the associated risks will be explained to construction staff undertaking groundworks before they begin work.
 - Fuel storage onsite would be carried out under best practice i.e. integrally banded containers. Plant refuelling would be carried out using best practice techniques and any spills to be controlled with spill kit.
 - Management of water that collects onsite or within excavations.
 - Appropriate management measures for polluting substances that are being brought on site and used as part of the construction process.
 - Appropriate management measures for sediments in surface water runoff generated in construction and laydown areas.
 - Appropriate management measures for accidental leakage and/or spillage incidents of oils/hazardous substances.
 - Incorporation of hydrocarbon interceptors into the Site drainage system at high-risk areas, such as parking, unloading and refuelling areas, to remove hydrocarbons and oils from surface water prior to discharge. The **Outline Drainage Strategy (Document Reference 7.2)** details how new drainage will capture surface run-off once operational.

15.3. GROUND INVESTIGATIONS

- 15.3.1. Ground investigation would be undertaken prior to the construction phase as secured by DCO requirement within the **Draft DCO (Document Reference 3.1)**. As shown in **Figure 3: Connections between the Ground Conditions and Soils Mitigation**

Tasks and Design, this is likely to be led by geotechnical requirements but would include geo-environmental sampling of terrestrial soils, marine sediments, groundwater and surface water. The scope of the geo-environmental investigation would be underpinned by the CSM presented in **Appendix 17-1: Preliminary Risk Assessment** of the **Environmental Statement (Document Reference 6.3)**. The analytical data obtained from the ground investigation would be screened for risks to human health and controlled waters and the results used to refine the contaminant linkages identified. The soils will also be analysed to determine suitability for the reuse of soils onsite.

- 15.3.2. The ground investigation would also confirm preliminary hydrogeological conditions and will obtain information associated with ground aggressivity, including sulphates, sulphides (especially in pyritic ground), water-soluble magnesium and acids (indicators are pH, chloride and nitrate ions). The results will be used to determine an appropriate concrete specification for the detailed design stage.
- 15.3.3. The ground investigation would be undertaken in accordance with BS 10175:2011+A2:2017¹⁶ and LCRM¹⁷.
- 15.3.4. As the Site is within a 'High' risk area from UXO, a detailed UXO assessment will be undertaken in accordance with CIRIA guidelines¹⁸, prior to the ground investigation. The detailed UXO assessment would provide a comprehensive, in-depth desk study to determine the risk level of potentially encountering UXO thereafter informing the proposed construction and allowing selection of the appropriate mitigation for the Proposed Scheme.
- 15.3.5. The results of the ground investigation would be interpreted and assessed within a Generic Quantitative Risk Assessment (GQRA).
- 15.3.6. If the ground investigation identifies contaminant linkages a Remediation Strategy would be produced which would specify protective measures during construction. These measures would be agreed with the regulators prior to implementation. The Remediation Strategy would include measures to remove or decommission any below ground services, tanks, structures and/or pipework encountered during construction to ensure that contaminants do not enter the ground nor migrate to controlled waters and no preferential pathways remain.
- 15.3.7. Any remediation undertaken would be validated and report on within a Verification Report to provide confidence that it has been undertaken with the agreed Remediation Strategy.
- 15.3.8. A Piling Risk Assessment would be produced to outline measures to protect the underlying aquifers during the construction phase and mitigate risk of creating preferential pathways for potential contamination. The Piling Risk Assessment would be undertaken in accordance with the Environment Agency document titled Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention (NGWCL Centre Project NC/99/73)¹⁹.

- 15.3.9. An Earthworks Specification would be produced that would include protocols for testing and limiting values to ensure that imported materials are suitable for their intended use in terms of their chemical and geotechnical quality.
- 15.3.10. Contaminated ground materials that cannot be reused would be suitably managed to prevent mobilisation to the environment and to minimise the potential to impact sensitive receptors, prior to disposal. A Materials Management Plan would be prepared prior to construction commencing (post-consent) by the Contractor(s) to monitor the maximum reuse of both natural soil and made ground (contaminated or otherwise). The MMP would be undertaken in accordance with the CL:AIRE 'Definition of Waste: Development Industry Code of Practice'²⁰ to ensure that soil reuse and imported materials are suitable for their intended use and will not significantly affect human health or the environment.

15.4. DREDGED ARISING

- 15.4.1. As set out in **Chapter 2: Site and Proposed Scheme Description of the Environmental Statement (Document Reference 6.1)**, the dredged arisings associated with the Proposed Scheme (during both capital dredging and maintenance dredging) will be managed in accordance with relevant legislation and will be disposed of offsite (via vessel and only if dredged arisings are deemed suitable for this disposal method and conform with the permits for disposal sites). The removal of the dredged arisings will be undertaken by an appropriately licenced waste carrier.
- 15.4.2. As set out in **Chapter 2: Site and Proposed Scheme Description of the Environmental Statement (Document Reference 6.1)**, periodic maintenance dredging will be required during the operation of the Proposed Scheme. The maintenance dredged arisings will be managed in accordance with relevant legislation and will be disposed of offsite (via vessel and only if dredged arisings are deemed suitable for this disposal method and conform with the permits for disposal sites). The removal of the dredged arisings will be undertaken by an appropriately licenced waste carrier.

15.5. MONITORING

- 15.5.1. Whilst monitoring would be carried out in accordance with the Piling Risk Assessment, Materials Management Plan, Earthworks Specification and/or Remediation Strategy (as appropriate) no further monitoring of ground conditions and soils effects is considered to be proportionate or to be required.

16. LANDSIDE TRANSPORT

16.1. INTRODUCTION

- 16.1.1. The commitments relating to landside transport within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 18: Landside Transport** of the **Environmental Statement (Document Reference 6.1)**. This section also refers to measures included in the **Framework CTMP (Document Reference 7.7)**.
- 16.1.2. The measures to manage transport impacts will be contained in a full CTMP(s) separate from the full CoCP(s).
- 16.1.3. Measures in respect of non-motorised users are set out in **section 12** of this document.

16.2. FRAMEWORK CTMP

- 16.2.1. The **Framework CTMP (Document Reference 7.7)** sets out potential measures to mitigate construction effects. These measures have been grouped into:
- safety/environmental standards and programmes;
 - delivery schedules;
 - designated route;
 - site signage;
 - wheel cleaning facility;
 - dust management;
 - construction workforce travel plan;
 - communication, with local residents and neighbouring businesses; and
 - implementing, monitoring and updating.
- 16.2.2. A full CTMP(s) will be developed once Contractor(s) have been appointed, to be in substantial accordance with that Framework Plan. This will also include a full construction workers travel plan. The full CTMP(s) will be produced in accordance with local highways authority guidance and Construction Logistics Planning (CLP) Guidance²¹.

16.3. MONITORING

- 16.3.1. The **Framework CTMP (Document Reference 7.7)** outlines the typical monitoring requirements for landside transport impact during construction. Full CTMP(s) will be developed once Contractor(s) have been appointed and this will indicate the monitoring requirements.

17. MARINE NAVIGATION

17.1. INTRODUCTION

17.1.1. The commitments relating to marine navigation within this Outline CoCP have been drawn from the assessment of significant effects included in **Chapter 19: Marine Navigation** of the **Environmental Statement (Document Reference 6.1)**. This section also refers to measures included in **Appendix 19-1: Preliminary Navigational Risk Assessment** of the **Environmental Statement (Document Reference 6.3)**.

17.2. MITIGATION

17.2.1. Marine vessel traffic within the Study Area is highly controlled and regulated with the PLA administering a suite of baseline risk controls. The Proposed Scheme will be fully compliant with these risk controls during both construction and operation phases.

17.2.2. A summary of the embedded design, mitigation and enhancement measures taken from **Appendix 19-1: Preliminary Navigational Risk** of the **Environmental Statement (Document Reference 6.3)** are provided below:

- The alignment of the Proposed Jetty has been optimised sufficiently to mitigate as far as reasonably practicable the impacts on the ebb tide.
- The alignment of the Proposed Jetty has been optimised sufficiently to ensure that sight lines on the approach to the berth are suitable for the PLA pilots at the helm of the vessel.
- The optimum location of the Proposed Jetty with respect to the eastern extremity of Cory operations on the Middleton jetty has been considered. The Riverside 1 Lighterage Team has confirmed that the Proposed Jetty will not have an impact on the existing lighterage operations at the Middleton Jetty.
- The location of the Proposed Jetty has been optimised sufficiently to mitigate as far as reasonably practicable the impacts on third party vessels transiting the channel and manoeuvring in proximity to the Proposed Jetty.
- The alignment of the Proposed Jetty has been optimised to ensure that wind conditions for berthing of the vessels are appropriate and within accepted levels for safe manoeuvring.
- Vessel departures from the Proposed Jetty will likely be limited to High Water ± 1.5 hours. This is in part due to the optimised dredge depth for the berthing pocket, to provide an appropriate under keel clearance for the identified design vessel with the greatest draft.
- The design of the Proposed Jetty will incorporate riparian lifesaving equipment in line with statutory requirements and the PLA's Guidance 'A Safer Riverside'²².
- The Proposed Scheme is in accordance with industry guidance and standard good practice regarding port safety issues.

- 17.2.3. The above measures have been accepted by the PLA. A full NRA(s) will be secured in accordance with the **Draft DCO (Document Reference 3.1)**.
- 17.2.4. Additional risk control measures have been identified for the construction phase and are detailed in **Appendix 19-1: Preliminary Navigational Risk Assessment of the Environmental Statement (Document Reference 6.3)**. These include:
- Promulgation and dissemination of information relating to project construction phase to be shared as widely as possible through Notices to Mariners (NtM), Vessel Traffic Services (VTS) broadcasts, updates to guidance documents, emails to key stakeholders and through social media platforms, including:
 - planned vessel movements (arrivals and departures of materials barges); and
 - sequencing of construction works and proposed Marine Works mooring configurations to be shared with VTS and marine stakeholders (e.g. CLdN).
 - Defining operational limits of uncontrollable factors to ensure safe and efficient travel, berthing, and loading operations, above which such operations will cease until levels are back within acceptable tolerances will be determined. Such limits will include:
 - wind speed and direction;
 - height of tide;
 - tidal stream; and
 - visibility.
- 17.2.5. These limits would be determined during the preparation of the full NRA(s) by the involved parties, which is to be prepared in substantial accordance with **Appendix 19-1: Preliminary Navigational Risk Assessment of the Environmental Statement (Document Reference 6.3)**. Parties would include but may not limited to the Applicant, the PLA, and those involved in preparing the construction NRA.
- Defining operational limits, during the construction phase, of controllable factors to ensure safe and efficient travel, berthing, and loading operations, which if not met, will cause a cease in operations until met. Such limits will include:
 - minimum under keel clearance within channel and berth pocket;
 - tug assistance; and
 - tidal state at time of arrival and departure.
 - Enforcement of a minimum passing distance from Marine Works (50m) to vessels passing within the authorised channel in addition to a requested maximum speed reduction (less than 6kts).
 - A navigation exclusion zone to all vessels other than those engaged in the construction phase for the Proposed Scheme and the Applicant's vessels navigating to and from Middleton Jetty should be enforced to minimise risk associated with contact and collision hazard occurrence and allow safe passage.
 - A standby tug to be present onsite throughout the construction phase to provide assistance in the event of a construction vessel breakout. The standby tug should be manned and ready to respond when construction activity is taking place onsite.

- The use of a Safety Boat to provide a recovery response for falling persons, and alert works Contractor(s) of impending breach of non-intrusion area by errant craft.
- Appropriate mooring configurations to minimise risk of breakout resulting from vessel interaction, and optimise construction sequencing to ensure maximum distance between southern extent of authorised channel and Marine Works.
- The use of marine works lighting before permanent aids to navigation are installed.

17.3. MONITORING

- 17.3.1. The Contractor(s) will monitor the London VTS Channels Marine-band VHF radio frequencies to provide a source of live updates and information for users of the River Thames and provide a means for vessel crew to communicate with other vessels and shore stations (e.g. ports, locks, bridges and marinas) on operational, navigation and safety matters. Listening to the appropriate radio channel will provide a picture of vessel traffic, which is important for safety.
- 17.3.2. Visual monitoring via deployed safety boat when construction works are underway for the Proposed Jetty.

18. MAJOR ACCIDENTS AND DISASTERS

18.1. INTRODUCTION

18.1.1. The commitments relating to major accidents and disasters within this Outline CoCP have been drawn from the assessment of significant effects included in **Appendix 20-2: ES Risk Record** and **Appendix 19-2: Preliminary Navigational Risk Assessment** of the **Environmental Statement (Document Reference 6.3)**.

18.2. MITIGATION

18.2.1. The Applicant has committed to constructing the Proposed Scheme in accordance with the following non-exclusive list of standards and systems:

- programme of hazard studies of the Carbon Capture Facility to produce an inherently safe design and to ensure residual risks are managed to be As Low as Reasonably Practicable (ALARP);
- environmental, Health & Safety Management systems;
- Construction Design Management register and Health & Safety Plan;
- supplier management environmental, health & safety standards (e.g., Construction Skills Certification Scheme);
- risk management systems;
- **Outline EPRP (Document Reference 7.11)** for operation phase emergency preparedness and response planning; and
- the measures for construction phase navigational risk management described at **Section 17.2** of this document.

18.2.2. Additional design, mitigation and enhancement measures are set out in **Appendix 20-2: ES Risk Record** of the **Environmental Statement (Document Reference 6.3)**. All of the measures identified are either required by regulatory drivers or are considered to be Good Engineering Practice.

18.3. MONITORING

18.3.1. No monitoring specifically driven by Major Accidents and Disasters is considered to be proportionate or to be required.

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¹⁹ Environment Agency. (2001). 'Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention'. National Groundwater & Contaminated Land Centre report NC/99/73'

²⁰ CL:AIRE. (2011). 'The Definition of Waste: Development Industry Code of Practice'.

²¹ Construction Logistics and Community Safety. (2021). 'Construction Logistics Planning (CLP) Guidance'. Available at: <https://content.tfl.gov.uk/clp-guidance-clocs.pdf>

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