



# **ENVIRONMENTAL STATEMENT: 6.3 APPENDIX 5-4: AIR QUALITY POSITIVE STATEMENT**

**DECARBONISATION**

## **Cory Decarbonisation Project**

**PINS Reference: EN010128**

**April 2025**

**Revision B**

## QUALITY CONTROL

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## 1. INTRODUCTION

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

- **Figure 1-1: Site Boundary Plan (Volume 2);** and
- **Figure 1-2: Satellite Imagery of the Site Boundary Plan (Volume 2).**

1.1.2. The Applicant intends to construct and operate the Proposed Scheme to be linked with the River Thames. It comprises of the following key components, which are described below, and further detail is provided within **Chapter 2: Site and Proposed Scheme Description (Volume 1)**:

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

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

## 1.2. PURPOSE OF THE REPORT

- 1.2.1. An Air Quality Positive (AQP) Statement is required under Part C of Policy SI 1 'Improving air quality' of the London Plan 2021<sup>1</sup>, which mentions that "*masterplans and development briefs for large-scale development proposals subject to an Environmental Impact Assessment should consider how local air quality can be improved across the area of the proposal as part of an air quality positive approach...*".
- 1.2.2. This document should be read in conjunction with other supporting documents submitted with the application for a development consent order which explain the Proposed Scheme in more detail and relate it to the surrounding context and planning policy framework for the Site.

## 1.3. METHOD STATEMENT

- 1.3.1. The following members of the Project Team have been involved in the preparation of this AQP Statement:
- Cory Environmental Holdings Limited – the Applicant; and
  - WSP – Transport and Air Quality Specialists and Carbon Capture Engineers.
- 1.3.2. Meetings were regularly held between WSP Air Quality Specialists and WSP Carbon Capture Engineers to discuss the specific design parameters of the Carbon Capture Facility and its associated new Absorber Column(s) and Stack(s). The dispersion modelling undertaken for the assessment of air quality effects informed the design of the Proposed Scheme.
- 1.3.3. WSP Air Quality Specialists liaised with WSP Marine Transport Consultants to discuss the opportunities available for marine vessel movements associated with the operation of the Proposed Scheme. Full details of the marine assessment are provided in **Chapter 19: Marine Navigation (Volume 1)**.
- 1.3.4. **Chapter 18: Landside Transport (Volume 1)** has been reviewed to assist in the understanding of operational traffic flows associated with the Proposed Scheme. It should be noted that predicted operational flows are very low, and consequently have not been considered in the air quality assessment for the application for a development consent order.

- 1.3.5. Additionally, the scope of the air quality assessment was discussed with relevant officers of the London Borough of Bexley (LBB) on 23<sup>rd</sup> May 2023 as part of pre-application meetings. Full details of the consultation discussions undertaken with stakeholders that have informed the AQP approach are provided in **Section 4.1**.

## 2. CONSTRAINTS AND OPPORTUNITIES

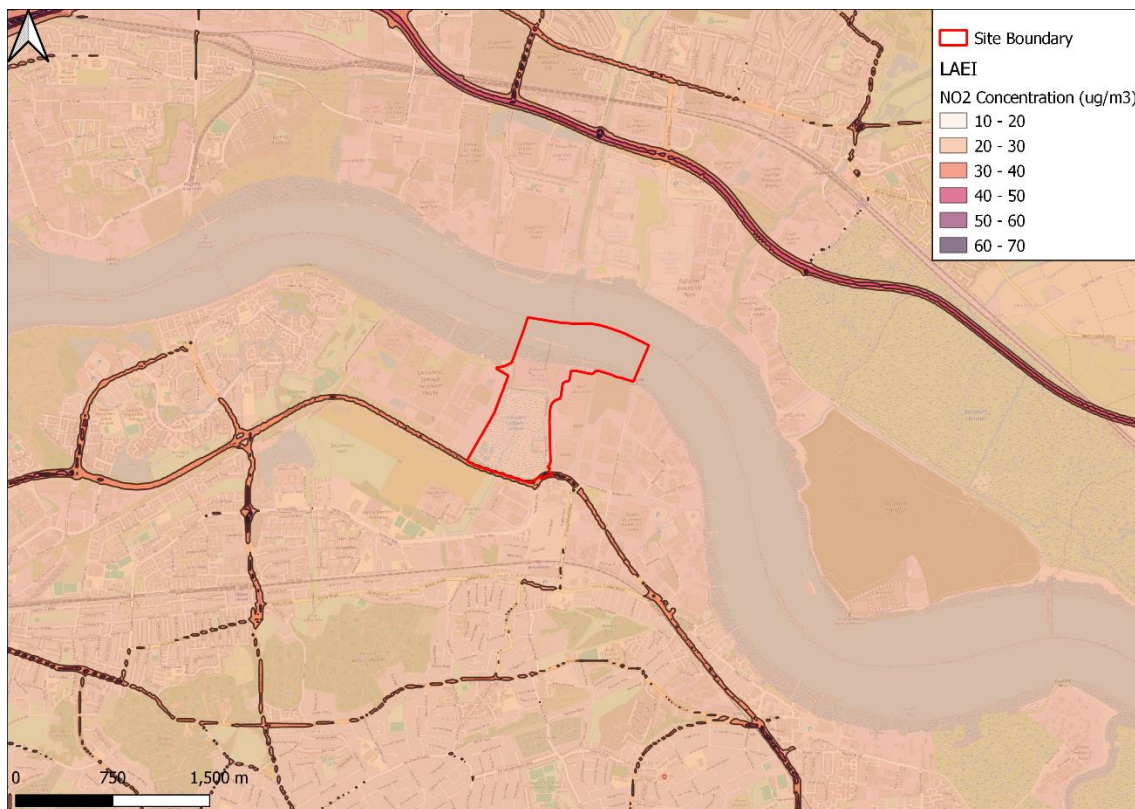
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- 2.1.1. A desk-based review of publicly available air quality data and a review of the baseline air quality monitoring was undertaken to inform **Chapter 5: Air Quality (Volume 1)**. A summary is provided below.

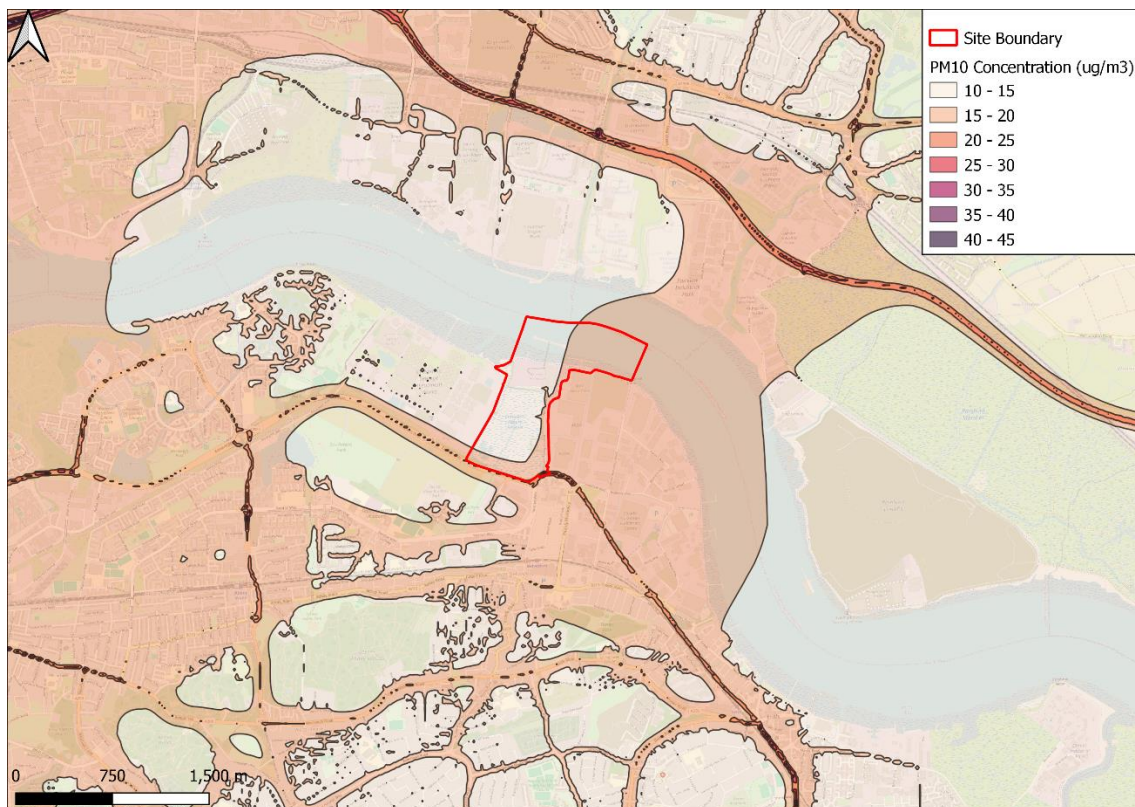
### 2.2. BASELINE AIR QUALITY

- 2.2.1. Local air quality information has been taken from the LBB's Air Quality Annual Status Report for 2022<sup>2</sup>.
- 2.2.2. The LBB is covered by a borough-wide Air Quality Management Area (AQMA), declared in 2007 due to exceedances of the annual and 24 hour mean particulate matter (PM<sub>10</sub>) and annual mean nitrogen dioxide (NO<sub>2</sub>) air quality objectives.
- 2.2.3. There are also two Air Quality Focus Areas (AQFA) within the jurisdiction of LBB, namely:
- A206 from Erith Queens Road Roundabout to Northend Roundabout, located approximately 2.6km southeast of the Proposed Scheme; and
  - A2 East Rochester Way/Falconwood, located approximately 6km southwest of the Proposed Scheme.
- 2.2.4. The London Atmospheric Emissions Inventory (LAEI) model output for NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> for the area surrounding the Site in 2019 is illustrated in **Figure 1**, **Figure 2** and **Figure 3** along with the LAEI Air Quality Focus Areas (AQFAs). A review of the available LAEI data shows that in 2019 there were locations near the Site that did not meet the air quality objectives for annual mean NO<sub>2</sub> and PM<sub>10</sub>. The high concentrations are associated with road transport emissions.



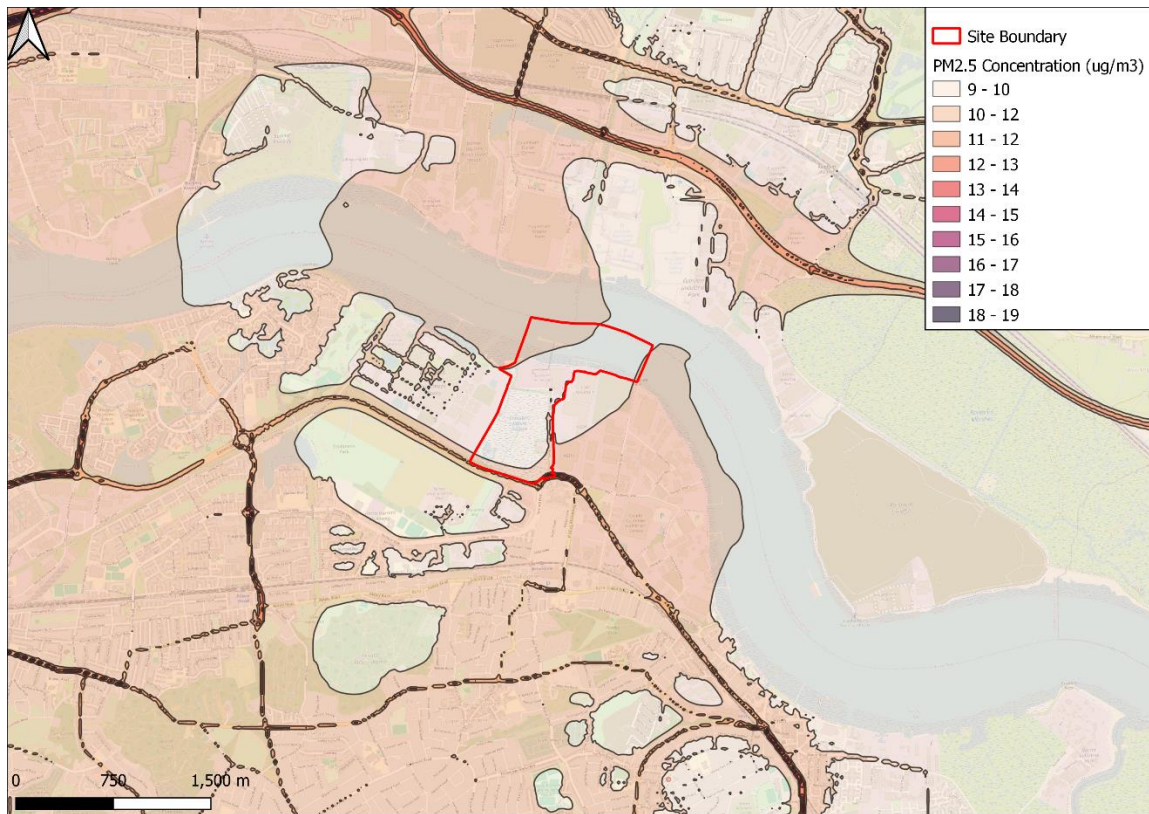


**Figure 1: LAEI for 2019 NO<sub>2</sub>**



**Figure 2: LAEI for 2019 PM<sub>10</sub>**





**Figure 3: LAEI for 2019 PM<sub>2.5</sub>**

## **AIR QUALITY MONITORING DATA**

- 2.2.5. The air quality monitoring available within 5km of the Site from both local authorities and Proposed Scheme specific monitoring is presented in **Chapter 5: Air Quality (Volume 1)**.
- 2.2.6. In 2022, in all of the available data within 5km of the Proposed Scheme there was only one monitored exceedance of the annual mean NO<sub>2</sub> objective. The exceedance was measured at the monitoring site DTS5 located along the A2016 (approximately 0.1km south of the Proposed Scheme) where an annual mean concentration of 42.0µg/m<sup>3</sup> was recorded. The monitoring at this location was undertaken to support the air quality assessment for the Proposed Scheme by WSP Air Quality Specialists.
- 2.2.7. Concentrations of NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> have shown a decrease over the last six or seven years, likely due to the uptake of newer, less polluting vehicles on the local road network. There is likely to be an influence of COVID-19 restrictions in 2020 and 2021 on road traffic levels, but it is thought that 2022 represents the first year of normal traffic flows post-pandemic.

## MAJOR OFFSITE SOURCES OF AIR POLLUTION

### Roads

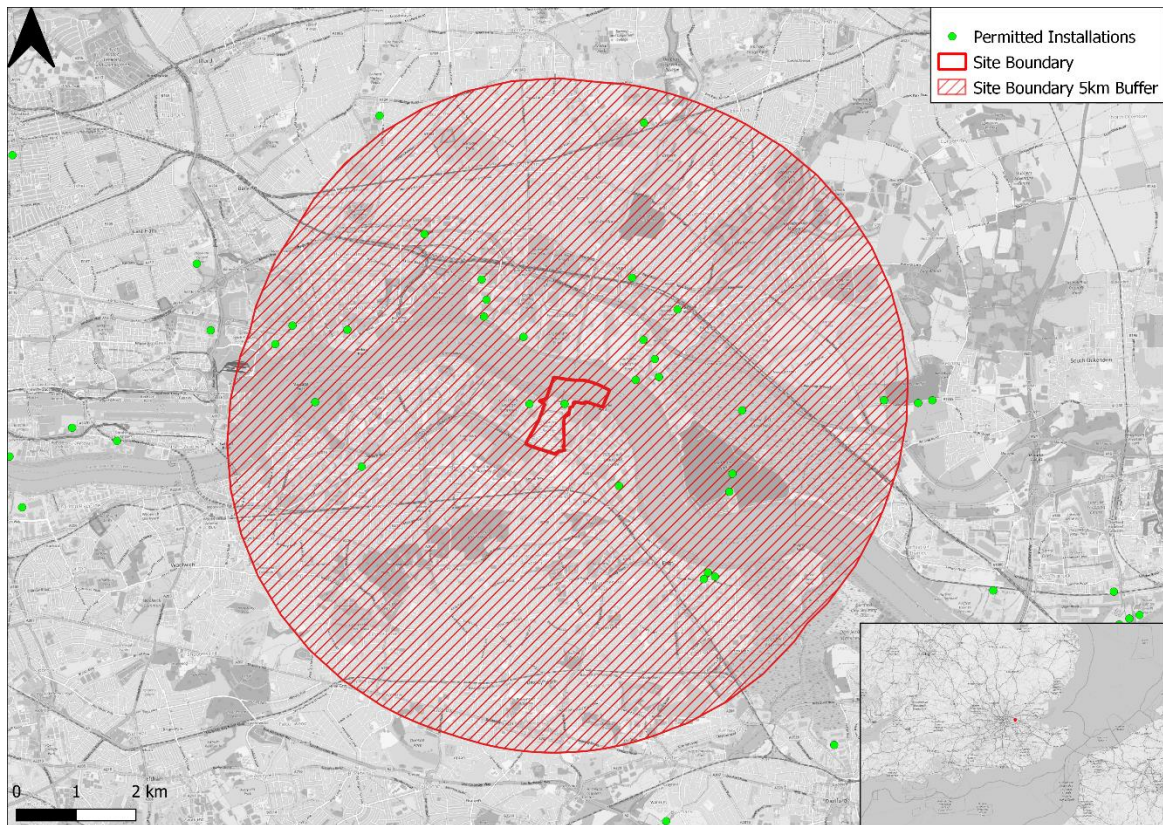
- 2.2.8. The Proposed Scheme is in an area where air quality is influenced by emissions from road traffic. The A2016 is heavily trafficked and located immediately south of the Site.

### Maritime

- 2.2.9. The Site Boundary falls on the River Thames. The River Thames is used by marine vessels (e.g. passenger vessels, bulk cargo transport, tug boats etc.), the emissions from which contribute to local pollutant concentrations. The primary pollutants of concern for marine emissions are oxides of nitrogen (NO<sub>x</sub>/NO<sub>2</sub>), particulate matter, sulphur dioxide (SO<sub>2</sub>) and volatile organic compounds (VOC). Emissions from the maritime sector can be difficult to quantify as they are, by definition, both non-stationary and transient and there are limited records of shipping movements and on-board operating machinery.
- 2.2.10. Marine transport is considered to be a large source of emissions at the Site and could give rise to exceedances of objectives for multiple pollutants.

### Industry

- 2.2.11. There are a number of permitted (either by the Environment Agency or local authorities) industrial installations in the area surrounding the Site. Within 5km of the Site there are 26 permitted industrial installations including incinerators, energy from waste facilities and combustion installations.
- 2.2.12. The locations of these industrial installations are shown in **Figure 4**.



**Figure 4: Permitted Installations within 5km**

- 2.2.13. These permitted installations would emit air pollutants such as VOC, NO<sub>x</sub>, dust and particulates and carbon monoxide (CO). They may also generate odorous emissions. Given that these activities are permitted, it is assumed that these emissions would be tightly controlled by the operators and therefore kept to a minimum. Riverside 1 is one of these permitted industrial installations, which sits within the Site Boundary. Riverside 2 is currently under construction in the Site Boundary and will also be a source of pollution prior to the operation of the Proposed Scheme.

## OFFSITE SENSITIVE RECEPTORS

- 2.2.14. A summary of the offsite sensitive receptors to the Proposed Scheme is provided below.
- 2.2.15. Residential properties including:
- Clydesdale Way (approximately 50m to the southeast);
  - North Road (approximately 170m to the southeast);
  - Norman Road (approximately 170m to the south);
  - Poppy Close (approximately 275m to the south);
  - Jennings Way (approximately 600m to the east); and
  - Leatherbottle Green (approximately 1km to the southwest).



2.2.16. Hospitality facilities including:

- Travelodge London Belvedere (approximately 30m to the south);
- Morgan Pub (approximately 20m to the south); and
- Starbucks Norman Road (approximately 90m to the southeast).

2.2.17. Places of work including:

- Riverside 1 and Riverside 2 (within the Site Boundary);
- Munster Joinery (within the Site Boundary);
- Iron Mountain Records Storage Facility (adjacent to the east);
- Users of the PRoW, Crossness Local Nature Reserve (LNR) and Metropolitan Open Land (within the Site Boundary);
- Asda Belvedere Distribution Centre (approximately 30m east);
- Asda ASC Recycling Centre (approximately 340m east); and
- Lidl Warehouse/Belvedere Regional Distribution Centre (150m southeast).

2.2.18. Schools including:

- Harris Garrard Academy (approximately 0.7km to the southwest);
- Belvedere Junior and Infant School (approximately 0.7km to the south);
- Northwood Primary School (approximately 1km to the southwest);
- Jubilee Primary School (approximately 1.1km to the west);
- Parkway Primary School (approximately 2.1km to the southwest);
- Harris Academy Rainham (approximately 2.7km to the northeast); and
- Riverside School (approximately 2.9km to the northwest).

2.2.19. Hospitals including:

- Queen Elizabeth Hospital (approximately 7km to the southwest);
- Queens Hospital (approximately 7.2km to the north);
- Newham University Hospital (approximately 7.8km to the west); and
- King George Hospital (approximately 8.5km to the north).

2.2.20. The following internationally designated ecological sites have been identified within 15km of the Site:

- Epping Forest Special Area of Conservation (SAC) (approximately 11.8km to the northwest).

2.2.21. The following nationally designated ecological sites have been identified within 10km of the Proposed Scheme:

- Inner Thames Marshes Site of Special Scientific Interest (SSSI) (approximately 0.9km to the east);
- Ingrebourne Marshes SSSI (approximately 2.3km to the northeast);
- Oxleas Woodlands SSSI (approximately 5.9km to the southwest); and

- West Thurrock Lagoon and Marshes SSSI (approximately 8.0km to the southeast).

2.2.22. The following locally designated ecological sites have been identified within 2km of the Proposed Scheme:

- Crossness LNR (within the Site);
- Erith Marshes Site of Importance for Nature Conservation (SINC) (within the Site);
- Belvedere Dykes SINC (within the Site);
- River Thames and Tidal Tributaries SINC (within the Site);
- Dagenham Breach and the lower Beam River in Dagenham SINC (500m to the north);
- Lower River Beam and Ford Works Ditches SINC (500m to the north);
- Southmere Park & Yarnton Way/Viridion Way SINC (700m to the southwest);
- Crossness Sewage Treatment Works Pond SINC (900m to the west);
- Rainham Marshes Local Nature Reserve (approximately 900m to the east);
- Lesnes Abbey Woods Local Nature Reserve and Ancient Woodland (approximately 1.1km to the southwest);
- Franks Park Belvedere SINC (1km to the south);
- Wennington, Aveley and Rainham Marshes SINC (1km to the east);
- Lesnes Abbey Woods and Bostall Woods SINC (1.2km to the southwest);
- Thamesview Golf Course SINC (1.2km to the west);
- Riverside Sewage Treatment Works SINC (1.2km to the northeast);
- Mudlands SINC (1.5km to the north);
- St John the Baptist Churchyard, Erith SINC (1.5km to the southeast);
- Crossway Park and Tump 52 SINC (1.5km to the west);
- The Ridgeway SINC (1.5km to the west);
- Crossways Lake Nature Reserve and Thameside Walk Scrub SINC (1.6km to the west);
- Hollyhill Open Space SINC (1.8km to the south);
- Rainham Railsides SINC (1.8km to the north);
- Goresbrook and the Ship & Shovel Sewer SINC (2km to the northwest); and
- Streamway, Chapman's Land and Erith Cemetery SINC (2km to the south).

## 2.3. PROXIMITY TO ENERGY NETWORKS

2.3.1. According to the London Heat Map<sup>3</sup> there is an existing District Heat Network (DHN) approximately 6km from the Site Boundary. The Proposed Scheme will incorporate a Heat Recovery and Heat Transfer System so that this energy can instead be captured and redirected into a district heating network, such as the Riverside Heat Network. The Riverside Heat Network is under development.

- 2.3.2. Riverside 1 currently operates using electricity generated from the energy from waste facility itself, therefore it is energy neutral. The same is planned for Riverside 2. It is planned that the new Carbon Capture Facility will also use electricity generated from Riverside 1 and Riverside 2, making it energy neutral and not reliant on the import of energy from elsewhere. However, there may be exceptional circumstances when power will be imported from the grid (e.g. during major power outages).

## 2.4. TRANSPORT INFRASTRUCTURE OPPORTUNITIES

- 2.4.1. According to Transport for London's (TFL) Public Transport Accessibility Levels (PTAL)<sup>4</sup> the Site has a rating of 0 (very poor). Further information in **Chapter 18: Landside Transport (Volume 1)** does, however, state that the Proposed Scheme is very well linked.
- 2.4.2. However, as described above, operational traffic flows are predicted to be very low for the Proposed Scheme. 48% of the 27 full time employed staff will use a private vehicle to get to work, with the remaining using public transport. Furthermore, it is likely that workforce travel movements will not differ between the operation of Riverside 1, Riverside 2 and the Proposed Scheme.

## 2.5. SITE PERMEABILITY AND ACCESS

- 2.5.1. Much of the Site will not be accessible to members of the public. However, the Mitigation and Enhancement Area will provide a valuable opportunity to improve access for users of the Crossness LNR and surrounding open land. The area will include footpath enhancements, habitat mitigation, compensation and enhancement (including potential planting for landscaping). Further detail is provided within **Chapter 2: Site and Proposed Scheme Description (Volume 1)** and the **Outline LaBARDS (Document Reference 7.9)**.

## 2.6. SUMMARY

**Table 1: Summary of Constraints and Opportunities**

Item	Details	Potential Constraint or Opportunity
<b>Statutory designations</b>	<ul style="list-style-type: none"> <li>the whole borough is an AQMA;</li> <li>surrounding boroughs are AQMA; and</li> <li>nearby AQFA.</li> </ul>	Constraint
<b>Major offsite sources of air pollution</b>	<ul style="list-style-type: none"> <li>Roads – the Site is bounded by the heavily trafficked A2016;</li> <li>Maritime – the Site is adjacent to the River Thames from which marine vessels are a source of emissions; and</li> </ul>	Constraint



Item	Details	Potential Constraint or Opportunity
	<ul style="list-style-type: none"> <li>Industry – the Site is located in an industry heavy area, with 26 permitted installations situated within 5km. These installations are likely to have an impact on local air quality.</li> </ul>	
<b>Baseline air quality</b>	Air quality at the Site and in the surrounding area is gradually improving with time. On the Site, annual mean NO <sub>2</sub> concentrations are currently compliant with the relevant AQS.	Opportunity
<b>Existing sensitive receptors</b>	Area is mostly industrial, but with residential properties >100m from the Site.	Constraint
<b>Proximity to energy networks</b>	<ul style="list-style-type: none"> <li>connecting to the local heat network to supply heat to local homes; and</li> <li>Carbon Capture Facility will be energy neutral due to supply of energy from Riverside 1 and Riverside 2.</li> </ul>	Opportunity
<b>Transport infrastructure</b>	<ul style="list-style-type: none"> <li>Site is well linked; and</li> <li>Site will not result in generation of significant levels of traffic during operation.</li> </ul>	Neither
<b>Site permeability and access</b>	<p>Site is mostly inaccessible to members of public and will not be used to access other locations.</p> <p>Crossness LNR and surrounding land will be enhanced to improve access for members of the public to use.</p>	Neither

### 3. MEASURES ADOPTED

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- 3.1.1. **Table 2** below provides details of the AQP measures that would be adopted for the Proposed Scheme, the rationale of their adoption, and how they would be implemented. These measures have been broken down into the themes set out in the Mayor of London's 'Air Quality Positive Guidance'<sup>5</sup>. Further detail on how the individual measures set out in **Table 2** would be implemented and monitored is set out in **Section 4** of this Statement.

**Table 2: Air Quality Positive Matrix**

Measure	Summary of the Measure	Reason for Undertaking the Measure	Expected Benefits	Assessment Methods	Quantitative Report	Qualitative Report	How will this Measure be Secured?
<b>Better Design and Reducing Exposure</b>							
<b>Setting of emission limits from Carbon Capture Facility</b>	Emissions from the Carbon Capture Facility will comply with best available technique (BAT) and will be secured by the environmental permit.	To minimise impacts to air quality from the Proposed Scheme.	Reduced impacts of pollutants at receptors.	Dispersion modelling using the emission limits set by the Applicant was undertaken, as set out in <b>Appendix 5-3: Detailed Model Pollution Results (Volume 3)</b> .	Y	Y	In the Environmental Permit for the Proposed Scheme.
<b>Minimise building downwash</b>	Designing the facilities to minimise building downwash. The new Absorber	Dispersion modelling undertaken for the ES	Dispersion of pollutants post-carbon capture will	Although not quantitatively reported, dispersion	N	Y	<b>Works Plans (Document Reference 2.3).</b>

Measure	Summary of the Measure	Reason for Undertaking the Measure	Expected Benefits	Assessment Methods	Quantitative Report	Qualitative Report	How will this Measure be Secured?
	Column(s) and Stack(s) will be positioned 100m or more from the Riverside 1 and Riverside 2 units.	has shown that impacts from pollutants are greatly increased when the stacks are located within 100m of Riverside 1 and Riverside 2.	be improved, minimising impacts to receptors.	modelling of varied Absorber Column(s) and Stack(s) locations was undertaken.			
<b>Increased Absorber Column(s) and Stack(s) height</b>	The height of the Absorber Colum(s) and Stack(s) associated with the Carbon Capture Facility will be a minimum of 100m (from development platform as built),	Dispersion modelling undertaken for the ES has shown that impacts from pollutants are greatly	Dispersion of pollutants post-carbon capture will be improved, minimising impacts to receptors.	Dispersion modelling of varied Absorber Column(s) and Stack(s) heights was undertaken, as set out in	Y	Y	Parameters set out in the <b>Draft DCO (Document Reference 3.1)</b> .

Measure	Summary of the Measure	Reason for Undertaking the Measure	Expected Benefits	Assessment Methods	Quantitative Report	Qualitative Report	How will this Measure be Secured?
	as set out as a lower limit of the parameters of environmental assessment shown in <b>Chapter 2: Site and Proposed Scheme Description (Volume 1) of the ES.</b>	increased and considered to be significant when the Absorber Column(s) and Stack(s) heights are lower than 100m.		<b>Appendix 5.3: Detailed Model Pollution Results (Volume 3).</b>			
<b>Limit loss of amines</b>	The technology used in the Carbon Capture Facility will be designed to minimise, as far as is reasonably practicable, the loss of amines into the plume emitted by the Carbon Capture Facility.	Amines that slip into the flue gas can degrade to harmful nitramines and nitrosamines.	Reduced concentration of amines and their degradation products, therefore reduced impacts at local receptors.	Not Applicable	N	Y	<b>Mitigation Schedule (Document Reference 7.8).</b>

Measure	Summary of the Measure	Reason for Undertaking the Measure	Expected Benefits	Assessment Methods	Quantitative Report	Qualitative Report	How will this Measure be Secured?
<b>Re-heating of plume</b>	The design of the Carbon Capture Facility will re-heat the plumes to a minimum of 80 degrees centigrade taken from Riverside 1 and Riverside 2.	The removal of CO <sub>2</sub> from the energy from waste plume will drastically reduce the plume buoyancy, and therefore lead to greater impacts from pollutants.	The re-heating of the plume will increase the buoyancy and, therefore, it will reduce impacts at ground level receptors.	N/A	N	Y	<b>Design Principles and Design Code (Document Reference 5.7).</b>
<b>Installation of the elevated process pipe bridge</b>	The Carbon Capture Facility will utilise a new elevated process pipe bridge to load marine vessels with LCO <sub>2</sub> .	Primarily undertaken to avoid gas leakage during the loading process.	Minimised use of machinery within Site to load LCO <sub>2</sub> onto the marine vessels,	This is part of the design of the Carbon Capture Facility and Proposed Jetty has been used in	N	Y	This is what is authorised by the <b>Draft DCO (Document Reference 3.1)</b> . LCO <sub>2</sub> cannot be transferred without these being built.



Measure	Summary of the Measure	Reason for Undertaking the Measure	Expected Benefits	Assessment Methods	Quantitative Report	Qualitative Report	How will this Measure be Secured?
			reducing emissions of pollutants.	the air quality assessment (presented in <b>Chapter 5: Air Quality (Volume 1).</b>			
<b>Building Emissions</b>							
<b>The Carbon Capture Facility will be operated using energy obtained from the Riverside 1 and Riverside 2 and will be energy neutral.</b>							
<b>Transport Emissions</b>							
<b>Strict operational vessel emissions</b>	The vessels used for the transportation of the LCO <sub>2</sub> during the operation of the Proposed Scheme will be issued with an Engine International Air Pollution Prevention (EIAPP) Certificate	To minimise emissions of NO <sub>x</sub> from marine vessels.	Reduced emissions of NO <sub>x</sub> meaning lower concentrations from operational vessel movements.	Dispersion modelling has been based on the strict emission rates.	N	Y	The Regulations are mandatory.

Measure	Summary of the Measure	Reason for Undertaking the Measure	Expected Benefits	Assessment Methods	Quantitative Report	Qualitative Report	How will this Measure be Secured?
	to ensure that they comply with the requirements of the mandatory regulations 13.8 <sup>1</sup> . These regulations, <i>inter alia</i> , set a NO <sub>x</sub> emission limit for vessel engines in g/kWh based on the rated speed of the engine for ships constructed after 1 <sup>st</sup> January 2016.						
<b>Innovation and Future Proofing</b>							
Environment Agency and BAT guidance will continue to develop regulation of carbon capture schemes. It is important that the Proposed Scheme is ready to adapt accordingly to guidance updates.							

<sup>1</sup> NO<sub>x</sub> Technical Code 2008, resolutions MEPC. 177(59) and 5.3.2 (amendments to the aforementioned by resolution MEPC.251.(66))

## 4. IMPLEMENTATION AND MONITORING

### 4.1. CONSULTATION

Table 3: Consultation Undertaken with Statutory Bodies

Body/Organisation	Individual/Statutory Body/Organisation	Meeting Dates and Other Forms of Consultation	Summary of Outcome of Discussions
London Borough of Bexley	Air Quality Manager	23 <sup>rd</sup> May 2023 - Virtual Meeting.	<p>WSP attended a meeting with the LBB in which the air quality assessment scope and methodology was presented.</p> <p>The LBB's Air Quality Manager raised the following points:</p> <ul style="list-style-type: none"> <li>the Proposed Scheme should consider a range of possible fuel types for vessels; and</li> <li>the Proposed Scheme should consider additional scrubbing of NO<sub>x</sub> emissions in the flue gas.</li> </ul>

**Table 4: Summary of Meetings to inform Air Quality Positive Design**

Team/Topic	Meeting Dates and Other Forms of Consultation	Summary of Outcome of Discussions
<b>Carbon Capture Engineers</b>	Email correspondence and virtual meetings between August and November 2023 between Air Quality Specialists and Carbon Capture Engineers.	Minimum Absorber Column(s) and Stack(s) height will be 100m (from development platform as built). This is the lower limit of the environmental parameters set out in <b>Chapter 2: Site and Proposed Scheme Description (Volume 1)</b> . Any lower than this will result in unacceptable impacts.
		Minimum distance between Riverside 1 and Riverside 2 buildings and the new Absorber Column(s) and Stack(s) for the Carbon Capture Facility will be 100m. Any closer than this will result in unacceptable impacts due to the effect of building downwash.
		The plume will be reheated to a minimum of 80 degrees centigrade to account for the loss in buoyancy post-carbon capture.
		The Carbon Capture Facility will use energy generated from Riverside 1 and Riverside 2.
		The Carbon Capture Facility has the potential to input into the DHN.
<b>Maritime</b>	Virtual meeting in November 2023 between Air Quality Specialists and Maritime Transport Specialists.	Marine vessels associated with the movement of captured LCO <sub>2</sub> will comply with the requirements of the mandatory regulations 13.8 and 5.3.2 respectively <sup>1</sup> .

## 4.2. IMPLEMENTATION PLAN

- 4.2.1. The AQP matrix (see **Table 4**) provides information on how the measures proposed would be implemented.
- 4.2.2. The majority of these measures would be secured through requirements in the **Draft DCO (Document Reference 3.1)** or the Environmental Permit for the Proposed Scheme.

## 4.3. MONITORING PLAN

- 4.3.1. The only AQP measures that will require monitoring are the emissions in the flue gas post-carbon capture. Monitoring of emissions from the Carbon Capture Facility will be undertaken for the Environmental Permit for the Proposed Scheme which will be a requirement set out by the Environment Agency.

## 4.4. REFERENCES

- <sup>1</sup> Greater London Authority (2021). 'The London Plan'. Available at: [https://www.london.gov.uk/sites/default/files/the\\_london\\_plan\\_2021.pdf](https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf)
- <sup>2</sup> London Borough of Bexley. (2023). 'Air Quality Annual Status Report'. Available at: <https://www.bexley.gov.uk/sites/default/files/2023-08/London-borough-of-bexley-air-quality-annual-status-report-for-2022.pdf>
- <sup>3</sup> Mayor of London. (2024). 'District Heat Network'. Available at: <https://apps.london.gov.uk/heatmap/>
- <sup>4</sup> Transport for London. (2017). 'Public Transport Accessibility Levels'. Available at: <https://data.london.gov.uk/dataset/public-transport-accessibility-levels>
- <sup>5</sup> Greater London Authority. (2023). 'London Plan Guidance: Air Quality Positive'. Available at: <https://www.london.gov.uk/sites/default/files/2023-02/Air%20Quality%20Positive%20LPG.pdf>



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