RESPONSE TO RELEVANT REPRESENTATIONS: 9.2

DECARBONISATION

Cory Decarbonisation Project

PINS Reference: EN010128

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The Infrastructure Planning (Examination Procedure) Rules 2010

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1. INTRODUCTION

1.1. STRUCTURE AND PURPOSE OF THE REPORT

1.1.1. This Report provides a response to the key issues raised in the Relevant Representations submitted by Interested Parties. A total of 205 Relevant Representations were submitted to the Planning Inspectorate as set out below:

- 6 from local planning authorities including the London Borough of Bexley and Greater London Authority;
- 25 from statutory bodies;
- 2 from land interests; and
- 172 from members of the public, stakeholder groups, and businesses.

1.1.2. Chapters 2-6 of this Report identify the key topics raised across the Relevant Representations received. Chapter 7 is focused solely on the drafting of the Development Consent Order (DCO), considering all Relevant Representations related to this topic, and providing justification of the wording of the Draft DCO.

1.1.3. All the Relevant Representations received have been reviewed and considered in the preparation of this report. The purpose of the Report is not to provide a direct response to each individual comment made, but instead to identify key issues on a thematic basis and provide a response to these issues.

1.1.4. This document is submitted alongside relevant updates to application documents referred to in the Applicant's responses contained within this Report.

2. OPTIONEERING

2.1. OVERVIEW

2.1.1. The Applicant recognises that a core concern raised by nearly every Relevant Representation relates to the Applicant's approach to site selection and site alternatives.

2.1.2. This section addresses these Relevant Representations, focussing on the key points that have been raised, which are:

- The Optioneering Process;
- Further consideration of the North, East and West Zones;
- Further consideration of the existing Riverside Campus;
- Considering the potential to avoid the Erith Marshes (MSINC) and the Crossness Local Nature Reserve that sits within it; and
- Considering the potential to avoid Metropolitan Open Land.

2.1.3. Relevant Representations have questioned the site selection process for the Proposed Scheme, which the Applicant considers has been undertaken through a robust and proportionate approach that aligns with the expectations of Overarching National Policy Statement for Energy ('NPS EN-1') and has been equitably applied across all reasonable alternatives. As set out in section 3 of this Report, this process should also be seen in the context of the Compelling Case for Carbon Capture facilities.

2.1.4. In short, and as set out in the Executive Summary of the **Project Benefits Report ('PBR', APP-042):**

'There is a paucity of alternatives at which to develop the Carbon Capture Facility and the selected location is demonstrated to be an appropriate location when all impacts are balanced, including the direct loss of land designated under biodiversity, open space and green infrastructure policy. The selected location presents an appropriate location when all impacts are balanced and the Proposed Scheme brings the opportunity to improve the local environment, deliver BNG and provide appropriate resources to ensure their long-term management. (PBR, APP-042, Executive Summary).'

2.2. THE OPTIONEERING PROCESS

CONTEXT

2.2.1. The context for the Proposed Scheme is set by increasing global concern about climate change, the long-term shift in the Earth's average temperature and weather conditions. Climate warming is currently happening at a rate not seen in the past 10,000 years. The Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change, confirms that:

'Since systematic scientific assessments began in the 1970s, the influence of human activity on the warming of the climate system has evolved from theory to established fact.' (PBR, APP-042, paragraph 2.1.1).

2.2.2. At paragraph 4.1.1, the **Planning Statement (APP-040)** confirms that the '*principle of development for the Proposed Scheme is the delivery of carbon capture technology, directly to address the CO_2 emissions from the residual waste treatment facilities Riverside 1 and Riverside 2*.'

2.2.3. Riverside 1 (operational) and Riverside 2 (under construction) are both energy from waste (EfW) facilities that have been granted consent, being recognised as nationally significant infrastructure, appropriately located and appropriately managing residual waste avoiding its disposal to landfill and recovering dispatchable, partially renewable energy. The two facilities are located on the south bank of the River Thames and both are fundamentally linked to the river, via Middleton Jetty (a safeguarded jetty), using it to transport most of the waste brought to site and residues taken away for recycling.

2.2.4. As set out at section 2.3 of the **Project Benefits Report (PBR, APP-042)** the Applicant is a leading resource management company with extensive river logistics; it has been operating on the River Thames since the 1800s. Riverside 1 and Riverside 2 have already been demonstrated as sustainable residual waste management facilities and together will provide some 50% of all residual waste management capacity in London. '*Cory serves a vital public function, helping to make London cleaner and safer. In addition to its commercial customers, Cory is a trusted partner for several local authorities in London (serving a combined population of approximately 3 million people). It operates essential infrastructure that London relies heavily upon on a day-to-day basis.'* (PBR, APP-042, paragraph 2.3.2).

2.2.5. Figure 2 of the **PBR (APP-042)** presents the network of operational sites relevant to Cory along the River Thames.

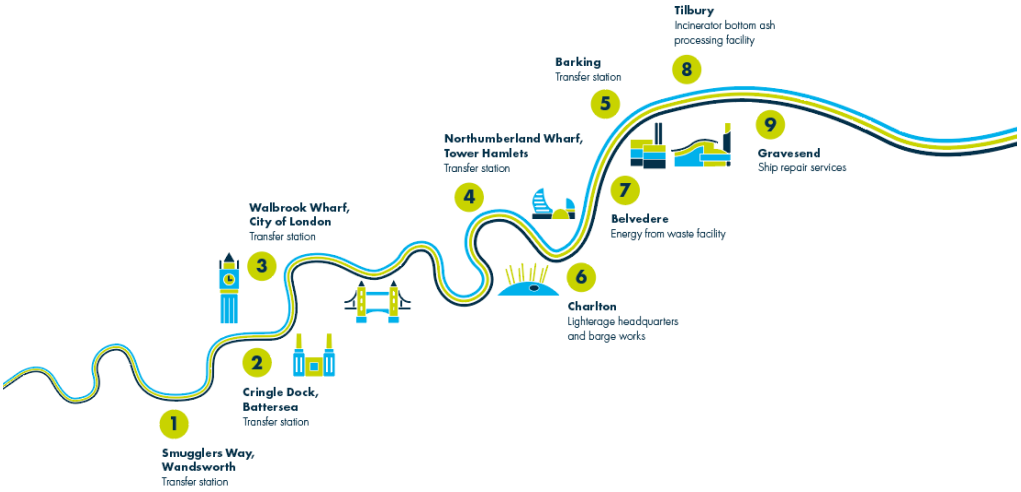

Figure 2-1 – Reproduction of Figure 2: Cory Group, Operational Sites along the River Thames, PBR (APP-042)

2.2.6. In short, the important and relevant context for the Proposed Scheme is that it is supporting infrastructure designed to address the carbon dioxide emissions that, necessarily, result from Riverside 1 and Riverside 2. They are strategic infrastructure that have been demonstrated to be appropriately located and fundamentally connected to the River Thames and the infrastructure network that exists upon it, consequently avoiding at least 100,000 road vehicle movements annually (PBR, APP-042, paragraphs 2.3.36 and 5.3.11 and Appendix 2, Cory 2022 Sustainability Report, page 19).

2.2.7. As set out in the **Terrestrial Site Alternatives Report (TSAR, APP-125, Paragraphs 2.2.17 to 2.2.19**) Riverside 1 and Riverside 2, once built, are already meeting, and exceeding, climate change priorities. The most significant residue from these facilities that is not already being proactively managed is carbon dioxide; the release of which from Riverside 1 and Riverside 2 represents some 99% of Cory's CO_2 emissions (PBR, APP-042, paragraph 5.2.2 and Appendix 2, Cory 2022 Sustainability Report, page 9).

2.2.8. Carbon Capture is the next vital step for these facilities, for the Cory Group to meet its corporate targets, to help enable London to become a zero carbon city and to enable the UK to meet its legal commitment to bring all greenhouse gas emissions to net zero by 2050 as established through the Climate Change Act 2008 (2050 Target Amendment) Order 2019. The Sixth Carbon Budget was published by the Committee on Climate Change (CCC) in December 2020, and enacted by the Government in June 2021 to establish the appropriate route to achieving this legislated target. At page 5, the Sixth Carbon Budget states:

'Our recommended pathway requires a 78% reduction in UK territorial emissions between 1990 and 2035. In effect, it brings forward the UK's previous 80% target by nearly 15 years. There is no clearer indication of the increased ambition implied by the Net Zero target than this. Our pathway meets the Paris Agreement stipulation of 'highest possible ambition'. It is challenging, but also hugely advantageous, creating new industrial opportunities and ensuring wider gains for the nation's health and for nature.'

2.2.9. Clearly, the CCC foresees rapid and strategic action as the way forward to achieve net zero by 2050. More recently, in its 2023 Report to Parliament, 'Progress in Reducing Emissions', the CCC identifies that a '*much more strategic approach to delivering decarbonisation for the waste sector, alongside meeting recycling and waste reduction aims is needed*.' Figure 12.1 (of that Report) identifies EfW plants fitted with CCS by 2035 as a '*required outcome'* of policy, with the intention to reduce CO^2 emissions from EfW facilities by 8% by 2035.

2.2.10. The benefits and urgency to deliver CCS is also reflected in Government policy – both in the NPS and in the CCS Vision released in December 2023. The CCS Vision seeks to deliver 20 to 30 megatonnes per annum (Mtpa) of captured, transported and stored CO_2 by 2030, across four clusters (including Viking CCS, with which the Proposed Scheme is aligned) and 50 Mtpa by the mid-2030s.

2.2.11. In its Call for Evidence on non-pipeline transport (NPT) and cross-border CO2 networks published in May 2024 (**Appendix G** to this Report) the Government recognised the vital role that (NPT)[1] will play in those targets being met, and to grow the carbon capture industry as an economic opportunity; estimating that by 2035, NPT could help capture 15Mtpa. It makes clear that NPT is particularly necessary for emitters that are not clustered together or those that do not benefit from proximity to a pipeline.

2.2.12. It also noted that the shipping model within the Proposed Scheme offers the added opportunity to stimulate growth in shipbuilding and related marine sectors throughout the UK.

2.2.13. The Proposed Scheme, recognised in NPS EN-1 as critical national priority infrastructure, necessarily needs to be co-located with Riverside 1 and Riverside 2. The area within which the Proposed Scheme can be located is necessarily limited to that which will enable all the relevant infrastructure to operate efficiently and effectively. The site necessarily needs to be of a sufficient size and layout to deliver all of the necessary equipment in a safe, efficient, organised and coherent manner. Finally, to deliver on the imperative set by the CCC and the Government's CCS Vision, the site necessarily needs to be available in a timely manner.

[1] The transport of captured carbon by means other than pipeline (such as vessel or rail).

2.2.14. Section 2.2 of the **Design Approach Document (part 1) (DAD, APP-044)** sets out the Project Objectives, which are further developed into Project Principles at section 2.3 (DAD part 1, APP-044).

2.2.15. Reasonable site alternatives, as set out at paragraph 4.3.22 of NPS EN-1 and discussed as relevant to the Proposed Scheme at section 2.2 of the **TSAR (APP-125)** have been assessed through the Optioneering Principles (TSAR, APP-125, paragraph 2.8.2) which reflect both the important and relevant context described above and relevant legal and policy considerations.

2.2.16. The proportionate consideration of alternatives undertaken (as aligned with paragraph 4.3.22 of NPS EN-1) is described from paragraph 2.2.5 of the **TSAR (APP-125)**, concluding that:

- Given the baseline surrounding the Site, alternatives did not need to be considered within the legislative frameworks of either the Water Framework Directive or the Habitats Regulations (paragraph 2.2.5).
- As the Carbon Capture Facility (CCF) involves third party land, the Applicant is required to *'demonstrate that acquisition of the land is necessary and that all reasonable alternatives to compulsorily acquiring the land proposed have been explored*.' (paragraph 2.2.6).
- Relevant consideration of protective policies in NPS EN-1 should be undertaken, as informed by the environmental and policy context in and surrounding the Site, namely (paragraph 2.2.7):
  - the need for the mitigation hierarchy to be followed;
  - the presence of Metropolitan Open Land;
  - the Accessible Open Land being both designated as, and used as, public open space, which has not been deemed surplus to requirements by London Borough of Bexley; and
  - the 'due consideration' to be given to impacts to local nature designations such as local nature reserve and site of importance for nature conservation, both of which are present in the Site.

2.2.17. In response to the GLA's Relevant Representation (RR-077), the Applicant can confirm that impacts on the BNG Metric (such as habitat distinctiveness) were not considered as part of the optioneering process, as there is not a policy prerogative to do so.

2.2.18. None of the Relevant Representations received suggests that the protective policies considered are either incorrect or incomplete. The Applicant agrees with London Borough of Bexley (LBB) in its relevant representation that '*the definitive adopted boundaries for all designations are shown on the Bexley Local Plan Policies Map*.' (RR-124, page 17, second paragraph). Further, the Applicant agrees with LBB (and other relevant representations that make a similar point) that Metropolitan Open Land (MOL) '*is given the same status and level of protection as the Green Belt*.' (RR-124, page 17, third paragraph).

2.2.19. This is the approach used in considering MOL throughout the DCO Application, whilst also recognising the primacy of NPS EN-1 (paragraph 1.1.2) and the policy set out therein (not least at paragraph 4.2.17) that the Secretary of State's starting point for decision making is that critical national priority infrastructure (such as the Proposed Scheme) will meet the very special circumstances necessary to justify development in the Green Belt, and by association MOL.

2.2.20. Contrary to the assertion made by LBB (RR-124, page 17, fifth paragraph) very special circumstances relevant to the Proposed Scheme are provided, not least at section 5.5 of the **Planning Statement (APP-040)** and as summarised in section 3.4 of this Report.

2.2.21. The submitted Application demonstrates that no residual HRA or MCZ impacts remain and there are no residual impacts which present an unacceptable risk to, or unacceptable interference with, those matters identified in NPS EN-1 paragraph 4.2.15[2]. Consequently, the Secretary of State can have confidence that there is demonstrated a clear outweighing of harm. The impact on MOL is considered further at section 3.4 of this Response to Relevant Representations.

2.2.22. The Applicant agrees with LBB that '*development of the Carbon Capture Facility within the SIL* [strategic industrial location] *would be policy compliant* …'. (RR-124, page 18, seventh paragraph). The Proposed Scheme falls within the indicative boundary of the Riverside Opportunity Area (Figure 4 of the Bexley Local Plan) and most (some 70%) of **Work No. 1, Carbon Capture Facility (APP-137)** falls within the SIL policy allocation.

2.2.23. The majority of Work No.1 is, consequently, policy compliant. The opportunity to use this allocated land to develop critical national priority infrastructure as one, cohesive development, underpinned by good design, is brought to reality through the Proposed Scheme, not least as demonstrated through the **DAD (APP-044 to 046)**.

[2] Being residual impacts onshore and offshore which present an unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero.

OPTIONEERING PRINCIPLES AND PERFORMANCE AGAINST EACH

2.2.24. Planning decisions are underpinned by applying a balanced approach, one which considers all material considerations in the round. This is the approach used in the **TSAR (APP-125)**, with all reasonable alternative locations given the same level of analysis, contrary to the assertion made by LBB (RR-124, page 20, penultimate paragraph). At section 3 of the TSAR, the North, East, West and South Zones are each discussed in an Overview and a Summary of Assessment, with a table setting out the Optioneering Principles Assessment relevant to each Zone provided. The conclusions from that work demonstrate that the North, East and West Zones are not appropriate to consider further (a response to criticisms of that work, as made in the Relevant Representations, is set out in section 2.3 of this report).

2.2.25. Consequently, section 4 of the TSAR (APP-125) undertakes analysis of each the five South Zones (at section 4) to determine the preferred location, which is chosen for the CCF. The consideration of the Optioneering Principles set out within the TSAR (APP-125, paragraph 2.8.2) can be graphically presented, through use of RAG (red, amber, green) scaling as shown in Table 2-1. The Optioneering Principles are:

- Principle 1: Seek to avoid or minimise adverse impact to locally important biodiversity sites.
- Principle 2: Seek to avoid or minimise adverse impact to protected species.
- Principle 3: Seek to avoid or minimise the level of adverse impact on existing businesses/third party landowners.
- Principle 4: Seek to avoid or minimise land take within the MOL Accessible Open Land and impacts on PRoW.
- Principle 5: Ease of required connections with the Riverside Campus and the Proposed Jetty.
- Principle 6: Seek to minimise engineering complexity and consequent cost.

Table 2-1 – RAG Chart of Zones Considered Against Each of the Optioneering Principles

Optioneering Principle	1	2	3	4	5	6
North Zone						
East Zone						
West Zone						
South Zone 1 (CCF Site)						
South Zone 2						
South Zone 3						
South Zone 4						
South Zone 5						

2.2.26. The RAG scoring has been applied considering the relative performance of each Zone. Red has been used to demonstrate a situation that is not remediable; for example, development of the CCF in the North Zone would have a demonstrably adverse impact on the locally important biodiversity sites and protected species, it would neither avoid nor minimise this impact. A red score therefore indicates non-compliance with a Principle; whilst green indicates the Principle is met. Beyond this approach (and in response to the concerns raised in the GLA's RR (RR-077)) no weighting is applied to any of the Principles or to the scores; this is deliberate, to ensure a balanced conclusion can be drawn. Tbale 2-1 demonstrates that there is no easy win, no perfect site; which is not an unusual outcome for large scale, complex projects of national significance. All the zones indicate some level of challenge, demonstrating the need to take a balanced approach to achieve the Project Objectives. Critically, what Table 2-1 (a graphical presentation of the analysis presented in the **TSAR (APP-125)**) does show, is that South Zone 1, the area proposed for the CCF, has no red score, whilst all other zones do have, at least, one red (a fatal flaw).

2.2.27. The North and West Zones perform poorly, with red scores across four of the six Principles. The only benefit demonstrated in either is in regard to ease of required connections with the existing Riverside Campus, though both come with engineering complexity and associated cost.

2.2.28. The East Zone is scored green and amber against a number of principles, with just one red score. The amber given for Optioneering Principle 4 is in recognition of this Zone's avoidance of both MOL and AOL. However, locating the CCF in this location

would either require FP4 to be stopped up to provide a contiguous site, or to be substantially disadvantaged so as to provide for all of the necessary connections (pipework, access and utilities). FP242 would be similarly affected.

2.2.29. South Zones 2-4 generally perform quite poorly, with numerous red scores. However, South Zone 1, the chosen location for the CCF scores no red and would enable the efficient, safe, effective and timely delivery of the proposed critical national priority infrastructure.

2.2.30. Section 3.5 of the **TSAR (APP-125)** considers the South Zone. It is different to sections 3.2 (North Zone), section 3.3 (East Zone) and section 3.4 (West Zone) only in that five separate blocks of land are analysed, recognising the different designations that apply across this zone and that it is appropriate to test the range of outcomes that this could deliver.

2.2.31. Within section 3.5 of the **TSAR (APP-125)** each South Zone is considered in exactly the same way as each of the North, East and West Zones. Section 4 of the **TSAR (APP-125)** goes on to consider the performance of each South Zone block against the others. This is an additional step not applied to the North, East and West Zones, because it was not appropriate to do so; they are robustly dismissed within the TSAR so as not to be relevant to this additional part of the site assessment process.

2.2.32. The submitted Application recognises that the Proposed Scheme results in loss of MOL, MSINC and the Crossness Local Nature Reserve; in this area these designations overlap each other and so the combined effect is unavoidable. However, the **TSAR (APP-125)** supplemented by this report, demonstrates that, in line with the mitigation hierarchy, these losses cannot be avoided, they have been minimised and, as committed through the **Outline LaBARDS (APP-129)** they have been suitably mitigated. As is demonstrated in the next section of this report, the Applicant is not aware of any other reasonable, less-damaging, alternative sites and the Relevant Representations have not presented any (beyond suggesting that the Applicant should consider alternative zones more than it had within its application documents).

2.2.33. Further, the benefits of the Proposed Scheme are demonstrated, in the **Planning Statement (APP-040)** and the **Project Benefits Report (APP-042)** to outweigh the limited impact of this loss.

2.3. FURTHER CONSIDERATION OF THE NORTH, EAST AND WEST ZONES

2.3.1. In response to Relevant Representations received, particularly from LBB (RR-124) and the GLA (RR-077), an addendum to the **TSAR (APP-125)** has been prepared (provided at **Appendix H** to this report) to consider additional blocks of land within the North, East and West Zones. The same level of analysis of the Optioneering Principles has been applied to these additional blocks as was undertaken in the **TSAR (APP-125)**.

NORTH ZONE

2.3.2. An extended land parcel, of 8 hectares, is considered in the North Zone, incorporating land within the River Thames and the Iron Mountain Records Storage Facility site, as requested by LBB (RR-124, page 19).

2.3.3. North Zone 1 does avoid the Erith Marshes MSINC (but not the Thames and Tidal Tributaries MSINC), CNR and MOL. However, it would still impact upon these designations as the Flue Gas Ductwork from Riverside 2 would need to be located on the western and southern boundaries of the Riverside Campus, crossing Norman Road into North Zone 1. Not only would the length of the pipe need to be extended, it would also have to be located at a significant height that would still allow access for vehicles going to/from the existing Riverside Campus. North Zone 1 does not provide for a contiguous connection with the existing Riverside Campus without the diversion, or likely closure of the England Coast Path and FP 4.

2.3.4. The Iron Mountain Records Storage Facility is a strategic and specialist premises providing clients from government agencies and London's leading finance and law institutions with a confidential storage solution. It uses multi-level racking systems, operated by approximately 55 staff. Relocation of this operating business would incur large costs and delay to delivery of the Proposed Scheme, not least through the extensive demolition works that would be required within a busy industrial area and the prior reconstruction of a similar facility elsewhere.

2.3.5. Table 2-2 presents the RAG chart for both the original North Zone and the extended North Zone 1, which performs worse with five red and only one green score. North Zone 1 is demonstrated not to meet the Project Objectives and not to be a reasonable alternative.

Table 2-2 – RAG Chart of North Zones Considered Against Each of the Optioneering Principles

Optioneering Principle	1	2	3	4	5	6
North Zone						
North Zone 1						

EAST ZONE

2.3.6. LBB (RR-124, pages 18 and 19) suggests that the effect on existing businesses would be less for those located in the Belvedere Industrial Area than for those on Norman Road. LBB recognises the Lidl Warehouse/Belvedere Regional Distribution Centre as a *'new constructed development, which provides a significant number of jobs*'. However, it questions the lack of consideration, within the TSAR, of land occupied by the ASDA Erith CDC/XDC and the Iron Mountain Records Facility, which is considered '*offers low density employment'*.

2.3.7. These large scale, complex operations (Iron Mountain's operations are described above, ASDA is understood to have around 800 staff on site) may be readily contrasted with the businesses and third party land interests on Norman Road.

2.3.8. The East and Stable Paddocks are used as nature reserve incorporating grazing; for which the Proposed Scheme incorporates mitigation.

2.3.9. The Creek Side and Gannon plots are leased to Cory for the construction of Riverside 2. There is no built development on either (with the exception of 3m high boundary fencing and vehicular access points) and no extant planning permission (albeit the land is allocated as a Strategic Industrial Location for new development).

2.3.10. The Landsul land plot is the only developed parcel on Norman Road. The **Planning Statement (APP-040**, from paragraph 2.1.42**)** identifies the most recent consent has been partially implemented, delivering just one of the three permitted industrial units, which is occupied by Munster Joinery. As is described from paragraph 15.6.11 of **Chapter 15** of the **Environmental Statement (APP-064)** the number of staff engaged at Munster Joinery has not been possible to confirm; but is unlikely to exceed 50, predominantly contracted through an employment agency.

2.3.11. The Landsul land plot, and Munster Joinery premises, is substantially smaller than that of Iron Mountain, Lidl or ASDA and of much simpler construction and function, operating as a secondary facility, that focusses on product distribution to Munster's much larger, manufacturing, premises in Warwickshire and Cork. There are no unique features of the Lansul land plot for the operations undertaken by Munster Joinery, they could be relocated elsewhere and the Applicant has offered to help with relocation.

2.3.12. Responding to LBB's request (RR-124, page 19) to consider land more generally within the Belvedere Industrial Area, three additional blocks have been considered in the East Zone, with the full analysis provided at **Appendix H** of this report. This demonstrates that the single block shown in the **TSAR (APP-125)** is a reasonable presentation of the East Zone as a whole. The outcomes of the Applicant's assessment are not changed by looking at other blocks of land within the Belvedere Industrial Area; in fact, the score diminishes, not least as engineering complexity increases with distance from the Riverside Campus.

2.3.13. East Zones 1 and 2 consider the land parcels located immediately east of Norman Road and south of the Iron Mountain Records Storage Facility. East Zone 1 assesses the block of land currently occupied by ASDA Erith CDC, East Zone 2 assesses the block of land currently occupied by ASDA XDC (and a small, currently vacant warehouse).

2.3.14. East Zone 3 considers the land parcel immediately east of East Zone 1. It is largely occupied by Amazon as a Delivery and Sortation Facility, with other users.

2.3.15. All these facilities operate complex and sophisticated logistics systems internally, designed to ensure that products can be stored, accessed and distributed efficiently

and at short notice. These are substantial operating businesses, and the direct, adverse impacts resulting from the removal or relocation of these businesses would be significant and contribute to the potential for wider socio-economic considerations.

2.3.16. The development of any of the East Zones would substantially impact on the existing, operating businesses, requiring the relocation of strategic warehouse, distribution and logistics operations resulting in job losses, consequent socio-economic impacts, large costs and delay to delivery of the Proposed Scheme.

2.3.17. Using land within the Belvedere Industrial Area, East Zones 1-3 avoids the MSINC, CNR and MOL. However, it would still impact upon the MOL as the Flue Gas Ductwork from Riverside 2 would need to be located on the western and southern boundaries of the Riverside Campus, crossing Norman Road into the East Zones. Not only would the length of the pipe need to be extended, it would also have to be located at a significant height that would still allow access for vehicles going to/from the existing Riverside Campus. There is also potential for direct adverse impact on the Belvedere Dykes SINC.

2.3.18. Construction of the CCF would be constrained, particularly for East Zone 3, with limited laydown areas available and the need to ensure existing businesses surrounding any selected site could continue to operate during this phase.

2.3.19. None of the additional East Zone locations provide for a contiguous connection with the existing Riverside Campus in their current form. Development of East Zone 3 would additionally require Flue Gas Ductwork and all other connections with the Riverside EfW facilities to be routed around ASDA Erith CDC.

2.3.20. Table 2-3 presents the RAG chart for both the original East Zone and the three additional East Zone parcels considered. East Zones 1–3 are shown to perform worse than the original East Zone, which is consequently demonstrated to be a reasonable representation of the Belvedere Industrial Area as a whole. In response to the GLA's Relevant Representation, it is clear that the impacts of the East Zone are significantly greater than those associated with the chosen option.

2.3.21. The East Zone, comprising the Belvedere Industrial Area, is demonstrated not to meet the Project Objectives and not to be a reasonable alternative.

Table 2-3 – RAG Chart of East Zones Considered Against Each of the Optioneering Principles

Optioneering Principle	1	2	3	4	5	6
East Zone						
East Zone 1						

East Zone 2						
East Zone 3						

WEST ZONE

2.3.22. Three additional, 8ha blocks of land have also been considered in the West Zone. West Zone 1 is located wholly within the Crossness Sewage Treatment Works (STW) operational land; West Zone 2 includes some of the STW operational land and the CLNR Members/Protected Area; West Zone 3 comprises the south western corner of the CLNR.

2.3.23. The impact in West Zone 1 on Thames Water would be substantial, requiring the relocation of operational strategic infrastructure, operated by a statutory undertaker. This would be inappropriate of itself and result in large costs and delay to delivery of the Proposed Scheme. It would not provide a contiguous land parcel with the existing Riverside Campus and the consequent route of piping and ductwork would have a detrimental effect on the MSINC, CNR and MOL and need to cross FP2.

2.3.24. West Zone 2 would have the same adverse outcomes (albeit a lesser impact on Thames Water's currently operational land) but in addition would involve the development of the CNR Members/Protected Area, some 4ha of MSINC, CNR and MOL (substantially more than South Zone 1).

2.3.25. West Zone 3 would avoid Thames Water's operational land but would be wholly located within the Erith Marshes SINC, the CLNR and MOL, with substantial, direct, adverse impacts and with severely limited opportunity for mitigation through design.

2.3.26. Both West Zone 2 and 3 would have a detrimental effect on FP2, potentially blocking this important route to the River Thames (a route that the Proposed Scheme is seeking to enhance). Further, the potential to use design to minimise or mitigate the consequent impacts of developing the CCF in the West Zones (particularly 2 and 3) would be very difficult to minimise or mitigate through design very limited.

2.3.27. Table 2-4 presents the RAG chart for both the original West Zone and the three additional West Zone land parcels considered. West Zones 1 – 3 score red across all Optioneering Principles, a worse outcome than the four red of the original West Zone.

2.3.28. The West Zone is demonstrated not to meet the Project Objectives and not to be a reasonable alternative and (in response to the GLA's RR) there are a clearly a numbers of factors which demonstrate that this zone is not an appropriate location.

Table 2-4 – RAG Chart of West Zones Considered Against Each of the Optioneering Principles

Optioneering Principle	1	2	3	4	5	6

West Zone						
West Zone 1						
West Zone 2						
West Zone 3						

CONCLUSION

2.3.29. This additional work has directly addressed criticism in the Relevant Representations that the North, East and West Zones have not been adequately considered. The original North, East and West Zones are shown to perform markedly better than other blocks of land in their vicinity; and are therefore fair representations of the alternatives to be considered.

2.3.30. This work has also demonstrated that there are no other reasonable alternatives to South Zone 1.

2.4. FURTHER CONSIDERATION OF THE EXISTING CORY CAMPUS

2.4.1. In its submissions (RR-124, page 21, fourth and fifth paragraphs) LBB suggests that greater use could be made of land within the existing Riverside Campus, not least for the Flue Gas Supply Ductwork. The Flue Gas Supply Ductwork for Riverside 1 to the CCF is substantially located within the Riverside Campus, as the connection is made from the south end of the facility. However, the flue gas stacks for Riverside 2 are located at the north end of the facility, consequently, the Ductwork is proposed to wrap around the western and southern perimeters of the Riverside Campus, using land within the CLNR and MOL.

2.4.2. The existing Riverside Campus is already substantially developed, not least as shown in the Figures provided at **Appendix E**. These figures shows that the existing site is wholly built out, accommodating all of the built form elements necessary for both Riverside 1 and Riverside 2, including associated infrastructure, access roads and parking. The figures graphically present the physical form of the approved and operating infrastructure for Riverside 1 and 2, safeguarded areas such as the flood defences, the different levels across the site and the limited space available for development.

2.4.3. The existing Riverside Campus is a very densely used, operationally important space that is critical to the efficient, and safe, functioning of 50% of London's residual waste treatment capacity and its associated safeguarded jetty, as well as two 132kV substations operated by UKPN, 132kV export cables plus lower voltage cables, earthing points, heat infrastructure, circulation roads, weighbridges, quarantine/containment areas and parking provision (for employees, maintenance contractors and visitors) etc.

2.4.4. Vehicles accessing the site include large lorries delivering residual waste, and provision must be made for emergency vehicles (including fire engines). These vehicle types are substantial, tall and require clear visibility, which may be blocked by the presence of pipework at height. The maintenance of Riverside 2 will require the use of a large mobile crane (from time to time) to lift equipment into and out of the building, requiring air space to the east of the building for accessibility. Consequently, beyond the physical, built form, limitations on site, the Flue Gas Supply Ductwork would have to be located at substantial height, to ensure free and safe movement of vehicles. The roof of Riverside 2 is not available; equipment comes out through the roof for maintenance, has not been designed to take the weight of the Ductwork, and in any event, has been designed to accommodate solar photovoltaic panels.

2.4.5. Located underground are the building foundations and a dense, complex network of the cabling and pipework necessary to operate the energy recovery facilities, plus an electricity cable providing power to the Great Breach Pumping Station. The lack of space is further evidenced by the fact that the Applicant is currently exploring the options for integrating heat infrastructure pipe locations; which are found to be limited.

2.4.6. In addition, the flood embankment forming the northern boundary of the site is identified, under the Riverside Energy Park Order (as amended) as the Flood Risk Activity Permit Area ('FRAPA'). Requirement 28 of that Order prevents any building or material storage within the FRAPA, '*which could create a risk of damage to the integrity of the flood defence structure within this area*.' This limitation is repeated in the protective provisions for the Environment Agency (Schedule 10, part 4, paragraph 36 of the Order).

2.4.7. LBB questions whether the '*on-site constraints render options A and C impossible as opposed to impractical.*' (RR-124, page 21, fifth paragraph). The Applicant has demonstrated that it is simply not feasible without risking the efficient, effective and safe operation of Riverside 1 and Riverside 2. There simply is not sufficient space within the existing Riverside Campus, either above or below ground, to accommodate the CCF infrastructure other than as indicated on the submitted **Works Plans (as updated alongside this report)**.

2.4.8. Further, the submitted Application does demonstrate full consideration of the potential impacts of placing the Flue Gas Supply Ductwork in the proposed location, i.e. on the edge of the Crossness Local Nature Reserve and MSINC. **Chapter 7, Terrestrial Biodiversity** of the **Environmental Statement ('ES', APP-056)** includes this element of the Proposed Scheme in the assessment undertaken, which generally concludes Negligible (Not Significant) effects; a conclusion not influenced by the location of the Flue Gas Supply Ductwork. Consequently, it is further demonstrated that relevant environmental policy on this point is met and any detrimental effect is limited.

2.4.9. Relevant Representations have also queried whether it would be possible to use Middleton Jetty for the export of LCO_2, avoiding the construction of a new jetty. This was considered in the **Jetty Site Alternatives Report (JSAR, APP-126, section 4)** as Option B. This option was determined to be unviable and dismissed at the outset for various reasons, principally: the substantial disruption to operations at Middleton Jetty whilst the modifications were undertaken; that existing operational processes cannot be situated within such close proximity to the LCO_2 pipeline; and that the existing Middleton Jetty cranes would likely prohibit the landing of the LCO_2 pipe rack.

2.4.10. Middleton Jetty, in its current form, will be wholly utilised, 24 hours per day, when Riverside 2 is operational. There is no available capacity for the export of carbon dioxide. Movement of the solid materials associated with waste management and the liquified carbon dioxide require quite different handling solutions, both with personnel trying to work within the confined space of a jetty. There would remain operational conflict on the Jetty between the two distinct operations; for example, a ship moored up for LCO_2 loading would restrict tug movements taking incinerator bottom ash to Tilbury for reprocessing. Given that the Middleton jetty will be at capacity for regular Cory operations, this will create an interface between different operations and vessels thus increasing navigational risks at the jetty.

2.5. THE POTENTIAL TO AVOID THE ERITH MARSHES (MSINC) AND CROSSNESS LOCAL NATURE RESERVE

2.5.1. On pages 20 and 21 of its Relevant Representations (RR-124) LBB recognises there is a conflict between the priorities of biodiversity targets (for protection and reducing loss) and carbon capture, and consequently that the decision maker will need '*to carefully weigh up the conflicting priorities, before making an informed judgement*.' (RR-124, page 21, first paragraph). This exercise should be seen in the context that paragraph 5.4.52 of NPS EN-1 makes clear that '*the Secretary of State should give due consideration to regional or local designations. However, given the need for new nationally significant infrastructure, these designations themselves should not be used in themselves to refuse development consent*'.

2.5.2. The Applicant agrees that there is a level of tension between policy intended to address global warming and climate change priorities and that seeking to maintain sites locally designated for ecology (often necessarily with a local focus), when considering proposals for built form that seek to deliver carbon capture infrastructure. Consequently, there is need to consider the Proposed Scheme as a whole, recognising the potential impacts of it, but also the benefits; this is standard procedure in planning decisions. Addressing climate change will be beneficial for those areas designated for biodiversity (both locally and globally) and the Proposed Scheme includes meaningful actions to address the local designations, to improve their quality for the foreseeable future.

2.5.3. This approach is also relevant to the consideration of alternatives, including application of the Optioneering Principles to the reasonable site alternatives. In practice this means that one Optioneering Principle should not be used to the detriment of another; they are all equal and the outcome of any assessment should be considered in the round.

2.5.4. The **TSAR (APP-125)** and the content of this Report (see section 2.3) demonstrate that the North and East Zones (which could avoid the MSINC) are not reasonable alternatives. Further, that not only is the West Zone not a reasonable alternative, it would also have a greater impact on the MSINC and Crossness Local Nature Reserve than the selected site. West Zone options considered outside of the Crossness Local Nature Reserve require Thames Water's operational land at Crossness Sewage Treatment Works, with a substantial detrimental effect on this strategic infrastructure.

2.5.5. All of the South Zone options have some level of impact on the ecology designations. The **TSAR (APP-125)** and the content of this Report demonstrate that it is not possible to *avoid* detrimental impact on land within the Crossness Local Nature Reserve and MSINC designations without material impact on existing businesses and local footpaths. Further, as set out above (at sections 2.2 and 2.3) the material impact on existing businesses, in either the East or West Zones, would require considerable time to resolve, for example finding new premises for their relocation, which would fail to meet the policy confirmed urgency of need for decarbonisation. The operational businesses in the East and West Zone employ more staff within larger and more complex premises than those which would be affected by the CCF as proposed at South Zone 1.

2.5.6. However, the Applicant has *minimised* that impact, alongside minimised impact on existing businesses and local footpaths and *avoiding* Accessible Open Land. This outcome is only achieved through choosing South Zone 1 as the location for the built form of the CCF. South Zone 1 is substantially comprised of Strategic Industrial Location land, a policy allocation that LBB agrees is appropriate for the CCF. Further, South Zone 1, substantially comprising appropriate existing land uses and located alongside Norman Road, enables efficient connection with the existing Riverside Campus and minimises engineering complexity. Consequently, this site choice enables the Proposed Development to be delivered in a timely manner.

2.5.7. In any event the Proposed Scheme also responds to ecology priorities. This is built into the Proposed Scheme with an extensive Mitigation and Enhancement Area identified as **Work No. 7 (Works Plans, as updated alongside this Report)** with creation, enhancement and management commitments secured through the **Outline LaBARDS (APP-129)**.

2.5.8. Whilst the Applicant agrees there is some level of tension between policy prioritising climate change and ecology, it has demonstrated that the Proposed Scheme addresses that tension in an appropriate and positive manner. The relevant policy has been appropriately considered and the mitigation hierarchy has been appropriately applied. South Zone 1 is the only reasonable alternative for the CCF. It minimises harm to ecological priorities and delivers a route for their betterment, and with the exception of Munster Joinery, minimises impact to third party landowners.

2.5.9. As described in the glossary of NPS EN-1, the mitigation hierarchy is a term used *'to incorporate the avoid, reduce, mitigate, compensate process that applicants need to go through to protect the environment and biodiversity*.' Chapter 4 of the **ES (APP-053)** confirms that the '*Proposed Scheme has applied the mitigation hierarchy through the assessment and within the mitigation measures proposed*.' (paragraph 4.11.2) The **TSAR (APP-125)** and the content of this Report demonstrate that there are no other reasonable alternatives for the location of the Proposed Scheme, including the CCF. It is not possible to *avoid* land designated with environmental protective policy, but the impact on this designation has been *reduced*. Measures, such as those set out in the **Design Principles and Design Code (as updated alongside this report)** will mitigate for the resulting impact on the MSINC, and with the **Outline LaBARDS (APP-129)** more than compensate for it.

2.5.10. The mitigation hierarchy has been applied and has been demonstrated to have been applied (NPS EN-1, paragraph 4.2.11). Further, the critical national priority status of the Proposed Scheme should be seen in that context. Consequently, the Secretary of State can have confidence that an appropriate site, and an appropriate project, is presented within the Proposed Scheme.

2.6. THE POTENTIAL TO AVOID METROPOLITAN OPEN LAND

2.6.1. Section 3.4 of this Report considers the Proposed Scheme against MOL policy in further detail, whilst this section focusses on the Applicant's approach to MOL through the site selection process.

2.6.2. Sections 2.2 to 2.4 of this Report (and the TSAR Addendum, **Appendix H** to this report) demonstrate that, similar to the ecological designations, impact to MOL cannot be *avoided* whilst also delivering, in a timely manner, an efficient and effective decarbonisation project at the Riverside Campus. The North, East, and West Zones are demonstrated not to be reasonable alternatives, with the West Zone also having a greater detrimental impact on MOL and severing links to the River Thames. All of the South Zone blocks also have some level of effect on MOL, with South Zone 1 having the least impact. Consequently, it is possible to be *minimise* the effect on MOL, and this outcome is achieved through the Proposed Scheme.

2.6.3. Further, as explained in the **DAD (APP-044 to 046)** the design of the Proposed Scheme has evolved to optimise the wider functions of MOL, avoiding Accessible Open Land and presenting options to enhance connectivity and human access to this valuable green space.

2.6.4. South Zone 1 uses all of the SIL allocated land on Norman Road, focussing the more industrial and taller elements of the built form at the northern end, alongside the existing Riverside Campus. The proposed design approach incorporates proposals to open up access at the southern end of Norman Road, delivering the enhancement sought in LBB's Green Infrastructure Study. It also includes improvements to routes through the Crossness Local Nature Reserve and to the River Thames. The **Design Principles and Design Code (as updated alongside this report)** commits the Applicant to delivering a coherent, high quality design that knits key policy objectives into the Proposed Scheme.

2.6.5. The opportunity to use land allocated for development to deliver critical national priority infrastructure as one, cohesive project, underpinned by good design, is brought to reality through the Proposed Scheme. The Secretary of State can have confidence that an appropriate site, and an appropriate project, is presented within the Proposed Scheme.

3. TERRESTRIAL IMPACTS

3.1. OVERVIEW

3.1.1. In this section of the report, the Applicant responds to the key points raised by Relevant Representations in respect of the terrestrial impacts of the Proposed Scheme.

3.1.2. In doing so, the Applicant notes the HSE's Relevant Representation, which highlights the existence of the Asda LNG Facility on Norman Road which is regulated by the London Borough of Bexley under The Planning (Hazardous Substances) Regulations 2015. That facility is the subject of a recent planning consent. The Applicant can confirm that this site was considered as part of **Appendix 6-3: Major Accidents and Disaster Long List** of the **Environmental Statement (Volume 3)** (**APP-116**), but there was insufficient information at the time for the Application to confirm the position and it was assumed that any risks would be able to be managed pursuant to the relevant regulatory regimes.

3.1.3. Following HSE's Relevant Representation, the Applicant has liaised with HSE to confirm the consultation zones (CZ) associated with the LNG facility, and it is confirmed that they do overlap with the Proposed Scheme. Whilst mindful of HSE's initial view that this is unlikely to be a concern, given the nature of the Proposed Scheme, the Applicant is undertaking the PADHI (Planning Advice for Developments near Hazardous Installations) process, based on HSE's standing advice, and in liaison with them, to confirm the position. The Applicant will update the Examination on the position once this work is complete.

3.1.4. The Applicant also notes LBB's comments in respect of trees. The Applicant can confirm that no trees are proposed to be felled for the Proposed Scheme. Some lopping may be undertaken as part of the establishment measures to deliver the LaBARDS, this would be confirmed in the detailed LaBARDS approved by LBB.

3.2. AIR QUALITY, GREENHOUSE GASES AND CLIMATE RESILIENCE

3.2.1. Specific points were raised by London Borough of Bexley (LBB), the Greater London Authority (GLA) and Natural England in their relevant representations in respect of Air Quality, Greenhouses Gases and Climate Resilience. The Applicant has responded to these points in Table 3-1 below.

Table 3-1 – Response to London Borough of Bexley, Greater London Authority and Natural England, Air Quality, Greenhouse Gas and Climate Resilience Representations

Ref #	Relevant Representation	Applicant Response
London Borough of Bexley		
Air Quality		
3.1.1	For a robust and thorough assessment, it is recommended that the full impact assessment for the operational phase should include an assessment of the impact of emissions from standby generators. The aim of this would be to confirm the opinion that short term impacts due to occasional operation of standby generators are unlikely to be significant.	The Proposed Scheme includes the provision for backup power in the form of backup power generators, requiring diesel storage tanks local to the generators. The generators are expected to run for fewer than 50 hours per year. The operational air quality assessment has explicitly considered the impact of these backup power generators on sensitive receptors. This is set out in paragraphs 5.8.116 to 5.8.120 of **Chapter 5: Air Quality of the Environmental Statement (Volume 1) (APP-054)**, with further details provided in **Appendix 5-2: Operational Phase Assessment of the Environmental Statement (Volume 1) (APP-078)**. The outcome of the assessment is that the effects are not significant.
3.1.2	An assessment of the air quality impact of non-road mobile machinery during construction of the proposed facility should be carried out.	A qualitative assessment of impacts from non-road mobile machinery (NRMM) is included within the construction phase assessment set out in **paragraphs 5.8.19** to **5.8.21** of **Chapter 5: Air Quality** of the **Environmental Statement (Volume 1) (APP-054)**. The management of NRMM is considered within **Section 5.9** of **Chapter 5: Air Quality** of the **Environmental Statement (Volume 1) (APP-054)** and in **Section 3** of the **Outline Code of Construction Practice (Outline CoCP) (as updated alongside this report)**. Since the final details of NRMM will be the responsibility of the appointed Contractor, this is considered the appropriate methodology for the construction phase. The approach is in line with guidance

Ref #	Relevant Representation	Applicant Response
		from the Institute for Air Quality Management on Construction Dust[3] which states "*Experience of assessing the exhaust emissions from on-site plant (NRMM) and site traffic suggests that they are unlikely to make a significant impact on local air quality, and in the vast majority of cases they will not need to be quantitatively assessed*." Given the limited scale of the construction phase works required for the Proposed Scheme, a quantitative assessment is not warranted.
3.1.3	The applicant should provide an assessment of the potential impact of the failure or abnormal operation of the Carbon Capture Facility. While this would form part of the permitting process for the proposed facility, this would be an important consideration for those living and working close to the proposed facility and should be addressed in the forum of the Nationally Significant Infrastructure Project process.	The Applicant can confirm that **Chapter 20: Major Accidents and Disasters of the Environmental Statement (Volume 1) (APP-069)** and **Appendix 20-2: ES Risk Record of the Environmental Statement (Volume 2) (APP-117)** considers and assesses the potential impact of the failure or abnormal operation of the CCF. These assessments conclude that no likely significant effects are expected to arise as sufficient mitigation measures are in place to manage risks to be As Low As Reasonably Practicable (ALARP). Abnormal operations will also be considered during the environmental permitting process.
3.1.4	The applicant should confirm the overall risk of adverse impacts due to dust during construction of the proposed facility. The applicant should review and if necessary,	The summary of the dust risk assessment (pre-mitigation) is provided in **Table 5-22** of **Chapter 5: Air Quality** of the **Environmental Statement (Volume 1) (APP-054)** and the proposed mitigation within **Section 5.9** of this chapter has been tailored to this risk. **Section 3** of the **CoCP (APP-124) (as updated**

[3] Institute of Air Quality Management (2024). Guidance on the assessment of dust from demolition and construction (Version 2.2). Available at: https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf.

Ref #	Relevant Representation	Applicant Response
	update the proposed mitigation measures to be consistent with the level of risk.	**alongside this report)** details the mitigation measures that 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. The residual significance (taking the additional mitigation into account) of effect is Negligible (Not Significant), as shown in **Table 5-49** of **Chapter 5: Air Quality** of the **Environmental Statement (Volume 1) (APP-054)**.
3.1.5	The assessment of the potential effects of additives used to remove carbon dioxide from the flue gases is subject to greater uncertainty than other aspects of the study. The applicant should provide an evaluation of the effect of this uncertainty on the expected emissions of chemical additives, and the air quality impact of emissions of these substances and the chemicals that are formed from them in the atmosphere.	The dispersion modelling undertaken for the air quality assessment has been subject to rigorous sensitivity testing to account for uncertainty, including (but not limited to) amine chemistry, stack heights, stack location and the conclusions are drawn on the basis of reasonable worst case assumptions. Specifically, the amine chemistry sensitivity testing is set out in **Section 4** of **Appendix 5-2: Operational Phase Assessment of the Environmental Statement (Volume 3) (APP-078)**. Further sensitivity testing will be undertaken, if required by the Environment Agency, during preparation of the Environmental Permit application. Note that **Table 1-4** of **Appendix 5-2: Operational Phase Assessment of the Environmental Statement (Volume 3) (APP-078)** incorrectly stated that sensitivity testing was not undertaken for amine reaction rates, even though the results of the sensitivity testing were reported in **Section 4** of the Appendix. This has been corrected in **Errata Schedule (as submitted alongside this report)** which provides the range of the reaction rates tested.

Ref #	Relevant Representation	Applicant Response
3.1.6	The applicant should update the cancer risk assessment to include the risk due to N-nitrosodimethylamine, a chemical which is formed in the atmosphere from the additives used in the process.	There are no UK risk factors publicly available to directly quantify the cancer risks due to nitrosamines from the Proposed Scheme, as described at **Paragraph 1.4.20** of **Appendix 5.2: Operational Phase Assessment** of the **Environmental Statement (Volume 1) (APP-078)**. Therefore, as is appropriate and in line with Environment Agency guidance, as described in **Paragraph 1.4.21** of that appendix, the risks associated with NDMA and other nitrosamines have been assessed with reference to the Environment Agency's published Environmental Assessment Level (EAL)[4,5] derived on the basis of all available health evidence. This is discussed further in the Technical Note appended to this Report at **Appendix C**, including consideration of the latest reports on cancer risk and nitrosamines published by the European Chemicals Agency.
3.1.7	Some locations are forecast to experience increases in levels of air pollutants compared to the baseline, and some are forecast to experience decreases in impacts. The applicant should provide information on locations forecast to experience adverse impacts and substantiate the conclusion that	The specific geographic distribution of air quality benefits and disbenefits at any given time will be dependent on meteorological conditions, and in terms of annual average concentrations and/or compliance with air quality standards, will be dependent on the statistics of meteorological conditions over the year Dispersion modelling, using 5 years of meteorological data, with every hour of the year modelled in each year, has been used to identify the worst case impacts over the study area. The geographic distribution of these worst case impacts is

[4] Environment Agency and the Department for Environment Food and Rural Affairs (2024). Air emissions risk assessment for your environmental permit. Available at: //www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit#environmental-standards-for-air-emissions.

[5] Evidence documents for EAL for NDMA include: Environment Agency, 2020, Using our 2012 methodology to derive new Environmental Assessment Levels for emissions to air (Revision of 10 existing EALs and derivation of two new EALs).

Ref #	Relevant Representation	Applicant Response
	the overall impact can be considered “not significant.” The applicant should consider whether the overall significance of impact should be revised after taking all the issues raised into consideration.	displayed in the figures accompanying the air quality assessment, within **Figures – Part 1** of **the Environmental Statement (Volume 2) (APP-072): Figures 5-5 and 5-6** show the contribution of the Riverside 1 and 2 stacks to ground level Annual Mean NO_2 in the Baseline and With Carbon Capture scenarios, and the net impact (the difference between these scenarios) is shown in **Figure 5-7**. The distribution of impacts on other pollutants and metrics are shown in **Figures 5-8 to 5-17**. The conclusions of the assessment are based on the worst case adverse impacts and the total pollutant concentrations experienced at receptors, and the comparison of these impacts/total concentrations with air quality standards using Institute for Air Quality Management guidelines of the assessment of significance. For the Proposed Scheme, the conclusions do not rely in any way on assessing the overall change in population exposure (i.e. offsetting adverse impacts against benefits). At the most adversely affected receptor, no significant effects on human health are likely.
3.1.8	The applicant should include an appropriate emissions monitoring and air quality monitoring programme to demonstrate that operation of the facility does not have any significant adverse effects on air quality, public health or the natural environment. The proposals for emissions monitoring should be fully described and should include all substances of potential concern.	The Environmental Statement, and specifically **Chapter 5: Air Quality (Volume 1) (APP-054)** has demonstrated that the Proposed Scheme is unlikely to have any significant adverse effects on ambient air quality. These conclusions are dependent on the emissions of pollutants being compliant with proposed limits. The emissions compliance monitoring regime will be specified in the Environmental Permit for the Proposed Scheme.

Ref #	Relevant Representation	Applicant Response
3.1.9	Overall contributions to reducing climate change would also depend on the captured carbon being permanently stored, and as such readiness and accessibility of storage facilities in the relevant timeframe should be considered.	Cory is a member of the Viking CCS Cluster. The captured CO_2 is planned to be shipped to the Port of Immingham, then transported via a new CO_2 import pipeline to be permanently stored within the Viking depleted gas fields in the southern North Sea. Viking has been selected as a "Track 2" cluster by the UK Government, and as such is required to commence commercial operation, permanently storing up to 10 million tonnes per annum of captured CO_2 from the cluster's emitters before the end of 2030. To this end the DCO applications for the works at Port of Immingham to receive the captured carbon and the Viking pipeline DCO have just finished, or about to finish, respectively, their DCO Examination. These timescales align to the anticipated timeline of the Proposed Scheme.
Greenhouse Gases		
3.1.10	The GHG assessment has not considered any future evolution of waste throughput and composition as an immediate consequence of the implementation of upcoming expected waste policies and legislation on landfill, RDF exports or the inclusion of the ETS scheme. The estimated impacts associated to the emissions for the existing and future baseline in Chapter 13 are only based on maximum permitted waste inputs and existing split in biogenic and fossil carbon. The Council	Sensitivity analysis (**Appendix F** of this report) has been carried out to determine the whole-life carbon emissions associated with the quantity of CO_2 available for capture by the Proposed Scheme, considering variations in waste throughputs received by Riverside 1 and Riverside 2. The analysis has been undertaken in response to Relevant Representations; however, the Applicant is confident that the residual waste management capacity provided by Riverside 1 and 2 will remain to be required for the foreseeable future (certainly their and the CCF assumed lifetimes) even in the context of the policy, legislation and practice changes indicated in the Relevant Representations. As may be expected, the sensitivity analysis indicates that for the lower waste throughput scenarios the overall savings in GHG emissions are reduced. However, for each of the

Ref #	Relevant Representation	Applicant Response
	recommends a revision of this approach which considers any expected implications of the predicted future waste evolution across the EfW and Proposed Scheme's lifespan, as well as any potential variation in the fossil and biogenic split which may have a relevant impact on the carbon net savings.	scenarios there is still an overall saving in whole-life carbon emissions, so in line with IEMA guidance for determining significance for GHG assessment[6] there is no change to the finding of Beneficial (Significant) effect for climate identified in the assessment within **section 13.8** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)**.
3.1.11	Baseline calculations do not include construction and decommissioning activities, as well as any emissions associated with the boundaries of the plant operations in the short and medium term (fuel used in burners, mobile plant equipment, residues from the EfW plant, etc).	As described in **Paragraph 13.6.1** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)** the assessment would only consider the scenario in which the Proposed Scheme results in additional or avoided emissions in comparison to the baseline. The purpose of the Proposed Scheme is to capture CO_2 that would otherwise enter the atmosphere; therefore, the relevant baseline includes GHG emissions generated by the operation of Riverside 1 and Riverside 2 that would otherwise enter the atmosphere. Other aspects associated with construction, decommissioning or operation of Riverside 1 and Riverside 2, are outside of the scope of the assessment, as presented in **Section 13.8** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)**.

[6] IEMA. (2022). 'Assessing Greenhouse Gas Emissions and Evaluating Their Significance'.

Ref #	Relevant Representation	Applicant Response
3.1.12	Any carbon avoidance or savings as a consequence of the existing waste operations (IBA and metal recycling, heat and power, etc) have not been considered, despite the approach and methodology considering carbon avoidance as part of the life cycle assessment.	It is acknowledged that the carbon mitigation measures identified represent sustainable actions for waste operations associated with the existing operation of Riverside 1, which have informed the comparative baseline of the Proposed Scheme as described in **Section 13.6** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)**. However, the GHG assessment is concerned with the lifecycle of the Proposed Scheme as that is the development in question. The existing waste operations of Riverside 1 and the future operation of Riverside 2 are already fully consented and are outside the scope of the assessment for the Proposed Scheme, as described in **Section 13.4** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)**.
3.1.13	Changes in the profile of net electricity exports after installing the carbon capture plant have not been considered; this is expected to have an impact on the energy exports as it would require some heat and power demand and therefore an energy sacrifice from the turbine generators as well as an additional source to replace the sacrificed exported energy from the EfW plant. Carbon savings would be recommended to be included as well as part of the baseline.	There is no specific assumption that can be made about how the UK electricity grid network would replace the change associated with sacrificed energy and therefore the resulting change in energy intensity of electricity supplies from the UK grid network. This is something that National Grid balance and is therefore outside of the scope of the Environmental Statement.

Ref #	Relevant Representation	Applicant Response
3.1.14	The proposed development has not considered decommissioning activities within the worst case scenario (50 years), despite recognising that the development would have an impact similar to the initial construction activities.	As set out **in Chapter 2: Site and Proposed Scheme Description (Volume 1) at Section 2.7 and Chapter 4: EIA Methodology (Volume 1) of the Environmental Statement (Volume 1)** at Section 4.15 **(APP-051 and APP-053** respectively), any decommissioning would be likely to be completed in less time than the construction phase and would be likely to require a similar degree of plant, equipment and disturbance to that predicted during construction. It is also worth noting, that the carbon payback period, the time it would take for carbon emissions calculated for the construction and operation phases to be offset by the savings in carbon emissions from the Proposed Scheme (excluding decommissioning) is less than 5 weeks. See **Paragraph 13.8.24** of **Chapter 13: Greenhouse Gases Volume 1)** of the **Environmental Statement (Volume 1) (APP-062)**. If the same level of GHG emissions for the construction phase (98,332 tCO_2e: see **Table 13-8** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)**) were incorporated into the carbon payback period as a proxy for emissions from decommissioning (noting that this is likely to be a worst case scenario considering that the UK should achieve net zero emissions by the time of decommissioning), there would be a marginal increase in the carbon payback period to less than 7 weeks, i.e. a minimal amount compared to the overall savings arising from the Proposed Scheme.
3.1.15	Consideration of the impacts associated with the Proposed Jetty and the logistical infrastructure are not detailed in Chapter 13. The Council recommend including the GHG	For assurance, it is confirmed that the construction of the Proposed Jetty and associated infrastructure is included in the GHG emissions, not least as presented in **Table 13-8** of **Chapter 13: Greenhouse Gases** of the

Ref #	Relevant Representation	Applicant Response
	impacts associated with the construction, operation and decommissioning of the Jetty and the associated infrastructure, including the logistics between vessels.	**Environmental Statement (Volume 1) (APP-062)**. See response 3.1.14 above in respect of decommissioning. The key operational aspects of the Proposed Jetty from a GHG perspective is the emissions associated with the vessels that use it, which have been considered in the ES. In line with IEMA guidance[1] for carrying out a proportionate assessment, GHG emissions associated with operation of the Proposed Jetty in terms of the equipment on it that will facilitate the loading of carbon into the vessels have not been assessed as they are expected to be de minimis and very small in the context of the overall savings derived from the Proposed Scheme.
3.1.16	Greenhouse gas impacts which could arise from the onward transport and storage network being unavailable have not been considered within the assessment. Given the uncertainties surrounding development of these networks, it is recommended that consideration is given to greenhouse gas impacts if the capture plant were to be operational prior to geological storage being ready or if there were temporary disruptions in either the transport or storage aspects of the network.	As noted above in response to 3.1.9, the Applicant fully expects that its current preferred option of transport of captured carbon to store via the Port of Immingham and Viking projects will align with the Proposed Scheme timescales. Furthermore, the assessment presented in **section 13.8** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)** also considers a worst case scenario where captured CO_2 is transferred to a geological storage facility location in the North Sea, should the most likely destination (Viking – Humber, UK) be unavailable. The Government is committed to delivery of transport and storage networks, and the economic support that it is giving to those networks and to those emitter projects which are to connect to them, is proceeding on the basis that these connections will be made to time. The Applicant is entering into discussions with Government on this basis. It would not make commercial sense for the Applicant to invest significant sums to construct the Proposed Scheme if there was not the

Ref #	Relevant Representation	Applicant Response
		economic model to receive the payments for the carbon that is captured and able to be stored. It is therefore not a realistic scenario to assess a situation where the Proposed Scheme is built and the transport and storage system is unavailable. Furthermore, in GHG terms, the position would be that even in such a scenario, the carbon simply would not be captured (as there would be nowhere for it to go), and thus the baseline position would continue.
3.1.17	The conclusions for the net emission savings seem to overstate the potential greenhouse gas removals achievable by the plant but does reflect the net CO_2 captured. Whilst the proposed scheme would have an overall beneficial impact on greenhouse gas removals from atmosphere it would not be in the region of - 1.6 MtCO2e/yr of removals. We recommend a revision of the calculation and the final figure following comments in Table 2 and the proposed calculation.	Additional sensitivity analysis (as shown in **Appendix F** of this report) has been carried out to determine the whole-life carbon emissions associated with the quantity of CO_2 available for capture by the Proposed Scheme, considering variations in waste throughputs received by Riverside 1 and Riverside 2. As may be expected, the sensitivity analysis indicates that for the lower waste throughput scenarios the overall savings in GHG emissions are reduced. However, for each of the scenarios there is still an overall saving in whole-life carbon emissions, so in line with IEMA guidance for determining significance for GHG assessment[7] there is no change to the finding of Beneficial (Significant) effect for climate identified in the assessment presented in **section 13.8** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)**.
3.1.18	It is noted that at Scoping Opinion stage, the Inspectors did not agree that decommissioning of the carbon capture plant at end-of-life should be scoped out. The Council	With regards to the Proposed Jetty and decommissioning please see rows 3.1.14 and 3.1.15 above.

[7] IEMA. (2022). 'Assessing Greenhouse Gas Emissions and Evaluating Their Significance'.

Ref #	Relevant Representation	Applicant Response
	recommends that this is reviewed and is included in the Greenhouse gas assessment. It is unclear whether the worst case scenario with the existing Power Station Jetty has been calculated as mentioned in the methodology. The construction, operations and other aspects of the new jetty infrastructure to move the captured carbon is not detailed nor are the Greenhouse gas impacts quantified in the assessment.	To clarify, **Paragraph 13.4.4** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)** confirms that for a worst case scenario the assessment presented in **Section 13.8** of the chapter is based on demolition of the Belvedere Power Station Jetty (disused).
3.1.19	The overall detailed and applied methodology is appropriate in its approach to considering biogenic carbon, which if permanently stored would contribute to carbon removals as these were in the carbon cycle already, whereas the fossil carbon that is capture will only be reduced (the minimum value will reach zero if all fossil emissions are captured, as these are released from human activities and these were not in the natural carbon cycle). This is in line with the IPPC and the GHG protocol. Fossil emissions will never account for negative removals. However, the Council recommend a review of the fossil emissions associated with	Comments regarding agreement with the approach used with respect to the assessment of biogenic carbon removal and fossil carbon reduction are acknowledged. The evaluation of fossil carbon in the baseline emissions is considered to be correct based on information available for the period 2019-2023 (as described in **Paragraph 13.6.8** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)**), which accounts for GHG emissions generated by the operation of Riverside 1 and Riverside 2 that would otherwise enter the atmosphere. As noted in the response above (**Ref 3.1.11)**, other aspects related to activities associated with Riverside 1 and Riverside 2 are outside of the scope of the assessment presented in **Section 13.8** of **Chapter 13: Greenhouse Gases** of the **Environmental Statement (Volume 1) (APP-062)**.

Ref #	Relevant Representation	Applicant Response
	the baseline plant to ensure all relevant associated activities are included.	
Climate Resilience		
3.1.20	Underestimation of severity of sea level rise and storm surge: The assessment lacks clarity on the height at which the facility would be constructed or raised to mitigate sea level rise impacts and associated flooding events. The proposed scheme is situated in the Thamesmead Policy Area characterised by low-lying ground levels typically 2m to 3m below high water on spring tides. While flood defences exist, the extent of protection, especially in terms of flood height, is unspecified. The flood defences mention an upper-end sea level allowance for the Southeast and River Thames, but it's unclear if they safeguard the proposed site effectively against flooding levels expected during surge tidal events or spring tides. Clarification is necessary to ensure adequate resilience against sea level rise and associated flooding risks.	**Appendix 11-1: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** includes an assessment of local flood risks to the Site and includes future climate change allowances in line with the Environment Agency's Climate Change Guidance. **Paragraphs 8.3.22** to **8.3.24** of **Appendix 11-1: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** describes the levels of the CCF and how these relate to the maximum breach level of 2.49m Above Ordnance Datum (AOD) for the 1 in 200 year plus climate change scenario. **Paragraphs 5.2.3** to **5.2.5** of the **Appendix 11-1: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** provide a description of the River Thames Flood Defences and describes the future plans for the flood defences in relation to the Proposed Scheme as part of the Environment Agency's TE2100 Plan. The River Thames Flood Defences are currently designed for a 1 in 1,000 year event. The Climate Resilience Assessment within **Section 12.6** of **Chapter 12: Climate Resilience** of the **Environmental Statement (Volume 1) (APP-061)** uses information from **Appendix 11-1: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** as embedded design commitments, mitigation and enhancement measures. These are taken into

Ref #	Relevant Representation	Applicant Response
		account when assessing the likelihood and consequence of climate related impacts on the Proposed Scheme. The climate change resilience assessment uses the likelihood and consequence definitions (set out in the Assessment Methodology of **Chapter 12: Climate Resilience** of the **Environmental Statement (Volume 1) (APP-061)**) to determine the significance of the effect. In relation to sea level rise, the embedded design commitments, mitigation and enhancement measures, including finished floor levels, use of Sustainable Drainage Systems, surface water storage as well as the collection of flood data and risk assessments, were considered sufficient to provide a level of resilience which would not result in significant effects during the design life of the Proposed Scheme, as described in **Section 12.6** of **Chapter 12: Climate Resilience** of the **Environmental Statement (Volume 1) (APP-061)**.
3.1.21	Underestimation of vulnerability: The vulnerability assessment during the construction phase especially has underestimated vulnerability concerning extreme temperature events. Despite categorising all receptors' vulnerability as 'low', this assessment appears underestimated. For instance, construction staff, categorized with 'Low Sensitivity' to 'Extreme temperature events', are highly susceptible to such events, particularly when working outdoors during	The vulnerability assessment was conducted during the Scoping stage of the EIA process, as described within the Scoping Report. The vulnerability assessment is designed to identify climate hazards and receptors with higher vulnerability which are then scoped in for further assessment within the Environmental Statement. The vulnerability assessment for construction phase takes into account standard construction practices which may reduce the sensitivity or exposure of the receptor to the climate hazard. These measures (including adequate rest periods, provision of shade, appropriate PPE (e.g., hats, sunscreen), and access to drinking water) have been added to the **Outline CoCP (as updated alongside this report)** to provide greater surety of their inclusion during the construction phase. Through these measures, the vulnerability assessment deemed the

Ref #	Relevant Representation	Applicant Response
	construction. This underestimation neglects the potential disruption from extreme events. While operational staff are considered at risk from various climate hazards, similar assessments should be conducted for construction staff.	construction staff to be of low vulnerability, based on the methodology set out in the Scoping Report. As a result of the provisions for construction workers, now secured in the **Outline CoCP (as updated alongside this report)**, it was considered appropriate to rate the construction staff as low vulnerability, and therefore scope them out of further assessment within the Environmental Statement. Furthermore, the Principal Contractor under the Construction (Design and Management) Regulations (CDM) 2015, will be responsible for managing health and safety during construction. This would include managing any health-related impacts from extreme temperatures. The assessment of vulnerability on operational staff takes into account the different timeframes (between construction phase and operation phase) and therefore the difference in climate projections. As such, the vulnerability assessment scoped in operational staff for further assessment at the Environmental Statement stage.
3.1.22	Inclusion of relevant context, legislation, and best practice guidance: Specific inclusion of further legislation context and guidance given the lack of reference to recent and upcoming climate change risk assessments (CCRA3, CCRA4 & NAP3).	The Climate Change Act 2008 has been referenced under **Section 12.2** of **Chapter 12: Climate Resilience** of the **Environmental Statement (Volume 1) (APP-061).** Within the narrative around the Act, the CCRA and NAP are mentioned as they are delivered under this Act by the UK Government. It is noted that reference to CCRA3 was omitted but this does not impact the findings or methodology of the assessment as it provides national level assessment, whereas the climate resilience assessment presented in **Chapter 12: Climate Resilience** of the **Environmental Statement (Volume 1) (APP-061**) is specific

Ref #	Relevant Representation	Applicant Response
		to the Proposed Development and follows industry standard guidance for assessing climate resilience in EIAs.
3.1.23	Spatial Modelling of UKCP18 Climate Projections Data: An absence of spatial resolution information in relation to climate projection modelling data.	As detailed i**n Section 12.6** of **Chapter 12: Climate Resilience** of the **Environmental Statement (Volume 1) (APP-061)** (specifically **Paragraph 12.6.15**), the spatial resolution of the climate projection data is the Bexley Local Authority Area. The Local Authority Boundary ('Local Authority Areas' is the LAU1 level of statistical region, consisting of the most local layer of local government as of 2023) was considered appropriate and proportionate for identifying future climate baseline (climate projections) data for the climate resilience assessment within **Chapter 12: Climate Resilience (Volume 1)** of the **Environmental Statement (APP-061)**. Other climate projection data (such as sea level rise) was obtained from UKCP18 using the nearest 12km^2 grid square to the Study Area (the Study Area is described in **Section 12.5** of **Chapter 12: Climate Resilience (Volume 1)** of the **Environmental Statement (APP-061)**). Where climate data is not available at a gird square of local authority level (wind, soil erosion, shrink swell) data which is presented at a regional or national level was utilised.
3.1.24	Consideration of the Broader Implications of Land Use Changes for Climate Resilience: This involves understanding how alterations in land use impact vulnerability to climate	The scope of the Climate Resilience assessment is to assess the impact that future climate change may have on the Proposed Scheme, and the measures in

Ref #	Relevant Representation	Applicant Response
	hazards, ecosystem services, infrastructure, and development decisions, as well as their social and economic ramifications. Integrating climate considerations into land use decision-making processes enables proactive measures to identify vulnerabilities, preserve ecosystem services, ensure resilient infrastructure, address social and economic concerns, and facilitate long-term planning for climate resilience.	place within the design of the Proposed Scheme's to build in resilience to a changing climate. The In-Combination Climate Impact (ICCI) assessment (presented **in Appendix 12-1: In-Combination Climate Change Impacts Assessment** of the **Environmental Statement (Volume 3) (APP-110)**) considers the extent to which climate change exacerbates or ameliorates the potential effects identified within each of the technical assessments presented in the Environmental Statement (**Chapters 5: Air Quality (Volume 1) (APP-054)** to **Chapter 11: Water Environment and Flood Risk (Volume 1) (APP-060)** and **Chapter 13: Greenhouse Gases (Volume 1) (APP-062)** to **Chapter 20: Major Accidents and Disasters (Volume 1) (APP-069))**. Given the nature of the EIA, the scope of the ICCI and other technical assessments is focused on the environmental impacts. The ICCI provides the opportunity for the technical assessments to identify the need for any further mitigation measures (beyond those already identified within their chapter). Through this, the Climate Resilience Assessment undertaken, and the matters secured through the DCO, the Applicant considers that it has integrated climate considerations into its project development to enable a land use planning decision to be made confident that these matters have been taken into account. Evaluating the overall climate resilience of the London Borough of Bexley extends beyond the scope of **Chapter 12: Climate Resilience (Volume 1)** of the **Environmental Statement (APP-061).**

Ref #	Relevant Representation	Applicant Response
Greater London Authority		
3.1.25	The GLA requested that the Applicant provide an Air Quality Neutral (AQN) Assessment as part of the Environmental Statement, referring to the London Plan Guidance 'Air Quality Neutral'; notably footnote 9, which refers to the use of benchmarks when the use class/ land use type is not listed or specified. In addition, the GLA considers that the development will introduce other new emissions sources through new vehicle movements and generators on-site. Without the inclusion of an Air Quality Neutral assessment, the GLA considers these additional emissions have not been assessed.	A detailed Air Quality Neutral Assessment is submitted with this response, see **Appendix A**. As concluded in **Chapter 5: Air Quality** of the **Environmental Statement (Volume 1) (APP-054)**, the Proposed Scheme is air quality neutral. All potential emission sources, including traffic sources and onsite generators, were also included within the air quality assessment presented in **Section 5.8** of **Chapter 5: Air Quality** of the **Environmental Statement (Volume 1) (APP-054)**.

3.3. ECOLOGY

AIR QUALITY

3.3.1. The GLA and Natural England have made comments in respect of Air Quality matters and the Applicant has responded to this below:

Table 3-2A – Response to Ecology Air Quality Representations

Ref #	Relevant Representation	Applicant Response
Greater London Authority		
3.2A.1	Results from the ES highlight a potential significant negative impact of nitrogen oxides from the proposed development on ecological receptors (namely Ingrebourne Marshes and the Inner Thames Marshes SSSIs, and Crossness and Rainham Marshes Local Nature Reserves). However, the Report does not clearly set out proposed mitigation approaches.	As detailed in Section 7.8.89 of **Chapter 7: Terrestrial Biodiversity of the Environmental Statement (Volume 1) (APP-056**): • Crossness LNR - Above-threshold changes in ammonia, nitrogen oxides, sulphur dioxide and nitrogen deposition are predicted by modelling at these sites. However, increases above the threshold are relatively small and thus the magnitude of change is low. Therefore, there is likely to be an **indirect, permanent, long term, potentially up to Moderate Adverse (Significant) effect**. Although the design of the Proposed Scheme will be refined to attempt to mitigate these above threshold changes as far as possible, Crossness LNR is close to the sources of these emissions and residual air quality effects are likely to remain. • Inner Marshes SSSI and Rainham Marshes LNR - the Predicted Environmental Concentration (PEC) for oxides of Nitrogen are below the relevant Critical Levels at Inner Thames Marshes SSSI/Rainham Marshes LNR and effects can be screened as negligible. Significant effects are therefore not predicted. • Ingrebourne Marshes SSSI - please see response to Natural England below.

Ref #	Relevant Representation	Applicant Response
		Relevant mitigation measures are included within **Section 5.7** and **5.9** of **Chapter 5: Air Quality of the Environmental Statement (Volume 1) (APP-054)** and the **Mitigation Schedule (APP-128)** (and secured through the DCO or the permit, as relevant) to reduce air-borne pollutants and manage air quality effects.
Natural England[8]		
3.2A.2	Additional justification is required for NDep impacts to Ingrebourne Marshes and the Inner Thames Marshes SSSIs to support the conclusions of the documentation.	This is explained in detail in **Paragraphs 3.2.19 – 3.2.40** in **Appendix 5-2: Operational Phase Assessment (Volume 1)** of **Environmental Statement (Volume 3) (APP-078)** and is also illustrated in the contour plots provided in **Section 1** of **Appendix B** of this report for modelled Full Proposed Scheme Impacts for nitrogen deposition over Inner Thames Marshes SSSI. The figures demonstrate that the greatest impacts on the Ingerbourne Marshes and the Inner Thames Marshes SSSI sit over the habitat as a grazing marsh rather than a salt marsh. Therefore, the zone where the impact of nitrogen deposition is greater than 1% of the Critical Load covers habitats only at its north-western end where neutral grassland habitats occur. Furthermore, the nitrogen deposition contributed by the Proposed Scheme would not threaten the recovery of these habitats, especially given more local background nitrogen sources such as the A13 and faecal matter from wildfowl such as ducks and geese that graze the area in winter. Thus, justifying the conclusions of the assessment remain as presented in **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**. In addition, the Applicant is further analysing the calculations to validate the findings of the assessment presented in **Chapter 7: Terrestrial Biodiversity** of the

[8] Following submission of RRs, Natural England have raised the points in this table as a follow on from the holding position expressed in their Relevant Representation, which the Applicant considers it prudent to deal with in this report, as it understands Natural England may incorporate them into an update to their RR.

Ref #	Relevant Representation	Applicant Response
		Environmental Statement (Volume 1) (APP-056) to investigate a design solution to consider if the modelled above 1% threshold increase in Nitrogen Deposition affecting designated sites can be reduced.
3.2A.3	Further information needed on Epping Forest SAC in-combination assessment	Modelling effects of the emissions of other plans or projects is neither practicable nor necessary given the extent of the Study Area (~76,600ha) and the large distance between the Proposed Scheme and Epping Forest SAC (11.8km). The modelled impact of the Proposed Scheme at this distance is imperceptible (<1% of any relevant critical load or critical level). Taking into account the conservatism inherent in the dispersion modelling, these impacts can robustly be considered to be so small that the Proposed Scheme could not reasonably be considered likely to act in-combination with other plans or projects to have an adverse effect on the integrity of Epping Forest SAC. Impacts on Epping Forest SAC reported within the **Environmental Statement (Volume 1) (APP-056)** overestimate impacts due to an Excel cross-referencing error. These tables are corrected and shown in **Section 2** of **Appendix B** of this report.
3.2A.4	It is not clear how the deposition of amines has been included in the assessment for impacts on designated sites	Amines are included with the calculated nitrogen and acid deposition using a deposition velocity approach (as used for other pollutants including NO_2 and NH_3). The deposition velocity used is the same as that for ammonia, as set out in **Table 1-3** of **Appendix 5-2: Operational Phase Assessment** of the **Environmental Statement (Volume 3) (APP-078)**. Furthermore, a realistic worst case assumption for the proportion of nitrogen within the deposited amines has been assumed based on the list of potential amines emitted by carbon capture processes provided in a CERC Report commissioned by the Environment Agency[9].

[9] Environment Agency. (2024). 'Improving Post-Combustion Carbon Capture Risk Assessment Techniques'.

SPECIES

3.3.2. The Applicant notes that a significant number of Relevant Representations have been made in respect of the Proposed Scheme's impacts to various species, above and beyond the impacts to Crossness LNR and the Erith Marshes SINC habitats.

3.3.3. In response to this, and instead of responding repetitively to each individual relevant representation on this topic, the Applicant has set out in Table 3-2 overleaf, on a species by species basis, its position on:

- the survey methodology undertaken for each species and why the Applicant considers it is robust in response to the criticisms raised in the relevant representations; and where relevant, why further surveys are not necessary at this stage in the project development process;
- the impacts expected to arise to each species as a result of the Proposed Scheme (including from lighting, shadowing and air quality); and
- the mitigation/compensation proposals for each species and why they are sufficient.

3.3.4. As a starting point, it is noted that a number of Relevant Representations raise criticisms about the lack of survey data in areas such as the Island Field Lagoons and Great Breach Lagoon. These concerns should be seen in the context that between initial habitat surveys undertaken as part of the **Appendix 7-2: Preliminary Ecological Appraisal** of the **Environmental Statement (Volume 3) (APP-089)** and preparation of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)),** the Site Boundary was extended to incorporate these areas (being part of a larger area of Crossness LNR) as part of the Mitigation and Enhancement Area, as described in **Paragraph 1.1.16** of **Chapter 1** of the **Environmental Statement (Volume 1) (APP-050)**. Therefore, not all ecological surveys conducted covered the extended area within the Site, however, any shortfalls were validated using data collected at a later date (as described in **Appendices 7-4: Bat Survey Report** to **Appendix 7-10: Wintering Bird Survey Report** of the **Environmental Statement (Volume 3) (APP-091 to APP-097)**) (including utilising data obtained from the Friends of Crossness LNR), site walkovers and mapping to ensure the data used to inform the assessment presented in of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)** is robust. Furthermore, the crucial point to note is that there will be no loss of habitat within this extended area as a result of the Proposed Scheme, nor any increased disturbance from the Proposed Scheme construction activities. This area is instead incorporated as a Mitigation and Enhancement Area, which will be enhanced to achieve net gain for biodiversity.

Table 3-2 – Response to Species Based Matters Raised in Relevant Representations

Ref #	Theme	Applicant Position
Water Voles		
3.2.1	Survey Methodology	As stated in **Appendix 7-9: Water Vole Survey Report** of the **Environmental Statement (Volume 3) (APP-096)**, both desk study and field survey data were used to assess impacts and their effects on water vole. Desk study data included records supplied by Thames Water and those associated with a recent water vole mitigation licence adjacent to Norman Road for Riverside 2. Water vole habitat suitability was assessed using current best practice, following the methodology developed by Harris et al (2009). A presence/absence water vole survey was then undertaken following best practice guidance detailed in 'The Water Vole Mitigation Handbook'[10]. This included the deployment of rafts within the ditches to provide an artificial structure for water voles to use as a feeding and latrine station. Field signs were then recorded on the rafts and in the vicinity of the rafts. The survey comprised two visits to each ditch during the first half of the water vole breeding season (late April to the end of June) and two visits to the second half of the water vole breeding season (July to September inclusive). Two survey visits were made instead of the recommended one visit per survey season to allow the water vole to become habituated to the rafts. Rafts were deployed approximately every 5m along each ditch (if access permitted), to allow assessment of the population size within each ditch. Although growth of vegetation caused access restrictions which limited the ability of surveyors to assess population size class in all ditches, survey data clearly shows a healthy population of water voles using most ditches throughout the Site and their absence only owing to dry

[10] Strachan, R., Moorhouse, T., Gelling, M. (2011). 'Water vole conservation handbook (3rd Edition)'. WildCRU, Oxford.

Ref #	Theme	Applicant Position
		ditches or those without sufficient vegetation cover to afford them protection **(Paragraph 7.6.50** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056))**. The water vole population has been evaluated as being of County importance.
3.2.2	Impacts	Taking into account additional design, mitigation and enhancement measures, detailed in Section 7.7 and 7.9 of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056),** the **Outline CoCP** (as updated alongside this report)**, Outline Drainage Strategy (APP-122)** and the **Outline LaBARDS (APP-129)**, where relevant, all residual significant effects on water voles are considered to be Negligible. Natural England has not raised concerns regarding the approach or conclusions of the impact assessment on water vole.
3.2.3	Mitigation/Compensation Proposals	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 (shown on **Figure 1-1: Site Boundary Location Plan** of the **Environmental Statement (Volume 2) (APP-072)**). This will both avoid possible injury and mortality to the population whilst works take place and return them to a new area of newly created habitat of greater extent to that lost. 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. The method statement to enable this LoNI to be obtained is being produced and will be sent to Natural England for review and agreement during September 2024. Management of ditches and watercourses to improve macrophyte species diversity should lead to a consequent improvement in availability of food plants for water voles. In relation to monitoring,

Ref #	Theme	Applicant Position
		inspection of open water habitat creation will ensure features created hold water and are suitable as replacement habitat (**Paragraph 7.9.5** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**. These measures will be secured pursuant to the **Outline LABARDS (APP-129)** and the mitigation licence.
Wintering Birds		
3.2.4	Survey Methodology	As stated in **Appendix 7-10: Wintering Bird Survey Report** of the **Environmental Statement (Volume 3) (APP-097)**, the wintering birds survey methodology used was an adapted version of the standard BTO's Wetland Bird Survey (WeBS), incorporating a standard direct count methodology (Bibby et al. 2000)[11]. This approach constitutes best practice for wintering bird surveys; thus, it is considered that no further surveys are required. Counts of all wetland birds were made twice per month between November 2022 and March 2023 (i.e. 10 visits in total). Five wintering bird survey visits at low tide and five at high tide (10 total) were completed between November 2022 and March 2023. Aquatic habitat (open water and mudflat) beyond the Thames floodwall is used regularly by wintering birds for foraging, loafing and roosting; it supports the highest numbers of wintering birds and the widest variety of species, almost exclusively water birds. Of note is the sewage outfall from the Crossness Sewage Treatment Works, which is highlighted as a foraging area for winter bird species, particularly ducks such as teal, gadwall and wigeon. One high tide roost was found within the Site, on the disused Jetty. Whilst individual birds or pairs occasionally roosted on wooden posts within Thames-side reedbed habitat, significant numbers of birds were not seen using these structures.

[11] Bibby C.J, Burgess N.D, Hill D.A, and S.H. Mustoe (2000). Bird Census Techniques. Second Edition. Elsevier Ltd.

Ref #	Theme	Applicant Position
		Relatively few species of bird, in small numbers, were observed to use terrestrial habitats within the Site. The most significant area for wintering birds, was grassland in the southwest of the Site, within Crossness LNR. Fields along Norman Road were used only sparingly by wintering birds. To assess the wintering bird community, the wintering bird survey focussed on the Site and the stretch of Thames to the west of the Site, as detailed in **Appendix 7-10: Wintering Bird Survey Report** of the **Environmental Statement (Volume 3) (APP-097)**. The wintering bird survey recorded significant numbers of important species, including Species of Principal Importance (SPIs) and those of conservation concern. The peak count of Shoveler was greater than the 1% national threshold, however the majority of Shoveler (including the peak count) were recorded using the area of the Thames to the north of the Crossness Sewage Treatment Works, which is outside of the Site boundary (see **Figure 7-35: Wintering Bird Results – SV + WN** of **Figures Part 1** of the **Environmental Statement (Volume 2) (APP-072)**. Furthermore, significant numbers of important species such as peak counts of Dunlin, Teal, Curlew, Wigeon, etc. were also recorded at this location. Therefore, as smaller groups of birds were recorded within the Site, the Site has been evaluated as being of County importance. The wintering bird survey was assessed within the stretch of Thames within the Site which is included within the Thames Estuary and Marshes Important Bird Area (IBA). This assessment also referenced the WeBS data for the River Thames – Barking sector, which is also included within the Thames Estuary and Marshes IBA. Therefore, the wintering and passage winter bird community has been assessed in this area.

Ref #	Theme	Applicant Position
3.2.5	Impacts	Taking into account additional design, mitigation and enhancement measures, detailed in Section 7.7 and 7.9 of **Chapter 7: Terrestrial Biodiversity of the Environmental Statement (Volume 1) (APP-056)**, the **Outline CoCP (as updated alongside this report), Outline Drainage Strategy (APP-122)** and the **Outline LaBARDS (APP-129)**, where relevant, all residual significant effects on wintering birds are considered to be Negligible, except effects from noise and vibration during construction which are considered to be Minor Adverse (Not Significant). Measures such as enhancement of mudflat habitat within the River Thames and habitat creation and enhancement within the Mitigation and Enhancement Area will mitigate the impact from habitat loss and fragmentation. Management of ditches and watercourses to improve the availability of food for birds such as improving macrophyte species diversity, with consequent improvement in diversity of macroinvertebrates and fish species will also buffer potential vegetation changes resulting from air quality changes, pursuant to the **Outline LaBARDS (APP-129).** Furthermore, construction of the Proposed Jetty presents an enhancement opportunity for birds using the River Thames, as it would provide a new feature for resting and roosting. Natural England has not raised concerns regarding the approach or conclusions of the impact assessment on wintering birds.
3.2.6	Mitigation/Compensation Proposals	Timing of certain works (i.e. those with the potential to lead to adverse effects on wintering birds) to avoid sensitive periods including wintering period for certain birds **(Paragraph 7.9.3** and **Table 7-11** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056))** as stated in the **Outline CoCP (as updated alongside this report)**. This will avoid works from affecting wintering birds as they will occur at a time when they are either not present or not using habitats that would expose them to works.

Ref #	Theme	Applicant Position
		In addition, there will be control of construction phase lighting to focus it on construction areas pursuant to the **Outline CoCP (as updated alongside this report)**. Habitat creation and enhancement will be undertaken. This will occur within the CCF and the Mitigation and Enhancement Area and offsite to deliver BNG, pursuant to the **Outline LaBARDS (APP-129).**
Breeding Birds		
3.2.7	Survey Methodology	As stated in the **Appendix 7-5: Breeding Bird Survey Report** of the **Environmental Statement (Volume 3) (APP-092)**, the breeding bird methodology followed the 'Bird Survey Guidelines for assessing ecological impacts'[12]. As described in **Section 7.6** of **Chapter 7: Terrestrial Ecology** of the **Environmental Statement (Volume 1) (APP-056)**, a total of 54 species were recorded within the Survey Area during the breeding bird survey, 43 of which, were recorded as confirmed, probable or possible breeders. Of these 43 species, 20 are legally protected or species included on the Red List of Birds of Conservation Concern or London Priority Species. Barn Owls were recorded as using the Barn Owl nest boxes on site and were recorded as having a probable breeding territory. The small area of grassland (2.5 ha) within the Site, which is to be lost, is heavily grazed and of poor suitability for foraging Barn Owl. The coastal floodplain grazing marsh within the Mitigation and Enhancement Area and south of Eastern Way is recognised as suitable foraging habitat for Barn Owl. Breeding birds have been evaluated as County importance.

[12] Bird Survey & Assessment Steering Group. (2023). 'Bird Survey Guidelines for assessing ecological impacts, v.1.1.0'. https://birdsurveyguidelines.org.

Ref #	Theme	Applicant Position
3.2.8	Impacts	Taking into account additional design, mitigation and enhancement measures, detailed in Section 7.7 and 7.9 of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**, the **Outline CoCP** (as updated alongside this report), **Outline Drainage Strategy (APP-122)** and the **Outline LaBARDS (APP-129)**, where relevant, all residual significant effects on breeding birds are considered to be Negligible, except effects from noise and vibration during construction which are considered to be Minor Adverse (Not Significant). Measures such as habitat creation and enhancement within the Mitigation and Enhancement Area and installation of bird nest boxes, will mitigate the impact from habitat loss and fragmentation. Timing of works to avoid the nesting bird season for habitat clearance. Management of ditches and watercourses to improve the availability of food for birds such as improving macrophyte species diversity, with consequent improvement in diversity of macroinvertebrates and fish species will also buffer potential vegetation changes resulting from air quality changes, pursuant to the **Outline LaBARDS (APP-129).** The area of grassland used by foraging barn owls, and that will be lost, is small (approximately 2.5ha) when compared to a typical barn owl home range (30-40ha). The Norman Road Fields where a barn owl nest box used by this species is present, will be retained and subject to enhancement (see **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**. Natural England has not raised concerns regarding the approach or conclusions of the impact assessment on breeding birds. The measures above are considered sufficient as will result in Negligible or Minor Adverse (Not Significant) residual significant effects during construction and operation of the Proposed Scheme.

Ref #	Theme	Applicant Position
3.2.9	Mitigation/Compensation Proposals	Timing of relevant works, such as vegetation clearance, to avoid the bird nesting period (Paragraph 7.9.3 and Table 7-11 of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**) as stated in the Outline CoCP (as updated alongside this report). In addition, there will be control of construction phase lighting to focus it on construction areas pursuant to the **Outline CoCP (as updated alongside this report).** Habitat creation and enhancement will be undertaken. This will occur both within the CCF, the Mitigation and Enhancement Area and offsite to deliver BNG, pursuant to **the Outline LaBARDS (APP-129).**
Terrestrial Invertebrates		
3.2.10	Survey Methodology	As stated in **Appendix 7-8: Terrestrial Invertebrates Survey Report** of the **Environmental Statement (Volume 3) (APP-095)**, to enable a baseline characterisation of the habitats for invertebrates, a habitat assessment was undertaken in August 2023 with reference to standard best practice survey and assessment methodologies, thus it is considered that no further surveys are required (Drake *et al,* 2007)[13], (English Nature, 2005)[14]. The Site is situated within the Thames Estuary South Important Invertebrate Area (IIA) and supports habitats suitable for a wide variety of invertebrates including nectar and pollen resources (e.g.

[13] Drake, C.M., Lott, D.A., Alexander, K.N.A. & Webb J. (2007). Surveying terrestrial and freshwater invertebrates for conservation evaluation. Natural England Research Report NERR005. Natural England.
[14] English Nature (2005). Organising surveys to determine site quality for invertebrates. A framework guide for ecologists. English Nature.

Ref #	Theme	Applicant Position
		flower-rich grasslands) which provide a range of opportunities for pollinating insects, primarily a substantial food resource across the spring and summer months. Surveys observed a wide range of insect pollinators visiting the wildflowers within the Site's habitats, and incidentally recorded, brown-banded carder bee Bombus humilis. The Site is likely to be important for other rare or notable pollinating insects. Its mix of habitats ranging from open grassland, mixed scrub, ditches/standing water and deciduous woodland creates a wide range of ecological niches and opportunities for a range of invertebrate taxa found only in disparate sites in the Greater London area. The terrestrial invertebrate community has therefore been evaluated as being of County importance.
3.2.11	Impacts	Taking into account additional design, mitigation and enhancement measures, detailed in Section 7.7 and 7.9 of **Chapter 7: Terrestrial Biodiversity** of **the Environmental Statement (Volume 1) (APP-056)**, the **Outline CoCP** (as updated alongside this report), **Outline Drainage Strategy (APP-122)** and the **Outline LaBARDS (APP-129)**, where relevant, all residual significant effects on terrestrial invertebrates are considered to be Negligible. Measures such as habitat creation within the Mitigation and Enhancement Area and creation of new open mosaic habitat and reedbed habitat at the BNG Opportunity Area, will mitigate the impact from habitat loss, degradation and fragmentation. Enhancement is also proposed of existing floodplain grazing marsh, other neutral grassland and woodland within Norman Road Field (being suitable habitat for reptiles) from poor to moderate condition (see **Appendix 7-1: Biodiversity Net Gain Report** of the **Environmental Statement (Volume 3) (APP-088))**. Lighting control measures included in the **Outline CoCP (as updated alongside this report)**, will mitigate the impact from construction and operational lighting.

Ref #	Theme	Applicant Position
		Natural England has not raised concerns regarding the approach or conclusions of the impact assessment on terrestrial invertebrates through consultation with them.
3.2.12	Mitigation/Compensation Proposals	Timing of certain works (i.e. those which could affect ecological features) to avoid sensitive periods (e.g. summer flying period for insects), as stated in the **Outline CoCP (as updated alongside this report)** and **Section 7.9** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**. These will separate potential effects of works from sensitive invertebrate species by undertaking them at a time when such species are not active. Lighting control measures included in the **Outline CoCP (as updated alongside this report)**, will mitigate the impact from construction and operational lighting. Habitat creation and enhancement both within the CCF, the Mitigation and Enhancement Area and BNG Opportunity Area and offsite to deliver BNG, pursuant to the **Outline LaBARDS (APP-129),** will mitigate for the loss, degradation and fragmentation of habitat.
Reptiles		
3.2.13	Survey Methodology	Reptile surveys were undertaken within areas of suitable habitat within the Site during September to October 2023 (see **Table 7-4 of Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)** following best practice survey guidance; therefore, it is considered that no further survey is required (Gent and Gibson, 2003)[15]. This timing has been chosen as it is optimal for reptile survey, avoiding warm summer months when the use of artificial

[15] Gent, T., & Gibson, S. (2003). 'Herpetofauna Workers Manual'. Joint Nature Conservation Committee.

Ref #	Theme	Applicant Position
		refugia attract reptiles is not effective (Reading, 1996)[16]. Suitable reptile habitat within the Site totalled approximately 8.9 hectares and 85 artificial refugia in total were installed within the Site, which included grassland to be lost and the Mitigation and Enhancement Area. Surveys recorded on a limited population of reptiles, with two common lizard *Zootoca vivipara* observed **(Paragraph 7.6.43 of Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056))**. Records of three species of reptiles were returned by the desk study within 2km of the Site Boundary, comprising slow worm *Anguis fragilis*, grass snake *Natrix helvetica* and common lizard. Whilst the desk study data shows the adjacent Crossness LNR to have a higher abundance and diversity of reptiles, the low numbers of individuals and single species recorded indicate habitats within the Site were not favourable to reptile populations, possibly due to disturbance from grazing and adjacent industrial land uses. The Site has therefore been evaluated as being of Local importance to reptiles (**Paragraph 7.6.43** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056))**.
3.2.14	Impacts	Taking into account additional design, mitigation and enhancement measures, detailed in Section 7.7 and 7.9 of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**, **Outline CoCP** (as updated alongside this report), **Outline Drainage Strategy (APP-122)** and the **Outline LaBARDS (APP-129)**, where relevant, all residual significant effects on reptiles are considered to be Negligible.

[16] Reading, C. (1996). 'Evaluating Reptile Survey Methodologies. English Nature Research Report 2000'. English Nature, Peterborough.

Ref #	Theme	Applicant Position
		Measures such as habitat creation and enhancement and creation of reptile hibernacula within the Mitigation and Enhancement Area will mitigate the impact from habitat loss and fragmentation. Furthermore, reptiles would be moved from works area through hand searching in combination with vegetation clearance. Captured reptiles would be released into a safe area within Crossness LNR away from active works. This is secured pursuant to the **Outline CoCP (as updated alongside this report)**. Natural England has not raised concerns regarding the approach or conclusions of the impact assessment on reptiles.
3.2.15	Mitigation/Compensation Proposals	Timing of certain works to avoid sensitive periods (e.g. reptile hibernation period), as stated in the **Outline CoCP (as updated alongside this report)**. Reptiles would be moved from works area through hand searching in combination with vegetation clearance. Captured reptiles would be released into a safe area within Crossness LNR away from active works. In addition, there would be establishment of temporary reptile exclusion fencing to avoid reptiles entering the works areas **(Table 7-11 of Chapter 7: Terrestrial Biodiversity of the Environmental Statement (Volume 1) (APP-056)** and the **Outline CoCP (as updated alongside this report)** which is secured through a requirement in the **Draft DCO (as updated alongside this report**. These measures would avoid risks to reptiles by separating them spatially from works. Control of construction phase lighting to focus it on construction areas pursuant to the **Outline CoCP (as updated alongside this report)**.

Ref #	Theme	Applicant Position
Bats		
3.2.16	Survey Methodology	Bat activity surveys (static monitoring equipment) were undertaken within areas of suitable habitat within the Site and focussed on areas that are to be directly impacted by the Proposed Scheme that is to be lost during May to September 2023 (see **Table 7-4** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)** following best practice survey guidance (Collins, 2016)[17], to identify important commuting and foraging resources within the Site. Surveys recorded at least six bat species and key commuting and foraging area for bats were identified along the woodland edge within the Norman Road Fields and along ditch and scrub habitat within the Site **(Paragraph 7.6.33** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056))**. Bat activity was predominantly from common and widespread bat species, therefore bats have been evaluated as being of Local importance.
3.2.17	Impacts	Taking into account additional design, mitigation and enhancement measures, detailed in the **Outline CoCP (as updated alongside this report)**, **Outline Drainage Strategy (APP-122)** and the **Outline LaBARDS (APP-129)**, where relevant, all residual significant effects on bats are considered to be **Negligible** (including from disturbance). Measures such as habitat creation and enhancement within the Mitigation and Enhancement Area and installation of bat boxes will mitigate the impact from habitat loss and fragmentation. Lighting control measures included in the **Outline CoCP (as updated alongside this report)**, will mitigate the impact from construction and operational lighting and measures set out within the Air Quality

[17] Collins, J. (ed.). (2016). 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)'. The Bat Conservation Trust, London.

Ref #	Theme	Applicant Position
		section of the **Outline CoCP (as updated alongside this report)** will also manage air quality effects. Natural England has not raised concerns regarding the approach or conclusions of the impact assessment on bats.
3.2.18	Mitigation/Compensation Proposals	Timing of certain works to avoid sensitive periods (e.g. at night when bats are active) pursuant to **Outline CoCP (as updated alongside this report)**. Control of construction phase lighting to focus it on construction areas pursuant to the **Outline CoCP (as updated alongside this report)** and control of operational phase lighting as detailed in the **Outline Lighting Strategy (APP-123)**. Habitat creation and enhancement including installation of bat boxes both within the Site and potentially other offsite areas pursuant to the **Outline LaBARDS (APP-129)**.
Freshwater Fish (including European eel)		
3.2.19	Survey Methodology	Fish e-DNA samples were collected in June 2023 from the freshwater watercourses identified within the Site, as described in **Table 7-4** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**. Water samples were collected in accordance with BS EN 17805:2023 Water quality. Sampling, capture and preservation of environmental DNA from water. The samples have been analysed by Naturemetrics and a species list has been produced. The results of the eDNA analysis identified the presence of three fish species within the Site. These included: Crucian carp *Carassius Carassius,* three spined stickleback *gasterosteus aculeatus* and stickleback *Pugnitius* sp., however this does not preclude the presence of other species including European eel *Anguilla anguilla*. The three spined stickleback DNA was the most prevalent of the

Ref #	Theme	Applicant Position
		results of the survey and were recorded at all locations. Crucian carp DNA was recorded within the Norman Road River and Great Breech lagoon. Due to the potential presence of European eel, the freshwater fish community present within the Site these have been evaluated as being of National importance.
3.2.20	Impacts	Taking into account additional design, mitigation and enhancement measures, detailed in Section 7.7 and 7.9 of **Chapter 7: Terrestrial Biodiversity** of **the Environmental Statement (Volume 1) (APP-056)**, the **Outline CoCP** (as updated alongside this report), **Outline Drainage Strategy (APP-122)** and the **Outline LaBARDS (APP-129)**, where relevant, all residual significant effects on freshwater fish are considered to be Negligible, except effects from changes in air quality during construction which are considered to be Minor Adverse (Not Significant). Measures such as use of attenuation ponds and controlling water discharge rate will mitigate the impact from contaminated surface run-off and timing of works will avoid the migration periods for sensitive freshwater fish species. Natural England has not raised concerns regarding the approach or conclusions of the impact assessment on freshwater fish (including European eel).
3.2.21	Mitigation/Compensation Proposals	Timing of certain works to avoid sensitive periods (e.g. fish migration and spawning periods). Avoid works in watercourses where possible pursuant to the **Outline CoCP (as updated alongside this report)**. Control of construction phase lighting to focus it on construction areas pursuant to the **Outline CoCP (as updated alongside this report)**.

Ref #	Theme	Applicant Position
		Measures to reduce emissions from idling vehicles, pursuant to the **Outline CoCP (as updated alongside this report)**. Habitat management and improvement to buffer potential vegetation changes resulting from air quality changes, pursuant to the **Outline LaBARDS (APP-129).**
Aquatic Macroinvertebrates and Macrophytes		
3.2.22	Survey Methodology	The Applicant's survey efforts used the following methods: • Kick sampling and sweep sampling within the freshwater watercourses identified in the Site. Samples have been processed in the laboratory and data is being analysed to identify any protected or invasive species and describe the community. • Pond Predictive System for Multimetrics (PSYM) survey to assess the conservation value of macroinvertebrates inhabiting Pond 7 (located in the northern section of Survey Area Section Norman Road Fields, as shown in **Figure 7-10: Ecological Survey Areas** of the **Environmental Statement (Volume 2) (APP-072)**. • Due to access restrictions, only limited macrophyte survey of the ditch system could be undertaken. However, the data collected during the surveys was consistent with historic EA data, therefore is deemed robust for the purposes of the assessment. • Macrophyte survey of Pond 7 was undertaken as part of the PSYM survey. The results suggest high conservation values of macroinvertebrate communities in North Dyke and Norman Road River. Mulberry Way River and Great Breach Lagoon were classified as having an macroinvertebrate community of low and moderate, conservation value respectively. No protected or otherwise notable macrophyte species were recorded in the survey, nor were any INNS. Further

Ref #	Theme	Applicant Position
		details of results are provided in **Section 7.6** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056).** However, due to the potential presence of Nationally Scare species, it is recognised that the aquatic macroinvertebrate community present within the Site should be considered to be of National importance, where they were noted as County or Borough importance in **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**. This has been corrected in the **Errata Schedule (submitted alongside this report)**.
3.2.23	Impacts	Taking into account additional design, mitigation and enhancement measures, detailed in the Section 7.7 and 7.9 of Chapter 7: Terrestrial Biodiversity of the Environmental Statement (Volume 1) (APP-056), Outline CoCP (as updated alongside this report), Outline Drainage Strategy (APP-122) and the Outline LaBARDS (APP-129), where relevant, all residual effects on aquatic macroinvertebrates and macrophytes are considered to be Negligible (as described in Table 7-11 of the submitted **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**), except for impacts from air quality in the construction and operational phases, and shading during the operation phase where the residual effect is considered to be Minor Adverse (Not Significant) (this has been corrected in the Errata Schedule submitted alongside this report). The Proposed Scheme will result in the loss of ~540m of ditch habitat, however a large proportion of the ditch network that will be lost is ephemeral (ditches were dry on a number of site visits across seasons) in nature and does not provide suitable habitat for an established aquatic macroinvertebrate community. One of the species of concern, the spangled diving beetle has been recorded at the Site, with its habitat requirements suggested to be areas of open water in which to

Ref #	Theme	Applicant Position
		prey upon other invertebrates (see **Appendix J**)[18] of this report. This suggests that the habitat loss for this species is likely to be minimal as open water areas are not affected by the Proposed Scheme. In addition, mitigation measures have the potential to improve habitat for macroinvertebrates including altering flows and creating additional habitat within the Site. Measures such as use of attenuation ponds and controlling water discharge rate pursuant to the **Outline Drainage Strategy (APP-122)** will mitigate the impact from contaminated surface run-off. Additionally, management of ditches and watercourses to improve macrophyte species diversity, with consequent improvement in diversity of macroinvertebrates and fish species will also buffer potential vegetation changes resulting from air quality changes, pursuant to the **Outline LaBARDS (APP-129).** Natural England has not raised concerns regarding the approach or conclusions of the impact assessment on aquatic macroinvertebrate.
3.2.24	Mitigation/Compensation Proposals	Control of construction phase lighting to focus it on construction areas pursuant to the **Outline CoCP (as updated alongside this report)**. Measures to reduce emissions from idling vehicles, pursuant to the **Outline CoCP (as updated alongside this report)**.

[18] https://content.freshwaterhabitats.org.uk/2013/09/Spangled-Water-Beetle-new-logo.pdf?

Ref #	Theme	Applicant Position
		Habitat management and improvement to buffer potential vegetation changes resulting from air quality changes and to mitigate the impact from shading, pursuant to the **Outline LaBARDS (APP-129).**

BIODIVERSITY NET GAIN

3.3.5. The Applicant notes that the GLA has raised detailed queries in respect of its BNG calculations. These are responded to in Table 3-3 below.

Table 3-3 – Response to GLA BNG Calculations Representations

	Relevant Representation	Applicant Response
3.3.1	The results state that the net gain in habitat units is +10.01% including both onsite and offsite locations. It would be more transparent to note that the onsite score by itself is +1.31%. (4.4.1)	The Biodiversity Net Gain Report (**Appendix 7-1: Biodiversity Net Gain Report** of the **Environmental Statement (Volume 3) (APP-088))** states in **Paragraph 4.4.1** the 'overall net change in biodiversity'. +10.01% is achieved overall, with +1.31% achieved onsite and +8.70% offsite.
3.3.2	The jetty location has not yet been determined, the BNG assessment will need to be updated once that happens.	Appendix 7-1: **Biodiversity Net Gain Report** of the **Environmental Statement (Volume 3) (APP-088)** has been prepared based on the Proposed Jetty being located in Option 3, as described in Paragraph 3.4.28 of **Chapter 3: Consideration of Alternatives** of the **Environmental Statement (Volume 1) (APP-052)** and shown on **Figure 3-5: Proposed Jetty Arrangement Alternatives** within the **Environmental Statement (Volume 2 Part 1) (APP-072).** Although Option 3 is still subject to detailed design, the overall size of the Proposed Jetty and footprint of its supporting piers will not change and thus the

	Relevant Representation	Applicant Response
		assessment reported in **Appendix 7-1: Biodiversity Net Gain Report** of the **Environmental Statement (Volume 3) (APP-088)** will not change despite this detailed design process.
3.3.3	Temporary construction compounds, utilities connections and site access works are included within the assessment. However, it is unclear how/whether the habitats within these areas have been treated differently to permanently impacted habitats. For example, have they been treated as lost and re-instated due to their temporary nature? (1.1.2)	Temporary works such as compounds, utilities connections and site access have been treated in the metric as lost and then re-instated where there is no permanent land-take and the same habitat is being recreated. However, in many cases new, higher value habitats are being created as part of landscaping.
3.3.4	The methodology for assigning Strategic Significance (SS) scores is outlined in Table 2-1. There is no mention of the Preliminary Ecological Appraisal being used to help assign scores or whether habitats are 'ecologically desirable' to species within the footprint and surrounding area. (2.1.2)	Strategic Significance (SS) scores took into account data obtained through **Appendix 7-2: Preliminary Ecological Appraisal (PEA)** of the **Environmental Statement (Volume 3) (APP-089)**, as is referenced in the method in **Table 2-1**. For example, survey results within non-statutory designated sites (Sites of Importance for Nature Conservation and Habitats of Principal Importance) identified and mapped through the PEA have informed the assignment of SS scores, as described in the method in **Table 2-1** in **Appendix 7-1: Biodiversity Net Gain Report** of the **Environmental Statement (Volume 3) (APP-088)**.

	Relevant Representation	Applicant Response
3.3.5	A 'delay' in habitat creation of 2 years has been applied in the Metric, because habitats proposed within the scheme footprint will be installed following the completion of the construction phase. Note that if the delay will be more than 2 years, this will need to be amended and will impact the BNG score. (2.1.3)	Acknowledged.
3.3.6	3.3 outlines variables that influence the metric score for onsite biodiversity. It is noted that an area for the piers is not given, only that they are assumed to be 1m in diameter. It is unclear what area of 'developed land' has been entered into the metric on this basis, or a statement that the total area of piers is under threshold.	An area of 0.001ha has been included in the metric to represent the piers, as described in **Paragraph 3.3.**5 of **Appendix 7-1: Biodiversity Net Gain Report** of the **Environmental Statement (Volume 3) (APP-088)**. The metric has been prepared to three decimal places. This is precautionary and represents a rounding up of the total area of all piers such that is included in the metric. To confirm, this area is larger than the expected total footprint of all piers to be constructed with the Proposed Jetty.
3.3.7	4.1.5 sets out the habitat creation and enhancement measures within the Mitigation and Enhancement Area. It is queried why 'Poor' condition is targeted for the new woodland creation.	Poor condition has been targeted as the small size and urban environment in which the woodland will sit will greatly influence its ecological value. Disturbance and influence of local residents in the area are likely to significantly limit the ability of woodland to attain moderate or good condition. Thus, Poor condition has been targeted to ensure proposals are realistic and deliverable. Detail on proposed enhancement and condition assessment sheets for woodland are

	Relevant Representation	Applicant Response
		provided in **Paragraph 4.1.5** and **Annex B of Appendix 7-1: Biodiversity Net Gain Report** of the **Environmental Statement (Volume 3) (APP-088).**
3.3.8	It should be added as a note that any changes to the assumed habitat creation and enhancements that have been entered into the Metric, will result in a change in the BNG score. So that any contractor delivering the scheme is aware that changes to specification will have an impact. (4.2.1)	This is noted. Ultimate delivery of BNG and the proposals in the **outline LaBARDS** are secured by the DCO.
3.3.9	Linear habitats appear to be missing on the figures. (7.1.1)	No hedgerows are present onsite and none are proposed as part of habitat creation proposals, removing this type of linear habitat from the metric. Linear habitats comprise of ditches only and are shown on figures with area-based habitats. This is to align with the 'water course footprint' habitat type in the metric. A separate figure showing centre lines of ditches was not deemed necessary and was thought to duplicate information, and so has not been provided.
3.3.10	It would be useful to have an explanation of the trading rules for each distinctiveness type. There is presence of high distinctiveness habitats that should be replaced like-for-like. Although the Report states that trading rules are satisfied, it would be useful to provide a	The mitigation and compensation, as described in **Appendix 7-1: Biodiversity Net Gain Report** of the **Environmental Statement (Volume 3) (APP-088),** has been designed to meet the trading rules for the high distinctiveness habitats as follows:

	Relevant Representation	Applicant Response
	narrative around how trading rules influenced the mitigation provided.	• reedbed habitat lost on site will be compensated for through creation of new reedbed onsite and offsite at the BNG Opportunity Area, such that there will be a net increase in area of reedbeds. • open mosaic habitat on previously developed land in poor condition that is lost onsite will be compensated for by creation of an area of this habitat in moderate condition offsite at the BNG Opportunity Area. • coastal floodplain grazing marsh lost onsite will be compensated for through creating this habitat type onsite and through enhancing the condition of retained areas of this habitat onsite. • littoral mud lost onsite will be compensated for by enhancement of existing littoral mud offsite (location currently unconfirmed). Trading rules for medium distinctiveness habitats have been met as follows: • other neutral grassland lost onsite will be compensated for through enhancement of a small area of this habitat retained onsite and creation of a large area of this same habitat onsite such that there will be a net increase in area of this habitat onsite. • bramble scrub lost onsite will be compensated for by trading up, through creation of an additional area of lowland mixed deciduous woodland on-site where all existing woodland is retained, together with the creation and enhancement of open mosaic habitat and coastal floodplain grazing marsh (as described above) which result in an excess of units beyond the like-for-like replacement requirements for those high distinctiveness habitats.

	Relevant Representation	Applicant Response
		• ditches lost onsite will be compensated for through enhancement of retained ditches onsite and creation of new onsite ditches such that there will be a net increase in length of ditch onsite. Trading rules for low distinctiveness habitats have been met as follows: • modified grassland lost onsite will be compensated for by trading up, through creation of additional areas of other neutral grassland on-site.

3.4. IMPACTS TO METROPOLITAN OPEN LAND

3.4.1. Relevant Representations (principally from the GLA (RR-077) and LBB (RR-124)) have raised a number of issues in respect of the position of the proposed CCF partially within an area of Metropolitan Open Land (MOL). The issues relate principally to the perceived conflict of the Proposed Scheme with the purpose of the MOL designation, which seeks to protect the designated land for its value and contribution to openness, and the application of the prescribed test of very special circumstances to justify any harm caused by virtue of inappropriate development.

3.4.2. The Applicant believes the location of the Proposed Scheme partially within the MOL has been robustly justified through the consideration of reasonable alternative sites, consideration of impacts upon the designation and its purpose, and a clear demonstration of very special circumstances that justify and outweigh any harm.

3.4.3. This section of the Applicant's Response to Relevant Representations addresses the issues raised, focussing on the following key points:

- the context of the decision-making framework;
- the planning policy context;
- an assessment of 'openness' and the impact of the Proposed Scheme on the openness of the MOL;
- very special circumstances relevant to the Proposed Scheme; and
- the Draft NPPF, reflecting on any changes that could impact the Proposed Scheme.

CONTEXT OF THE DECISION-MAKING FRAMEWORK

3.4.4. The consenting framework for this application is detailed in the **Planning Statement (APP-040)**, principally in Section 3, and is reviewed specifically in respect of MOL in Section 5.

3.4.5. Under s104 of the Planning Act 2008 (PA2008), the application must be determined in accordance with the relevant National Policy Statement (NPS), which for this application is NPS EN-1. However, whilst the NPS provides the primary decision-making framework, the Secretary of State may also consider other *'important and relevant'* matters, such as relevant Development Plan Documents or other documents in the Local Development Framework in making their determination (NPS EN-1, paragraph 4.1.12). For this application, this includes the London Plan and Bexley Local Plan. Where there is conflict within policy, the NPS must prevail (NPS EN-1, paragraph 4.1.15).

3.4.6. NPS EN-1 confirms an urgent need for low carbon energy infrastructure (which includes carbon capture infrastructure) that must be given *'significant weight'* in the determination of applications (paragraphs 3.2.6 to 3.2.8). Given the level and urgency of need, the starting point will be a presumption in favour of granting consent, unless any more specific and relevant policies set out in the relevant NPS clearly indicate that consent should be refused (paragraph 4.1.3), or the provisions set out in s104(4)-(7) of the PA 2008 are met, which the **Planning Statement (APP-040)** confirms are not (paragraph 3.1.4).

3.4.7. In addition, carbon capture infrastructure of the type proposed in this application, is confirmed to comprise Critical National Priority ('CNP') Infrastructure (NPS EN-1, paragraph 3.5.8). The starting point for the consideration of CNP Infrastructure is *'that such infrastructure is to be treated as if it has met any tests which are set out within the NPS, or any other policy, which requires a clear outweighing of harm, exceptionality or very special circumstances'* (paragraph 4.2.16). This factor carries particular importance in relation to this application, because it has the effect that the test of *'very special circumstances'* needed to justify the identified potential harm caused by *'inappropriate development'* to the area of MOL within the Site, is presumed to be met **(Planning Statement (APP-040) paragraph 3.2.17)**.

3.4.8. Notwithstanding this presumption, the Applicant believes the Proposed Scheme clearly demonstrates multiple very special circumstances that clearly outweigh the identified harm. These are illustrated throughout the **Planning Statement (APP-040)**, concisely summarised in Section 5, and the weight to be attributed to them in the planning balance in respect of the harm to be caused (see Planning Statement, Section 5.4) is discussed in the subsequent Section 10 (paragraph 10.1.15).

3.4.9. Further to the reasoning made in the submission documents, this Report provides clarification to address the concerns raised in the Relevant Representations.

PLANNING POLICY CONTEXT

3.4.10. As detailed in Section 3 of the **Planning Statement (APP-040, paragraph 3.3.17)**, the National Planning Policy Framework (NPPF) sets out the Government's planning policies for England. It must be taken into account in the preparation of Local Plans and forms the basis of applications to be considered under the TCPA 1990 as amended. The NPPF does not contain specific policies for nationally significant infrastructure project applications, as such applications must be determined in accordance with the decision-making framework set out in the PA 2008 and relevant NPS(s). However, the energy NPS have taken account of the NPPF (NPS EN-1, paragraph 4.1.11) and policies within the NPPF may be considered *'important and relevant'* in the determination of an application for development consent.

3.4.11. Guided by the NPPF, the London Plan forms part of the statutory development plan for London and its policies are applicable to all boroughs. At the local level, the Bexley Local Plan also seeks to promote sustainable development within the Borough where this would not undermine the objectives of, and would be in general conformity with, the London Plan and the NPPF.

NPPF

3.4.12. Government policy relating to Green Belt is set out within the NPPF and much of the policy set out within Chapter 13 has been incorporated into the text of NPS EN-1 (in Section 5.11) (see also the Planning Statement, paragraph 5.3.6). The Government attaches *'great importance'* to Green Belts. *'The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts being their openness and permanence.'* (NPPF, paragraph 142).

3.4.13. The five purposes of the Green Belt, set out at NPPF paragraph 143, are considered at paragraph 5.3.6 of the **Planning Statement (APP-040)**. The Applicant considers that the only purpose of relevance to the Proposed Scheme, and the consideration of MOL, is the first: *'to check the unrestricted sprawl of large built-up areas.'*

3.4.14. The NPPF goes on to state that *'inappropriate development'* is, by definition, harmful to the Green Belt and therefore should not be approved except where there are very special circumstances.

3.4.15. To the extent that the Proposed Scheme lies within the MOL, the Applicant agrees with the assessment made by LBB (RR-124); that the Proposed Scheme comprises inappropriate development, because the development does not satisfy any of the exclusions set out within paragraphs 154 and 155 of the NPPF, as confirmed in the **Planning Statement (APP-040)** at paragraph 5.3.18.

3.4.16. Great weight is attributed to harm in the consideration of applications and very special circumstances will not exist, unless the harm *"is clearly outweighed by other considerations"* (paragraph 153). The very special circumstances applicable to this scheme, which outweigh any harm to be caused, are examined below.

LONDON PLAN AND BEXLEY LOCAL PLAN

3.4.17. In the London Plan, MOL is defined (at paragraph 8.3.1) as '*strategic open land within the urban area'* and this is reflected in the Bexley Local Plan which (at paragraph 5.56) gives the primary function of MOL as '*a break within a built-up area.'* Both Plans afford MOL the same status and level of protection as Green Belt, and state that it '*should be protected from inappropriate development in accordance with national policy tests that apply to the Green Belt'*; specifically, very special circumstances must be demonstrated to justify any harm to be caused by development. This is set out in Policy G3 of the London Plan (rather than Policy G2 as referenced on page 17 of the

LBB Relevant Representation (RR-124) which deals with Green Belt) and policy SP8 and paragraph 5.65 of the Bexley Local Plan.

3.4.18. Whilst the definition and primary purpose of MOL, as *'strategic open land'* which provides '*a break within a built-up area'*, as given in the London Plan and Bexley Local Plan, echoes the fundamental aim of the Green Belt, both policies G3 and SP8 and the supporting text to each, attribute further 'aims and purposes' to the MOL that diverge from the simple intentions of Green Belt policy to prevent urban sprawl by keeping land permanently open.

3.4.19. Policy G3 of the London Plan states that *'It plays an important role in London's green infrastructure… MOL protects and enhances the open environment* ***and*** [emphasis added] *improves Londoners' quality of life by providing localities which offer sporting and leisure use, heritage value, biodiversity, food growing, and health benefits through encouraging walking and running and other physical activity.'* To this end, policy G3, paragraph A(2) introduces a requirement on boroughs to *'work with partners to enhance the quality and range of uses of MOL'* and the supporting text at paragraph 8.3.4 (replicated at paragraph 5.65 of the Bexley Local plan and noted in the **Planning Statement (APP-040)** (at paragraph 5.3.15), states that *'proposals to enhance access to MOL and to improve poorer quality areas such that they provide a wider range of benefits for Londoners that are appropriate within the MOL will be encouraged.'* The text advises that examples of this would include *'improved public access for all, inclusive design, recreation facilities, habitat creation, landscaping improvement and flood storage'*.

ASSESSMENT OF OPENNESS

3.4.20. A principal issue raised by the GLA and LBB in their responses (RR-077 and RR-124 respectively) is that land to be taken up by the CCF is designated MOL and that the Proposed Scheme will conflict with the policies seeking to protect this designation.

3.4.21. The Applicant's response to this point is three-fold:

- firstly, addressing issue of 'openness' of land which MOL policy seeks to protect and how the Proposed Scheme interacts with it, before;
- secondly, addressing the wider aims of MOL policy and how the Proposed Scheme aligns with them; and
- finally, examining the very special circumstances that justify, and clearly outweigh, any harm to be caused by the Proposed Scheme.

THE OPENNESS OF LAND AND HOW THE PROPOSED SCHEME INTERACTS WITH IT

3.4.22. As acknowledged by the LBB on page 29 of its Relevant Representation (RR-124) and in the Bexley Green Infrastructure Study (Part 1, Chapter 3), the concept of 'openness' is a combination of 'spatial' openness, where the *'scale, form and density of built development'* are the relevant factors; and 'visual' openness, where consideration is given to the role of topography, vegetation, buildings, linear features in maintaining or screening open views of the wider MOL (Bexley Green Infrastructure Study, paragraph 3.51).

3.4.23. Spatial openness is often taken to mean an absence of structures or activity, however, in Turner v Secretary of State and East Dorset Council [2016] EWCA CIV 466, Sales LJ said *'the concept of 'openness of the Green Belt' is not narrowly limited to a volumetric approach…The word 'openness' is open-textured and a number of factors are capable of being relevant when it comes to applying it to the particular facts of a specific case*.'

3.4.24. It does not therefore imply a freedom from any form of development. The Supreme Court in Samuel Smith Old Brewery (Tadcaster) and Others v North Yorkshire County Council [2020] UKSC followed this approach but went further, noting that Turner had not specified how visual effects may or may not be taken into account. They subsequently held that the consideration of the visual impacts of a development on openness '*…is a matter not of legal principle, but of planning judgement'* (paragraph 25) and that, whilst decision makers are not obliged by law to consider visual impacts, they may form a material consideration. The Bexley Green Infrastructure Study acknowledged this and noted that vegetation and landform could provide visual enclosure to a development to mitigate its visual impacts on the wider MOL (paragraph 3.51).

3.4.25. In considering the impacts to MOL, including its openness, it is important to note that, as confirmed in the **TSAR (APP-125)**, **Planning Statement (APP-040)** at paragraph 5.6.2, and **section 2** of this **report**, there are no reasonable alternate solutions to deliver this CNP Infrastructure that avoids any loss of MOL, and that this layout of the Proposed Scheme exerts the least harm practicable.

3.4.26. The only part of the Proposed Scheme that will be, unavoidably, positioned within MOL, and where there would be conflict with MOL policy, will be a relatively small area (some 2.5ha within Work No. 1A of the **Works Plans (APP-137)**) comprising the East and Stable Paddocks and land (approximately 1ha within Work No.2B of the **Works Plans (APP-137)**) to the immediate west and south of the Riverside Campus, where it will be necessary to position the Flue Gas Ductwork.

3.4.27. As part of the design process, all reasonable measures have been taken to minimise the impacts and identified harms (examined in Section 5.4 of the **Planning Statement (APP-040)**) to the MOL, and effectively mitigate those which cannot be avoided.

3.4.28. By situating the CCF along the eastern boundary of the Site, in a north-south linear arrangement, the Proposed Scheme contains the majority (approximately 70%) of the built form within land allocated as Strategic Industrial Land (SIL); land that is intended for future industrial development outside the MOL (i.e. Borax North, Borax South, Creekside, Landsul and Gannon land parcels and areas of public highway), some of which is already developed and most of which has previously gained planning permission for development. At page 18 of its Relevant Representation, LBB confirms that the '*development of the Carbon Capture Facility within the SIL would be policy compliant.'*. Approximately 30% of the CCF is proposed within MOL, which is surrounded by partially developed SIL to the north, east and south, consequently, the Proposed Scheme will not result in any significant urban sprawl beyond the areas already allocated for industrial development.

3.4.29. Furthermore, the comprehensive design and considered layout of the proposed development as detailed in **Section 5** of the **DAD (APP-044 to 046)** and the consequent **Design Principles and Design Code (APP-047, as updated by this document)** will ensure that the physical characteristics of the Proposed Scheme will have a limited impact on the relevant primary purpose of the MOL, to keep land open.

3.4.30. In particular, careful consideration has been given to the scale, massing and layout of the Proposed Scheme within the Site to minimise the footprint of the built form and consequent impacts to the MOL and other designations (including MSINC and CLNR). To this end, both a *diffused* and *compact* layout option has been explored (DAD, APP-045, Section 5.1, page 90-91).

3.4.31. The compact option was ultimately selected to reduce the footprint of the CCF and to provide sufficient space in the western and southern areas of the Site for a landscape buffer as appropriate to the Proposed Scheme. This buffer will facilitate greater visual and spatial separation between the Carbon Capture plant and the MOL (and CLNR) protecting its openness. It will also facilitate increased habitat creation and an improved entrance with enhanced public access and car parking to deliver environmental, landscape and amenity benefits consistent with the wider purposes of MOL policy.

3.4.32. Furthermore, the deliberate placement of the taller and heavier industrial processes in the northern part of the Site, adjacent to the existing tall features Riverside 1 and Riverside 2, and the subsequent reduction in heights and density towards the south, which reflects the transition from the industrial riverside to the community at Belvedere in accordance with the Project Parameters **(DAD, APP-045, page 78)** and **Design Principles (DAD, APP-044, Section 2.3)** will help to minimise the impact on the visual openness of this part of the MOL and the character of the landscape.

3.4.33. Combined with the comprehensive landscape scheme presented in the **Outline LaBARDS (APP-129**), this layout will also minimise the visual impacts of the Proposed Scheme for any visitors to the Site. Whilst it is acknowledged that the CCF will require a number of large and tall structures, it is considered that this approach would be consistent with the principles of Bexley Local Plan policy DP12, particularly item 1, reflecting the height of development in the context of the existing energy from waste facilities Riverside 1 and Riverside 2 and the existing and consented developments within the adjoining SIL area (Belvedere Industrial Area) (for more analysis on the Proposed Scheme's compliance with policy DP12, please see **Appendix D** to this report).

3.4.34. Therefore, as is noted in paragraph 5.6.3 of the **Planning Statement (APP-040)**, responding to the NPS EN-1 test relevant to the MOL designation (paragraph 5.11.37), the design and physical characteristics of the Proposed Scheme are such that it will have a limited and minimal impact on the fundamental aim and purpose of local MOL policy, namely, to provide '*strategic open land*" and a '*break within a built up area'* ".

THE WIDER AIMS OF MOL POLICY AND HOW THE PROPOSED SCHEME ALIGNS WITH IT

3.4.35. Chapter 8 of the Bexley Green Infrastructure Study identifies this part of the MOL as having *'Strong Openness'*, characterised as '*wholly open MOL free from buildings and structures that compromise openness'* (Chapter 3, Table 3.1), and describes the part of the MOL in which the CCF will be located as being '*flat and open with views towards commercial development along the Thames.'* (Chapter 8, Table 8.1).

3.4.36. With regard to the wider aims of MOL policy, the majority of the overall Site area located within the MOL designation is to be retained as a substantially undeveloped Mitigation and Enhancement Area. The broad variety of enhancements to be delivered in these areas as part of the works (see Outline LaBARDS, APP-129) are considered to accord with the 'aims and purposes' of MOL (and other environmental) policies in both the London Plan and Bexley Local Plan.

3.4.37. By retaining the majority of the Site area as a largely undeveloped Mitigation and Enhancement Area, the Proposed Scheme will maintain the majority of the spatial openness of the MOL in this location. In particular response to the Bexley Local Plan and the Bexley Green Infrastructure Study, the Proposed Scheme will maintain the existing '*break within the built up area'* which contributes to the physical structure of this part of London (paragraph 3.48 of the Bexley Green Infrastructure Study) as there will continue to be a '*substantial, and definitive, area of* [spatial] *openness between the proposed Carbon Capture Facility and the Crossness Sewage Treatment Works'* (Planning Statement, APP-040, paragraph 5.4.21).

3.4.38. Bexley is one of London's greenest boroughs, with a network of open spaces totalling 1,253ha, of which 1,099ha are publicly accessible (Bexley Local Plan, paragraph 5.59). The Proposed Scheme will cause the loss (2.5ha) and compromise (1ha) of a very small part of the MOL within this network (Planning Statement, APP-040, paragraph 5.4.1), much of which is not currently publicly accessible[19]. In the context of the wider strategic scale, this equates to only 0.022% of total MOL across Greater London.

3.4.39. Importantly, the delivery of the Proposed Scheme will provide an extensive variety of environmental and landscape enhancements, designed to increase public accessibility and amenity and the biodiversity value of the retained area of MOL. These improvements will enhance the performance of MOL for London's residents, delivering the wider 'aims and purposes' of Bexley Local Plan policies G3 and SP8. It is important to note that these benefits are only available through the delivery of this Proposed Scheme.

3.4.40. It is therefore considered that the remaining MOL will continue to perform its separating function between the built-up areas in this location, by retaining a substantial and definitive area of openness between the CCF and the wider Belvedere Industrial Area and the Crossness Sewage Treatment Works. The limited harm resulting from the small loss of MOL will be comprehensively mitigated by a general improvement in the habitats present, the amenity experience of the retained MOL, and the delivery of a more consistent natural environment, of recreational facilities and improved access, which recognises the proximity of the local community through provision of extended and improved public rights of way.

3.4.41. Therefore, whilst the Proposed Scheme will have limited impacts on a small area of the MOL in this location, the majority of the openness of the MOL will be maintained and its contribution to the wider green infrastructure network within the Plan area will not be diminished.

VERY SPECIAL CIRCUMSTANCES

3.4.42. Whilst only a very small part of the Proposed Scheme is to be situated within MOL (some 30%) and consequently conflict with the purposes of MOL policy (as the wider proposals within the Mitigation and Enhancement Area are consistent with the aims of local policy), case law (in regard to Green Belt but being applied here) requires that if one element of a scheme is '*inappropriate*", then the scheme as a whole must be considered *'inappropriate development"* (Planning Statement, APP-040, paragraph 5.5.2). Therefore, very special circumstances would be required to justify any harm caused to the MOL.

[19] The greatest area of MOL to be directly affected by the Proposed Scheme will be 3.5ha. This comprises 2.5ha of MOL within the East and Stable Paddocks, which will be lost to development; and approximately 1ha of land on which the Flue Gas Supply Ductwork would be constructed, and would consequently compromise the MOL (PS, APP-040, paragraph 5.4.1).

3.4.43. At page 17 of its Relevant Representation (RR-077) LBB comments that '*no very special circumstances have been provided as part of this application.'* The Applicant confirms that very special circumstances are set out throughout the **Planning Statement (APP-040)** and are specifically set out in Section 5.5 of that document. Notwithstanding the very special circumstances that clearly outweigh any harm to be caused to the MOL, NPS EN-1 confirms that carbon capture and storage infrastructure, such as the Proposed Scheme, is CNP Infrastructure (paragraph 3.5.8). NPS EN-1 paragraph 4.2.16 makes clear that the starting point for decision-making for CNP Infrastructure is '*that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances'.* Paragraph 4.2.17 of the NPS goes on to confirm that where development within a Green Belt requires very special circumstances to justify development (as the current proposal does because it falls within an area of MOL) '*the Secretary of State will take as a starting point that CNP infrastructure will meet the….* [relevant]*… tests'* set out within the NPPF.

3.4.44. Whilst there are exceptions to this presumption in favour of CNP Infrastructure identified at paragraph 4.2.15[20], the **Environmental Statement** (particularly at **Appendix 7-3 of ES Volume 3 (APP-090) and Chapter 8: Marine Biodiversity (Volume 1) of ES (APP-057))** confirms that the Proposed Scheme will not result in these outcomes and so the exceptions do not apply (Planning Statement, APP-040, paragraph 3.2.18). Consequently, the starting point for decision-making of this Application must be the presumption that the test of very special circumstances set out in the NPPF and reiterated in the London and Bexley Plans, has been met.

3.4.45. Despite this starting point, the very special circumstances applicable to the Proposed Scheme are summarised below.

Carbon Capture

3.4.46. The Government has confirmed '*an urgent need for new carbon capture and storage (CCS) infrastructure to support the transition to a net zero economy'* (NPS EN-1, paragraph 3.5.1). The commitment to the progression towards net zero and a reduction of carbon and other greenhouse gas emissions wherever possible is also clear in the policies and Action Plans of the GLA (policies SI 2 of the London Plan) and LBB (policy SP14 of the Bexley Local Plan and the Climate Change Statement and Action Plan 2022 to 2026). In particular, the supporting text to Bexley Local Plan policy SP14 states that the Authority's ambitions '*will be achieved by mitigating the*

[20] Namely where residual non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, which present an unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero, offshore to navigation or onshore to flood and coastal erosion risk.

causes of climate change through reducing emissions and sequestering carbon…' (paragraph 7.11).

3.4.47. The Proposed Scheme will materially contribute to the Government's aspirations to make the UK a global leader in the carbon capture utilisation and storage (CCUS) sector (**Planning Statement, APP-040, paragraph 4.4.20**). It will make an important and relevant contribution to meeting the national legal target of achieving net zero by 2050 (NPS EN-1, paragraph 2.2.1 and Planning Statement, paragraph 4.2.2), and the timely delivery of the project will enable early milestones (not least of the CCUS Vision) to be met.

3.4.48. The Proposed Scheme will capture at least 95% of CO_2 emissions from Riverside 1 and Riverside 2 at nominal assumed throughput (Planning Statement, APP-040, paragraph 4.4.34); delivering approximately 1.6Mt per year towards the Government's target of capturing 20-30Mtpa of CO2 for permanent storage by 2030 **(Table 13-10 of Chapter 13: Greenhouse Gases (Volume 1) of the ES (APP-062)**.

3.4.49. It will also make a significant contribution to the global priority to address climate change and result in a '*significant beneficial effect"* in terms of carbon dioxide emissions in the operation phase **(Chapter 13** of the **Environmental Statement, APP-062)**.

3.4.50. The likely benefits to wider society from the carbon savings alone are estimated to be worth £1.7 Billion (Net Present Value, 2023 prices) **(Project Benefits Report, APP-042)** and it will beneficially contribute to the economy through investment, supply chain and employment impacts.

Future proofing sustainable waste management

3.4.51. Riverside 1 and Riverside 2 comprise an existing, consented, Strategic Waste Management site representing 50% of the residual waste management capacity in London. The facilities provide the preferred treatment route for residual waste, by moving residual waste from London and the South East up the waste hierarchy (avoiding landfill) to recover dispatchable, secure, affordable and partially renewable energy.

3.4.52. The Proposed Scheme is directly ancillary to Cory's existing operations at Riverside 1 and Riverside 2 and the impetus is Cory Group's own aspiration to become net zero by 2040 and to have carbon capture operational by 2030.

3.4.53. The CCF will not only achieve 'net zero' by capturing fossil carbon (from plastic waste) but will also make the operations at Riverside carbon negative by capturing the carbon released from the biogenic feedstock **(Planning Statement, APP-040, paragraph 5.5.14 and the PBR (APP-042), Section 5.3)**.

3.4.54. This will not only mean the residual waste is decarbonised, but also the byproducts resulting from Cory's operations which will deliver environmental, economic and societal benefits **(PBR, APP-042, Section 5.3)**. These byproducts will include heat to optimise the Riverside Heat Network (providing over 100MWth of additional heat to benefit even more homes and businesses), electricity and aggregates for the construction sector **(PBR, APP-042, Section 5.3)**.

3.4.55. As demonstrated in the **TSAR (APP-125)** (and supplemented by this report), it is appropriate and necessary to position the CCF in this location to deliver these significant benefits.

Riverside Location

3.4.56. Cory Group has a long and unique history with the River Thames **(as set out in the PBR, APP-042, Section 2)** and the use of shipping as the main transport mode is fundamental to the business and the basis of the siting for both energy from waste facilities.

3.4.57. The riverside location of the Proposed Scheme will build on the benefits delivered by Riverside 1 and Riverside 2, enabling liquified CO_2 to be exported to its final storage location via shipping vessels. This fulfils development plan objectives (Bexley Local Plan policy DP19) and those set out in the Thames Vision 2050 to expand the use of the River Thames; will lead to fewer vehicles on the public highway contributing to achieving the Mayor's aims of London becoming a zero-carbon city by 2050 (London Plan policy GG6); result in reduced land take (through the use of non-pipeline transport (NPT) options) and deliver economic benefits as the Proposed Scheme can act as a catalyst for growth in the UK Shipping Sector **(PBR, APP-042, paragraphs 5.3.13-14 and 6.1.4)**.

3.4.58. The ability to demonstrate the viability of NPT options for CO_2, will have the benefit of making carbon capture more attractive to other CO_2 emitters across the country who do not have access to pipelines, demonstrating that shipping at scale, a NPT option for carbon capture projects sought by Government in the CCUS Vision, is deliverable.

3.4.59. In the CCUS: non-pipeline transport and cross-border CO_2 networks – call for evidence consultation (**Appendix G** to this report), the previous government advised that '*NPT will unlock CCUS as a potential decarbonisation route for capture projects outside the CCUS industrial clusters or in clusters without direct access to an offshore pipeline. Unlocking CCUS in these locations will be essential for the UK to reach its decarbonisation goals*.'

3.4.60. These benefits are only deliverable by positioning the Proposed Scheme alongside the River Thames, adjacent to the existing Riverside development. Development of some MOL is necessary to achieve this.

Sustainable infrastructure delivery through coherent design

3.4.61. The majority of the proposed CCF is to be situated on land allocated as SIL, which LBB intends to be developed for industrial purposes. As examined in Section 2 of the **Planning Statement (APP-040, paragraphs 2.1.26 to 2.1.47)**, to date, consent has been granted for a range of generic B1/B2/B8 and data storage uses. Of these permissions, some have been implemented, either partially or in full, whilst others have expired. As discussed in the **Planning Statement (APP-040, paragraph 5.5.23)**, these uses do not require a riverside location and could reasonably be located elsewhere. They also do not respond to the urgent need for low carbon infrastructure.

3.4.62. The Proposed Scheme would replace the current incoherent, piecemeal pattern of development with a single, comprehensively considered, development for critical national priority infrastructure, underpinned by the robust **Design Principles and Design Code (APP-047, as updated alongside this report)**.

3.4.63. Alongside providing a single development that would be a coherent form of development from a spatial planning and visual perspective, the Proposed Scheme would deliver an extensive range of associated environmental and societal benefits through the provision of the extensive Mitigation and Enhancement Area. It will provide improved access to MOL and upgrade habitat quality to provide a more attractive break from the existing built form in this location, delivering the wider aims and purposes of MOL set out in the London Plan (policy G3 and paragraph 8.3.4) and Bexley Local Plan (policy SP8 and paragraph 5.65).

3.4.64. The benefits to be delivered to this part of the MOL are only achievable through the delivery of this comprehensive scheme.

Conclusion on Very Special Circumstances

3.4.65. Whilst the Proposed Scheme comprises '*inappropriate development'*, ultimately it will have limited impacts on the openness of MOL and will deliver extensive benefits that deliver the wider aims and purposes of MOL (and other) policy set out within the London Plan and Bexley Local Plan. Case law emphasises that decision makers should assess the overall harm of a scheme against the overall benefits (Planning Statement, paragraph 5.5.2).

3.4.66. As described in Section 5 of the **Planning Statement (APP-040)** and summarised above, whilst the starting point for determination should be that the tests set out within the NPPF are met, by virtue of the scheme comprising CNP Infrastructure; robust very special circumstances exist that clearly outweigh the identified harm to be caused by the Proposed Scheme (see Section 5.4 of the Planning Statement). These very special circumstances stand, both individually and in combination.

3.4.67. The extensive environmental, societal and economic benefits that would be delivered through implementation of the Proposed Scheme, are only available and possible through the delivery of this CNP Infrastructure, and substantially outweigh the very limited harm to be caused to the MOL.

DRAFT NPPF

3.4.68. On 31st July this year, the Government issued the draft NPPF for consultation. Of relevance to the Proposed Scheme are the intended changes to Chapter 13 and the protection of Green Belt.

3.4.69. The purpose of the Green Belt (paragraph 143, '*a) to check the unrestricted sprawl of large built-up areas'* relevant to this Application) remains unchanged, as does the '*great importance'* attached to Green Belt policy and the fundamental aim of preventing urban sprawl and keeping land permanently open (paragraph 142).

3.4.70. The consultation draft makes clear that development should look to brownfield land first, whilst acknowledging that the targeted release of '*grey belt'* land will be required. The intention is not to alter the general extent or purpose of the Green Belt, but to support local authorities to meet acute housing and development needs whilst securing environmental improvements, affordable housing and other infrastructure upgrades. Land released from the Green Belt will be done strategically through plan making and boundary reviews, as well as through decision making on individual applications, and will be underpinned by clear safeguards and 'golden rules'. A sequential approach will be taken to ensure brownfield sites are prioritised, before identifying '*grey belt'* sites intended to make a limited contribution to the purposes of the Green Belt, and finally higher performing Green Belt sites which can be made sustainable. Green Belt land will not be released where this would fundamentally undermine the function of the Green Belt across the plan area as a whole. Where alterations to Green Belt boundaries are considered, the draft NPPF at paragraph 142 (previously 145) states that local authorities should have regard to the ability of the Green Belt to function across the area of the plan as a whole.

3.4.71. Whilst the Applicant does not consider that the small areas of MOL on which the CCF is to be constructed would comprise 'grey belt' land within the definition contained in the draft NPPF, it does consider that these parts of MOL make a limited contribution to the function of the MOL across the plan area and Great London as a whole. This is both in terms of its limited contribution to spatial and visual openness, due to the position adjacent to the existing Riverside Campus and between the existing development on the Belvedere Industrial Area, and in terms of its inaccessibility for public recreation and other leisure uses.

3.4.72. The Proposed Scheme would result in the loss, or compromise, of 0.022% of total MOL across Greater London; the majority of the openness of MOL in this location, and its contribution to the wider green infrastructure within the plan area, will be maintained.

3.4.73. Whilst not yet adopted, the draft NPPF presents clear, increased support for net zero infrastructure and renewable and low carbon energy generation projects. The standout components are the proposed amendments to paragraphs 162 (now 163) and 163 (now 164) which introduce an unequivocable requirement for local planning authorities to support, and give significant weight to, proposals for **all** forms of renewable and low carbon energy development that make a contribution to renewable energy generation and a net zero future. The Proposed Scheme will achieve this desired function in a timely manner.

3.4.74. For the reasons set out above, the Proposed Scheme is considered to accord with both local and national adopted planning policy and guidance. It is also considered to accord with the trajectory of government support set out in the emerging revised NPPF.

4. LANDOWNER IMPACTS AND THE COMPELLING CASE

4.1. OVERVIEW

4.1.1. The Applicant notes that a number of landowners have raised concerns about the impacts of the Proposed Scheme to their property interests. This section responds to these concerns.

4.1.2. However, before considering specific concerns raised, the Applicant considers it is appropriate to re-emphasise that they need to be considered in the context of the compelling case in the public interest that supports the Applicant's compulsory acquisition proposals, building on what is set out in the **Statement of Reasons (APP-020).** This is explained further in the 'Compelling Case' section below.

4.2. COMPELLING CASE

COMPELLING CASE IN POLICY

4.2.1. As is made clear at paragraph 4.1.1 of the **Planning Statement (APP-040)** the '*principle of development for the Proposed Scheme is the delivery of carbon capture technology, directly to address the CO_2 emissions from the residual waste management facilities Riverside 1 and Riverside 2*.'

4.2.2. The context for the Proposed Scheme is set by increasing global concerns about climate change, the long-term shift in the Earth's average temperatures and weather conditions. Recognising this context, chapter 2 of the **PBR (APP-042)** presents the Government's revised suite of energy national policy statements, including NPS EN-1 which recognises that:

- carbon capture infrastructure (such as the Proposed Scheme) is covered by that NPS and that the Government has demonstrated that there is a need for those type of infrastructure which is urgent;
- substantial weight should be given to this need; and
- carbon capture infrastructure (such as the Proposed Scheme) is Critical National Priority infrastructure ('CNP Infrastructure').

4.2.3. At paragraph 2.2, the **PBR (APP-042)** notes that the Secretary of State for Energy Security and Net Zero confirmed (by way of letter dated 6 October 2022 (Planning Statement, APP-040, Appendix A)) that the Proposed Scheme should be treated as development for which development consent under the PA 2008 (as amended) is required and is therefore a Project of National Significance. One of the reasons given by the Secretary of State for this conclusion is that:

'*The carbon capture element of the Proposed Project would provide and support the decarbonisation of energy from waste derived CO2 emissions in the UK, delivering over a million tonnes of CO savings per annum, and supporting the achievement of a full de-carbonised district heating network that crosses local authority areas. ...*' **(PBR, APP-042, paragraph 2.2.9).**

4.2.4. The **Planning Statement (APP-040)** and **PBR (APP-042)** Report that the Proposed Scheme will deliver nearly 1% of the national Sixth Carbon Budget target (or 6% of UK waste emissions) and 17% of the London Environment Strategy Carbon Budget (2028-2032). (PBR, APP-042, paragraphs 5.2.6 to 5.2.11).

4.2.5. The Applicant disagrees with James Hewitt (RR-088) and others who suggest that carbon capture is neither proven nor reliable. Some notable examples are set out here:

- In 2014, the Boundary Dam Power Station, near Estavan in Canada, became the first power station in the world to successfully use CCS technology. Shell Cansolv operates the CCS facility, capturing in the region of 1 million tonnes per year.
- Petra Nova is a post-combustion carbon capture project operating in Texas, USA. It is designed to capture around 1.6 million tonnes of carbon dioxide from the power plant.
- The Hafslund Oslo Celsio - Klemetsrud CCS Project is led by the Norwegian Government to capture carbon dioxide following energy from waste combustion. Following a successful pilot project, full funding for the project was secured in May 2022.

4.2.6. Furthermore, the Climate Change Committee has determined that CCS is a '*necessity, not an option'* (as quoted in paragraph 3.5.2 of NPS EN-1). It is therefore Government policy to support carbon capture and its rollout to meet the Net Zero challenge, as set out in NPS EN-1, and reflected by the continuing evolution of its economic support package for this technology and decisions on DCOs such as Keadby 3, Net Zero Teesside and Drax BECCS. Given this policy support, it is also considered that such representations are of a type that can be disregarded, pursuant to section 106 of the PA 2008.

4.2.7. There is therefore a compelling case in policy for the Proposed Scheme. There is, further, a compelling case in land use for the Proposed Scheme to be located at the proposed Site, as set out below.

COMPELLING CASE FOR CCS AT THE RIVERSIDE CAMPUS

Interaction with Riverside 1 and Riverside 2

4.2.8. Section 2.3 of the **PBR (APP-042)** explains how the Applicant delivers low carbon infrastructure through a network of waste management facilities linked via the River Thames. '*Cory serves a vital public function, helping to make London cleaner and safer. In addition to its commercial customers, Cory is a trusted partner for several local authorities in London (serving a combined population of approximately 3 million people). It operates essential infrastructure that London relies heavily upon on a day-to-day basis.*' (PBR, APP-042, paragraph 2.3.2).

4.2.9. The two energy from waste facilities located at the Riverside Campus will provide around half of all residual waste management capacity located in London. Riverside 1 and Riverside 2 provide capacity at the right level of the waste hierarchy and deliver local and national policy priorities to divert waste from disposal to landfill and provide a baseload supply of dispatchable, partially renewable energy.

4.2.10. Whilst these plants meet current climate change targets, a step change is required to deliver future net zero carbon priorities. Carbon capture is that step change, and post combustion carbon capture is the preferred process to divert flue gas emissions from energy recovery facilities. The CO_2 being extracted from the flue gas emissions of Riverside 1 and Riverside 2 is generated by the combustion of the residual waste that is delivered to those facilities. Those facilities are performing an approved, and desired, function at a policy compliant location.

4.2.11. The nationally supported need for carbon capture infrastructure is therefore taking place at a location of regional importance. The CCF is supporting infrastructure to the energy from waste facilities and necessarily must be located in their vicinity.

4.2.12. The CCF will capture some 1.6 million tonnes of carbon dioxide a year. When Cory installs carbon capture technology to its energy recovery facilities, both fossil and biogenic carbon will be captured, as waste from households and businesses is composed of materials which contain biogenic carbon such as paper, cardboard, and wood, as well as fossil carbon from materials containing plastics. By capturing the fossil carbon (circa. 50%), Cory's operations will achieve net zero, i.e. no new carbon will be released into the atmosphere. By also capturing the carbon from biogenic materials, Cory's operations will be carbon negative, because carbon that is part of the natural carbon cycle will be captured and stored, and thus permanently removed from the atmosphere. **(PBR, APP-042, paragraph 2.3.44)**

4.2.13. Not only would society's residual waste be decarbonised, but the energy and by products recovered – in the form of electricity, heat, and aggregates for the construction sector – be decarbonised too.

4.2.14. Further benefits would accrue from the Proposed Scheme from enhanced heat opportunities that are ready to be realised. The GLA (RR-077) and others suggest that the Applicant is not serious about delivering this benefit. In fact, Cory has progressed feasibility work with network providers, and in early 2024 created (and filled) the role of Managing Director for Heat. The Company is also progressing plans for mobile heat batteries, to be provided to London locations via the River Thames.

4.2.15. Both Riverside 1 and Riverside 2 (when operational) have the capacity to export up to 30MW of heat, in total meeting the need of 21,000 homes. An additional 10MW of heat from the CCF can be incorporated to this resource, improving the thermal efficiency of the Facility and increasing the number of homes/businesses benefitting from zero carbon energy.

4.2.16. An established heat network opportunity, aligned with substantial housing regeneration and commercial properties is a specific benefit for carbon capture at the Riverside Campus, one which may not be readily available at other locations.

4.2.17. It is also a benefit that the Secretary of State can have confidence in being provided, not least through the addition of a new DCO Requirement to the Draft DCO which secures the delivery of an overarching heat strategy for the Riverside Campus to account for the detailed design of Riverside 2 and the emerging design for the Proposed Scheme.

Interaction with the River Thames

4.2.18. That connection between national need and locational requirements is also apparent in the Riverside Campus' position alongside the River Thames. In 2022, the River Thames was '*used to move approximately 800,000 tonnes of material (including incinerator bottom ash) on waste laden barges, with tugs powered by biofuels*.' **(PBR, APP-042, paragraph 2.3.37)** This tonnage will increase with the operation of Riverside 2, commencing in 2026.

4.2.19. The Government's CCS policy recognises the need for NPT developments to form part of the mix for how CCS can be delivered at scale across the UK. Utilising the Riverside Campus' riverside location means that the Proposed Scheme can include the Proposed Jetty to enable the non-pipeline transport of the significant amount of carbon captured by the Proposed Scheme, as well as opening up the potential for other emitter projects to use the same facility. Once captured, the liquified CO_2 will be transported, by ship via the River Thames, to storage deep beneath the sea bed of the North Sea.

4.2.20. In December 2023, the Applicant announced an exclusive commercial relationship with Viking CCS to collaborate on the transport and storage of shipped CO2 capture from the Riverside facilities (see from **paragraph 5.2.15, PBR, APP-042**). Consequently, Cory has joined a cluster that benefits from UK government support and over 30 years of experience in building and operating onshore gas terminal and offshore pipeline infrastructure associated with gas. The Viking reservoirs provide a

storage capacity for some 300 million tonnes of CO_2, and the Viking CCS project plans to capture and store 10 million tonnes of CO_2 per annum by 2030.

4.2.21. The location of the CCF has therefore been informed by the need to enable the national policy supported opportunity of NPT of captured carbon by vessel to be realised.

COMPELLING CASE FOR THE PROPOSED SCHEME LAND REQUIREMENTS

4.2.22. In this context, section 2 of this Report explains the optioneering process that has located the CCF in its chosen location. However, the Applicant has noted that the Relevant Representations submitted by Thames Water Utilities Limited (TWUL), Landsul and Munster Joinery (UK) Limited, Seamus Gannon, and Creek Side Developments Limited (Creek Side), have all raised a common concern, being that the proposed compulsory acquisition of the land parcels each party owns is not sufficiently justified (and in some cases could be avoided) The Interested Parties that the compelling case is not made out either generally (as dealt with above), or that their land is not 'required' for the Proposed Scheme and that the land take sought is therefore excessive. Below, the Applicant addresses these criticisms.

4.2.23. The CCF is a large, complex process plant, incorporating the main carbon capture unit operations, together with utilities, balance of plant facilities, liquid CO_2 storage and other unit operations. Therefore, a significant plot area is required to accommodate these facilities and all of them are required to enable the CCF to operate. The plant layout has been developed based on good engineering practice, considering constructability, operability, maintainability, and health & safety factors.

4.2.24. The total plot area required for the CCF is such that land currently owned by TWUL, Seamus Gannon, Creek Side and Landsul (whose land is also occupied in part by Munster Joinery (UK) Limited) are all required in order to provide sufficient footprint to accommodate all of the required plant in a formation that allows safe, efficient and effective operation.

4.2.25. The specific function and role of each element of the CCF (without which the Proposed Scheme could not function) is set out in further detail in the process description included in **Chapter 2** of the **Environmental Statement (APP-051)**. However, for the purposes of explanation only, the Applicant considers it may be helpful to set out (with regard the plots currently owned by TWUL, Seamus Gannon, Creek Side and Landsul (whose land is also occupied in part by Munster Joinery (UK) Limited)) why the specific elements of the Proposed Scheme, that are not the Carbon Capture Plant (as it is considered that the need for these is self-explanatory and their size needs to respond to the large quantity of flue gas and carbon dioxide to be processed and captured), located on their land, are required.

4.2.26. A Cooling System is required to provide process cooling throughout the Carbon Capture Plant, in order to ensure that process performance is optimised, and allow full functionality. For example, both the flue gas and solvent must be cooled prior to entering the Absorber Column in order to achieve efficient operation and high capture rates. The cooling system has been sized to respond to the substantial cooling requirements of the Carbon Capture Plant.

4.2.27. A Buffer Storage Area is required as the CCF needs a sufficient inventory of CO_2 to load a ship in a relatively short period of time, and also needs sufficient buffer volume to store the captured CO_2 between ship visits, with capacity also provided to allow for a delayed ship. The location of the Buffer Storage Area maximises the separation between the liquid CO_2 and neighbouring receptors (i.e. residential properties, hospitality and leisure facilities, workplaces, the England Coast Path and FP2 following the diversion proposed as part of the Proposed Scheme); thereby reducing the consequences that would result from the unlikely event of CO_2 release from the storage vessels. The Buffer Storage Area has been sized based on the anticipated ship size that will be utilised to transport liquid carbon dioxide from the facility. Given the interconnectivity between this Buffer Storage Area and the rest of the CCF, it needs to be located in proximity to them – moving it to any location to the east would not be possible given the extensive range of receptors within the Belvedere Industrial Area.

4.2.28. A Gatehouse, Control Room and Welfare Facilities support the requirement for a single contiguous plot of land for the construction, operation and maintenance of the Proposed Scheme, and the need for fast response times in the unlikely event of an operational incident. The CCF will be operated as a separate facility to Riverside 1 and Riverside 2, with separate access, requiring its own Gatehouse and security to manage this. The operating personnel for the CCF will also be separate, additional personnel to those operating Riverside 1 and Riverside 2. There is no space available in the Riverside 1 or Riverside 2 control rooms to accommodate the additional control room facilities or personnel for the Proposed Scheme so a new, dedicated, control room is required. This is located within the footprint of the Proposed Scheme as this is logistically optimum, allowing operating personnel to access the CCF where necessary to carry out routine operations and maintenance activities. The control room and other operating personnel will require welfare facilities, and these would be provided in the same building as the Control Room for ease of use. These buildings have been sized based on industry norms for facilities of this type.

4.2.29. A Water Treatment Plant and water management area are required to improve the operational efficiency of the cooling towers, and to manage (minimise) water demand from the operation of the Carbon Capture Plant (particularly as water supply is limited). A Water Treatment Plant and water management area is also required to be able to implement a zero liquid discharge solution in the event wastewater discharge cannot be accommodated in the local sewer system. The Water Treatment Plant has been sized based on the water supply requirements and wastewater treatment

requirements of the Carbon Capture Plant, on the basis of the quantity of carbon dioxide that needs to be processed. While the specific details of the Water Treatment Plant and water management area are to be developed in a later phase of design, this will have minimal impact on the overall size of the facilities and the required plot area.

4.2.30. Riverside 1, Riverside 2 and the Proposed Scheme will all function and operate independently; each will have its own Environmental Permit to operate, issued by the Environment Agency. A dedicated, co-located Operational Contractor Maintenance Laydown Area for the Proposed Scheme is therefore required to minimise the duration of planned and unplanned maintenance/outages and maximise operational availability and efficiency and in turn the carbon capture rate that the CCF can positively contribute to London and the UK. Similarly, to maintain and optimise operational availability and efficiency, it is essential that Riverside 1 and Riverside 2 have access to dedicated open laydown areas that can be used for planned and unplanned maintenance/outages, and which are co-located with the respective facilities themselves. It is also vital that maintenance is efficiently undertaken, and any outages are kept to a minimum duration to provide continuity of waste management services for the Applicant's local authority and commercial customers, and to maximise the supply of power generation into the electricity grid. Independent laydown areas across all three of the Applicant's facilities cannot be avoided because of the prospect of coincident unplanned outages, and where Riverside 1 and/or Riverside 2 have planned outages, at which point the CCF would want to coordinate its own planned outages to take advantage of the resulting downtime, enabling it to operate more efficiently and reliably to maximise the amount of CO_2 capture once operations at Riverside 1 and/or Riverside 2 resume.

4.2.31. A Water Storage Tank is required to provide a buffer supply to ensure there is always sufficient make-up water available to allow the Carbon Capture Facility to operate. The Water Storage Tank has been sized based on industry norms, based on the water supply requirements of the Carbon Capture Plant, sized on the basis of the quantity of carbon dioxide that needs to be processed.

4.2.32. However, in practical terms, the specific location and position of these elements is immaterial in the context of the Proposed Scheme's land requirements. If an element described above could be relocated to another individual plot within the Order Limits, it would displace another element of the Carbon Capture Plant that would need to be in turn relocated, leading to simply a swap of plant location rather than a removal of plots that are needed for the Proposed Scheme. It follows that the only alternative way to avoid any of these areas of land would be to disaggregate some parts of the CCF, and locate some of the plant, such as the liquid CO^2 storage and/or the cooling towers, on a remote site – for example somewhere to the east of Norman Road. However, this would not be a practical option for a number of reasons (but also accounting for the problems with the Eastern Zone set out in section 2 of this report).

4.2.33. Firstly, all of the process facilities need to be interconnected, therefore there would be a requirement to run additional pipework and cabling between the main site and the remote facilities, and finding a suitable, secure corridor would be problematic, given the surrounding land uses and the concerns with the nearest sites explained in section 2 of this report. Bringing forward such a corridor would require more third party land and contribute to further environmental impacts.

4.2.34. Secondly, site operating personnel will require access to all of the process facilities on a daily basis; having some of these facilities on a remote site would make this challenging, and significantly increase response times, should there be an operational incident.

4.2.35. Thirdly, the proposed site layout has been optimised from a health & safety perspective. If some elements of the CCF were located on separate plots, such as those to the east of Norman Road, pipework and cabling would need routing between the locations, on pipe bridges over the roads. Not only would additional security measures be required, but the Applicant's view is that this increases the risk of an operational incident occurring and increases the response times of operating personnel in dealing with the unlikely event of emergency, and in performing routine operation and maintenance work. Further, should the existing site owned by Landsul remain in situ, workers on that site would be in close proximity to the currently proposed location for the liquid CO^2 storage tanks, exposing them to risk of harm. Therefore, disaggregation of the proposed facilities is not considered to be a practical option, and a single, contiguous plot of land is required.

4.2.36. Notwithstanding this compelling case, the Applicant remains committed to seeking to enter into voluntary agreement with these parties. Discussions with them are recorded in the **Schedule of Negotiations and Powers Sought (as updated in the version submitted alongside this report)**. Heads of Terms were issued to TWUL and Peabody and Tilfen on 20 September 2024. Heads of Terms were issued to Creek Side and Seamus Gannon on 23 September 2024, and to Landsul and Munster Joinery on 24 September 2024.

4.3. SPECIFIC LANDOWNER COMMENTS

4.3.1. The Applicant has also responded to specific comments raised by individual landowners in Table 4-1 below.

Table 4-1 – Response to Specific Landowner Comments

Ref #	Relevant Representation	Applicant Response
Iron Mountain (UK) Plc and Realty Income Limited		
4.1.1	1. When are the works scheduled to start?	**Chapter 2: Site and Proposed Scheme Description (Volume 1)** of the **Environmental Statement (APP-051)** explains that construction is targeted to begin in 2026, with two delivery programmes being considered; either to build both sets of carbon capture plant at the same time (or in a single plant configuration), or to phase them where two are built. If two are built, then the intention is for the CCF to be fully operational by 2030. Works in the vicinity of the Iron Mountain site are likely to only be a small part of the overall delivery programme.
4.1.2	2. How long are the works expected to take?	The Applicant is yet to appoint a contractor, and as such a programme of works affecting the Iron Mountain site remains to be determined. Irrespective, any works are likely to only represent a small part of the wider delivery programme. A detailed construction programme will be prepared by the contractor at the detailed design stage, once the DCO has been granted. Production of a full code of construction practice is secured pursuant to a DCO Requirement, which will seek to minimise the impacts on the local environment and surrounding occupiers as far as possible.

Ref #	Relevant Representation	Applicant Response
4.1.3	3. How do Cory propose to compensate IM for the disturbance during the construction period?	Article 35(5) through 35(7) inclusive of the **Draft DCO (as updated alongside this report)** confirms the proposed provisions for compensating any loss or damage arising from the temporary use of land for carrying out the authorised development, which would apply to the construction period. In principle, the Applicant is open to whether Iron Mountain/Realty Income wish to discuss a contractual provision relating to compensation and what Iron Mountain/Realty Income envisage any disturbance might be.
4.1.4	4. Will Cory have insurance in place covering these areas during the construction period?	The Applicant will impose insurance obligations on any contractor, typically expected to include contractors all risks cover, employers liability cover and public liability cover.
4.1.5	5. What are Cory's proposals for reinstatement of these areas at the end of the construction period? Will there be a Schedule of Condition completed prior to works?	The starting point is that Article 35(4) of the **Draft DCO (as updated alongside this report)** provides that land used temporarily only must be restored to the 'reasonable satisfaction' of the owners of the land, but that any buildings removed are not required to be re-instated. As such, if the structural support tower is removed it is not expected that this will be reinstated. However, if any fencing surrounding the jetty is removed to facilitate its removal, then the Applicant would propose to reinstate it. Equally, it may be possible that a contractor decides it can work around the

Ref #	Relevant Representation	Applicant Response
		fence, given the gates that already exist which Aviva uses currently to access the base of the tower. The intention would be to complete a Schedule of Condition prior to commencement and when the contractor leaves and the site is returned it would be restored to that condition.
4.1.6	Parcel 1-053 6. Are the new proposed rights required on a temporary or permanent basis?	The proposed new rights are required on a permanent basis to allow for maintenance access to the Proposed Jetty. However, the intention would be to replicate, as far as possible, the rights Aviva currently has and benefits from over the Iron Mountain site in respect of the existing jetty.
4.1.7	7. If these rights are required on a permanent basis why are they required and for what purpose?	Schedule 8 of the **Draft DCO (as updated alongside this report)** defines the powers sought – for this plot being maintenance access rights.
4.1.8	8. If these rights are required on a temporary basis how long would they be required for?	Not applicable, as the rights sought are permanent in nature.
4.1.9	Parcel 1-083	The proposed new rights are required on a permanent basis to allow for maintenance access to the Proposed Jetty and to carry out those maintenance activities. Please refer to Schedule 8 of the **Draft DCO (as updated alongside this report).**
4.1.10	9. Are the new proposed rights required on a temporary or permanent basis? 10. If these rights are required on a permanent basis why are they required and for what purpose?	

Ref #	Relevant Representation	Applicant Response
		However, the intention would be to replicate, as far as possible, the rights Aviva currently has and benefits from over the Iron Mountain site in respect of the existing Belvedere Power Station Jetty (disused).
4.1.11	11. If these rights are required on a temporary basis how long would they be required for?	Not applicable, as the rights sought are permanent in nature.
4.1.12	12. Iron Mountain require uninterrupted access of vehicles. Will there be any impact on this business-as-usual access?	The Applicant notes Iron Mountain's requirements. Working hours relevant to the construction phase are set out in the **Outline CoCP (as updated alongside this report)**. It is expected that landside working hours 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. Marine construction activities will be in a tidal environment and will take place 24 hours a day and 7 days a week. As set out in **Paragraph 2.10.2** of the **Outline CoCP (as updated alongside this report)**, access to nearby business is not anticipated to be disrupted by the construction of the Proposed Scheme. The Applicant will engage with Iron Mountain on a practical level to ensure this can be delivered, as secured via **Paragraph 2.8.2** of the **Outline CoCP (as updated alongside this report)**, but also mindful of on-going engagement between now and the pre-construction stage.

Ref #	Relevant Representation	Applicant Response
		Access during the operation phase is expected to be infrequent and again, provision will be made to ensure Iron Mountain's operations are not interrupted.
4.1.13	13. What sort of construction vehicles will be using this access way? How many vehicles per day and during what hours? Will they be parked in the yellow and blue areas overnight?	The Applicant would typically anticipate the vehicles to be HGV and of other vehicle sizes normally used on the public highway network. The Applicant is not able to confirm the number of vehicle movements nor craneage requirements at this stage. However, robust estimates for HGV and construction staff vehicle movements have been presented in **Table 18-7** of **Chapter 18: Landside Transport** of the **Environmental Statement (Volume 1) (APP-067)**. **Table 18-7** forecasts 480 construction staff movements by private car, resulting in 960 two-way trips (assuming one arrival and one departure per day) and 25 HGV deliveries per day (50 two-way movements) during the construction peak. In any event, only a small proportion of these will need to use the Iron Mountain site and the spur road off Norman Road (that Iron Mountain and ASDA have rights of over to access their respective sites) to access the Proposed Jetty Temporary Construction Compound, given that much of the Proposed Jetty construction is likely to take place by river. Parking of vehicles within that compound will depend on contractor requirements, but it is not anticipated that vehicles will be parked on the access road itself overnight, because the intention is for access to Iron Mountain's building and the rest of the site to be maintained.

Ref #	Relevant Representation	Applicant Response
		These details will be considered and worked up at the detailed design stage and through that process the Applicant will work to minimise the impact and disturbance on the local environment and surrounding occupiers as far as possible. Furthermore, the **Framework Construction Traffic Management Plan (as updated alongside this report)** outlines potential measures to minimise, where practicable, the effects of construction traffic. Preparation and approval (by the relevant planning and highway authorities) of a full Construction Traffic Management Plan prior to commencement is included within the **Draft DCO (as updated alongside this report)**.
4.1.14	14. Will IM have contact with a Site Foreman for any issues on a day-to-day basis?	As is the case for Riverside 2 and as per the **Outline CoCP (as updated alongside this report)**, it is expected that the Applicant will utilise a site supervisor, banksman and/or nominated site manager, and the contractor will operate a 24 hour telephone line which would provide Iron Mountain with a number to call if it has any complaints to make or if it wishes to raise a concern.
4.1.15	15. Where will Cory's welfare facilities be positioned during the construction period?	The location of the Applicant's welfare facilities will be determined at the detailed design stage. We do not currently anticipate welfare facilities being positioned on the Iron Mountain site.
4.1.16	16. Does Cory anticipate accessing this area for any non- working hours? Our site is not 24 hours, IM may not be able to grant the access for non-working hours.	The rights, like Aviva's currently, would be 24 hours a day, 7 days a week, 365 days a year. Construction activity would be subject to the full code of construction practice and this would influence the hours of work (please refer to the

Ref #	Relevant Representation	Applicant Response
		response to question 12 for further details on the anticipated working hours). Although we do not anticipate the working area being handed back at the end of each day, security arrangements would be developed to make sure any of Iron Mountain's concerns were addressed.
4.1.17	17. What security measures are planned and how will the security of IM's site be maintained/impacted.	The intention would not be to impact the security of the Iron Mountain site and maintain security around the Applicant's temporary working areas. The Applicant has requested Iron Mountain provide further detail on any specific security considerations it would like the Applicant to be aware of. The Applicant would be happy to work with Iron Mountain to consider appropriate measures to put in place.
4.1.18	Parcel 1-092 and 1-097 18. Will the works be completed in stages? If so, when will Cory require occupation of this area?	The Applicant anticipates the works involving the existing jetty will likely be undertaken in one stage, but at this early stage is unable to confirm that, or when this will be. Construction methodology for this element of the works will be determined at the detailed design stage, with the Applicant minimising impacts to the local environment and occupiers as far as possible.
4.1.19	19. How long will Cory require occupation for?	It is not anticipated that occupation would be for a significant duration. The Applicant notes Iron Mountain's concern over business operations if the works were to take two years but does not expect in any instance that the works in the area would be of such duration.

Ref #	Relevant Representation	Applicant Response
4.1.20	20. Will a new fence be erected between this area and the building?	At the time of writing, the Applicant anticipates there needing to be some form of boundary treatment (e.g. hoarding) to separate the working area from the rest of the Iron Mountain site.
4.1.21	21. What are Cory's proposals in respect of reinstatement of the existing fencing?	Please refer to paragraph 5 above.
4.1.22	22. Iron Mountain use this area for car parking. Can we still park our cars during the work?	The yellow plots on the **Land Plans (as updated alongside this report)** identify the total area where temporary powers are sought. Where that area or a part of it is used for works it is expected to be construction site and used for works activities until such a time as the contractor demobilises from the site, and as such would not be suitable for car parking at that time.
4.1.23	23. How will Cory assess to this area? Will Cory need to assess the IM's main entrance to get to this area?	The intention is for vehicles to make use of the spur road and the main entrance to the Iron Mountain site.
Peabody Trust and Tilfen Land Limited		
4.1.24	10. Peabody notes the themes which will influence the design principles of the Project. Peabody is particularly concerned in respect of people and place, for the reasons set out in Cory's consultation document. However, Peabody will want to be assured that the design of the Project, and the proposed mitigation, will fit in with their general environmental	The Applicant continues to meet with Peabody to discuss the project and the impact on Peabody-owned landholdings including Norman Road Field and the Thamesmead Golf Course (as BNG Opportunity Area). Cory and the project team would welcome the opportunity to liaise closely with Peabody throughout subsequent detailed design stages to develop an implementable scheme, within the submitted

Ref #	Relevant Representation	Applicant Response
	aspirations, and considers that ongoing discussion in this regard during the preparation of the application to the Planning Inspectorate, for the DCO, will be worthwhile.	parameters and guided by the Design Principles relevant to People and Place.
4.1.25	11. In respect of the planning of the construction process, Peabody is concerned to limit the noise impacts and lorry movement impacts, on local people. We would like to input in relation to the proposed content of the Code of Construction Practice for the Project.	**Section 4** of the **Outline CoCP (as updated alongside this report)** details the measures relating to noise and vibration that will be incorporated into any full Code of Construction Practice. Before commencement of the development, the construction contractor will prepare a full CoCP which will be submitted to and approved by the relevant local planning authority. The Applicant would welcome any comments Peabody may have on the submitted **Outline CoCP (as updated alongside this report)**. The potential for significant construction noise effects arising from construction activities and heavy vehicle movements has been assessed, as presented in **Section 6.8** of **Chapter 6: Noise and Vibration** of the **Environmental Statement (Volume 1) (APP-055)**. As described in **Table 6-14** of **Chapter 6: Noise and Vibration** of the **Environmental Statement (Volume 1) (APP-055)**, the assessment has concluded that there are no significant residual effects.
4.1.26	13. Norman Road Field is let on grazing licences, to members of the local community. It is important that the graziers are consulted and considered by the Project. Peabody is concerned to ensure that the	As set out in **Section 14.4** and **Section 14.8** of - **Chapter 14: Population, Health and Land Use** of the **Environmental Statement (Volume 1) (APP-063)**, the Applicant has considered the effects of the Proposed Scheme on the graziers of Norman Road Field. With

Ref #	Relevant Representation	Applicant Response
	future of this use is maintained and will need to consider any Cory proposals in this regard.	mitigation in place, the Proposed Scheme is anticipated to have a Minor Adverse (Not Significant) effect on graziers of Norman Road Field during construction and a Negligible (Not Significant) to Minor Adverse (Not Significant) effect during operation. As set out in the third bullet of **Paragraph 14.7.1** of **Chapter 14: Population, Health and Land Use** of the **Environmental Statement (Volume 1) (APP-063)**, the Applicant has been engaging with and will continue to engage with graziers who currently graze horses within the Site Boundary, working alongside Peabody, to seek to agree an approach to any temporary or permanent relocations that may be required, and for the management of the return to the site of horses once construction of the Proposed Scheme is complete. Norman Road Field forms part of the Mitigation and Enhancement Area, Work No. 7 as shown in the **Work Plans Revision (as updated alongside this Report)** and so maintaining the future use of this land for this function forms part of the **Draft DCO (as updated alongside this report).**
4.1.27	14. The former Golf Course forms part of an ongoing project with the community to deliver the wider aspirations of Peabody to deliver ecological and social improvements for the area. It follows that the Golf Course is of particular value to Peabody and the local community. Any intervention that would prejudice the ability for the established goals for this	The Applicant is pleased to confirm that discussions are ongoing regarding how the former Thamesmead Golf Course could accommodate BNG requirements as part of Peabody's aspirations for the site. The Applicant has always understood that its proposals would need to fit with Peabody's wider intentions in the area.

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	project to be realised, will not be welcomed. Considerable further engagement will be necessary in this regard so that Cory is properly aware of this project and can accommodate it. Improving connectivity.	
4.1.28	15. Peabody would also wish for Cory to consider further measures to improve public access to the River Thames, as part of their overall proposals.	This topic is included in our ongoing discussions regarding the former Thamesmead Golf Course. The **Design Approach Document (APP-044, APP-045 and APP-046)** and **Outline LaBARDS (APP-129)** set out the proposed plans to improve and enhance public access within the Mitigation and Enhancement Area. As detailed in **Paragraph 10.2.2** of the **LaBARDS (APP-129)**, the Access and Recreation Proposals provide enhanced Public Right of Way routes and connectivity within the Site and works offsite. The proposals encourage improved opportunity for active travel access, improved amenity and recreation experience and safety of routes. In the vicinity of the River Thames, improved signage, improved pedestrian connections and a bird nesting habitat feature are proposed.
4.1.29	17. Peabody notes the Preliminary Environmental Information Report (“PEIR”) provided within the consultation materials and as part of earlier consultation has already provided more detailed comments to be addressed by Cory.	As detailed in **Section 4.4** of **Chapter 4: EIA Methodology** of the **Environmental Statement (Volume 1) (APP-053)**, responses to comments provided on the PEIR and the wider statutory consultation process are recorded in **Table 4-1** of **Chapter 4: EIA Methodology** of the **Environmental Statement (Volume 1) (APP-053)** and **Section X.3** of **Chapter 5: Air Quality (Volume 1) (APP-054)** to **Chapter 21: Cumulative Effects (Volume 1) (APP-070)** where relevant. Cory has

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		responded separately to LUC's comments on the PEIR which were received shortly before application submission and not during the statutory consultation.
4.1.30	18. Peabody has previously indicated its view to Cory, without prejudice to any potential agreement, that all land over which Cory may or may wish to exercise DCO powers including the former Golf Course, should be included in the red line boundary of the DCO and assessed within the project's Environmental Statement. However, it is noted that Cory has not included the former Golf Course in the Draft DCO red line boundary and that the outline Landscape Biodiversity Access and Delivery Strategy within the DCO application considers the former Golf Course area for off site BNG provision, presumably for Cory to get agreement with Peabody to carry out the required environmental mitigation on the Golf Course.	As described in **Chapter 2: Site and Proposed Scheme Description** of the **Environmental Statement (Volume 1) (APP-051)**, the BNG Opportunity Area is located within land at the former Thamesmead Golf Course, which is located approximately 1km to the west of the Site Boundary and is shown on **Figure 7-7: Proposed Habitat and Creation Enhancements** of the **Environmental Statement (Volume 2) (APP-072)**. The BNG Opportunity Area is not contained within the Order limits as it is not required for the Proposed Scheme – it is an enhancement measure that Cory has committed to deliver notwithstanding the statutory BNG provisions yet being in force. The BNG measures will form part of a wider masterplan ambition identified in Peabody's Thamesmead 'Living in the Landscape' strategy and forming part of its 'Pathways to the Thames' project. The Applicant has been undertaking discussions with Peabody on the delivery of the BNG Opportunity Area which are ongoing. Measures required to be undertaken to manage the BNG Opportunity Area are described in the **Outline LaBARDS (APP-129)**. A **draft DCO (as updated alongside this report)** requirement will ensure that one or more full LaBARDS(s) is brought forward, to be in

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		substantial accordance with the **Outline LaBARDS (APP-129)** prior to the operation phase commencing. It is intended that the offsite improvements, including the BNG Opportunity Area, would be secured by a Section 106 agreement. The Applicant considers this to be appropriate and is pleased to confirm that this approach is forming the basis of our ongoing discussions with Peabody.
4.1.31	19. Without prejudice to any potential agreement, Peabody's position is that any proposals in respect of the Peabody Land must be achieved without cost or loss to Peabody. This cost or loss will need to be based on an assessment in perpetuity, to protect Peabody from possible legacy liabilities in the long-term future. 20. Any proposed use of compulsory acquisition powers to secure rights over the Peabody Land, which is designated Metropolitan Open Land will be resisted. 21. The programme and timing for delivery of the works will be key and should address reprovision and relocation of existing uses and habitats prior to taking, or carrying out works to, land that may be required.	The Applicant has provided formal undertakings to Peabody for that organisation to: take advice on the implications of the DCO application on its interests, including on the Pathway to the Thames initiative; and agree an acquisition strategy. Further, Cory has offered terms for the voluntary acquisition of the land owned by Peabody within the red line boundary of the DCO Application, known as the Norman Road Field (which is also Metropolitan Open Land). The Applicant's preference is to reach a voluntary agreement with Peabody and Heads of Terms were issued to them on 20 September 2024. However, the Applicant also acknowledges that in the event this is not possible, and if compulsory acquisition powers are granted and subsequently exercised by the Applicant, then Peabody would be entitled to compensation under the Compensation Code. Throughout the course of the Applicant's engagement with Peabody, Peabody has articulated its preference for the Applicant to pursue the freehold acquisition of Norman Road Field and it is the Applicant's intention to secure the land required for the Proposed Scheme through

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		a voluntary agreement and it looks forward to working with Peabody to achieve this. The Applicant does not propose to undertake any construction works within the boundary of Work No. 7 save for those required to undertake Work No. 7 and any necessary diversion of the Thames Water Access Road. DCO Requirement 12 ensures that the full LaBARDS includes a programme for the delivery of Work No. 7 which will cover the points raised by Peabody. Further, although the Applicant acknowledges that there will be some loss to Metropolitan Open Land owing to the construction of other Work Numbers, that Metropolitan Open Land is not considered Accessible Open Land, so any loss to the community during the construction stage should be kept to a minimum.
4.1.32	22. Peabody considers itself a key stakeholder, as both a landowner and for the community, in this process, and expects to have an active and influencing role in the future stages of the application for the DCO, and in relation to the development proposed by the Project.	The Applicant is pleased to confirm ongoing discussions with Peabody are occurring and are expected to continue throughout the Examination and into the future phases of the Proposed Scheme. This is reflected in the submitted **Outline LaBARDS (APP-129)** and the **Heads of Terms for Development Consent Obligation (Section 106 Agreement) (APP-121)** submitted as part of the DCO application.
Thames Water Utilities Limited		
4.1.33	6.1 TWUL's initial calculations indicate that Cory is seeking permanent acquisition of or temporary rights over a significant amount of land owned by TWUL.	The Applicant rejects the notion (at paragraph 6.3) that it has not complied with government guidance on compulsory purchase. Having sought engagement with TWUL on the Proposed Scheme from April 2023 the Applicant issued draft heads of terms to TWUL in November

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	Despite this, no meaningful attempts have been made by Cory to date to acquire the land by agreement. 6.2 It was initially suggested by Cory that a tripartite agreement with the owner of other land within the Order limits (Peabody Estates) could be made. However, this was dismissed by TWUL partly on the basis that a tripartite management arrangement was suggested in relation to the entirety of the subject land, which concerned TWUL on the basis that it may impose obligations to maintain land it does not currently own e.g. Norman Road Field. 6.3 Draft heads of terms were subsequently proposed by Ardent in November 2023 for a bilateral agreement between TWUL and Cory, but specific details are awaited. A meeting has been arranged for July 2024 to discuss the matter further and TWUL expects Cory/Ardent to propose more detailed terms, including details as to compensation, if any land deal is to progress. As detailed in Government guidance on compulsory purchase, such powers should be a matter of last resort and those seeking to acquire land should be able to demonstrate that they have taken reasonable steps to acquire all of the land and rights	2023 and has sought continued engagement with TWUL thereafter. Please refer to the **Schedule of Negotiations and Powers Sought (as updated in the version submitted alongside this report)** for the latest position in this regard. The Applicant most recently met with TWUL on 8 July 2024 following internal changes within TWUL to resource these matters. At this meeting TWUL and its advisors, Bruton Knowles, advised that they intended to undertake a site visit on 18 July 2024, after which TWUL would revert with a considered position on how it wished to progress discussions on an agreement between TWUL and the Applicant over the land and rights required for the Proposed Scheme. TWUL has now done this and it remains the Applicant's preference to discuss terms to acquire the land and rights required for the Proposed Scheme by agreement, and it remains willing to continue to progress these discussions. To this end, Heads of Terms were issued to TWUL on 20 September 2024.

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	included in the Order by agreement. TWUL does not consider this to be the case to date.	
4.1.34	6.4 Further, TWUL is also concerned (in the event the Proposed Scheme were to be consented on the current site) that Cory is not seeking to acquire the part of the TWUL land over which the flue gas pipes are to be constructed. Rather, Cory is seeking rights in the form of an easement in respect of the pipes themselves and a corridor either side for access, security and maintenance. It is TWUL's position that Cory should also permanently acquire this land as, not only would the pipes effectively render the land itself unusable, regular access with vehicles and equipment across the CNR would potentially further disrupt wildlife and may also lead to dispute between TWUL and Cory as to responsibility for maintenance and protection. TWUL considers it would be much 'cleaner' to dispose of this land to Cory and will seek to discuss the matter further when the above mentioned meeting takes place.	The Applicant intends to permanently acquire the land (namely the plots of land identified as 1-046, 1-057 and 1-090 in the **Book of Reference (as updated alongside this report)** and identified on the **Land Plans (as updated alongside this report)** over which the flue gas pipes are to be constructed and maintained. An indicative layout of how the flue gas pipes may be laid out is shown on the **Indicative Equipment Layout** plans (**APP-011**) submitted with the DCO Application.
4.1.35	7.1 Cory has failed to engage with TWUL to date with regards how the Proposed Scheme will affect the TWUL access road crossing the CNR between the STW and Norman Road. Such secondary access is	The Applicant has been clear in its discussions with TWUL that the TWUL Access Road may needs to be the subject of minor diversion as a result of the Proposed Scheme.

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	essential for Health & Safety and to comply with the Control Of Major Accident Hazards Regulations 2015 (“COMAH Regulations"). 7.2 Crossness STW is designated as a ‘Lower Tier’ COMAH site due to the storage of biogas, which is potentially explosive and fuel oil which is potentially flammable and dangerous to the environment. As such, TWUL has a legal requirement to retain the access as an escape route and for emergency services in the event of a major incident. Under regulation 7 of the COMAH Regulations, every operator of an establishment (including TWUL and the STW) must prepare and retain a written major accident prevention policy (“MAPP”) for the establishment. The MAPP must be implemented by a safety management system in accordance with Schedule 2 of the COMAH Regulations, which involves (inter alia) the preparation of quantitative risk assessments and emergency procedures. In relation to the STW, the alternative access via the CNR on to Norman Road was established as the most appropriate route for the emergency services and escape route in the event of a major incident. 7.3 It is noted that the current dDCO contains protective provisions to the effect that Cory must	Above and beyond paragraph 39 of the TWUL Protective Provisions, which deals specifically with TWUL approving the detailed design of the access road, paragraph 42 states that “*The undertaker must consult with TWUL on draft documentation prior to the submission of any plan, scheme or strategy under requirements 7 (code of construction practice), 9 (construction traffic management plan), 10 (emergency preparedness and response plan), and 13 (surface and foul water drainage), to the relevant planning authority”.* Therefore, engagement with TWUL will continue as part of the management of environmental matters with specific regards to the TWUL Access Road. During the detailed design the Applicant will consult with relevant bodies to ensure that appropriate emergency access and egress is maintained to the Crossness Sewage Treatment Works. In approving the detailed design, it will be within TWUL’s rights (as part of acting reasonably) to consider how any diversion fits with its requirements under the COMAH regulations. The Applicant has also updated **Section 2.10** of the **Outline CoCP (as updated alongside this report)** as follows: “*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*

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	agree a diversion with Thames before stopping up the access road or extinguishing rights over it, TWUL understand that the proposal is to divert the access to the south, via Lagoon Field. However, TWUL does not believe that Cory has engaged with the COMAH Regulations in terms of the preparation of an alternative access. As set out above, a route cannot simply be diverted; the diversion must be properly assessed and agreed as safe with a number of bodies, including emergency services and the HSE. 7.4 In addition, the Great Breach Dyke East runs along the southern boundary of Lagoon Field, the banks of which are an important area for wintering wildfowl. Even if a diversion via Lagoon Field is proposed and would comply with the requirements of the COMAH Regulations, the land loss and disturbance by people and vehicles through Lagoon Field that would occur would negatively impact wintering birds and potentially breeding birds, such as pochard (a 'Birds of Conservation Concern Red List' species) and water vole that breed on Great Breach Lagoon. Any diversion may also result in further loss of the CNR. 7.5 TWUL would therefore welcome engagement from Cory on this issue as soon as possible, in order	*to facilitate this, Thames Water shall be consulted on the details of that diversion before it takes place*". Impacts on habitats within Crossness LNR, including important birds, have been assessed in **Section 7.8** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 1) (APP-056)**. Mitigation for potential pollution events has been included in the assessment. Wintering and breeding bird surveys (as described **in Appendix 7-5: Breeding Birds Survey Report** and **Appendix 7-10: Wintering Bird Survey Report** and **Section 7.6** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement (Volume 3 and 1 respectively) (APP-092, APP-097** and **APP-056** respectively) covering the Crossness Local Nature Reserve observed a single family group of pochard comprising parents and young in Lagoon Field during spring (none were observed using this area during winter). Thus, it is not used by this species in significant numbers. Although it is acknowledged access would be moved as part of the Proposed Scheme into Lagoon Field, bringing sources of disturbance from pedestrians and (on occasion) vehicles closer to birds within that area, this change would occur against existing background disturbance from access that currently runs across the northern boundary of Lagoon Field. In addition, movement would only comprise a relatively minor movement of several metres and is unlikely to lead to much more

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	to clarify its proposals and allow TWUL to assess whether there are more suitable alternatives and whether any alternative would be capable of complying with the COMAH Regulations. Without this further clarity, TWUL cannot be confident that the Proposed Scheme's impact on the STW secondary access will not have a detrimental effect on its undertaking. It should also be noted that TWUL would require its costs to be met in full by Cory for any diversion, including those incurred due to engaging the COMAH Regulations process.	disturbance than the Lagoon Field experiences from the existing access already. Movement of the access Diversion of the Access Road would not affect water voles. This species habituates freely to the presence of people and vehicles, with predation by mink and habitat loss being the main reasons for its decline in the UK. Historically it has thrived in association with human activity and at Crossness Local Nature Reserve surveys have shown that it breeds as strongly in areas exposed to disturbance (e.g. along Norman Road, in publicly accessible areas of the Local Nature Reserve) as those where access is restricted (e.g. the ditches within the Eastern/Western Paddock), as described in **Appendix 7-9: Water Vole Survey Report** and **Section 7.6** of **Chapter 7: Terrestrial Biodiversity** of the **Environmental Statement** (**Volume 3** and **1** respectively) (**APP-096** and **APP-056**). Water vole are present in strong populations along ditches on the side of the current access where movement of people and vehicles are much closer than would be true of Lagoon Field with movement of the access.
Western Riverside Waste Authority		
4.1.36	(4) It should be noted that WRWA has contractual arrangements in place with Cory's associated companies. WRWA entered into a waste management public private partnership contract (PPP	The Applicant partially disputes the characterisation of the arrangement between RRRL and the WRWA, including in relation to the compensation payable in the event WRWA was required to take the RRRL freehold. The Applicant disputes that the WRWA is a lender

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	Contract) with Cory Environmental Limited (CEL) in 2002 (and which was most recently varied in 2022). Under this PPP Contract, the Riverside Resource Recovery Energy from Waste Facility (Belvedere EfW) was constructed on a project finance basis by another Cory group company, Riverside Resource Recovery Limited (RRRL). WRWA is the cornerstone customer of the Belvedere EfW and RRRL. WRWA is RRRL's lender and owner of last resort under quasi-Private Finance Initiative (PFI) arrangements. Without WRWA's support, the Belvedere EfW would not have been able to have been constructed. (5) As part of the PPP Contract arrangements, WRWA was granted (i) a leasehold interest over part of the Belvedere EfW site (WRWA Lease), and (ii) rights in relation to other plots of land owned by RRRL (together the Site) as security for the waste disposal obligations accepted by RRRL in relation to WRWA's waste stream. This security is considered essential to protect WRWA's interests (which extend until 2046). In accordance with standard PFI terms, in certain circumstances, WRWA is required to take the freehold of the Site from RRRL and pay significant compensation at a predetermined level that is unrelated to the value or operational viability of the	to RRRL. The Applicant notes that WRWA would only be required to take the freehold of the Riverside 1 site from RRRL in very extreme circumstances, that are highly unlikely to occur. The Applicant recognises that WRWA has a suspended head lease of some of the RRRL freehold property (encompassing the Riverside 1 EfW facility) and is party to a Deed of Easement and Covenant that would provide it some access over part of Riverside 2 land in the event that it was required to step into the RRRL freehold. The Applicant does not consider the commercial obligations related to "other plots of land owned by RRRL" to be relevant to, or impacted by, compulsory acquisition matters. Riverside 1, over which the suspended head lease is held, will directly benefit from the Proposed Scheme and on this basis the Applicant considers that the DCO Application presents a beneficial opportunity to WRWA (through the decarbonisation of its waste, as a major customer of Riverside 1) rather than a negative risk to either its security or operations, particularly noting that all of WRWA's constituent councils have declared a climate emergency. Furthermore, the WRWA will benefit from the protections given to RRRL in the DCO (which applies to successors in title), which requires RRRL's consent for any works or land powers being used over Riverside 1 land. It is noted that, while RRRL is part of the Cory Group, it has separate project funders, and these RRRL funders expect RRRL to take such consent matters seriously and themselves have consent controls over the company.

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	Site. WRWA is put at risk if any changes to the Site occur which devalue it, constrain its operations or redevelopment potential, or make the same dependent upon the consent of third parties. The WRWA Lease was taken, amongst other things, to prevent dispositions of the Site which have not been approved by WRWA. (6) The DCO proposes the acquisition of new rights over various plots of land at the Site. (7) The Applicant, CEL and RRRL are all associated companies and form part of the wider Cory group. The Secretary of State should be careful not to permit Cory to frustrate the PPP Contract, the WRWA Lease and other WRWA rights (all of which were freely agreed by the Cory group with WRWA, including to enable the development of the Belvedere EfW). Granting Cory compulsory acquisition powers over any part of the Site would allow Cory to sidestep the pre-agreed contractual procedures for dealing with changes to the Site. (8) The Applicant is seeking to move or encumber assets owned by one part of its group to the benefit of another part of its group without reference to the legitimate interests of other (non-Cory) stakeholders	The SoS previously granted powers to CEHL for the development of Riverside 2 including over land that either is or was subject to the suspended WRWA head lease. The Applicant intends to continue the discussions with WRWA with a view to reaching an agreement for the Proposed Scheme that WRWA will directly benefit from. However, the Applicant considers its DCO Application for the Proposed Scheme and the rights sought to be both necessary and essential to the success of the Proposed Scheme. The Applicant is seeking to acquire rights over the Riverside 1 property to facilitate the reconfiguration of parts it to accommodate the carbon capture element of the Proposed Scheme from the Riverside 1 EfW operations, and to enable some CCS infrastructure on parts of Riverside 1 land that cannot be used for waste operations (and is otherwise highly constrained from a development opportunity perspective), in so doing, the Applicant is responding to the Government's energy security and net zero ambitions, and the critical national priority for the provision of infrastructure of this type. The Proposed Scheme is designed to decarbonise treatment routes (and not to prejudice them). There is therefore no prejudice to WRWA.

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	for the financial gain of the Cory group taken as a whole and to the potential detriment of the interests of other (non-Cory) stakeholders. To permit this would potentially prejudice treatment routes for future waste generated by WRWA (and its four London Boroughs). (9) WRWA is in early-stage discussions with the Cory group regarding the DCO but has not yet received any proposals from the Cory group regarding how to protect WRWA's (and its four London Boroughs') interests. It is hoped that a mutually acceptable solution will be negotiated, and the Examining Authority will be provided with any updates.	
Environment Agency		
4.1.37	2.5.1 Comment – The Environment Agency is opposed to the spatial extent of the Order Land, both the freehold and leasehold to be compulsorily acquired and where easements, servitudes, and other private rights are to be extinguished. This includes the land where Great Breach Pumping Station and the culverts and services that serve the pumping station are located and land where works may be required to	The Applicant has ensured that the Environment Agency will have the ability to continue to access the Great Breach Pumping Station and its flood risk management assets through its Protective Provisions in the **Draft DCO**, **(as updated alongside this Report)** where specific provision has been made. Alongside this, following further engagement with the EA and consideration of the drafting of the Protective Provisions, the Applicant has now removed plot 1-122 from the **Land Plans (as updated**

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	maintain, uprate and replace those flood risk management assets.	**alongside this Report)** so that the Pumping Station is no longer within the Order limits.
4.1.38	2.5.2 Comment – the Environment Agency require clarification on the extent of the works to be carried out within the construction compounds shown within the works plan as well as the associated parts of the draft Development Control Order.	Work in the construction compound will consist of temporary storage of equipment and materials prior to installation and the pre-assembly of modules and sub-assemblies prior to installation.
4.1.39	2.5.3 Comment: The Environment Agency have not agreed to the location of Equipment Item 1 - The Liquid CO2 Export Jetty and 2 - The Elevated Process Pipe & Duct Bridge. Those items may adversely affect access to the flood defences and Great Breach Pumping station and the associated culverts open channels and services as well as future maintenance and upgrade works.	The elevated process pipework/pipe bridge is designed so as not to impact access to the Thames Path or the flood defences taking account of anticipated modifications in the flood defences as a result of climate change predictions. Neither the elevated process pipework nor the elevated ductwork are in proximity to the Great Breach Pumping Station; therefore, the Applicant does not anticipate any adverse impact on access to the Pumping Station and associated culverts and channels.
Save CNR Campaign Group		
4.1.40	Section 127 prevents compulsory purchase of statutory undertakers' land unless that land can be purchased and replaced without serious detriment to the carrying out of the undertaking or can be purchased and replaced by other land (owned by or available to be acquired by the undertaker) without	The Applicant notes that TWUL has not sought in its Relevant Representation to claim that section 127 is engaged, and it is only engaged if a statutory undertaker says as such (on the terms of that section).

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	serious detriment to the carrying out of the undertaking. Thames Water own the land as statutory undertakers. They are under obligations under a s106 agreement to maintain and enhance the nature reserve. They undertake statutory duties to further conservation and enhancement of natural beauty and conservation of flora and fauna (s3 Water Industry Act 1991), and to have regard conserving biodiversity (s40 Natural Environment and Rural Communities Act 2006). It is irrelevant whether Thames Water hold the land solely for the s106, as Cory argues. In any event, we believe the land is solely held for the above purposes. Thames Water do not want to enter into a tripartite agreement and their ability to carry out their statutory undertaking function would suffer serious detriment should Cory acquire their land. Neither of the two s127 conditions apply, as there is no other land that can be acquired by Thames Water to carry out this specific function, especially when the unique status of the nature reserve land is taken into account. Therefore, s127 prevents the acquisition of the land.	In any event, **section 8.3** of the **Statement of Reasons (APP-020)** makes the Applicant's position on this clear – the land does not form part of TWUL's statutory undertaking, and even if it does, no serious detriment is caused.

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	Cory's response that the acquisition nullifies the s106 agreement obligation – does not adequately respond to this issue. This is a circular argument that clearly defeats the purpose of the s127.	
4.1.41	The impact on the graziers has been understated, and Cory have failed to appreciate the equalities impacts. Grant of the DCO would be inconsistent with the Secretary of State's public sector equality duty. The graziers are members of the gypsy community, whose families have historic ties to the land for multiple generations. The loss of grazing rights therefore needs to be viewed in an equalities context. There is no detailed mitigation or compensation proposed, and accordingly the development fails to have due regard to this equalities impact. The loss of this land will be a genuine loss and may lead to the graziers vacating the area altogether.	The Applicant recognises the status of the graziers as vulnerable parties and has, and will continue to, treat the graziers in a manner appropriate with this status and their historic ties to the land. In particular, it is noted that the graziers will be able to utilise the extended Crossness Local Nature Reserve whilst the Proposed Scheme is operational. No buildings are proposed to be built on the land currently grazed by the grazier who uses Peabody/Tilfen's land, and of the land currently grazed by TWUL's tenant grazier, only a small part of it is to be taken up by permanent buildings, given they are able to graze all non-water parts of the Crossness LNR outside of TWUL's operational site. The Applicant has committed to manage construction impacts to the graziers including any short term relocations – see **Section 12** of the **Outline CoCP (as updated alongside this report)**. Engagement with the graziers, Peabody and TWUL has confirmed that the grazing has always operated under some form of formal agreement, and it is understood that the graziers do not use the land as part of a gypsy way of life – the horses are grazed on the land as a hobby, not for use in travelling or for sale.

5. MARINE, WATER AND FLOODING IMPACTS

5.1.1. In this section of the report, the Applicant has responded to the marine ecology, water environment and flooding comments raised in the Relevant Representations of the Environment Agency (Table 5-1), the Marine Management Organisation (Table 5-2) and LBB (Table 5-3).

Table 5-1 – Response to Environment Agency Marine Ecology, Water Environment and Flooding Representations

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Land Raising		
5.0.1	2.1.1 We do not believe that any serious attempt has been made to justify or minimise the amount of proposed ground raising. For context, in London such as in the London Borough of Bexley's Local Plan the minimum requirement for housing is that sleeping accommodation is set no lower than the modelled breach flood level and commercial developments are often set below the breach flood level. An alternative approach would be to only raise the equipment vulnerable to flooding but leave the buildings or at least the surrounding landscaping and access routes at the existing level. During one meeting the development team confirmed that in the event of a failure of the Carbon Capture equipment the power station would continue to operate with the CO2 vented to atmosphere until the Carbon Capture equipment was functioning again. We question if it not likely that the amount of carbon emitted in achieving the ground raising would be more than that released if the equipment was out of action for a limited period.	In the meeting held between the Applicant and the Environment Agency on the 14 August 2024 it was discussed that the approach detailed in **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** is the worst case scenario in terms of land raising. It is considered likely that the assessed amount of land raising will be reduced as part of the detailed design, with some non-critical aspects of the Proposed Scheme likely to be appropriate to flood in the event of defence breach. To secure this outcome, new wording has been added to the **Design Principles and Design Code (as updated in the version submitted alongside this report)** compliance with which is secured by requirement of the **Draft DCO (as updated alongside this report)**. This revised wording has been shared with the Environment Agency. The detailed design of the Proposed Scheme will take the vulnerability of different aspects of the development into account. As set out in **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** and managed pursuant to the **Outline EPRP** (**APP-131).** The most vulnerable aspects, including provision of safe refuge areas for site operatives, will be located above the breach flood level, however

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5.0.2	2.1.2 7.4 hectares of ground raising appears disproportionate to the risk of damage to the Carbon Capture equipment being protected. It appears unlikely that all of the infrastructure proposed within the 7.4 area of land raising will be vulnerable to damage from flooding. 2.1.3 The ground raising is increasing the exact same risks to nearby existing development as the applicant is seeking to mitigate to the scheme infrastructure. In our opinion it is unreasonable to provide no mitigation for the off-site impacts given the scale of the ground raising and the impacts. The area of land proposed to be raised is not currently a flood storage area but functions as floodplain. Reducing the void available to store water in the floodplain will increase flood levels elsewhere in the event of breach failure of the tidal defences. 2.1.4 The amount of ground works required to achieve the raised ground levels over that whole area will require the transport of large amounts of material inevitably with associated environmental impacts. We question if this is not contrary to the purpose of the scheme?	there may be less vulnerable aspects that are suitable to be at a lower level. The Applicant is committed to reviewing and, where appropriate and practicable, reducing ground raising and proposed development levels during the detailed design. This would also likely reduce the plant footprint of the development platform. The predicted impacts of the Proposed Scheme to land, people, property and infrastructure elsewhere in the event of breach failure of the flood defences (assuming exiting Environment Agency pumping stations are not operational) during this worst case scenario as presented in **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** are not considered to be significant and do not increase the probability or consequence of flooding to nearby existing development, which is why no additional mitigation, including the suggested options, has been provided.

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5.0.3	2.1.5 As previously stated in Environment Agency comments, options to prevent that impact could include: - Reducing the area of ground raising. Lowering ground levels elsewhere as floodplain compensation, although it is unclear if doner high ground exists where it would be needed. Pumping to discharge flood water to the Thames to reduce residual risk flooding. Improvements to the flood defences, although that is difficult including due to much of the run of the defences being outside the current proposed site extent.	
5.0.4	2.1.6 The Marsh Dykes is a man-made drainage network prone to sediment build up. How will sediment discharge into the dyke network be changed by the scheme potentially increasing the need for maintenance of the downstream ditch network?	The **Outline Drainage Strategy (APP-122)** describes the water quality management measures incorporated as part of the surface water drainage strategy; this will include sediment management measures to capture site-generated sediment prior to discharge to the adjacent watercourse network. As such, the Proposed Scheme will not lead to increased sediment load and associated maintenance requirements.
Marine Ecology		
5.1.1	4.1 Wherever possible silent, press or vibration piling is preferred to percussive impact piling. Piling noise from percussive impact piling will have the biggest risk of adverse effects on migrating and	This is noted by the Applicant. Impact piling will only be employed where silent press and vibration piling cannot ensure piles are to the required depth. Controls on piling are set out in the **Outline CoCP**

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	resident fish populations. This is addressed in Appendix 6-4 Underwater Noise Assessment.	**(as updated alongside this report)** and will also be delivered pursuant to the Deemed Marine License (DML).
5.1.2	4.2 This [the UNA] makes certain assumptions when determining likely impacts upon the fish populations. Paragraph 7.1.16 asserts that there will a single pile installation per day (for 4 months), taking a total time of 30 minutes to drive the pile. Consideration should therefore be given to including this limit of driving a single pile and approximately 30 minute maximum of cumulative percussive piling per day within the draft Code of Construction Practice.	In the meeting on the 19 August 2024 with the MMO, it was agreed that a daily limit of 30 minutes of percussive piling would be adhered to. Controls on piling are set out in the **Outline CoCP (as updated alongside this report)** and will also be delivered pursuant to the DML.
Flooding		
5.1.3	2.2.1 We do not agree with the approach taken to model the impacts of a breach of the Thames tidal flood defences. On page 22 Flood Risk Assessment states: -	In the meeting held between the Applicant and the Environment Agency on the 14 August 2024 the Environment Agency's Breach of Defences Guidance (2017)[21] was discussed which has been used as the basis for the breach modelling undertaken to support the design of the Proposed Scheme. Table 2 in the Environment Agency's guidance states that for a tidal river with a defence type of reinforced concrete a breach width of 20m and 18 hours duration is recommended and so it was confirmed that this was the approach

[21] Environment Agency. (2017). 'Breach of Defences Guidance'.

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	6.3.4. The key aspects of this guidance which apply to the River Thames Flood Defences adjacent to the Site are: the landward toe level was determined as the lowest point within a semicircle centred on the breach crest with a radius equal to the breach width; and each breach is 20m wide and open for 18 hours as the defences on an estuary and are of reinforced concrete in an urban environment. We consider that the breaches being modelled as open for 18 hours is not long enough, as downstream of the Thames Barrier breaches should be modelled as open for three tidal cycles. For soft (earth) defences the breaches should be modelled with 50m wide breaches.	that the Applicant had taken. The composition of the River Thames Flood Defences was discussed and looked at during the site walkover adjacent to the Order Limits and the parties agreed that the defences are hard defences and that using the reinforced concrete model parameters are suitable.
5.1.4	2.2.3 Paragraph 8.3.27 of the FRA. Illustrates the unnecessarily precautionary approach to the ground raising. For infrastructure that is relatively easily replaced within the Site surely it is not just the freeboard that is not required but the ground raising is not required.	See response 5.0.1 on this point generally. In respect of that paragraph of **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** during detailed design of the Proposed Scheme the vulnerability of the different aspects of the Proposed Scheme such as the Ancillary Infrastructure will be taken into account, based on their specific location and nature of the activities being undertaken in the

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		buildings. The Applicant is committed to reviewing and, where appropriate and practicable, reducing ground raising and proposed development levels during the detailed design. This would also likely reduce the plant footprint of the development platform. This commitment is shown as a design principle in the **Design Principles and Design Code** (as updated alongside this report).
5.1.5	2.2.4 Paragraph 8.3.28 of the FRA states that the platform and equipment/building levels referred to above will be maintained for the lifetime of the Proposed Scheme. We would support the lower of the land at the end of the development and the restoration of existing ground levels.	The Applicant notes that the majority (some 70%) of the land within the Site has a strategic industrial location allocation as part of Policy SP3 (Employment growth, innovation and enterprise) of the Bexley Local Plan. The land allocated in the Local Plan will therefore be able to be used for such uses in the future beyond the lifetime of the Proposed Scheme. It is not known at this time if restoration of existing ground levels would be viable and it would depend on the flood and development position in and around the Riverside Campus at that time. However, the Applicant has updated the **Draft DCO** (as updated alongside this report) to provide that in submitting the Decommissioning Environmental Management Plan to be approved by LBB (in consultation with the Environment Agency) at the end of the Proposed Scheme's design life that the proposed finished ground levels post the decommissioning works would be set out.

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5.1.6	2.2.5 Paragraph 8.3.40 of the FRA. The approach of modelling breaches at discreet locations is less granular than the Environment Agency's method of modelling breaches all along the defence line. The worst case location may well not have been modelled.	In the meeting held between the Applicant and the Environment Agency on the 14 August 2024 the approach and methodology to the breach assessment was discussed. The modelling undertaken to support **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** includes seven breach locations along a 2.5km stretch of the River Thames frontage in the vicinity of the Proposed Scheme; this is considered a proportionate approach for the Flood Risk Assessment. The Environment Agency noted that this methodology is likely to be appropriate. As requested by the Environment Agency, the Applicant has submitted the Thames Estuary Breach Model used to support the assessment within **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** to the Environment Agency Evidence and Risk team for detailed review. The Applicant will be submitting the Marsh Dykes Model shortly. The Applicant welcomes further discussion with the Environment Agency once comments from the Environment Agency are provided.
5.1.7	2.2.7 We would ask that the depth difference mapping includes a + or – 1mm band to allow the reader to distinguish modelled increases and decreases in depth. The adoption of any model tolerance is problematic because of the difficulty in distinguishing between impression in the modelling	Additional figures to **Figures 8-6** and **8-8** in **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** have been provided to the Environment Agency to show the depth differences for the + and – 10mm bands. The Applicant has reviewed the modelled extent of the + and – 10mm bands and can confirm no change to the conclusions

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	and detriment to off-site receptors. The benefit of the doubt should be given to those already at risk within a floodplain. Please note the robust technical justification requirement referred to in the gov.uk guidance.	of the **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report).**
5.1.8	2.2.8 Paragraphs 8.3.62 + 63 + 64 of the FRA. The Environment Agency disagree with the opinion over the significance of the off-site increases in flood levels. The argument that receptors that are already shown to flood are not sensitive to a small increase in flood levels because they are going from wet to wetter during the design event is false because the design even is merely a somewhat arbitrary standardised scenario for modelling purposes. During a real breach of the flood defences the severity could be more or less. The increased risk and flood level could therefore take a flood water level above the threshold for any given receptor including housing and other buildings. 2.2.9 Paragraph 8.3.70 – We disagree that no mitigation is required for the off-site increases in flood risk.	The Applicant agrees that receptors that are already shown as sensitive to flood may still be sensitive to a small increase in flood levels. However, the increase in risk as a result of the Proposed Scheme as presented in **Table 8-4** of the **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** is considered worst case based on: this being a residual risk scenario in the event of defence breach during a 0.5% annual probability event with climate change; the location of the breach selected for the assessment provides the worst case results for this location; the modelling does not include the benefit provided by the operation of the pumping stations; and the modelling assumes a worst case scenario in regard to the footprint of the Proposed Scheme platform noting that it is likely that the footprint and height of the platform (in terms of the volume of flood storage lost in a breach event) will reduce during the detailed design as described above. The Applicant has also considered an increase in risk in terms of an increase in probability and consequence of flooding. The The maximum predicted increase in flood depth (of 14mm, to identified buildings in isolated areas already predicted to flood during a breach

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		event) is therefore considered to be insignificant and no further mitigation is required, as this increase is not considered to increase the probability or consequence of flooding. Land that is predicted to experience a greater increase in depth, of up to 100mm, during a breach event comprises part of the Mitigation and Enhancement Area of the Proposed Scheme and an area of the existing Crossness Local Nature Reserve. No buildings or infrastructure is located within this area. The predicted increase in flood depth is therefore not considered to increase the probability or consequence of flooding and is therefore not considered to be significant. In the meeting held between the Applicant and the Environment Agency on the 14 August 2024 it was agreed **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** presents as precautionary and likely worst-case scenario. As requested by the Environment Agency, the Applicant has submitted the Thames Estuary Breach Model used to support the assessment within **Appendix 11-2: Flood Risk Assessment of the Environmental Statement (Volume 3) (as updated alongside this report)** to the Environment Agency Evidence and Risk team for detailed review. The Applicant will be submitting the Marsh Dykes model shortly. The Applicant welcomes further discussion with the Environment Agency once comments from the Environment Agency are provided.

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		In the meeting held between the Applicant and the Environment Agency on the 14 August 2024 it was agreed that no guidance is available that stipulates the definition of 'significant' in a residual risk breach scenario.
5.1.9	2.2.10 The 2020 Marsh Dykes modelling study established that the operation of the pumping stations significantly reduced the breach / residual risk floodplain. The construction of a new gravity outfall at a different location and the provision of additional pumping capacity has the potential to address more than one of our concerns, all subject to feasibility and modelling.	Additional mitigation measures were discussed in the meeting between the Applicant and the Environment Agency on the 14 August 2024. As discussed above, the Applicant does not consider that the impacts presented in the **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** are significant and would require such mitigation measures at the pumping stations and therefore the Applicant does not intend to provide this additional mitigation.

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5.1.10	2.2.11 Paragraphs 8.3.70 + 71 of the FRA - A risk-based approach is proposed to address the risk of a breach in the tidal defences between Riverside 1 and Riverside 2. That approach of considering the vulnerability of different aspects of the proposed scheme in more detail would be a more appropriate approach for the area where ground raising is currently proposed rather than the wholesale ground raising with its associated impacts.	See response 5.0.1 on this point generally. In respect of that paragraph of **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** during detailed design of the Proposed Scheme the vulnerability of the different aspects of the Proposed Scheme will be taken into account based on their specific location and nature of the activities being undertaken in the buildings. The Applicant is committed to reviewing and, where appropriate and practicable, reducing ground raising and proposed development levels during the detailed design. This would also likely reduce the plant footprint of the development platform. This commitment is shown as a design principle in the **Design Principles and Design Code (as updated alongside this report).**
5.1.11	2.2.12 Paragraph 8.4.3 of the FRA - It is not possible to generalise over whether or not overtopping of the River Thames Flood Defences would cause lower or higher depths of flooding because that depend on how much higher the river level reached above the defence crest level. We do not normally ask for overtopping to be assessed in London considering the relatively high standard of protection afforded by the defence crest level.	The Applicant notes the comment regarding the assessment on the overtopping of the River Thames Flood Defences.

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5.1.12	2.1.13 Paragraph 8.5.2 of the FRA - We would suggest that an alternative approach is to adopt the TE2100 plan future defence crest levels that apply at this location.	The design of the Proposed Jetty has been informed by the Environment Agency's TE2100 Plan water levels, with an uplift for wave height and freeboard to set an appropriate base level of the Proposed Jetty above predicted flood levels. **Paragraph 8.3.4** of **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** provides the crest level for the plan periods 2070 – 2120 and 2120 – 2170 and this has been used to ensure an appropriate vertical and horizontal clearance has been provided where the Proposed Jetty crosses the River Thames Flood Defences.
5.1.13	2.1.14 Paragraph 8.6.10 of the FRA. - We would ask that this assertion is substantiated. Please can the applicant show that overland flow from Riverside 1 and 2 will not escape to the south during a critical duration 100-year plus climate change event. Floodplain plots normally only show flooding in excess of 50mm depth and so shallow overland flow is often not represented. Will the works be designed to prevent flow south from Riverside 1 and 2 with ground level changes as required?	The watercourse located at the north of the CCF (OW4 as shown on **Figure 11-2: Surface Water Features** of **Figures: Part 2** of the **Environmental Statement (Volume 2) (APP-073)** will be maintained as part of the Proposed Scheme and as such would intercept shallow flows from Riverside 1 and Riverside 2 if these were to bypass the surface water drainage systems. Furthermore **Drawing 70090329-FRA-A3-003** included as part of **Annex C** of **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** shows the indicative overland flow routes based on the surveyed and proposed site levels of Riverside 1 and Riverside 2. The drawing shows the direction of the overland flow routes in relation to the existing watercourse network and how the watercourses would intercept any shallow flows.

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5.1.14	2.2.15 Paragraph 8.6.22 of the FRA. We are opposed to the buffer strips being only 5 metres wide. A minimum 8 metres measured horizontally from the top of the riverbank should be provided. It is not clear that acceptable floodplain compensation can be provided with those narrow buffer strips for loses to the fluvial floodplain.	In the meeting held between the Applicant and the Environment Agency on the 14 August 2024 it was discussed that the Applicant proposes to have a minimum 5m buffer strip but where it is considered to be appropriate and is feasible to have a larger buffer strip. This will be secured as a design principle within the **Design Principles and Design Code (as updated alongside this report)**. Given the small loss of out-of-bank fluvial flood storage and expected area of buffer strip and landscaping adjacent to existing watercourses, it is considered viable that any loss of fluvial flood storage could be compensated for within the Proposed Scheme and proposed buffer strips as discussed in the **Technical Note on Flood Risk (APP-142)**.
5.1.15	2.2.16. The Applicant's approach of assuming that exact offsets to watercourses and flood risk management infrastructure can be dealt with later through the protective provisions is unsafe because the amount of development required may conflict with achieving the needed width of buffer/access strips.	The detail of the flood compensation measures, including offsets, is required to be approved by the Environment Agency and LBB as described in **Paragraph 8.6.22** of the **Flood Risk Assessment (as updated alongside this report)**. Compliance with the Flood Risk Assessment is secured via Requirement 18 of the **Draft DCO (as updated alongside this report)**. This means that the outcome of delivering appropriate floodplain compensation is secured and the Applicant must design its scheme in the knowledge that this must be delivered. It therefore is a known constraint for the detailed design. To provide further certainty of this, the Applicant has updated its **Design Principles**, secured via Requirement 4, to ensure that key

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		principles of what needs to be delivered as part of these measures are committed to, whilst allowing for flexibility. This update is submitted alongside this Response to Relevant Representations report.
5.1.16	2.4 The need for further information and clarification of the different flood models prior to the Environment Agency undertaking a technical review of the adequacy of the flood modelling. 2.4.1 Our normal practice is to first seek to achieve clarity over flood modelling including what is being modelled before requesting a review by our specialist Evidence and Risk teams. That is our intention here	The Applicant has submitted the Thames Estuary Breach Model used to support the assessment within **Appendix 11-2: Flood Risk Assessment** of the **Environmental Statement (Volume 3) (as updated alongside this report)** to the Environment Agency Evidence and Risk team for detailed review. The Applicant will be submitting the Marsh Dykes model shortly. The Applicant welcomes further discussion with the Environment Agency once comments from the Environment Agency are provided.
Sediment Modelling		
5.1.17	ENGINEERING PLANS: PROPOSED JETTY INDICATIVE DRAWING: 2.12 - Drawing Title: - Proposed Jetty Indicative Drawing Regulation 5(2) (o) Application Document Reference 2.12. 2.4.2 Comment - The drawing is stated to be indicative and only provides section views with the plan view undefined. That lack of certainty over the exact location and design effects the ability to model	Within **Appendix 11-4: Coastal Modelling** of the **Environmental Statement (Volume 3) (APP-109)**, the location of the Proposed Jetty was taken to be as per the Engineering Plans – **Proposed Jetty Indicative Drawing (APP-017)**. A location did need to be chosen to allow modelling to take place. It should be noted that modelling was originally undertaken to inform consideration of Options 2 and 3 of the Proposed Jetty locations, as described in **Chapter 3: Consideration of Alternatives** of the

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	the impacts of the new jetty. It is not clear that the worst case has been modelled in terms of changes to the river.	**Environmental Statement (Volume 1) (APP-052)** and no significant differences were found between the two options. It is therefore considered that Appendix 11-4 is a robust assessment of the effects of the Proposed Scheme, allowing for the small amount of deviation permitted by the Works Plans.
5.1.18	2.3.1 ENVIRONMENTAL STATEMENT: 6.3 APPENDIX 11-4: COASTAL MODELLING STUDIES shows increased deposition upstream of the new jetty. This is in the realm of 0.1 to 0.2 m increase; however, this could be enough to make an existing sedimentation problems worse. The fact that the proposed option of the new jetty in combination with the removal of the disused Belvedere power station jetty is shown to lead to greater upstream sedimentation than retaining the disused Belvedere power station jetty appears counter intuitive. We question the validity of the modelling, as, based on Figures 3-22, 3-23 and 3-24 (pages 30 and 31), there does not appear be any water flowing through the area formerly occupied by the disused Belvedere power station jetty and ask for more information on the geometry of the existing and proposed in-channel structures as well as how they are represented in the model in order to clarify	The 0.1-0.2m increased sedimentation is shown in **Figure 5-10** of **Appendix 11-4: Coastal Modelling** of the **Environmental Statement (Volume 3) (APP-109)** that models the scenario in which the Belvedere Power Station Jetty (disused) is removed. The changes in sedimentation shown are predicted over a spring neap cycle and may not necessarily have reached equilibrium. This means that erosion could occur after the predicted sedimentation, and this is not guaranteed to be a permanent change to the bed level. The model also does not account for any variation in sediment consolidation which will act to reduce the magnitude of bed level change over time. Sedimentation upstream of the Belvedere Power Station Jetty (disused) will not only depend on flow speeds in the area, but also on the availability of sediment suspended in the flow to be deposited which may be increased by removing blockage effects from the Belvedere Power Station Jetty (disused) if it is demolished. It is not guaranteed that full demolition will be the final design option (as described within **Paragraphs 2.2.83 to 2.2.89** of **Chapter 2: Site and Proposed Scheme Description** of the **Environmental Statement**

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	this. Wave modelling has not been included but is also required.	**(Volume 1) (APP-051)**) The difference plots in **Figures 3-22** to **3-24** within **Appendix 11-4: Coastal Modelling** of the **Environmental Statement (Volume 3) (APP-109)** have the location of the removed Belvedere Power Station Jetty (disused) masked to avoid misrepresentation of differences in this area (e.g. comparing where there was no flow previously to where there is now flow). **Figures 3-17** and **3-18** of **Appendix 11-4: Coastal Modelling** of the **Environmental Statement (Volume 3) (APP-109)** show that there is flow in this area. The existing and proposed in-channel structures were represented as voids in the model mesh. This is a conservative assumption for blockage effects in the absence of more detailed information on construction/density of piles. Wave modelling was not included in the assessment due to the sheltered location and short fetch lengths (as described in **Paragraph 5.2.2** of **Appendix 11-4: Coastal Modelling** of the **Environmental Statement (Volume 3) (APP-109)**).
5.1.19	2.3.1 Despite the statements made in the meeting in September 2023, the Environment Agency are now concerned over the risk of increased deposition at the location of the Great Breach Pumping station gravity outfall. Additional deposition at that location could further hinder the ability to restore discharge from the gravity outfall, for which discussions have recently reopened.	In the meeting held between the Applicant and the Environment Agency on the 14 August 2024 it was discussed that the Great Breach Pumping Station gravity outfall has been blocked due to sedimentation at the downstream end of the outfall for several years (mooted to be in the region of 10 years). As discussed above, it is not guaranteed that the scenario presented in the different plots in **Figures 3-22** to **3-24** within **Appendix 11-4: Coastal Modelling** of the **Environmental Statement (Volume 3) (APP-109)** showing

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		potential sedimentation of concern (complete removal of Belvedere Power Station Jetty (disused)) will be the final design scenario (as described within **Paragraphs 2.2.83 to 2.2.89** of **Chapter 2: Site and Proposed Scheme Description** of the **Environmental Statement (Volume 1) (APP-051)**). In any event, however, the Applicant notes that the Great Breach Pumping Station gravity outfall is already blocked and has been for several years and the predicted impacts of the Proposed Scheme on potential changes to sedimentation in this area (which are not significant – see **Paragraph 5.3.15** of **Appendix 11-4: Coastal Modelling** of the **Environmental Statement (Volume 3) (APP-109)**) would not materially change the current scenario. Therefore, the Applicant would not at this stage propose to implement mitigation as part of the detailed design of the Proposed Scheme. The potential changes are not considered significant from a coastal processes perspective because the modelling showed there is natural variation to the bed level in this area which is of a similar magnitude.
Thames Barrier		
5.1.20	2.6 Advice on the future Thames Barrier 2.6.1 The Thames Estuary 2100 Plan (the Plan) sets out how we (the Environment Agency) and our partners can work together to manage tidal flood risk in the Thames Estuary, from now until the end of the	The comments from the Environment Agency regarding the future Thames Barrier are noted and the Applicant will monitor the future development of the Thames Barrier. However, the Applicant would also expect the Environment Agency to take account of what, in 2040, would be an existing Project of

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	century. It is an adaptive plan, ensuring current standards of flood protection provided by the existing tidal defence system are maintained or improved whilst taking into account the effects of climate change e.g. sea level rise.	National Significance, delivering significant climate change benefits to the nation, in making its decision on which option, and the details of which option, to take into account and therefore remove this site as a potential option.
5.1.21	2.6.2 Current climate projections suggest that the Thames Barrier can continue to protect London from tidal flooding until 2070. After this, the Plan identifies seven end of the century options that may be implemented across the estuary, these include: • Upgrading the existing Thames Barrier; • Creating flood storage and upgrading the existing Thames Barrier; • A new barrier within Gravesend Reach with a single set of gates (the existing Thames Barrier has a single set of gates); • A new barrier within Long Reach with a single set of gates; • A new barrier within Gravesend Reach with two sets of gates and locks; • A new barrier within Long Reach with two sets of gates and locks; and	

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	• Converting the existing Thames Barrier by adding a second set of gates and locks.	
5.1.22	2.6.3 If we are to ensure one of these options is operational by 2070, a decision will need to be taken on the preferred end of the century option by around 2040 and for construction/upgrade works to begin by around 2050.	
5.1.23	2.6.4 The Cory Decarbonisation Project falls within an area that has been identified for flood storage, as per bullet point 2. The flood storage areas are shown on a map within the Plan. We have started work to explore the possible land we will require for each of the end of the century options and how we can secure the land in advance of the 2040 decision date for whichever option is chosen.	
5.1.24	2.6.5 The end of the century options within the Plan, and the ongoing work regarding these, is something the applicant should be aware of as the possible new flood storage space may be on or in close proximity to the Cory Decarbonisation Project site in the future. We recommend the applicant regularly checks the Gov.uk site or contacts the Environment Agency for updates	

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Water Quality		
5.1.25	5.2.13 The submitted WFD assessment has not used relevant data and therefore we do not agree with the conclusions presented 5.2.14 The proposal to (re-)consider potential mitigation under the DCO cannot preempt the conclusions of a WFD assessment which has not been carried out thoroughly A revised WFD assessment will need to include: 1) Evidence that the correct sampling and analysis (including samples collected at depth) has been carried out. 2) The results from 1) above will need to be incorporated into a new WFD impact assessment, which will address the errors and omissions regarding baseline contaminant concentrations, and sufficiently detailed calculations are provided to justify why the applicant believes the activity will not deteriorate the waterbody in relation to chemicals which are already stated in the River Basin Management Plan to be failing. This should include a justified prediction of the predicted uplift in the annual average of each failing chemical to	Initial chemical characterisation of sediments within the Site was undertaken in May 2023, using grab sampling of surface sediments, as part of a coordinated assessment of physical, chemical and benthic biological baseline conditions, bearing in mind that only surface sediments are relevant to the benthic ecological baseline, as described in Section 4.1 of **Appendix 11-1: Water Framework Directive Assessment** of the **Environmental Statement (Volume 3) (APP-106)**. This covered intertidal and subtidal sampling stations across the whole of the Site. It was always understood that further sediment sampling throughout the depth of the material to be dredged would be required during the detailed design stage, when the final location of the Proposed Jetty is determined, allowing delineation of the area requiring dredging, specification of the necessary dredge depth and estimation of the dredged volume (which affects the number of samples necessary to comply with OSPAR guidelines). The submitted **Appendix 11-1: Water Framework Directive Assessment** of the **Environmental Statement (Volume 3) (APP106)** incorporates an assessment of potential impacts to water quality from sediment releases associated with the proposed dredging activities, based on the site specific surface sediment sampling. This is considered reasonable to provide an initial indication of likely contaminant impact within the sediments proposed to be dredged and inform the mitigation measures secured

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	define whether or not the final average concentrations exceed 3% of the baseline. 3) The updated WFD impact assessment is submitted to us and we have agreed that it is acceptable 5.2.15 The currently supplied WFD assessment is not fit for purpose. We cannot advise that the activity will comply with WFD for water quality based upon the information so far received. Baseline data has been overlooked which is materially relevant to calculation of uplifts in baseline due to dredging. Furthermore, the sediment chemistry upon which the assessment is based lacks credibility being based on surfical samples alone, and these results lack data for deeper sediments which could well be more seriously contaminated (and thus alter the perceptions of the risk posed by dredging this material)	through the **Outline CoCP (as updated alongside this report)** and the DML. A subsequent commitment has been made to complete additional sediment sampling at depth across the proposed dredging profile, in line with the controls in the Deemed Marine Licence, at Schedule 11 of the **Draft DCO** (**as updated alongside this Report**), to corroborate the conclusions of **Appendix 11-1: Water Framework Assessment** of the **Environmental Statement (Volume 3) (APP-106)**. The proposed sampling methodology and scope has been discussed and agreed in principle with the relevant stakeholders (MMO, CEFAS, PLA and Environment Agency). A further commitment has been made to develop a Technical Note, once the sediment sampling has been completed, which will present the data findings and assessment to validate these against the recommendations of the submitted **Appendix 11-1: Water Framework Assessment** of the **Environmental Statement (Volume 3) (APP-106)**. Should the results of the sediment sampling necessitate additional mitigation measures these will be developed in discussion with relevant stakeholders, including the MMO, the PLA, and the Environment Agency and be added to the dredging Method Statement (required by Paragraph 10 in Part 2 of Schedule 11 of the **Draft DCO (updated alongside this report)** and the **Outline CoCP (as updated alongside this report)** if relevant. This work will be completed in the first half of the Examination.

Ref #	Relevant Representation	Applicant Response
5.1.26	6.2 We agree that further ground investigation, with appropriate sampling of soil and groundwater, will be necessary as part of any consent issued. We note from the baseline information that Per- and polyfluoroalkyl substances (PFAS) related chemicals are a potential contaminant associated with historic activities at the application site. The presence of PFAS, particularly within any soils or other materials (such as legacy concrete building and foundation remnants) will be a relevant consideration for the potential reuse of materials on-site. Waste reuse assessments must ensure PFAS risks are considered.	The Applicant notes this and will take the comments into consideration as part of the further ground investigation which will be undertaken prior to commencement of construction, the details of which the Environment Agency will be consulted upon pursuant to Requirement 21 of the **Draft DCO (as updated alongside this report)**. As detailed in **Appendix 17-1: Preliminary Risk Assessment (Volume 3) (APP-113)** a pollution incident occurred on site in 2005, potentially releasing firefighting run-offs which may contain PFAS related chemicals. As described in **Section 17.7** of **Chapter 17: Ground Conditions and Soils** of the **Environmental Statement (Volume 1) (APP-066)** and as is practised with other potential contaminants, ground investigation will include the analysis of PFAS in soils for consideration for potential reuse prior to the construction phase as secured by the **Draft DCO (as updated alongside this report)** and in line with the **Outline CoCP (as updated alongside this report)**. The Applicant is required by the DCO to produce a full Site Waste Management Plan prior to construction of the Proposed Scheme, where these matters will be able to be taken into account.
5.1.27	8.1 The applicant should reach an agreement with the Thames Water Utilites Limited to connect to the local sewer if you opt for Route 1 as the method for	Obtaining TWUL consent to connect into their systems is secured pursuant to article 19 of the **Draft DCO (as updated alongside this report)**. Requirement 13 of the **Draft DCO (as updated alongside**

Ref #	Relevant Representation	Applicant Response
	discharging wastewater. No operation of the Carbon Capture Facility should commence until connection(s) to TWUL supply network are agreed and in operation.	**this report)** secures details of the drainage scheme for the Proposed Scheme to be approved by LBB prior to commencement of the authorised development.
5.1.28	8.2 Route 2 as one of the wastewater discharge options to discharge wastewater into the River Thames will require a wastewater discharge permit from the Environment Agency.	As set out in **Paragraphs 3.6.110** to **3.6.13 of Chapter 3: Consideration of Alternatives** of the **Environmental Statement (Volume 1) (APP-052)**, this option is no longer being pursued for the Proposed Scheme and does not form part of the application.
5.1.29	8.3 Page 966, 3.12.2, for the amine wastewater effluent and waste offsite disposal via road tanker. The applicant should confirm whether they have an agreement with a specialised contractor and clarify where the waste will be disposed.	A specialist waste contractor and disposal site will be identified as the project progresses. There are multiple suitable contractors providing such services, such that the Applicant does not foresee any difficulty in this matter.

Table 5-2 – Response to MMO Marine Ecology Representations

Ref #	Relevant Representation	Applicant Response
Benthic Ecology		
5.2.1	2.3.6 The MMO considers that appropriate benthic receptors have been scoped into the assessment. The Applicant has carried out a comprehensive desk-based assessment of benthic taxa in the Zone of Influence (ZoI) associated with the worst	The Applicant acknowledges the comments from the MMO. The two sea mat species and protected sea slug were not collected in the surveys undertaken for the Proposed Scheme. The survey results are set out in **Appendix 8-1: Marine Baseline Surveys** of the **Environmental Statement (Volume 3) (APP-099)** and the findings are presented in

Ref #	Relevant Representation	Applicant Response
	case scenario of dredging impacts (within 3.5 km of the site boundary) and provided results of site-specific benthic sampling to inform the baseline benthic assemblage at the site. While two species of nationally rare sea mat were identified during the desk-based study, these were not evident in the samples collected from within the Project zone of influence (ZoI) and were located 4 km upstream from the site boundary. Similarly, the protected lagoon sea slug Tenellia adspersa was recorded approximately 14 km upstream and was absent from samples collected during the site-specific survey.	**Section 8.6** of **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)**.
5.2.2	2.3.8 The benthic macrofaunal dataset appears to be limited in the level of identification achieved with several taxa reported to genus and family (e.g., Corophium, Corophiidae, Polydora, Streblospio, Gammarus). Clarification should be sought from the processing laboratory regarding this limitation to ensure these data conform to industry standards. The MMO would expect the reduced level of identification to be accompanied by a reason, such as damage to the specimens or inability to proceed due to unresolved taxonomy of	The approach to the surveys is presented in **Paragraphs 1.1.1** to **1.1.11 Appendix 8-1: Marine Baseline Surveys (Volume 3) of the Environmental Statement (Volume 3) (APP-099)**. The samples were identified by a Laboratory accredited to The NE Atlantic Marine Biological Analytical Quality Control Scheme (NMBAQC) to the lowest possible taxonomic level i.e. species level and thus conform to industry standards. Some of the specimens were damaged during collection and therefore could not be identified to taxa level. However, the majority of specimens were and therefore the data set provided a sufficiently robust baseline which was comparable to other surveys undertaken within similar areas of the Thames Middle.

Ref #	Relevant Representation	Applicant Response
	the taxa in question. To enable robust assessment in the future, comparative data may need to be significantly truncated and there is a risk of loss of information should the comparative dataset resolve the taxon identifications to species level and the current dataset remain at this lower resolution.	
5.2.3	2.3.11 The MMO requests clarification on whether the subtidal benthic dataset will be made available for researchers and the public via upload to a storage database. The MMO would encourage the Applicant to ensure these data are made widely available for example through upload to the OneBenthic sample database (https://rconnect.cefas.co.uk/onebenthic_portal/) so that additional value can be obtained by incorporating the information into subsequent reanalyses.	The Applicant is willing to share the results of the surveys via the OneBenthic sample database.
Fish Ecology		
5.2.4	2.4.1 The ES states in Section 8.4.3 (Chapter 8. Marine Biodiversity. Revision A) that the following impacts will be scoped out for fish receptors: lighting and INNS for the construction phase and vessel strikes for both the construction and	The impacts of lighting and INNS for the construction phase on fish receptors were scoped in for the assessment presented in **Chapter 8: Marine Biodiversity** of **the Environmental Statement (Volume 1) (APP-057)** for completeness. The ES assessment concluded that these impacts would have Negligible (Not Significant) effects on fish receptors

Ref #	Relevant Representation	Applicant Response
	operational phases. However, these impacts are then assessed later in review in Chapter 8. The MMO requests clarification on whether these impacts are actually scoped out or not.	with appropriate mitigation. Vessel strike for fish receptors in both construction and operation phases were scoped out of the assessment (due to the absence of large marine fish species within the zone of influence of the Proposed Scheme), with only impacts to marine mammals assessed (Construction activities see **Paragraph 8.8.97**, operational activities see **Paragraph 8.8.172** in **Chapter 8: Marine Biodiversity** of **the Environmental Statement (Volume 1) (APP-057)**.
5.2.5	2.4.3 The ES now correctly acknowledges the potential limitations and assumptions associated with the site-specific beam trawl surveys which is appropriate. However, no reference has been made to the limitations and assumptions associated with the Environment Agency (EA) TraC otter trawl survey data which has also been used to support the characterisation of fish receptors in the study area.	The Applicant used a number of data sources including the Environment Agency TraC survey data to inform the baseline. Although the Otter Trawls will also have limitations, the Applicant did not deem it appropriate to critique the WFD compliant method utilised by the Environment Agency for sampling within the Thames Estuary. This was due to it forming part of a wider baseline used to contextualise the Thames Middle fish community. The limitations of the survey could be the selectivity of the sampling method (i.e. selective sampling of pelagic species only), however, as it is only forming part of the wider baseline described in **Chapter 8: Marine Biodiversity** of **the Environmental Statement (Volume 1) (APP-057),** this survey method compliments the other methods used to develop the baseline including beam trawls conducted by the Applicant.
5.2.6	2.4.4 The Applicant has still not presented the sensitive migratory periods for diadromous Thames fish, apart from European eel (Anguilla Anguilla). It was requested in previous advice that	The Applicant has included mitigation in **Paragraph 8.7.2** of **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)**, which describes the periods (April to September) where activities such as dredging and piling will be avoided, based upon the migration of

Ref #	Relevant Representation	Applicant Response
	the upstream/downstream migrations of the relevant sensitive species be clearly presented (e.g. in a table) however this has not been provided. It is correctly stated that juvenile glass eels migrate upstream past the site during late March, and adult silver eels return to sea from October. The MMO would have anticipated that the migratory periods of European smelt, salmonids and lamprey also be presented. Smelt congregate near river mouths in winter and usually ascend the river between February and April, returning to the sea soon after spawning takes place (Barnes, 2008). It is understood that smelt spawn in the upper tidal Thames (between Wandsworth Bridge and 600 m upstream of this point, as well as possibly further upstream to Barnes Bridge) in March and April (ZSL, 2016). Following spawning, juvenile smelt drift with the currents until they are large enough to swim independently. They remain in the tidal Thames throughout the summer. Upstream migration of adult salmonids occurs during spring into late summer/autumn months, starting in March with potential to extend into October. The second sensitive period for salmonids is the downstream migration of smolts	European smelt. This is also set out in **Paragraphs 6.2.4 and 6.2.5** of the **Outline CoCP (as updated alongside this report)**. This period also overlaps with the main European eel migration period (March to October) therefore it is deemed sufficient. In addition, night-time working in March and October will not be undertaken, which will reduce impacts to eel migration which is mainly undertaken at night. This approach has also been agreed with the Environment Agency. The issue regarding works in March was discussed in more detail with the MMO during the meeting on the 19th August 2024 and an agreed approach of working in the dry environment during low tide was agreed upon to reduce impacts to migratory fish including Smelt, as set out in **Paragraphs 9.2.1.11** and **9.2.18** of the **Outline CoCP (as updated alongside this report)**. **Paragraph 8.8.39** of **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)** also states that: "*The timing of dredging activities to avoid migration periods for Atlantic salmon, brown/sea trout, European eel and lamprey species, will reduce the potential for impacts on these species*". The Applicant considers this provides sufficient clarity on the sensitive periods of these species.

Ref #	Relevant Representation	Applicant Response
	that typically occurs nocturnally between April to June with the peak being in May (Riley and Moore, 2000; Riley et al., 2002; Riley, 2007; Riley et al., 2012). Lamprey species exhibit a nocturnal migration pattern similar to European eel; with migration occurring in winter and spring for river lamprey and sea lamprey respectively (Maitland, 2000). We note that there has been consultation with the EA to establish a 'suitable' temporal mitigation period (April-September) to avoid the migratory periods of key fish receptors. It would have helped the assessment and the justification of the chosen mitigation period if the Applicant had clearly presented the sensitive migratory periods for the key fish receptors.	
5.2.7	2.4.7 The ES states in Paragraph 8.8.64 that behavioural impacts of UWN from impact piling will extend up to 390m. This is not wholly accurate as it should be noted that TTS does not represent behavioural impacts and is defined by Popper et al., (2014) as short- or long-term changes in hearing sensitivity that may or may not reduce fitness. Sound exposure levels over which behavioural impacts may occur have not been	This comment on behavioural impacts extending beyond that of the impacts from TTS are noted. However, as the study required a specific boundary and quantifiable measurement to make an assessment, TTS was used. While behavioural impacts may extend over distances beyond that of TTS, with the method of working and breaks in activity proposed (e.g. limited to 30 minutes per day for percussive piling as per the **Outline CoCP (as updated alongside this report)**), alongside other mitigation implemented, the conclusion of no significant effects in the TTS and beyond can be reached.

Ref #	Relevant Representation	Applicant Response
	quantified in Popper et al., (2014), and are just stated as low, moderate and high, which represent the 'near' (tens of metres), 'intermediate' (hundreds of metres), and 'far' (thousands of metres) fields, respectively. Behavioural impacts may therefore extend over distances beyond that of TTS and will likely be highly species dependent.	
5.2.8	2.4.8 All impacts to fish receptors have been assessed as being negligible or minor adverse (not significant) when the appropriate mitigation is implemented. The MMO does not agree entirely with this assessment with respect to impacts of UWN on key migratory fish receptors namely European smelt and European eel. The Applicant acknowledges that there is potential for UWN to cause an acoustic barrier to migration and the mitigation currently suggested does not offer any protection to migrating smelt and eel.	An Underwater Noise Assessment was carried out (**Appendix 8-4: Underwater Noise Assessment** of the **Environmental Statement (Volume 3) (APP-084**) which found noise and vibration activity would not have a significant effect on European smelt and European eel. Details of this are reported in **Paragraphs 8.8.63** to **8.8.75** in **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)**. The Applicant has stated in **Section 8.7** of **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)** that no piling and dredging activity will take place between April and September during the sensitive period for migrating smelt and eel. In addition, as discussed in the meeting with the MMO on 19 August 2024, piling and construction activity in March will focus on and be limited as much as feasible to low tide on dry areas, effectively removing any impact to migratory fish such as smelt and eel during March. Therefore, the Applicant considers this is sufficient protection to for these species.

Ref #	Relevant Representation	Applicant Response
5.2.9	2.4.9 The temporal mitigation measure suggested do not provide suitable protection for migrating smelt and eel. Following consultation with the EA, the current proposal is for construction activities such as piling and capital dredging to take place outside migratory periods of sensitive fish species (April – September). However, the month of March has been excluded from the proposed restriction period on the basis that the project site isn't near the smelt spawning ground, which is 30km upstream near Wandsworth bridge, though evidence of smelt spawning 10km upstream near Greenwich is also noted (ZSL, 2020). Whilst the smelt spawning grounds are located further upstream, it should be recognised that to reach their spawning grounds, smelt must migrate upstream past the project site in late February/ early March. This is supported by several studies showing that smelt spawning occurs in early March in the Thames (Maitland, 2003), smelt spawn over an elongated period of five weeks during March and the beginning of April with a one-to-three-week peak spawning period within that window (ZSL, 2016), and that high abundances of several-weeks-old smelt were found at Greenwich in 2018	Details of the piling activity and precautionary mitigation implemented can be found in the **Outline CoCP (as updated alongside this report)**, which minimises impacts to migratory fish. 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. In addition, as discussed in the meeting with the MMO on the 19 August 2024, piling and construction activity in March will focus on and be limited as much as feasible to low tide on dry areas, effectively removing any impact to migratory fish such as smelt and eel during March. This is set out in the **Outline CoCP (as updated alongside this report)**.

Ref #	Relevant Representation	Applicant Response
	(ZSL, 2019). Therefore, the MMO has high level of confidence that piling works undertaken below the water line during March will overlap with the upstream migration of adult smelt from February onwards and their spawning season. In addition, works are intending to be carried out 24/7 which has the potential to impact the nocturnal migration of eel. In line with other developments of a similar nature in this part of the Thames, the following mitigation measures are recommended in order to reduce the potential impacts on migratory species: Between 1st March and 30th June (inclusive), in any given year, no piling of any type must take place in the water. Reason: to protect adult European smelt during their upstream migration to their spawning grounds. Additionally, a restriction until end of June will afford protection to juvenile/larvae migration downstream of the site for both smelt and Atlantic salmon. No piling of any type is permitted between sunset and sunrise each day.* Reason: to protect migratory fish species migrating at night such as European eels migrating	

Ref #	Relevant Representation	Applicant Response
	downstream during the autumn as well as river lamprey migrating into freshwater from October. *The times of sunrise and sunset should be set in accordance with HM Nautical Almanac Office data.	
5.2.10	2.4.10 The cumulative impact assessment (Chapter 21: Cumulative Effects. Revision A) is rather brief and lacks detail. As far as we can tell this has identified the other relevant developments that have potential to interact cumulatively. However, fish receptors have not been specifically assessed nor have the impacts of UWN. The assessment broadly assesses whether there will be impacts from each development to marine biodiversity with the results either being not applicable or minor adverse. The MMO does not agree with this assessment, the impacts of UWN to key fish receptors have the potential to be significant with the current inadequate mitigation measures. Therefore, we cannot agree that there will be no significant effects to marine biodiversity (fish) when considering the cumulative impacts of the project and other developments in the vicinity.	**Chapter 21: Cumulative Effects** of the **Environmental Statement (Volume 1) (APP-070)** presents a summary of the findings of the full inter-project effects assessment which is presented in Appendix 21-1: Inter-Project Effects Assessment of the Environmental Statement (Volume 1) (APP-118). The construction phase assessment presented in **Table 4-1** of **Appendix 21-1: Inter-Project Effects Assessment** of the **Environmental Statement (Volume 1) (APP-118)** considers fish receptors, including impacts from underwater noise, on a qualitative basis. As stated in **Table 21-4** of **Chapter 21: Cumulative Effects** of the **Environmental Statement (Volume 1) (APP-070)**, marine biodiversity was scoped out of the operation phase inter-project effects assessment as all residual effects in **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)** were found to be Negligible during the operation phase, this includes the impacts from underwater noise on fish receptors (as described in **Paragraphs 8.8.151 to 8.8.159** and **Table 8-14** of **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057))** and therefore, an inter-project effect is unlikely for these effects.

Ref #	Relevant Representation	Applicant Response
Shellfish Ecology		
5.2.11	2.5.1 The MMO does not wholly agree with the conclusions reached for the proposed project in regard to shellfish ecology. 2.5.2 A desk-based study was conducted with historical data from 2015 which identified shellfish species 8km downstream including low densities of crustaceans and molluscs. Additionally, the applicant conducted a recent benthic survey in 2023 which consisted of dredging and beam trawls and identified low densities and diversity of shellfish species such as Brown shrimp Crangon crangon, mysid shrimp Mysid spp and Gammarus spp. Shellfish grounds have been identified as 39.6km downstream from the site. (also 2.5.11: The MMO would expect to see considerations towards the effects upon the proposed project upon shellfish species which have been identified through the desk-based study and both the dredge and beam trawl surveys. While they have been identified in low density, there is still species presence and therefore as	In **Chapter 8: Marine Biodiversity of the Environmental Statement (Volume 1) (APP-057)**, the Applicant considers the term shellfish to describe commercial shellfish beds and harvesting areas, which have not been assessed in the ES as the closest commercial bed is located more than 30km from the Proposed Scheme. Any shellfish species, such as Brown shrimp recorded outside of designated shellfish harvesting areas, have been considered and assessed under benthic ecology within **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057).** This approach was discussed during the meeting with the MMO on the 19 August 2024 and the approach was deemed to be acceptable by the MMO. Please see response **Ref 5.2.11** above.

Ref #	Relevant Representation	Applicant Response
	best practice we would recommend the inclusion of shellfish in the environmental assessment).	
5.2.12	2.5.3 While shellfish population densities are low, the MMO believes the applicant should still consider shellfish species within the ES and the potential impacts towards these populations before scoping them out of the report.	
5.2.13	2.5.4 Prior to dredging and disposal operations, the MMO would expect to see consideration to the impacts on shellfish species at the disposal site once an appropriate disposal method and site have been determined.	The Applicant has given consideration to this point and states in **Paragraph 8.7.2 Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)** that: *"Sediment within the dredged areas (including to dredge depth of approximately 10.5m below chart datum) should be collected and analysed for sediment bound contaminants to determine the most appropriate method of disposal of dredged material in discussion with the MMO and Centre for Environment Fisheries and Aquaculture Sciences (CEFAS), pursuant to the DML. Furthermore, it will inform subsequent additional mitigation if sediments are shown to be elevated in contaminant concentrations"*. The Applicant will ensure that any dredged material to be disposed of will meet all dredged disposal site requirements as otherwise disposal will not be able to occur (as the disposal site has its own licensing requirements), therefore this is unlikely to have any impact upon shellfish receptors. Furthermore, the DML within the DCO requires that only inert material of

Ref #	Relevant Representation	Applicant Response
		natural origin, produced during dredging, shall be disposed of within the disposal site.
5.2.14	2.5.5 The ES notes that the disposal site of dredged material is not yet determined. The MMO would expect to see further consideration towards the impacts on shellfish once a dredge disposal method and site have been identified. 2.5.6 The MMO would expect shellfish to be considered in the ES and not scoped out of the proposal prior to assessment. Therefore, while evidence has been provided for low densities of shellfish species, this suggests that an environmental assessment should still be conducted in relation to shellfish species.	For 2.5.5 please see response to **Ref 5.2.13** above. For 2.5.6 please see response **Ref 5.2.11** and **5.2.12**. above.
5.2.15	2.5.7 The MMO notes that both a desk-based assessment and benthic surveys (dredge and beam trawl) were used. However, no assessment on the impacts to shellfish species were proposed.	As noted above, shellfish have been considered as part of the benthic ecology assessment. The baseline data collection included benthic surveys, including beam trawls.
5.2.16	2.5.8 The baseline data used were from desk-based studies from 2015. While they provide a guideline for species presence in the area, the MMO would recommend for future works to utilise more recent data on shellfish species presence.	The Applicant utilised the most recent up to date data available on shellfish at the time of writing in **Paragraphs 8.6.17** to.**8.6.36** in **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057).** This data was supplemented by field survey data collected by the project team. In addition, any Shellfish species identified during the

Ref #	Relevant Representation	Applicant Response
	This can be supported by consulting with local authorities on shellfish species presence for the area.	desk study, but not within a designated shellfish harvesting area, were assessed as part of the benthic ecology, as they form part of this community. This approach was discussed during the meeting with the MMO on the 19 August 2024 and the approach was deemed to be acceptable by the MMO.
5.2.17	2.5.9 The supporting surveys, dredge and beam trawl were appropriate evidence sources for species such as shrimp species (beam trawl) and cockles (dredge), however the preferred method for determining species such as crab, lobster and whelk presence is through potting surveys using baited traps. The MMO would recommend consideration of potting surveys for future scoping.	The Applicant acknowledges the MMO's comment regarding the use of potting surveys using baited traps, however due to the levels of shipping activity and strong tidal flows within this section of the tidal Thames, the methods were not deemed appropriate in this location. This is due to potential risks to shipping and the gear not fishing effectively in the tidal flows present. In addition, this section of the Tidal Thames, within which the Proposed Scheme is located, is subject to reduced salinities, with the substrate and other prevailing environmental conditions not considered suitable for commercial crab, lobster and whelk species, therefore this method was discounted as these species are unlikely to be within this section of the Thames due to the salinity regime being suboptimal for these species, thus making these survey methods ineffective.
5.2.18	2.5.10 There were no cumulative or interrelated impacts considered in relation to shellfisheries. The MMO would expect these to be considered in an environmental assessment.	In **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)**, the Applicant considers the term shellfisheries to describe commercial shellfish beds and harvesting areas which have not been assessed in **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)** and therefore also not in **Chapter 21: Cumulative Effects of the Environmental Statement (Volume 1) (APP-070)** as the closest commercial bed is located more than 30km from the

Ref #	Relevant Representation	Applicant Response
		Proposed Scheme, therefore no likely significant effects were anticipated (and therefore cumulative impacts did not need to be considered). Outside of these areas, shellfish have been considered under benthic ecology within **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)**. This approach was discussed during the meeting with the MMO on the 19 August 2024 and the approach was deemed to be acceptable by the MMO.
Underwater Noise		
5.2.19	2.6.6 It is not clear how the 4% value for harbour porpoise and 2% in the case of seals, mentioned in the statements above, were calculated, or indeed which injury zone (PTS or TTS) they are referring to. We note that the duration of the piling activity (30 minutes per day) is indeed approximately 4% of the 12 hour "working day" duration, but the swim times for harbour porpoise are 7 minutes (for the PTS zone) and 51 minutes (for the TTS zone), and thus would correspond to different percentages of the 12-hour working day.	The fleeing calculations within paragraphs 7.2.22 and 7.2.23 of **Appendix 6-4: Underwater Noise Assessment (APP-084)** were included to provide a very conservative contextual consideration of the exposure times in conjunction with the 24hr SEL criteria within Southall et al. 2019. A summary of the calculations for harbour porpoise and seal TTS exposure times have been provided below for clarity, followed by a description of the potential limitations associated with this approach. Harbour Porpoise: To travel 4559m (the predicted cumulative SEL TTS impact range), travelling at 1.5m/s, would take 51 minutes. 51 minutes is 4% of a 24hr period. Seals: To travel 2333m (the predicted cumulative SEL TTS impact range, travelling at 1.5m/s, would take 26 minutes. 26 minutes is 2% of a 24hr period.

Ref #	Relevant Representation	Applicant Response
		It is understood that the comparison of fleeing times with impact ranges representative of stationary receptors overestimates exposure time. Furthermore, it is recognised if fleeing behaviour was explicitly included within the NMFS methodology, the impact ranges would reduce. As per a meeting with the Applicant on 19 August 2024, the MMO expressed satisfaction with the assessment, and that the impact ranges using the NMFS methodology were validated by the CEFAs in-house modelling tools.
5.2.20	2.6.7 Furthermore, there seems to be a misunderstanding as to the meaning of the injury effect zones, which were calculated for stationary animal receptors exposed to impact piling noise. An animal receptor would accumulate a noise exposure exceeding the injury threshold (PTS or TTS) if it remains inside the respective zone for the duration of activity – which in this case is only 30 minutes. Thus, if one desires to construct an argument based on the potential duration an animal spends inside these effect zones (i.e., the "swim times"), then these durations should be compared to the duration of the noise generating activity (so the total piling duration) and not an arbitrary 12-hour interval. Noting these, we can immediately observe that the 51 minutes needed	The assessment is based upon a worst case scenario (i.e. animals will remain stationary and will not flee from noise generating activities) and does not account for the fact that harbour porpoise are rare in this section of the Thames and therefore unlikely to interact with the Proposed Scheme on a regular basis. It should also be noted that the Proposed Scheme is proposing to use an Ecological Clerk of Works (ECoW) as mitigation before the piling works commence to ensure that no marine mammals are within 500m of the works to further mitigate for any impacts, as described in **Section 8.7** of **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)** the **Outline CoCP (as updated alongside this report)**. The MMO's comments are noted. However, this matter was discussed in more detail during the meeting on 19 August 2024, where the MMO expressed satisfaction with the assessment approach (including assumptions made about noise exposure), and that the impact ranges

Ref #	Relevant Representation	Applicant Response
	by a harbour porpoise to leave the TTS injury zone (i.e., to swim across 4559 m with 1.5 m/s) exceeds the 30-minute duration of the piling activity, and thus indicates that in this case, fleeing would not reduce the noise exposure accumulated during piling below the TTS threshold.	using the NMFS methodology were validated by the CEFAS in-house modelling.
5.2.21	2.6.8 On a more fundamental level, we need to point out that the logic of comparing the extent of the stationary injury effect zone with the swim times / distances of fleeing animals cannot be used to categorically disprove the risk of injury for fleeing animals. An animal does not have to spend the entire duration of the noise generating activity time inside the zone to be exposed to injury levels, except if it sits in the places where the cumulative exposure is exactly equal to the injury threshold value (e.g., at the edge of the zone); anywhere else (where the cumulative exposure over the activity duration exceeds the threshold, like nearer to the source location) it will clearly reach the threshold before the end of activity.	
5.2.22	2.6.9 As pointed out above, the essential meaning of an injury effect zone, calculated for stationary receptors, has to be understood as the zone where	

Ref #	Relevant Representation	Applicant Response
	an animal will accumulate exposure equal or above the threshold if it remains there for the entire duration of the activity (let us call this situation Scenario A). In the event that an animal flees and thus is present inside the zone for a duration less than the entire duration of the activity (we call this Scenario B), its exposure will logically be lower than in Scenario A. However, there is no guarantee that in the fleeing Scenario B the exposure will drop below the threshold (only that it will be less than in Scenario A). Additionally, the comparison is further complicated by the fact that the activity noise footprint extends outside these stationary injury zones, and a fleeing animal will continue to accumulate noise exposure even after crossing the zone boundary, which might thus still take its exposure above the threshold. These observations serve to emphasize that predicting the existence of the cumulative exposure effect zones and their extent for fleeing receptors requires an explicit inclusion of the fleeing behaviour of the animals into the model and cannot be readily and fully inferred from the extent of the corresponding stationary effect zones.	

Ref #	Relevant Representation	Applicant Response
5.2.23	2.6.10 Based on sense-checking of the modelling results, we can confirm that the extent of the injury effect zones for stationary receptors, as shown in Table 7-12, are plausible under the scenario assumptions detailed in Table 7-11 and in Section 7.2. Furthermore, using Cefas' in-house modelling tools, we would estimate that for fleeing animals, the extent of the injury zones would be reduced, but not eliminated. More specifically, our PTS range estimate for fleeing harbour porpoise is in the order of 100 m (compared to more than 600 m for stationary receptors), while for the TTS range we estimate a reduction of less than 50%, namely to 2.5 - 3 km, compared to more than 4.5 km for the stationary receptors. Thus, fleeing can indeed have an important role in reducing the risk of injury, especially in the case of PTS, where the extent of stationary effect zones is not very large in the first place, although the relative short duration of piling means that this role is reduced for the effects that extend over a larger zone, such as TTS.	This response is noted as are the findings of CEFAS in-house modelling, which were further clarified in the meeting between the Applicant and the MMO on the 19 August 2024. See comments above (**5.2.19**) for acknowledgement of reduction of impact when considering fleeing animals.
5.2.24	2.6.11 It would be helpful if further clarity can be provided regarding the piling scenarios presented in the assessment. For example, for vibro-piling,	The piling scenarios have been set out below:

Ref #	Relevant Representation	Applicant Response
	the assessment considers a total of 15 piles installed per day, with a duration of 20 minutes per pile (see Table 7-9 in the report). However, for the impact piling scenario, the assessment is based on the installation of only a single pile per day (as per Table 7-11). Paragraph 7.2.26 confirms that (impact) piling activity will be taking place for 30 minutes per day. 2.6.12 The embedded mitigation is set out in section 8.7 of Chapter 8 Marine Biodiversity. The mitigation proposed for marine mammals appropriately follows the JNCC (2010) guidelines for minimising risk of injury to marine mammals from piling noise, which the MMO supports.	Vibro-piling: Up-to 15 piles per day to be installed. Each pile has been assumed to take 20 minutes of continuous vibratory piling until refusal based on experience on similar projects. Impact Piling: 1 pile per day would be installed using impact piling. It was assumed that each pile required 900 strikes to refusal, based on experience on similar projects. These parameters are considered conservative and representative of a typical worst case scenario. The most detailed information available on the proposed piling scenarios are provided in Section 6 of **Appendix 6-4: Underwater Noise Assessment (Volume 3)** of the **Environmental Statement (Volume 3) (APP-084)**.
5.2.25	2.6.13 There is a risk of a temporary acoustic barrier during pile driving operations. Specifically, paragraph 7.1.14 of Appendix 6-4 acknowledges that “TTS effects are anticipated to occur across most of the width of the River Thames during low tide. This therefore potentially creates a partial temporary barrier to fish movements”. TTS is different from behaviour (TTS is a temporary hearing impairment). If TTS effects are anticipated across most of the river, then it is reasonable to	This response is noted. It is worth noting, whilst the assessment came to this conclusion in the modelling, consideration of the proposed piling activity and precautionary mitigation implemented (which can be found in the **Outline CoCP (as updated alongside this report)**) should be considered in combination with the assessment findings. No impact piling will occur at night, and piling activity will not be continuous (limited to 30 minutes per day for percussive piling), therefore a window for fish movement will be available. In addition, as discussed in the meeting on 19 August 2024, piling and construction activity in March will focus on and be limited as much as

Ref #	Relevant Representation	Applicant Response
	expect behavioural effects (in terms of disturbance or displacement) which could potentially impact fish movements.	feasible to low tide on dry areas (as set out in the outline CoCP), effectively removing any impact to migratory fish such as smelt and eel during March. The main concerns raised by the MMO to in channel works in March, was to potential impacts to smelt migration through the River to upstream spawning grounds. By restricting instream works at this time, it should reduce potential behavioural impacts. In addition to limited works in March, all construction activities within the River will be suspended between April and September.

Table 5-3 – Response to LBB Marine Ecology and Drainage Representations

Ref #	Relevant Representation	Applicant Response
5.3.1	At this time the Council has the following concerns: • Fish data evidenced for the proposed development within Marine baseline was collected only via beam trawl methodology and therefore does not follow the Water Framework Directive (WFD) multiple method monitoring for fish in transitional water. To further define the baseline, additional data should be obtained from Kent & Essex Inshore Fisheries and Conservation Authority (K&E IFCA) and Centre	The Applicant undertook beam trawls only at the Site due to health and safety concerns (as described in **Paragraph 8.12.1** in **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)**). The Applicant has utilised fish survey data from the Environment Agency, CEFAS and ZSL as described in **Paragraphs 8.6.40** to **8.6.57** of **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)**. The Applicant has included data regarding grab samples from the intertidal zone within **Table 8-9** in **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)**. Due to health and safety concerns, it was not deemed safe to undertake surveys on the

Ref #	Relevant Representation	Applicant Response
	for Environment, Fisheries and Aquaculture Science (CEFAS). • Within the identified Habitats of Principal Importance, intertidal mudflat and saltmarsh have been amended to be assessed as of National importance however descriptions and surveys of the intertidal and marine biotopes have not been provided. • The impact to migratory fish needs to be clarified in relation to construction activities and dredging e.g. European smelt will be migrating during February for spawning. However, the migratory window for other species occurs between April and September. Potential risks and mitigation options to migration paths should be considered within the construction methodology to account for variable migration events. • The defined baseline fish populations impacted by the proposed scheme is based only on two sampling occasions on two separate years and the EA Ecology and Fish data explorer was not used to establish baseline. A more robust baseline species composition should be	mudflats and saltmarsh, therefore the habitats were assumed to be in high condition as a precautionary approach. The impact to migratory fish, outside of the April to September exclusion period has been considered and has been included within the **Outline CoCP (as updated alongside this report)** with construction work not being conducted continuously over a 24-hour period. A meeting with the MMO on 19th August 2024, developed the proposal to limit construction activities to works undertaken at Low tide in a dry environment to reduce potential impacts. The Applicant utilised the Environment Agency fish and data explorer to establish a fish baseline, within the zone of influence of the Proposed Scheme (i.e. the area that could be affected by Proposed Scheme activities) as described in **Paragraphs 8.6.40** to **8.6.57** in **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)**. In addition to the Environment Agency data explorer, the baseline for the wider Thames, was produced from data sources including CEFAS and ZSL. The Applicant did not include the Medway Nursery area due to the distance from the Site which is in excess of 25km away. The Applicant based the low sensitivity of fish species to noise and vibration upon the species present within the survey area this is detailed in paragraphs **8.6.40-8.6.62** (fish assemblage) and Paragraphs **8.8.63** to **8.8.75** (Impacts assessment) in **Chapter 8: Marine Biodiversity** of the **Environmental Statement (Volume 1) (APP-057)** and within **Appendix**

Ref #	Relevant Representation	Applicant Response
	established using data collated from all fish sites within the Thames Middle WFD water body. • Recreational angling for sea bass is common within the Middle Reach of the Thames Tideway however no reference to the Medway nursery area has been made. Further data from Kent & Essex IFCA and CEFAS should be evidenced to understand the impact to this • Within the assessment of likely significant impacts, it suggests that the fish species present have a low sensitivity to noise and vibration however there is insufficient evidence for this conclusion. • With regard to the underwater noise modelling results and potential effects, it is stated that NMFS Optional Multi-species Pile Driving Calculator model has been used to provide results and assess the potential affects. However, as this tool was designed based sensitivities of north American fish species, it is unclear how applicable this is within the Thames Estuary and UK fish species and further clarification is required.	**6-4: Underwater Noise Assessment (Volume 3)** of the **Environmental Statement (Volume 3) (APP-084)**. Few hearing specialist species were recorded within the desktop and survey data (notably Atlantic herring and Atlantic seabass), with these species being recorded in low numbers in the surveys. In addition, the duration of impact piling for a maximum period of 30 minutes per day, which will reduce the potential for impacts to fish species within the survey area. The Applicant has discussed the use of the NMFS Optional Multi-species Pile Driving Calculator model with the Environment Agency and MMO and they have advised that they accept its use. The Applicant has progressed its assessment on this basis.

Ref #	Relevant Representation	Applicant Response
5.3.2	The Council has no objections in principle to the development and the proposed drainage strategy accompanying the submission. The applicant has stated that a detailed drainage strategy will be submitted in due course. The detailed drainage strategy should be accompanied by calculations demonstrating that the discharge to the local watercourse shall be limited to the greenfield runoff rate for all events. The outline drainage strategy makes assumptions on the permeability of different areas. Details will need to be submitted within the detailed drainage strategy to justify these assumptions.	The Applicant confirms that the detailed design of the proposed network, inclusive of all drainage features, attenuation systems and flow controls, pollution prevention systems and treatment trains and hydraulic models will be submitted for approval. The **Outline Drainage Strategy (APP-122)** confirms that discharge into the local watercourse network will be limited to the greenfield runoff rate for all events (Qbar of 3.71l/s/ha has been used). This is noted in **Section 4.3. Greenfield Runoff Rates**, **para. 4.3.1, 4.3.2, 4.3.4.** Calculations are also included in Appendix D of the Outline Drainage Strategy. The **Outline Drainage Strategy (APP-122)** has been updated to include the provision of construction design for external areas within the detailed drainage strategy to justify these assumptions (**para 4.4.8**.).
5.3.3	While the applicant has indicated that they anticipate the development to have a lifetime of 50 years. The Planning Practice Guidance states that for non-residential uses, the lifetime of the development shall be considered to be 75 years. On this basis should the climate change allowances be applied to the Flood Risk Assessment and Drainage Strategy. This therefore means that a climate change allowance of 40% should be applied to these assessments.	This is noted by the Applicant. Whilst the development design lifetime is 50 years, the climate change allowance of 40% for a 75 year design life has been used in all calculations as reported in the **Outline Drainage Strategy (APP-122)**. **Section 4.1 Design Parameters and Climate Change, para 4.1.5.** has been updated to clarify the climate change allowances used, in line with the PPG. Calculations are also included in **Appendix D** of the **Outline Drainage Strategy (APP-122)**.

Ref #	Relevant Representation	Applicant Response
5.3.4	The Council would expect to see multiple maintenance access points to the ditches from the highway.	The **Outline Drainage Strategy (APP-122)** has been updated to reflect the comment from the Council on provision of multiple access points **(Para. 4.7.7).** In addition to this, **Figure 4-3** and **Appendix G** included in the **Outline Drainage Report (APP-122)** indicates where access from highway could be provided, and sets out that this will be able to be confirmed as part of LBB's approval of the full Drainage Strategy.

6. TRANSPORT IMPACTS

6.1.1. In Table 6-1 below, the Applicant has set out its response to the key themes raised by Interested Parties in respect of the transport impacts of the Proposed Scheme.

Table 6-1 – Response to Transport Impacts Representations

Ref #	Interested Parties	Summary of Relevant Representation	Response
6.1.1	National Highways, Kent County Council and Dartford Borough Council	These Interested Parties raised concerns about the impacts of Proposed Scheme HGV and AIL movements to the operation of M25 J1A.	As described within **Table 18-2** of **Chapter 18: Landside Transport** of the **Environmental Statement (Volume 1) (APP-067)**, the Applicant engaged with the Interested Parties regarding the scope of the traffic survey and anticipated vehicle routing in May 2023 (which informed the Landside Transport Study Area, described in **Section 18.5** of **Chapter 18: Landside Transport** of the **Environmental Statement (Volume 1) (APP-067)**), which followed a similar approach to that of the Riverside 2 assessment. All responses received from the Interested Parties were incorporated within the survey scope and finalised Landside Transport Study Area. The M25 J1A was not included within the Landside Transport Study Area as the level of predicted trip attraction did not warrant its inclusion. **Table 18-21** of **Chapter 18: Landside Transport** of the **Environmental Statement (Volume 1) (APP-067)** indicates that the Proposed Scheme is forecast to increase traffic on the A206 Bob Dunn Way (the closest traffic survey site, exhibiting a daily flow of 27,015 vehicles) by 1.7% during peak construction and 0.1% once operational, which is within typical daily variations, and likely to be imperceptible to most road users.

Ref #	Interested Parties	Summary of Relevant Representation	Response
			Furthermore, the **Framework Construction Traffic Management Plan (as updated alongside this report)** outlines potential measures to minimise, where practicable, the effects of construction traffic. Preparation and approval (by the relevant planning and highway authorities) of a full Construction Traffic Management Plan prior to commencement is included within the **Draft DCO (as updated alongside this report)**. It is recognised that Junction 1a of the M25 suffers from peak period congestion. This is an existing issue that will act as a substantial 'stick' to encouraging construction workers to travel to the site by sustainable modes of travel. It is considered that the temporary construction phase impacts can be effectively mitigated through the full Construction Traffic Management Plan that will be submitted to and approved by the relevant planning and highway authorities.
6.1.2	Kent County Council and Dartford Borough Council	These Interested Parties raised concerns about the impacts of Proposed Scheme HGV and AIL movements to the Kent road network.	As described within **Table 18-2** of **Chapter 18: Landside Transport** of the **Environmental Statement (Volume 1) (APP-067)**, the Applicant engaged with the Interested Parties on the traffic survey scope and anticipated vehicle routing in May 2023 (which informed the Landside Transport Study Area, described in **Section 18.5** of the chapter), which replicated that of the Riverside 2

Ref #	Interested Parties	Summary of Relevant Representation	Response
			assessment. KCC noted that the Riverside 2 assessment did not require modelling of KCC's network, and that if the level of traffic of the Proposed Scheme was anticipated to be similar then this assumption would likely remain, as described within **Table 18-2** in **Chapter 18: Landside Transport** of the **Environmental Statement (Volume 1) (APP-067)**. **Table 18-7** in **Chapter 18: Landside Transport** of the **Environmental Statement (Volume 1) (APP-067)** indicates an estimated two-way daily total of 489 vehicles on KCC's network during peak construction. Table 6-4 of the Riverside 2 Transport Assessment[22] indicates an estimated two-way daily total of 540 vehicles on KCC's network during peak construction, and so the Proposed Scheme's movements are less than Riverside 2 and the approach accepted by KCC. Furthermore, **Table 18-21** of **Chapter 18: Landside Transport** of the **Environmental Statement (Volume 1) (APP-067)** indicates that the Proposed Scheme is forecast to increase traffic by 1.2%-1.8% on KCC's network (A206 – ATCs 13-16) during

[22] Cory. (2018). 'Cory Riverside Energy: Riverside Energy Park: Transport Assessment'. Available at:https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010093/EN010093-000244-6.3%20ES%20Technical%20Appendices%20B.1%20Transport%20Assessment.pdf

Ref #	Interested Parties	Summary of Relevant Representation	Response
			construction, which is within typical daily variations, and likely to be imperceptible to most road users. As such, it was deemed unnecessary to undertake additional assessment of KCC's network. The **Framework Construction Traffic Management Plan (as updated alongside this report)** outlines potential measures to minimise, where practicable, the effects of construction. Preparation and approval (by the relevant planning and highway authorities) of a full Construction Traffic Management Plan prior to commencement is included within the **Draft DCO (as updated alongside this report)**. The impacts of the Proposed Scheme construction traffic are therefore minimal, and it is considered that the temporary construction phase impacts can be cost effectively mitigated through the **Framework Construction Traffic Management Plan (as updated alongside this report)**.
6.1.3	Royal Mail, LBB, Kent County Council and Dartford Borough Council	These Interested Parties requested updates to the Framework Construction Traffic Management Plan [APP-127]	The **Framework Construction Traffic Management Plan (as updated alongside this submission)** is designed to outline potential measures that could be implemented, where practicable, to secure key outcomes related to the effective management of construction traffic associated

Ref #	Interested Parties	Summary of Relevant Representation	Response
			with the Proposed Scheme, whilst allowing flexibility for further development of specific measures. The **Framework Construction Traffic Management Plan (as updated alongside this submission)** will be developed further once a Contractor(s) is appointed and will be subject to agreement with the LBB in accordance with Clause 9 (1) of the **Draft DCO (as updated alongside this report)** which states that *"no part of the authorised development may commence until a Construction Traffic Management Plan has been submitted to and approved by the relevant planning authority in consultation with the relevant highways authority."* Common themes across the Relevant Representations submitted by the Interested Parties included: stakeholder communication, HGV routeing, monitoring against targets, and offsite overspill parking and the **Framework Construction Traffic Management Plan (as updated alongside this submission)** takes these elements into consideration. Stakeholder communication can be undertaken through the communication strategy measures outlined within the **Framework Construction Traffic Management Plan (as updated alongside this submission)**, to ensure that relevant parties such as Royal Mail are kept informed.

Ref #	Interested Parties	Summary of Relevant Representation	Response
			The principle of HGV routing has been established within the Landside Transport assessments and the **Framework Construction Traffic Management Plan (as updated alongside this submission)** which seeks to utilise the LLCS network and avoid sensitive areas, such as Dartford Town Centre. Specifically, it is the case that the **Framework Construction Traffic Management Plan** does not refer to usage of the A2026 Burnham Road (and subsequently Dartford Town Centre) by HGV and instead refers to usage of the A206 to the north of Dartford. The **Framework Construction Traffic Management Plan (as updated alongside this submission)** includes a commitment to implement a Construction Workforce Travel Plan (CWTP) outlining potential measures and targets in relation to reduced private vehicle movements. A robust monitoring process would be implemented to track progress and demonstrate whether the targets are being achieved. Appropriate levels and types of temporary car parking will be provided onsite to accommodate the anticipated number of drivers; therefore, monitoring of parking stress on the surrounding streets is considered unnecessary. It is further noted that this has not been an issue on the construction of Riverside 2. As noted in the **Framework Construction Traffic Management Plan (as updated alongside this**

Ref #	Interested Parties	Summary of Relevant Representation	Response
			submission), construction car parking will be monitored to ensure demand does not exceed supply. The updates to the Framework Construction Traffic Management Plan have been sent to the highway authorities for consideration, to be discussed at a workshop in early October. The Applicant will then be able to update the Examination on the latest position.
6.1.4	Port of London Authority, Kent County Council and National Highways	These Interested Parties encouraged the Applicant to consider more commitments to river transport.	Generally, the Applicant supports the use of the river transport, when viable for the project. As set out in **Chapter 2: Site and Proposed Scheme Description** of the **Environmental Statement (Volume 1) (APP-051)** at **Paragraphs 2.4.52** to **2.4.53**, during the construction of the Proposed Jetty, various construction operations are proposed to be relying on the river transport such as: • Delivery of the piles for the Proposed Jetty delivered by barge. • Delivery of precast sections of the loading platform, mooring dolphins and access trestle decks delivered by barge. • Delivery of marine equipment such as fenders will primarily be transported via the River Thames.

Ref #	Interested Parties	Summary of Relevant Representation	Response
			• Delivery of the tug pontoon body manufactured offsite and transported via the River Thames to the Site. It is estimated that in average two barges per working day will be required to visit the Site to deliver the above large bulk components. Similarly, and as set out in **Chapter 2: Site and Proposed Scheme Description** of the **Environmental Statement (Volume 1) (APP-051)** at **Paragraphs 2.4.61** to **2.4.62,** dredging activities will be carried out using a backhoe dredger with a sperate vessel or barge moored alongside to take the dredged materials to the designated offsite disposal site according to the permits by an appropriately licenced waste carrier. It is not possible for Middleton Jetty to be used for construction transport for terrestrial elements as the movements required would cause unacceptable disruption to the operation of Riverside 1 and Riverside 2. It would also not be possible to use the Proposed Jetty itself to first take on construction material – not only would this delay delivery of the Proposed Scheme, it would also be unlikely to be physically possible given the expected lightweight (particularly in comparison to the Middleton Jetty) nature of the Proposed Jetty.

Ref #	Interested Parties	Summary of Relevant Representation	Response
			In response to Relevant Representations received, the Applicant considers that the Victoria Deep Water Terminal is the only viable option for handling construction material within a reasonable distance from the Proposed Scheme, with others either fully used, used for non-compatible purposes, or would require extensive works to be brought into use. However, even at Victoria Deep Water Terminal, there would likely be associated challenges, such as the navigational acceptability of increased marine movements across the Thames Barrier, severance of the England Coast Path during material transfer from vessel to shore, needing to obtain third party land access rights, and likely restrictions on Cory use to enable prioritisation of existing operations and cost implications that would limit the attractiveness of this wharf and impact the wider construction programme. Furthermore, the onward road-based route to the Site, whilst utilising good standard urban dual carriageways (A206), is located 13km from the Site, with a journey time of circa 30-mintues, which minimises the benefits (for example, reduced HGV kilometres travelled, emission savings) of utilising this wharf as part of a ‘last mile delivery’ solution. It is acknowledged that Thames Water’s Jetty is located close to the west of the Proposed Scheme, however, this is

Ref #	Interested Parties	Summary of Relevant Representation	Response
			part of Thames Water's undertaking, so unlikely to be acceptable to them for its use. Even if it was operationally acceptable, traffic movements between that jetty and the Order limits, would either have to involve extensive HGV movements through the STW and then through the middle of Crossness LNR, or along the Thames Path, neither of which are considered to be appropriate courses of action in policy or environmental terms. Finally, it is noted that these river transport considerations need to be seen in the context that: • no such requirement was imposed on Riverside 2, which had similar traffic impacts; and • the conclusions of the Environmental Statement for the Proposed Scheme, which show no likely significant effects arising from transport, air quality or noise impacts. This is no surprise given the location of the Proposed Scheme alongside supported HGV routes.

7. DCO DRAFTING

7.1.1. A number of Relevant Representations raised comments in respect of the drafting of the **DCO (APP-018)**. These are responded to on a per representation basis in the tables below.

7.1.2. The draft DCO is updated alongside this report.

7.1.3. Discussions with each party continues in respect of these points, and on the development of Protective Provisions for the PLA, Thames Water and the Environment Agency.

Table 7-1 – Response to Port of London Authority DCO Representations

Ref #	Relevant Representation	Applicant Response
7.1.1	"Authorised development" is defined in the draft Development Consent Order (the "dDCO") [APP-018] to mean the development described in Part 1 of Schedule 1 (authorised development) and any other development authorised by this Order, or any part of it, which is development within the meaning of section 32 (meaning of development) of the 2008 Act authorised by this Order. This definition is too broad and imprecise for a scheme which engages the River and the authorised development should be restricted to what is described in Schedule 1 (authorised development). This is in order to protect both the PLA, in the execution of its functions and duties, and other river users.	The definition used is standard drafting and is extremely well precedented in many made DCOs. The Applicant does not intend on amending the definition. The key point is that, pursuant to its Protective Provisions, the Port of London Authority (PLA) will be able to approve the detail of works associated with the Proposed Scheme which take place in the river. Further amendments have been made to the PLA Protective Provisions to make this even clearer (definition of 'specified work').
7.1.2	3.1 The Order Limits are wide, extending roughly to the midpoint of the River. This means that the authorised channel is included within the Order Limits, along with riverbed located upstream (west) of the Belvedere Power Station jetty and downstream of the proposed dredge box. It is not clear why such wide Order Limits are required. The Order Limits should reflect what is actually required to deliver the project, particularly given that Article 23 of the dDCO") [APP018] provides powers to temporarily suspend the public right of navigation anywhere within the Order Limits subject to the written approval of the PLA. Moreover, the Outline COCP [APP-124] proposes stringent	The Applicant's intention is to tie the dredged pocket to the authorised navigation channel. The limits of deviation for Work No. 4C extend into the navigational channel to allow for any potential slumping that might occur in the slope of the berth pocket that is created at that tie-in point. It is not the Applicant's intention at this time to undertake dredging itself within the authorised navigation channel (although this cannot be completely ruled out at this stage), but the limits of deviation need to allow for that slumping that is associated with it.

Ref #	Relevant Representation	Applicant Response
	controls on vessel speed and movements passing the construction works in the channel (paragraph 17.2.5, second bullet point). Unless specific details can be provided of what works/functions are proposed within the authorised channel (and the Preliminary Navigational Risk Assessment (the "pNRA") [APP-115] will require updating to include consideration of these works/functions) the Order Limits need to be re-drawn removing the authorised channel from the Order Limits.	The Order limits are more generally expressed in the river to allow sufficient working space for the full extent of marine works to take place. It is important to note that the works set out in Work No.4 would only be able to take place with the detailed approval of the PLA pursuant to its Protective Provisions. In respect of article 7(4), the Applicant understands the PLA's position and has added a new sub-paragraph to article 7 and updated the Works Plans to be clear that article 7(4) does not apply to the authorised channel.
7.1.3	3.2 The PLA also has concerns about the dredging extending into the authorised channel. Given the identified navigation risks and existing constraints on the operation (i.e High Water (un)berthing), dredging into the navigation channel would appear unnecessary and certainly the Engineering Plans Indicative Equipment Layout show the dredge pocket and side slopes extending to and not into the authorised channel. Dredging into the navigation channel could have implications for other schemes located upriver of this site – particularly because as drafted Article 7(4) of the dDCO [APP-018] prohibits the PLA from issuing a dredging licence within the area of dredging within the limits of deviation of Work No. 4C without the consent of the undertaker. It cannot be right that the PLA, who are responsible for navigational safety, must go to the undertaker for permission if the authorised channel needs to be dredged.	

Ref #	Relevant Representation	Applicant Response
7.1.4	3.3 There are concerns that the extent of Work No. 4B does not accord with the recommendations of the pNRA which includes thirteen additional risk control measures identified in table 21 being adopted. Risk Control RCAD1 is relocation of the jetty (option 3) to provide an additional 30 metres from between the jetty and the authorised channel. The residual risk assessment scores presented in the pNRA assume this option is adopted as an additional risk control. It would appear that the maximum extent of the jetty (as shown as Work No. 4B on the Works Plans [APP-137]) corresponds with the previous CCS jetty design and not RCAD1and the Limits of Deviation shown on the relevant Works Plan would mean this risk mitigation may not be followed.	The drawings shared align with those in the Preliminary Navigation Risk Assessment (pNRA) which forms an appendix to the **Environmental Statement (APP-115)**. This pNRA documents the overall evolution of the Proposed Jetty design based on optimisation of design iterations for navigation risk. This Report therefore considers design Option 2 as the starting point for the navigation risk assessment. The Report then recommends Option 3 as a key engineering risk control measure to reduce navigation risk associated with the identified navigation hazards to As Low As Reasonably Practicable (ALARP). The Proposed Jetty is based upon design Option 3. However, the Applicant has recognised that there is a slight inconsistency between the Works Plans and the preliminary NRA and so has updated the Works Plans to correct this.
7.1.5	4.1 Various documents are required to be submitted to and approved by the relevant planning authority. Except for the Jetty Works Environmental Design Scheme and Navigational Risk Assessment, there is no requirement to consult with the PLA, or for the PLA to approve documents which it has an interest in. This approach is different to other made DCO's affecting the River including Silvertown Tunnel and Thames Tideway Tunnel and the Draft DCO for the Lower Thames Crossing.	The PLA's requests have been reflected in the updated DCO submitted alongside this response Report with the exception of the requested LaBARDS change. In respect of the LaBARDS, the PLA does not need to be added as a consultee, as Requirement 12(2) and the outline LaBARDS itself make clear that it will not deal with proposals in the intertidal environment or the riverbed more generally.

Ref #	Relevant Representation	Applicant Response
	4.2 Given the PLA's statutory functions, coupled with its duties under section 48A of the Harbours Act 1964 to have regard to environmental matters and the environmental impact of proposals relating to any of its functions, the PLA would wish to comment on or approve: the Code of Construction Practice, the Construction Traffic Management Plan, the Emergency Preparedness and Response Plan, the Lighting Strategy, the Archaeological Mitigation Strategy and the Decommissioning Environmental Management Plan. The PLA may also wish to be consulted on or approve the Landscape, Biodiversity, Access and Recreation Delivery Strategy given the reference to a minimum of 10% biodiversity net gain in watercourse units.	That is covered by Requirement 16, for which the PLA is identified as a consultee.
7.1.6	4.3 In the case of the Emergency Preparedness and Response Plan, for example, any response to any incident involving the River may require the PLA's input and yet there is no requirement for the PLA to be consulted. The PLA has a statutory duty (and is a second responder) in relation to oil pollution on the river.	
7.1.7	4.4 As currently drafted, Requirement 19 requires that prior to commencement of construction of Work No. 4 and following consultation with the PLA, a passing vessel mooring interaction study must be carried out. The PLA has significant concerns about the timing of the production of what is a document of vital importance in terms of the Order Scheme's overall viability and	The pNRA has been updated to account for the vessel mooring interaction study and is submitted alongside this Response to Relevant Representations. The DCO Requirement has therefore been updated to account for this.

Ref #	Relevant Representation	Applicant Response
	would expect it to be submitted during the Hearings with a subsequent update to the pNRA occurring during the Hearings as well. These documents will be fundamental to the PLA when establishing its position on the acceptability of the marine aspects of this project.	
7.1.8	5.1 Article 25 of the dDCO [APP-018] provides the power to dredge within any part of the limits of deviation for Work No. 4 as may be required for the purpose of maintaining and operating the authorised development. It is assumed that Article 25 also applies to construction (capital dredging) albeit it does not say so. It is, however, Work 4C that is the corresponding work for dredging.	Article 25 does not apply to dredging carried out in the construction stage, which is authorised by Work No. 4C. Article 25 therefore only relates to maintenance dredging.
7.1.9	5.2 The PLA has already raised concerns about including maintenance dredging in the dDCO and has questioned how it is possible to assess such dredging in the Environmental Statement (the "ES") over the operational lifetime of the project. The PLA has questioned whether an annual maintenance dredging requirement of 9,000m3 (as set out in Chapter 2 of the ES [APP-051]) or 10,000m3 (as set out in Chapter 8 of the ES [APP-057]) is going to be sufficient given the - maintained depth of the dredge box (10.5m below chart datum) that is required. Chapter 16 of the ES says typical frequency of maintenance dredging is approximately 12 months, although this may vary and so the ES is rather vague in this regard. In addition,	The annual requirement has been developed as a reasonable worst case based on the capital depth required and professional judgement to enable an assessment to be made, and the controls to be developed which is what ultimately ensures that likely significant effects are not created. The constraints that have been assessed were noted further to discussions with stakeholders and the likely constraints they would impose. Ultimately, however, the controls will be determined by the MMO pursuant to the Conditions in Part 2 of the Deemed Marine Licence at Schedule 11 of the **Draft DCO (as updated**

Ref #	Relevant Representation	Applicant Response
	significant constraints have been built into the maintenance dredging (the exclusive use of a backhoe 18.5 hours in every 24 hours in the months of October to March and the associated limitation of disposal away from the site). This would add significant costs and in the PLA's experience is likely to result in changes being sought post consent which would require re-assessment.	**alongside this report)** and the measures set out in the **Outline CoCP (as updated alongside this report)**.
7.1.10	5.3 Further the power to dredge is only subject to the payment of compensation in relation to the PLA Protective Provisions. 5.4 The power to dredge should be subject to PLA consent as would ordinarily be required under the 1968 Act. The definition of 'specified function' in the PLA's Protective Provisions includes Article 25 (power to dredge) and paragraph 46(1) prohibits the commencing of construction of any specified work or the exercise of any specified function until plans of the work or function have been approved in writing by the PLA. However, paragraph 46(8) goes on to state that in relation to the exercising of Article 25, plans shall only mean navigational risk assessments and not any other document listed under the definition of plans in paragraph 45 where the undertaker has already received approval for method statements from the MMO to those dredging activities. This means that the PLA's normal consenting powers in relation to dredging have not been replicated in the PLA's Protective Provisions which the PLA	Given that the Proposed Scheme is a project of national significance and benefits from the ability to ensure an appropriate regime is in place pursuant to statutory drafting, the Applicant is seeking to avoid duplication in controls of the effects of those works. Whilst the Applicant appreciates that the PLA has a range of statutory functions, there is a degree of overlap with the MMO, as has been seen on other projects. The Applicant has made changes to the drafting being proposed to ensure that there is no 'loss of regulatory control' for the PLA, but still maintaining its position of seeking to avoid duplication with the controls that the MMO will have which ensures that likely significant environmental effects are not caused.

Ref #	Relevant Representation	Applicant Response
	objects to. It also means that the PLA is subsidiary to the MMO on dredging on the River Thames which is not acceptable in principle given the PLA's statutory functions.	
7.1.11	5.5 The Outline COCP [APP-124] notes that "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))". Again, the PLA needs to be involved in such approvals given the PLA's statutory functions. There are other instances within the Outline COCP which relate to dredging where there is no reference to the PLA such as paragraphs 6.2.5, 6.3.1 and 6.4.1.	The Applicant has amended the wording of Requirement 7 (code of construction practice) of the **Draft DCO (as updated alongside this report)** to identify the PLA as a consultee for the purposes of discharging the code of construction practice requirement where the code of construction practice submitted relates to construction activities in the river Thames.
7.1.12 & 7.1.13	6.1 Article 3 of the dDCO allows for the authorised development to be carried out and to be decommissioned and Article 4 authorises the maintenance of the authorised development. Article 6(a) disapplies Sections 66 to 75 of the 1968 Act in relation to construction of any work or the carrying out of any operation required for the purposes of, or in connection with, the construction, operation or maintenance of any part of the authorised development. Article 7 has the effect of extinguishing	There is not a gap in PLA oversight. Article 36(1) of the **Draft DCO (as updated alongside this report)** defines the maintenance period only in relation to the exercise of powers under that article to temporarily possess land. It does not define a maintenance period for all references to 'maintenance' within the DCO. The reference to 'maintenance' in paragraph 44 of the PLA protective provisions at Part 5 of Schedule 12 of the **Draft DCO (as updated alongside this report)** therefore addresses

Ref #	Relevant Representation	Applicant Response
	any River Works Licences granted in respect of the existing structure located within the limits of deviation for Work no 4. 6.2 Meanwhile, the PLA's Protective Provisions relate to the construction and maintenance of the authorised development. Maintenance is defined in Article 36 as 5 years from the date of final commissioning. There are specific concerns about what happens at the end of this defined maintenance period when the PLA's Protective Provisions no longer apply nor does the 1968 Act. In relation to abandoned or decayed works (paragraph 57 of the PLA Protective Provisions) provides that if a structure or specified work is abandoned or falls into decay the PLA can require the undertaker to take steps to repair/restore the structure etc. However, Article 7 endures well beyond the end of the PLA's Protective Provisions and, if the relevant River Works Licences have been extinguished and as drafted the application of Article (7)(3) means that the 1968 Act does not apply to the structure, how can the PLA ensure that the structure is kept in a good condition and maintenance/repair works etc take place to the structure after the defined maintenance period?	any maintenance activities required for the authorised development throughout its lifetime. The Applicant has updated the wording at Article 7(1) of the DCO to clarify the interaction with the 1968 Act as it has recently become aware that the River Works Licence which regulates the Belvedere Power Station Jetty (disused) also covers infrastructure outside of the Order limits.
7.1.14	6.3 Article 7(4) of the Draft DCO also prohibits the granting or varying of a River Works Licence or dredging licence within the limits of deviation for work no 4A and 4B or the approved dredged area for work 4C without the undertaker's consent. As noted above, given the limits of deviation for Work 4C currently	Please see the above response which confirms that the PLA will be able to issue dredging licences for the navigation channel.

Ref #	Relevant Representation	Applicant Response
	includes the navigational channel this is not acceptable to the PLA.	
7.1.15	8.1 Regarding the transfer or grant of the benefit of the provisions of the DCO, the PLA as a regulator has a direct interest in securing that any transfer would be to a suitable party. Article 9(3) requires the Secretary of State to consult the MMO before giving consent to the transfer of the deemed marine licence. The PLA should be consulted where the benefit of any of the powers affecting works in the River are to be transferred.	The Applicant has updated the Draft DCO to require the Secretary of State to consult the PLA where the benefit of Work No.4 is to be transferred where his/her consent is required.
7.1.16	9.1 The land over which full compulsory acquisition powers are sought in respect of the freehold interest include areas of the riverbed of the River and the foreshore. The PLA objects to the compulsory acquisition of its freehold interest and supports the inclusion of paragraph 61 of the PLA Protective Provisions which specifically disapplies the compulsory acquisition of any interest in any Order Land which is vested in the PLA or the acquisition or extinguishment of any right in, on, or over, any Order land if the interest or right is at the time of the proposed acquisition vested in the PLA.	No response required.

Table 7-2 – Response to MMO DML Representations

Ref #	Relevant Representation	Applicant Response
7.2.1	"Part 2 Principal Powers 9. Consent to transfer benefit of the Order" The MMO objects to the provisions relating to the process of transferring and/or granting the deemed marine licences set out in the Draft DCO at Article 9(2)-(11) insofar as these are intended to apply to the MMO and requests paragraphs 9(2)(a)-(b) and (3) be removed in their entirety and all references to the MMO be removed from Article 9, with a clarification added to specifically exclude these provisions from applying to the MMO (with corresponding wording added where appropriate in Schedule 1 (Deemed Marine Licence). The MMO is concerned that the procedure proposed represents an unnecessary duplication of the existing statutory regime set out in s72 of the Marine and Coastal Access Act 2009 and that it will give rise to significant enforcement difficulties for the MMO. The MMO also considers that it has the potential to prejudice the operation of the system of marine regulatory control in relation to the proposed development. The MMO also regards the proposed procedure as cumbersome, more administratively burdensome, slower and less reliable than the existing statutory regime set out in s72 of the 2009 Act.	The ability of the Applicant to transfer the benefit of the DCO is required in order for the Applicant to retain commercial flexibility to transfer the benefit of the Order to a third party, subject to the provisions of the Article. It is important that the full provisions of the Order can be transferred, including a deemed marine licence, to ensure that the full scope of powers and controls under the Order are transferred as a complete package. Additional protections are already incorporated in the drafting of the Article for the benefit of the MMO, including Article 9(3) which provides that the undertaker requires the written consent of the Secretary of State to transfer the benefit of the deemed marine licence to any transferee or lessee. The Secretary of State must also consult the MMO before providing consent to the transfer (Article 9(3)). The ability to transfer the benefit of a DCO including a deemed marine licence is well precedented, including specifically in the River Thames in **The Silvertown Tunnel Order 2018**, **The Port of Tilbury (Expansion) Order 2019**, and in other recent DCO such as **the Hornsea Four Offshore Wind Farm Order 2023**.

Ref #	Relevant Representation	Applicant Response
	In short, the MMO considers that little advantage is gained for the Applicant by these provisions and the tangible risks and disadvantages that it poses can be avoided by retaining the existing statutory regime in full.	The Applicant is also unaware of any reasons as to why the drafting of Article 9 would give rise to any enforcement difficulties for the MMO.
7.2.2	"Part 4 Interpretation Arbitration 47 (1)-(2)" The MMO should not be subject to arbitration provisions and this should be amended to specifically exclude the MMO, as below: “Any matter for which the consent or approval of the Secretary of State or the MMO is required under any provision of this Order is not subject to arbitration”.	The Applicant has updated the Draft DCO to make the amendments requested. However, in order to ensure that there is some mechanism for appeals, the Applicant has included drafting to allow for appeals pursuant to the Marine Licensing Appeals Regulations.
7.2.3	"Schedule 1 Authorised development Part 2 Authorised development Numbering" This part seems to be missing numbering, and the MMO suggests including this for ease of reading.	The Applicant intends to keep the Schedule without numbering, as this is standard drafting for Development Consent Orders that do not have a specific interpretation paragraph within the Schedule.
7.2.4	"Schedule 2 Requirements Part 1 The Authorised Development Decommissioning environmental management plan" It is not clear whether this refers to both onshore and offshore	The Applicant has updated the Draft DCO to address the point raised and to add the MMO as a consultee for marine decommissioning.

Ref #	Relevant Representation	Applicant Response
	decommissioning. This should be made clear and if it also involves offshore decommissioning, this must be consulted on with the MMO. It is not clear whether this refers to both onshore and offshore decommissioning. This should be made clear and if it also involves offshore decommissioning, this must be consulted on with the MMO.	
7.2.5	Schedule 11 – Deemed Marine Licence Part 1 "the licence holder" means Cory Environmental Holdings Limited […] and any transferee pursuant to article 9 (consent to transfer benefit of the Order) of the Order; The MMO considers that the latter part of this definition should be removed, see article 9 reasoning above: "the licence holder" means Cory Environmental Holdings Limited […] and any transferee pursuant to article 9 (consent to transfer benefit of the Order) of the Order; Additionally, the MMO has transitioned away from using the term 'Licence Holder' to the term 'Undertaker'. The MMO has noted that this phraseology has been used here and throughout the document and urges the Applicant to amend the term	The Applicant intends to keep the existing wording. It is important to ensure that the Deemed Marine Licence is distinguishable from the DCO. The Applicant would be the undertaker for the purposes of the DCO but would be a licence holder pursuant to the Deemed Marine Licence, which must be clearly differentiated. Please see the response above in respect of the transfer of benefit provisions.

Ref #	Relevant Representation	Applicant Response
	'Licence older' to 'Undertaker' throughout the DML going forward.	
7.2.6	"outline environmental management plan" Nowhere in the DML does it state that all activities must be undertaken in accordance with the environmental management plan. The MMO will provide further comments and suggestions, if required, at Deadline 1.	The **Draft DCO (as updated alongside this report)** does not include a requirement for an 'outline environmental management plan'. However, Condition 9 of the Deemed Marine Licence requires that all construction licensed activities must be carried out in accordance with the code of construction practice approved under Requirement 7 of Schedule 2. The **Draft DCO (as updated alongside this report)** therefore already provides the protection that the Applicant understands the MMO is seeking.
7.2.7	3 Details of such licenced marine activity (3) "This provision is very broadly drafted. The MMO considers that exact coordinates should be included to detail where the licensed activities will be carried out. The MMO has concerns regarding this drafting, in particular the general right to alter, modify, remove or replace any work or structure at (3(2)(b)(i)), very broad rights to carry out excavations, scouring and dumping at (3(2)(b)(ii)), dispose of materials (2)(b)(iii) and remove any vessel whether lawfully or not (3(2)(b)(iv)). The MMO requests that these are amended or clarified as to whether these will be addressed further in the method statement. As drafted, these are very vague and the	The Applicant has included exact coordinates on the **Works Plans (as updated alongside this Report)**. Condition 3 of the Deemed Marine Licence has been updated to clarify that the licence holder may only carry out a licensed activity within the 'licensable area', which has then been defined by reference to the grid coordinates set out in the **Works Plans (as updated alongside this Report)**. The drafting of Condition 3 is deliberately broad to allow activities in the river to fall within the scope of the definition of 'licensable activity'. However, Condition 10 of the Deemed Marine Licence requires the Applicant to submit a method statement for the approval of the MMO in respect of those

Ref #	Relevant Representation	Applicant Response
	very broad nature of the provisions as they stand, especially given the absence of the other standard plans and statements, the MMO would expect to see references."	licensed activities, therefore any activity included as part of the broad drafting is appropriately controlled.
7.2.8	How long is the licence to remain in force? The MMO would expect to see provisions covering how long the licence will remain in force for, for example: “This licence remains in force until the authorised project has been decommissioned in accordance with the programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 106 (approval of decommissioning programmes) of the 2004 Act and the completion of such programme has been confirmed by the Secretary of State in writing”.	The Applicant has added the first half of the wording to the DML but does not consider that second half of the proposed wording is necessary because as per the response to **7.2.4**, the Applicant has added the MMO as a consultee for the purposes of discharging Requirement 23 (Decommissioning Environmental Management Plan), in respect of any offshore decommissioning activities. As per Requirement 23(3)(c), the DEMP must include details of the phasing of the demolition and removal works. Therefore, there is no need to refer to s106 (approval of decommissioning programmes) of the 2004 Act because the MMO is already involved in this process as a result of the drafting of Requirement 23.
7.2.9	Part 2 Conditions Provisions on variations and approvals "The MMO would expect to see a provision of this nature in the DML: “With respect to any condition which requires the licensed activities to be carried out in accordance with the plans,	The Applicant has inserted these proposed amendments as a new condition (Variations of approvals of Part 2 Conditions) into Part 3 of Schedule 11 (Deemed Marine Licence) of the **Draft DCO (as updated alongside this report)** to incorporate the suggestions from the MMO.

Ref #	Relevant Representation	Applicant Response
	protocols or statements approved under this licence, the approved details, plan or scheme are taken to include any amendments that may subsequently be approved in writing by the MMO. Subsequent to the first approval of those plans, protocols or statements provided it has been demonstrated to the satisfaction of the MMO that the subject matter of the relevant amendments do not give rise to any materially new or materially different environmental effects to those assessed in the environmental information.”"	
7.2.10	Provisions on variations or approvals "The MMO would expect to see a provision of this nature included in the DML: “Any amendments to or variations from the approved details, plans or schemes must be in accordance with the principles and assessments set out in the environmental statements. Such agreement may only be given where it has been demonstrated to the satisfaction of the MMO that it will not give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.”"	
7.2.11	Construction environmental management plan "The MMO would expect to see some provisions along these lines:	The **Draft DCO (as updated alongside this report)** already includes a requirement for a code of construction practice (see Requirement 7 of Schedule 2), therefore the Applicant does not

Ref #	Relevant Representation	Applicant Response
	"Construction environmental management plan 8.—(1) No licensed activities may be commenced until a construction environmental management plan for them has been submitted to and approved by the MMO following consultation with the relevant planning authority, the Environment Agency and Natural England on matters related to their function; and the submitted construction environmental management plan must be in accordance with the outline construction environmental management plan, unless otherwise approved by the MMO. (2) Any construction environmental management plan submitted pursuant to sub-paragraph (1) and any construction environmental management plan submitted pursuant to paragraph 6(1) of Schedule 2 (requirements) of the Order may be comprised in the same document or separate documents." And "all licensed activities must be carried out in accordance with the construction environmental management plan for those activities approved pursuant to paragraph [ ] of this Schedule where applicable, unless otherwise approved by the MMO."""	consider it necessary for a further requirement to be inserted in respect of a construction environmental management plan. Condition 9 of the Deemed Marine Licence requires that all construction licensed activities must be carried out in accordance with the code of construction practice approved under Requirement 7. Further, Condition 10 of the Deemed Marine Licence requires the Applicant to submit a method statement for the approval of the MMO in respect of the licensed activities. Therefore, to the extent the MMO requires any management measures, such measures can be requested as part of the method statement approval process. The **Draft DCO (as updated alongside this report)** therefore already provides the protection that we understand the MMO is seeking.
7.2.12	Marine Noise Registry "As works include piling, the MMO would expect to see a condition regarding the Marine Noise Registry, for example as below:-	Given the protections in respect of marine piling set out in section 6 of the **Outline CoCP (as updated alongside this report)**, it is considered that this condition is not needed.

Ref #	Relevant Representation	Applicant Response
	(1) Only when impact driven or part-driven pile foundations or detonation of explosives are proposed to be used as part of the foundation installation the undertaker must provide the following information to the Marine Noise Registry (MNR)— a) prior to the commencement of the licensed activities, information on the expected location, start and end dates of impact pile driving/detonation of explosives to satisfy the Marine Noise Registry's Forward Look requirements; and (b) within 12 weeks of completion of impact pile driving/detonation of explosives, information on the exact locations and specific dates of impact pile driving/detonation of explosives to satisfy the Marine Noise Registry's Close Out requirements. (2) The undertaker must notify the MMO of the successful submission of Forward Look requirements."	
7.2.13	10 Method statement "Given the very broad nature of the marine activities licenced in 3, the MMO considers this condition should be updated to specify more details about what the method statement will include. This condition should also include the following: "the licenced activities for the relevant stage must be carried out in	Sub-paragraph (2) of Condition 10 of the Deemed Marine Licence already sets out the details that the method statement must include, including a detailed methodology, programme of works and further sediment sampling (if relevant). This incorporates the matters raised by the MMO. In any event, sub-paragraph 10(3) requires the Applicant to submit the method statement for the approval of the MMO,

Ref #	Relevant Representation	Applicant Response
	accordance with the approved plans, protocols, statements, schemes, schemes and details approved under this condition unless otherwise agreed in writing by the MMO."	whilst sub-paragraph 10(4) requires the licensed activity to then be carried out in accordance with the approved method statement, unless otherwise agreed with the MMO. As such, the MMO will have a right of approval over the ultimate contents of the final method statement.
7.2.14	11 Sediment Sampling The MMO considers that this condition is not appropriate as drafted and lacks detail. The MMO will review the condition requirements alongside the rest of the DCO and provide further comments and suggestions, if required, at Deadline 1.	The Applicant will respond as appropriate to any further comment from the MMO.
7.2.15	Agents, contractors and subcontractors "The MMO would expect to see some paragraphs on this, for example: “Agents, contractors and sub-contractors 10.—(1) The undertaker must notify the MMO in writing of any agents, contractors or subcontractors that will carry on any licensed activity listed in section [ ] of this licence on behalf of the undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. (2) The undertaker must ensure that a copy of this licence and any subsequent revisions or amendments has been provided to, read and understood by any agents, contractors or	The Applicant has inserted a new Condition 21 into Part 2 of Schedule 11 (Deemed Marine Licence) of the **Draft DCO (as updated alongside this report)** to incorporate the suggestion from the MMO.

Ref #	Relevant Representation	Applicant Response
	subcontractors that will carry on any licensed activity listed in section 3 of this licence on behalf of the undertaker.”"	
7.2.16	Marine written scheme of archaeological investigation "The MMO considers that a marine written scheme of archaeological investigation should be included within the DML, and we suggest potential wording for this below: “Archaeological method statements, together with a written Report on any consultation carried out with Historic England and the relevant planning authority on matters related to their respective functions in their preparation, must be submitted to and approved by the MMO in writing in accordance with the provisions of the outline marine written scheme of investigation and a subsequent update must be provided to the MMO six weeks before commencement of any licensed activity to which the method statement relates.”"	The Deemed Marine Licence forms part of the **Draft DCO (as updated alongside this report)**, which secures the requirement for an Archaeological Mitigation Strategy prior to commencement of the development (see Requirement 22). The Applicant has updated the **Draft DCO (as updated alongside this report)** to include the MMO as a consultee for the purposes of Requirement 22. As a result, for any archaeological survey/mitigation works within the marine environment and the development of the archaeological mitigation strategy, the MMO will have the opportunity to comment, prior to the works being carried out. It is important the appropriate heritage stakeholders are the approver for a heritage document.
7.2.17	12 Piling This is a very spartan provision and should be expanded on in line with other DCOs of similar natures. For example, further information should be provided on the points and mitigation referenced in Section 2.4 of this response.	Condition 12 should be considered alongside the commitments in the code of construction practice pursuant to Condition 9 (Code of construction practice) and Requirement 7. The **Outline CoCP (as updated alongside this report)** includes various commitments in respect of piling and is the appropriate mechanism for such commitments to be secured.

Ref #	Relevant Representation	Applicant Response
7.2.18	13 Dredging The MMO notes that this is a very spartan provision with significant information gaps. This should be updated in line with other DCOs of a similar nature	Condition 13 should be considered alongside the commitments in the code of construction practice pursuant to Condition 9 (Code of construction practice) and Requirement 7. The **Outline CoCP (as updated alongside this report)** includes various commitments in respect of dredging and is the appropriate mechanism for such commitments to be secured.
7.2.19	14 Concrete and cement 14(2) “Where practicable, the licence holder must site concrete and cement mixing and washing areas at least 10 metres away from the River and any surface water drain to minimise the risk of run off entering the River.” The MMO considers that this should be amended to the following: 14(2) “Where practicable, the undertaker must site concrete and cement mixing and washing areas at least 10 metres away from the River and any surface water drain to minimise the risk of run off entering the River.”	The Applicant has updated the **Draft DCO (as updated alongside this report)** to make the amendments requested.
7.2.20	16 Pollution and spills "Given the environmental impact and risks here the MMO would expect to see significantly more detail and consider this should be amended to: “9.—(1) Bunding and storage facilities must be installed to contain and prevent the release of fuel, oils and chemicals associated with plant, refuelling and construction equipment	Conditions 16 (a), (b) and (c) in the Deemed Marine Licence already provides similar wording to the text requested by the MMO. However, the Applicant has amended sub-paragraphs (a), (b) and (c) to further align the wording with the text suggested by the MMO.

Ref #	Relevant Representation	Applicant Response
	into the marine environment. Secondary containment must be used with a capacity of no less than 110% of the container's storage capacity. (2) Any oil, fuel or chemical spill within the marine environment must be reported to the MMO Marine Pollution Response Team as soon as reasonably practicable, but in any event within 12 hours of being identified in accordance with the following, unless otherwise advised in writing by the MMO— (a) within business hours on any business days: 0300 200 2024; (b) any other time: 07770 977 825; or (c) at all times if other numbers are unavailable: 0845 051 8486 or dispersants@marinemanagement.org.uk. (3) All wastes must be stored in designated areas that are isolated from surface water drains, open water and contained to prevent any spillage. (4) The undertaker must comply with the existing marine pollution contingency plan in place as detailed in the construction environmental management plan.""	Sub-paragraph (4) as suggested by the MMO is not applicable as pollution prevention matters are dealt with pursuant to the CoCP.
7.2.21	18 Disposal "These are very vague and broadly drafted provisions, the MMO would expect to see further detail of what is being disposed and precise details of where (beyond 'the disposal site'). The MMO suggests that the Applicant consider the below wording for inclusion within the DML: 20.—(1) The undertaker must inform the MMO of the location and quantities of material deposited each month under the	The text proposed by the MMO in sub-paragraph (1) is the same as Condition 18 of the Deemed Marine Licence. The text proposed by the MMO in sub-paragraph (2) is already dealt with through (and goes further in) Condition 19 of the Deemed Marine Licence. The text proposed by the MMO in sub-paragraph (3) is already dealt with through Condition 20 of the Deemed Marine Licence.

Ref #	Relevant Representation	Applicant Response
	licence. This information must be submitted to the MMO by 15 February each year for the months August to January inclusive and by 15 August each year for the months February to July inclusive. (2) The undertaker must ensure that only inert material of natural origin produced during dredging must be deposited in the disposal sites— (a) HU060 (unconsolidated); and (b) HU056 (consolidated), or any other site approved in writing by the MMO. (3) The material to be disposed of within the disposal sites referred to in subparagraph (2) must be placed evenly within the relevant site's boundaries. (4) During the course of disposal at sea, deposited material must be distributed evenly over the disposal site." "	The Applicant has however inserted the word 'evenly' such that the wording is now the same as the text proposed by the MMO. The text proposed by the MMO in sub-paragraph (4) was already dealt with through Condition 21 of the Deemed Marine Licence, in the **Draft DCO (as updated alongside this report)** at the time of submission. However, on reflection, the Applicant considers that this wording is not needed additionally to the preceding condition.
7.2.22	Dropped objects "The MMO would expect to see some provisions covering dropped objects along these lines: "21.—(1) The undertaker must Report all dropped objects to the MMO using the Dropped Object Procedure Form as soon as reasonably practicable and in any event within 24 hours of becoming aware of an incident. (2) On receipt of the Dropped Object Procedure Form, the MMO may require, acting reasonably, the undertaker to carry out relevant surveys. The undertaker must carry out surveys in accordance with the MMO's reasonable requirements and must Report the results of such surveys to the MMO. (3) On receipt of such survey results	The Applicant has inserted a new Condition 22 into Part 2 of Schedule 11 (Deemed Marine Licence) of the **Draft DCO (as updated alongside this report)** to incorporate the suggestion from the MMO.

Ref #	Relevant Representation	Applicant Response
	the MMO may, acting reasonably, require the undertaker to remove specific obstructions from the seabed. The undertaker must carry out removals of the specific obstructions form the seabed in accordance with the MMO's reasonable requirements and its own expense.”"	
7.2.23	Notice to Mariners "The MMO would expect to see provisions covering this along these lines: Notice to Mariners 22.—(1) Local mariners, fishermen's organisations and the UK Hydrographic Office must be notified of any licensed activity or phase of licensed activity through a local Notice to Mariners. (2) A Notice to Mariners must be issued at least 5 days before the commencement of each licensed activity or phase of licensed activity. (3) The MMO and Maritime and Coastguard Agency must be sent a copy of the notification within 24 hours of issue. The Notice to Mariners must include— (a) the start and end dates of the work; (b) a summary of the works to be undertaken; (c) the location of the works area, including coordinated in accordance with WGS84; and (d) any markings of the works area that will be put in place. (4) A copy of the notice must be provided to the MMO via MCMS within 24 hours of issue of a notice under sub-paragraph (1)."	The Applicant does not consider this wording to be necessary because Article 23 (Works in the river Thames: conditions) of the **Draft DCO (as updated alongside this report)** already provides that the public right of navigation over the River Thames may only be temporarily suspended with the written approval of the PLA and subject to the conditions set out in Article 23. The **Draft DCO (as updated alongside this report)** also includes protective provisions for the benefit of the PLA at Part 5 of Schedule 12 which require work approvals from the PLA. The PLA has ultimate navigational control for the River Thames and the necessary mechanisms are already in place within the DCO for the PLA to request notice to Mariners if the PLA considered that to be necessary.

Table 7-3 – Response to Relevant Representations in relation to Traffic and Highways Related Drafting

Ref #	Relevant Representation	Applicant Response
LBB		
7.3.1	Part 2, Streets, Paragraph 12 Paragraph 12 (1) provides the Developer with the power to alter, temporarily or permanently, the layout of or to construct any works on Norman Road in the manner specified in column (3) of schedule 5 but must not be exercised without the consent of the Street Authority. It is critical the details and specification of any temporary and permanent changes to the highway are agreed with the Highway Authority at the earliest opportunity to ensure the changes are designed to an appropriate standard as to not compromise the structural integrity of Norman Road which is supported by multiple concrete piles (significant engineering construction).	The Applicant does not intend for the street authority's consent to be required when exercising the specific power in Article 12(1). This power is already sufficiently controlled as it is limited to the defined set of permanent and temporary alterations of layout, as set out in Schedule 5 (streets subject to permanent or temporary alteration of layout). These alterations relate to the northern section of Norman Road only, and only apply between points E to K and between points K to O only (i.e. the Applicant's land), as shown on the **Access and Rights of Way Plan (as updated alongside this report)**. This part of the highway is only utilised by vehicles accessing the Riverside Campus. The intention of the DCO drafting is for the street authority's consent to be required when the Applicant is exercising the general power under Article 12(2). This ensures that the more general power is sufficiently controlled. The Applicant has updated the Draft DCO to amend Article 12(4) such that it now refers to sub-paragraph (2) instead of sub-paragraph (1), to achieve the intentions set out above. This has precedent in various made DCOs including **The Great Yarmouth Third River Crossing Development Consent Order 2020** and more recently **The Network Rail (Cambridge South Infrastructure Enhancements) Order 2022**.

Ref #	Relevant Representation	Applicant Response
7.3.2	Part 2 Paragraph14 Paragraph 14 of the Draft DCO grants consent for the developer to temporary alter, divert, prohibit the use or restrict the use of streets by private means of access and PRoW and authorising vehicular use PRoWs included within Schedule 7. To ensure the Council can respond effectively to potential public queries relating to temporary closures or change of use to PRoWs specified within Schedule 7 and to ensure a temporary diversion route is of suitable use for the public. It is suggested wording is included within Paragraph 14 that requires the Developer to inform the Highway Authority of any such changes and agree any temporary diversion route.	The Applicant does not consider that this amendment is required because Article 14(6) of the **Draft DCO (as updated alongside this report)** already provides that a code of construction practice must first be approved by the relevant planning authority before any PRoW specified in Article 14(4) is temporarily altered, diverted, prohibited or restricted. The **Outline CoCP (as updated alongside this report)** sets out the Applicant's commitments in respect of the management of public right of way diversions.
7.3.3	Part 2 Paragraph 15 Paragraph 15(1) of the Draft DCO grants consent for the Developer to permanently stop up FP2 between points L and H on the access right of way plan, however, must not be exercised until the Highway Authority has agreed the route for a	The wording at Article 15 already includes various commitments to ensure suitable alignment and acceptable public use of the PRoW network. For example, Article 15(2)(c) provides that the Applicant must not permanently stop up a PRoW until a substitute PROW along the route has been provided. This substitute route must be agreed by the relevant highway authority. Also, Article 15(3) provides the Applicant with the power to construct two new public footpaths.

Ref #	Relevant Representation	Applicant Response
	substitute footpath between points H and L Clause 15 (1a). Part 2 Paragraph15 (3a) grants the Developer the right to construct (not the obligation to do so) new public footpaths between points B and D and L and M. The subsequent wording within Paragraph 15 (6) does not require the Developer to agree the route of any new public footpath between points B and D and L and M before the footpath is created but does require the Developer to provide plans to the Surveying Authority following the opening for public use of the PRoWs constructed. To ensure the route of new public footpaths created by the Developer of suitable alignment and acceptable for public use, it is suggested that wording is included within Paragraph 15 that requires the Developer to agree the route of new public footpaths with the Surveying Authority before it is created. To ensure the Council can fulfil their statutory requirement of keeping the Definitive Map and Statement up to date, it is suggested that wording is included with Paragraph 15 (6) for the Developer to provided	Article 15(6) helps to ensure that the Council can fulfil its statutory requirement of keeping the Definitive Map and Statement up to date by requiring that the Applicant must supply the surveying authority with plans together with a statement of the modifications required to the definitive map and statement. Finally, the Applicant has added a new sub-paragraph to article 15 and updated Requirement 12(3)(h) in Schedule 2 of the **Draft DCO (as updated alongside this report)** to cross-reference to Articles 15(1) and 15(3). This is to acknowledge that these PRoW are part of the overall project and not to be considered in isolation and to ensure that the creation power must not be used until the full LaBARDS has been approved. This builds on the drafting already included at Article 15(2)(b).

Ref #	Relevant Representation	Applicant Response
	plans to the Surveying Authority before the opening for public use of PRoWs constructed.	
7.3.4	Paragraph 15 (4a-f) permits the Developer to authorise the use of motor vehicles on the diverted FP2 route between points H and L, any new PRoW created under part 3a, FP1 between points M and S, FP2 between pints H and S and R and H, FP3 between points A and T, FP4 between points C and F.	The intention of the Planning Act 2008 is to encourage as many consents to be 'wrapped up' in the DCO as possible by creating a 'one-stop-shop' approach for construction-related consents, avoiding the need for further orders such as section 257 Orders. This is a well precedented approach. In any event, the powers at Articles (4)(a) to (f) and otherwise in the **Draft DCO (as updated alongside this report)** are suitably controlled by the various requirements at Schedule 2 (Requirements). For example, Requirement 12 provides that no part of the project may commence until a written Landscape Biodiversity Access and Recreation Delivery Strategy has been approved. This must be substantially in accordance with the **Outline LaBARDS (APP-129)** which sets out the process for delivery of the Access and Recreation Proposals including proposals for PRoW. Finally, as explained in the response to **7.3.3**, the DCO includes wording that allows the provisions to work with the definitive map system.
7.3.5	The Draft DCO does not require the Developer to abided by S257 (permanent diversion of PRoW) of the Town and Country Planning Act 1990 and S25 (creation of new PRoW) of the Highways Act 1980. This is a concern to the Local Highways Authority.	
7.3.6	Part 2 Paragraph 17 Paragraph 17 grants the power for the Developer and Street Authority to enter into appropriate agreements with respect to permanent changes to the highway, however the entering of an agreement is not compulsory.	This is not agreed. The **Draft DCO (as updated alongside this Report)** provides controls through a consent, although if the need for a s278 agreement is later chosen, then the DCO retains sufficient flexibility such that a s278 agreement will be applicable. The Applicant is unaware of any DCO precedent that requires a developer to enter into a s278 agreement(s).

Ref #	Relevant Representation	Applicant Response
	Considering the Developer is not required to enter into an agreement, this could create a possible maintenance and financial burden to the Council if temporary and permanent changes to the highway are not built to the to an agreed specification / design and appropriate standard. Therefore, it is suggested that wording is included within Paragraph 17 that requires the Developer to enter into an appropriate agreement (S278 of the Highways Act 1980) which offers a mechanism that guarantees temporary and permanent changes to highway are complete to an acceptable standard and thus reduce the risks to the Council.	
7.3.7	CTMP A framework construction traffic management plan (includes workforce construction traffic management plan) has been provided, but the Applicant advise a full Travel Plan (TP will be provided once a contractor is appointed. Considering the duration of construction, workforce required and estimated peak daily trips identified in the Transport Assessment (TA), measurable interim targets reducing the number	The Applicant acknowledges the comments made in relation to the **Framework Construction Traffic Management Plan**. Consideration has been given to inclusion of interim targets and protocols to monitor trips; where appropriate these are described within the **Framework Construction Traffic Management Plan** which has been updated alongside this report. These will be able to be agreed in detail within the full CTMP that will be prepared prior to the construction of the Proposed Scheme commencing. It should be noted that Clause 9 (1) of the Draft Development Consent Order (APP-018) states that "*no part of the authorised development may commence until a construction traffic management plan... for that part has been*

Ref #	Relevant Representation	Applicant Response
	of motorised trips should be established within the full TP. In addition to this, a protocol to monitor trips to and from the site should be established to understand reduction targets are being achieved.	*submitted to and approved by the relevant planning authority in consultation with the relevant highways authority.*"
7.3.8	There are concerns of an overspill into the surrounding highway from private workforce vehicles, as a similar scenario occurred recently from a nearby development. Parking stress on the surrounding highway should be monitored by the appointed travel plan coordinator and if an overspill of parking onto the highway occurs as a result of workforce motorised vehicles, then measures to resolve the situation will need to be discussed and agreed with Bexley Council.	The Applicant has appropriately assessed the potential traffic impacts in Chapter 18 of the **Environmental Statement: Landside Transport (APP-067)**. As set out in the Chapter 22 of the Environmental Statement: Summary of Effects [APP-071], there are no significant effects anticipated during construction, operation or decommissioning. Further, Requirement 9 of the **Draft DCO (as updated alongside this report)** secures the need for a construction traffic management plan to be approved prior to the commencement of the authorised development, and for this to include a construction travel plan, that will be helping to manage worker parking. This must be substantially in accordance with the **Framework Construction Traffic Management Plans (as updated alongside this report)** which sets out various mitigation and management measures, including in respect of car parking (in particular including the Applicant providing a car park) as part of its worker facilities.
National Highways		
7.3.9	National Highways seeks to make a change to the wording within the Draft DCO to reflect the need to consult National Highways on matters that may have a significant impact on the SRN	The Applicant has updated the Draft DCO to add National Highways as a consultee for Requirement 9 (Construction traffic management plan) and Requirement 24 (Decommissioning traffic management plan). The Applicant

Ref #	Relevant Representation	Applicant Response
	and suggests a change to include a definition of National Highways within the DCO and to amend Article 9 as follows: “National Highways” means National Highways Limited (company number 09346363) whose registered office is Bridge House, 1 Walnut Tree Close, Guildford, Surrey GU1 4LZ or any such successor or replacement body that may from time to time be primarily responsible for the functions, duties and responsibilities currently exercised by that statutory body; Construction traffic management plan 9.—(1) No part of the authorised development may commence until a construction traffic management plan (which must be substantially in accordance with the framework construction traffic management plan) for that part has been submitted to and approved by the relevant planning authority in consultation with the relevant highways authority and National Highways.	has then included a corresponding definition of National Highways, to align with the wording proposed. The Applicant is otherwise comfortable that its drafting of the various Requirements at Schedule 2 of the **Draft DCO (as updated alongside this report)** is consistent with what National Highways is seeking to achieve.

Table 7-4 – Response to Section 5 of Thames Water Utilities Limited's Relevant Representation

Ref #	Relevant Representation	Applicant Response
7.4.1	5.1 At present, TWUL is obliged to maintain and enhance the CNR pursuant to a section 106 agreement dated 21 July 1994 ("the 1994 Agreement"). It is understood that the dDCO would abrogate the relevant provisions of the 1994 Agreement entirely following completion of Work No.7 (as defined in the dDCO), meaning that TWUL would no longer be required to maintain and enhance any part of the CNR (but comments would be welcomed if this is not the correct interpretation of the dDCO).	The Applicant is happy to discuss this further with Thames Water. That is correct – Article 48(2)(d) of the **Draft DCO (as updated alongside this report)** provides that "*clause 4 of the 1994 agreement shall be abrogated in its entirety*" following the carrying out of Work No. 7 which provides for works to the Mitigation and Enhancement Area and improvements to the existing Crossness Local Nature Reserve. Clause 4 of the 1994 agreement contains the covenants from Thames Water in respect of Nature Conservation Land, therefore the abrogation of clause 4 removes the obligation(s) on Thames Water. It is the intention that the full Landscape Biodiversity Access and Recreation Delivery Strategy (LaBARDS) (Requirement 12) and the proposed section 106 Agreement (see **APP-121**) will deal with how Thames Water's land will be managed as part of the overall extended Crossness Local Nature Reserve. The intention is for the existing regime under the 1994 agreement to be replaced with the LaBARDS and section 106 regime.

Ref #	Relevant Representation	Applicant Response
7.4.2	5.2 It is not clear to TWUL at this stage as to whether the local planning authority (which has the benefit of the obligations in the 1994 Agreement) objects to this approach. It is further unclear as to the extent to which construction of the Proposed Scheme prior to Work No.7 being completed (and the abrogation taking effect) would impede TWUL's ability to comply with its obligations under the 1994 Agreement.	This concern is dealt with through the wording at Article 48(3) of the **Draft DCO (as updated alongside this report)** which provides that the carrying out of Work No. 7 on the Crossness Local Nature Reserve shall not constitute a breach of the 1994 agreement (or planning permission number 91/1318U granted by the London Borough of Bexley).
7.4.3	5.3 A third potential issue arises whereby no part of the 1994 Agreement is abrogated but the part of the CNR which is within the Order limits is acquired (compulsorily or otherwise) by Cory, resulting in two parties being bound by the 1994 Agreement to maintain and enhance the CNR. If this situation were to arise, it appears that TWUL and Cory would have to work together to ensure a coherent and cost effective approach to maintaining and enhancing the CNR, which may have additional cost or resource implications for TWUL and could result in disputes arising between the parties.	The current intention of Article 48(2)(d) of the **Draft DCO (as updated alongside this report)** is that the 1994 agreement will no longer apply to land inside or outside of the Order limits as it will be replaced by the LaBARDS regime pursuant to Requirement 12 and the section 106 Agreement. The Applicant recognises that this may have cost implications and is therefore in discussions to cover costs arising, as set out in the section **106 Heads of Terms [APP-121]**.

Ref #	Relevant Representation	Applicant Response
7.4.4	5.4 Cory has not discussed the issue of amending the 1994 Agreement in any detail with TWUL and therefore TWUL must reserve its position until such time as it is assured that the Proposed Scheme will not adversely affect TWUL's ability to comply with the 1994 Agreement, nor put TWUL in a worse position than it is at present.	This is the Applicant's intention and welcomes further discussion with TWUL on this matter. For reference, the Applicant has inserted new Article 51 which provides the power to make byelaws relating to the Crossness Nature Reserve and new Article 52 which sets out provisions on fixed penalty notices in respect of such byelaws. This drafting has precedent in the proposed **A122 (Lower Thames Crossing) Development Consent Order 202[*]**.

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