



Environmental Risk Assessment – DP3442QV

Hayes Data Centre Emergency Back-up Generation Facility

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1.0 INTRODUCTION

This Environmental Risk Assessment (ERA) has been prepared by HDR on behalf of the operator *Amazon Data Services UK Ltd*, in support of the application to vary the existing Environmental Permit (ref DP3442QV) for the following installation:

**Hayes Data Centre Emergency Back-up Generation Facility
Bulls Bridge Industrial Estate,
North Hyde Gardens,
Hayes
UB3 4DG
Grid reference: TQ 10514 79252**

This ERA aims to identify potentially significant environmental risks associated with the installation's activities, the applicable source pathway receptors, and the control measures in place to help mitigate the identified risks.

This ERA has been produced in accordance with Environment Agency (EA) guidance – “Risk assessments for your environmental permit”¹.

Please refer to the following reports for detailed risk assessments that have been submitted as part of the application for a permit:

- Air Quality assessment
- Noise assessment
- Site condition report / Site Baseline assessment

The requirement to complete a Climate Change Risk Assessment (CCRA) as part of the application for a new bespoke Installation EP was withdrawn in August 2022². As is now required, this will be integrated into the site's management system.

1.1 Background

The Hayes Data Centre Emergency Back-up Generation Facility ('the site') outlined in Appendix A and Appendix B is comprised of two out of the three data centres to be constructed on the wider 'Union Campus'. Each data centre will use Emergency Standby Generators or 'ESGs' to provide emergency power in the event of grid electrical failure. The ESGs will be located in the associated Energy Centre (EC). For example, the ESGs serving Data Centre 1 will be housed in Energy Centre 1 or 'EC1'.

The existing permit (ref DP3442QV) covers the activities associated with EC1. This updated ERA is to support the permit variation to add the activities associated with EC2. Once fully operational there will be 28 ESGs across EC1 and EC2 (14 ESGs in each).

Energy Centre 3 (EC3) is covered under a separate permit (ref: ZP3527SS) as it is managed by a different operator.

¹ <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>

² <https://www.gov.uk/guidance/adapting-to-climate-change-risk-assessment-for-your-environmental-permit>

2.0 METHODOLOGY

2.1 Approach

This ERA has been prepared in accordance with EA guidance. This guidance recommends that the following steps are undertaken in preparing a risk assessment:

1. Identify and consider risks for your site, and the sources of the risks.
2. Identify the receptors (people, animals, property, and anything else that could be affected by the hazard) at risk from your site.
3. Identify the possible pathways from the sources of the risks to the receptors.
4. Assess risks relevant to your specific activity and check they are acceptable and can be screened out.
5. State what you will do to control risks if they are too high.
6. Submit your risk assessment as part of your permit application.

2.2 Risk scoring

This ERA has been completed using the scoring matrix shown in *Table 2-1 – Risk Matrix* with definitions for each score as follows:

Probability of exposure:

- High – exposure highly likely to occur
- Medium – considered to be likely
- Low – considered to be unlikely
- Very Low – considered to be highly unlikely / very rare event / mitigation in place

Consequence:

- High – potential for significant impact requiring mitigation / remediation
- Medium – potential for moderate impact which may require mitigation / remediation
- Low – negligible impact that may require mitigated
- Very Low – no significant / perceivable impact to receptor

Table 2-1 – Risk Matrix

	Probability of exposure / Likelihood			
Consequence	High	Medium	Low	Very Low
High	High	High	Medium	Low
Medium	High	Medium	Medium	Low
Low	Medium	Medium	Low	Very low
Very low	Low	Low	Very low	Very low

3.0 SITE CONTEXT

This section contains a high-level site summary. Please refer to the Non-technical Summary (NTS) document for a non-technical introduction to the site and application, or to the Best Assessment Techniques (BAT) document for further details on plant, design, and emissions mitigation.

3.1 Site location

The is located in Hayes in an urban location, which is relatively industrial in the immediate vicinity, with residential properties to the north and south.

To the north, the site backs onto a railway line. The Parkway dual carriageway is located to the east, which joins the M4 Motorway further south. The Grand Union Canal borders the campus to the south, while the river Crane borders the east boundary of the site. There are several small businesses, restaurants, offices, leisure facilities, religious buildings, parks and schools in the wider vicinity of the installation.

The surrounding area has previously supported various industrial and potentially contaminative land uses, including creosote works, railway, and a power station. No sensitive land uses have been identified.

Beyond the direct site boundaries, the closest ecological receptors are Local Wildlife sites (LWS) approximately 2,000m from the site, with the closest Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar sites approximately 10,000m from the site boundary.

3.2 Site activities

As referenced above, the existing data centre and associated Energy Centre, EC1, has been completed and is operating under permit DP3442QV. Construction of EC2 is ongoing and planned for completion in 2025.

Under normal circumstances, electricity to the site is provided by the National Grid. Reliability of constant power provision is critical and, as such, the site uses ESGs to provide power in the event of an outage/failure in the grid supply.

The ESGs are on site solely to support the campus in times of grid failure. Expansion works in 2024/2025 will see 14no. additional installed and commissioned for EC2, with the first phase likely to commence commissioning in Summer 2025. Once fully operational there will be 28 ESGs across EC1 and EC2 (14 ESGs in each).

All 28 ESGs are 3.2MWe Rolls Royce MTU DS4000's, which have a thermal capacity of 8MWth, with a total capacity of 224.25MWth. All of the ESGs are over 1MWth and are therefore classed as new 'Medium Combustion Plant' (MCP). These ESGs are 'limited hour MCPs' as they are emergency standby plant that will operate less than 500 hours per year and there is no capacity agreement in place. Details of the existing and new MCPs can be found in the Thermal Schedule and Non-technical Summary submitted with the application.

The ESGs are likely to operate on Hydrogenated Vegetable Oil (HVO) (but can operate on diesel) and are to be fitted with Selective Catalytic Reduction (SCR) to reduce NOx emissions to 95mg/Nm³ (at 5% O₂). The SCR systems use Urea as a raw material to operate.

The Directly Associated Activities (DAA) include the fuel and storage tanks, Urea storage tanks, associated pipework, and the drainage network.

The location of the generators, fuel tanks and emissions points (flues / stacks) and surface water connections are shown in Appendix B. The installation boundary encompasses the listed activities only.

3.3 Site history

Historical land use maps show the campus was vacant during the mid-1800's. At this point only the railway was present to the north. Major urbanisation occurred in the surrounding area between 1920-1935, along with the construction of a Creosote Works on the northwest section of the campus. These works were demolished in 1979 to make way for a power station which was situated to the west of the campus. Other land uses in the surrounding area included various factory buildings, joinery works, railway works, and an asphalt works.

For further details on site history, please see the updated Site Condition Report which was submitted as part of this application.

3.4 Site sensitivity

The site is in the administrative boundaries of London Borough of Hillingdon (LBH) Council. See Appendix A for an overview of the site and surrounding area.

The installation is located within an Air Quality Management Area (AQMA) for NO₂ and near an Air Quality Focus Area (AQFA). As a result, during the planning process, LBH required that abatement be implemented on the generators to achieve a NO_x emissions rate of 95mg/Nm³ (at 5% O₂). In response to this planning requirement, the operator has made significant investment in NO_x abatement technology in the form of Selective Catalytic Reduction (SCR).

Please refer to the original baseline Site Condition Report for a description of the following:

- Geology
- Hydrogeology
- Hydrology
- Ecology & heritage

3.5 Cumulative Impacts

The operator has given consideration of cumulative impacts from the operation of all x3 data centres during planning. Specific focus was given to air quality during the planning process for the entire campus. The Air Quality Assessment (AQA) for planning predicted that "overall impact of the standby generators (during testing and unplanned national grid failure) on local air quality would be not significant".

Despite the above finding, the operators will endeavour to work together to reduce cumulative impacts during normal and abnormal operation of the respective data centres. An example of this would be the intention to reduce operation of the generators so far as reasonably practicable for both maintenance and during an emergency power outage.

3.6 Sensitive receptors

Identified sensitive receptors are either human/ecological receptors that could potentially be affected by the permitted activities. The sensitive receptors identified as part of this ERA are presented in the tables below. Please refer to Appendix C for the EA Nature and Heritage Conservation Screening report.

Table 3-1 Human Receptors

Location / description	X grid ref	Y grid ref
Site drains and sewer systems	various	various
Road pedestrians / foot path users / river users	various	various
Proposed Commercial Units: Nestle Site	510328.41 510204.25 510253.31	179200.16 179266.75 179055.80
Proposed Residential Units: Nestle Site	510144.94 510093.25	179311.31 179262.39

Location / description	X grid ref	Y grid ref
	510172.16	179143.77
Guru Nanak School	511216.62	180007.59
Commercial Unit	510346.91	179446.55
Hillingdon Mosque	510237.28	179460.62
Commercial Unit – Tarmac Site	510561.12	179467.86
Commercial Unit	510609.69	179172.95
Commercial Unit	510684.16	179316.38
Residential Dwelling – Copperdale Rd	510336.75	179714.72
Residential Dwelling – Chalfont Rd	510015.84	179619.09
Residential Dwelling – Nestle Avenue	510273.88	178955.31
Residential Dwelling – Nestle Avenue	510099.69	179023.25
Residential Dwelling – Brent Road	511169.41	179247.81
Residential Dwelling – Brent Road	511164.28	179114.12
Proposed Development – Reception	510515.81	179230.41

Table 3-2 Ecological Receptors

Site Name	Approx. distance from Site (km)	Designation	X grid ref	Y grid ref
Yeading Brook and River Crane	<50m		multiple	
South west London Waterbodies	7,205m	SPA	505363	174127
Richmond Park	9,739m	SAC	518540	173833
Priority Orchard	1,100m	Priority Orchard	510068	178240
Priority Woodland	200m	Priority Woodland	510659	179432
Priority Woodland	100m	Priority Woodland	510527	179122
Priority Woodland	400m	Priority Woodland	510125	179080

4.0 RISKS IDENTIFIED

Using the guidance and approach outlined above, the following have been deemed to be identified as potential environmental risks which having potential to cause harm to the environment and / or human receptors:

- Discharges to air, surface, or groundwater
- Global warming potential
- Fugitive Emissions (from uncontrolled sources)
- Odour
- Noise and Vibration
- Visible emissions
- Waste
- Accidents
- Water discharges

Section 5.0 presents the risk assessment for each of the above including identification of the potential hazard, receptors, pathway, risk management practices, probability of exposure, consequence of exposure and overall risk.

The methodology outlined in Section 2.0 has been employed to score potentially significant environmental risks associated with the installation's activities.

5.0 ENVIRONMENTAL RISK ASSESSMENT

5.1 Controlled releases to air

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
<p>Point source emissions to air- NO_x, CO, SO₂, PM₁₀ emissions from generator stacks</p>	<p>Employees, residents, and adjacent premises / pedestrians / road users immediately surrounding the installation.</p>	<p>Airborne</p>	<p>An Air Quality Impact Assessment & Dispersion Model has been completed and submitted in support of this permit application (“Air Quality Assessment”). This report concluded that “long term and short-term impacts from the operation of the proposed SBGs were predicted to be insignificant for all scenarios at all relevant modelled receptor locations.” Please refer to the Air Quality Assessment supplied with the application for further details.</p> <p>The ESGs are designed to provide power in the event of grid failure. The National Grid report for 2022-2023 stated the overall reliability of grid supply was 99.999997% for substations above 132kV supplies. This equates to the probability of a 1-minute outage occurring once in 5.8 years and a 1-hour outage occurring once in 346 years. Reliability in 2021-2022 was 99.999936% and 99.999966% in 2020-2021. As such a grid outage is considered to be a highly rare event.</p> <p>All generators have been fitted with Selective Catalytic Reduction (SCR) to reduce NO_x to 95mgNm³ (at 5% O₂). The flues for the existing and new ESGs terminate vertically at approx. 23m, approx. 1 metre above roof height, and are unimpeded by cowl/caps.</p> <p>The data centre is located within an Air Quality Management Area (AQMA) where the Local Planning Authority has a particular concern with air quality. The emissions will be significantly lower than a normal operating permit for data centres with standby generators due to the requirements of the local planning authority.</p> <p>Operation of the ESGs is likely to be limited to testing and maintenance. A testing and maintenance schedule is already in place for existing plant, which seeks to minimise the frequency of generator runs and to stagger tests where possible. Efforts will also be made to avoid testing during peak NO_x periods, such as during rush hour to mitigate impacts to nearby sensitive receptors.</p> <p>Prolonged 72-hour grid failure events are considered to be extremely unlikely events and therefore do not reflect the likely impacts from the installation. To address and mitigate the risks associated with a prolonged</p>	<p>Low – maintenance and testing</p> <p>Very low – grid failure</p>	<p>Emissions to air can have an adverse impact to human health and ecological receptors in surrounding areas.</p>	<p>Low – maintenance and testing</p> <p>Low – grid failure</p>

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
			<p>grid failure, the issued permit requires under 'IC1' that an Air Quality Management Plan (AQMP) is developed and implemented. This is to be updated once the expansion works are complete and EC2 is fully operational.</p> <p>Dispersion of pollutants has been considered when designing the flues for the generators. As a result, each engine will have its own dedicated flue that will rise and terminate 1m above the height of the building. All flues are unimpeded by flaps/cowls and have been orientated vertically.</p> <p>The complaints procedure will be followed in the event the site receives an Air Quality complaint relating to the generators.</p>			

5.2 Accidents

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Accidents relating to fuel storage e.g., Spills, overfilling during refuelling / disposal / transfers, failure in secondary containment, pipe ruptures, valve failure, user error, collision.	Groundwater, surface water, sewer system, soils.	Land/ water	<p>Generators and associated tanks will be located internal to main Energy Centre buildings, tanks and pipework are banded 110% and have overflow prevention valves and leak detection to reduce the risks of spillages entering the environment.</p> <p>Fuel deliveries are likely to be rare events (~0-2 deliveries pa). The standby nature of the plant means they operate infrequently (~<20hours pa). Existing fuel delivery, emergency preparedness and spill response procedures are in place to minimise the risk of accidents during refuelling and will be updated to include additional plant. Fuel suppliers will adhere to applicable procedures when attending site. Deliveries will be carried out by competent individual(s) and supervised by site staff.</p> <p>There are two surface water drainage exits, SW1 and SW2 as shown on the site plan in Appendix B. Both are fitted with tertiary containment in form of forecourt separators to prevent spilt fuel entering surface waters. These are alarmed and serviced every 6 months as per the British Standard. The area surrounding the refuelling areas are fitted with drainage channels that feed into the separator prior to discharging from site and the area is covered in good quality hardstanding. For more information, please refer to the drainage plan submitted with the application.</p> <p>Spill kits (including drain covers) will be provided in close proximity of fuel storage and fill points. Drip trays to capture spillages from fill points and associated pipework will also be provided.</p> <p>PPM regime to include visual checks for leaks / spills. Hazardous waste to be stored securely and disposed of by licenced waste carrier with duty of care information retained as evidence by the waste producer and waste carrier.</p>	<p>Very low – bulk tanks</p> <p>Low – refuelling</p>	Leaks of fuel or other substances associated with data centre operations into the surrounding environment can cause adverse impacts to the ground water course as well as adjacent water courses.	<p>Very low – bulk tanks</p> <p>Medium – refuelling</p>

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Flooding of drainage network and generators.	Groundwater, surface water, sewer system	Floodwater, surface waters, drainage system etc	<p>A Flood Risk Assessment has been completed as part of the development of the site drainage strategy. This concluded that the site is located within a Flood Zone 1 which is defined as which is deemed to have less than a 1 in 1000 (0.1%) chance of river flooding in any one year. Other Sources of flooding have been investigated and are considered to be low risk (see drainage plan submitted with application).</p> <p>The generators and their fuel tanks are located internal to the Energy Centre building which will provide some level of protection from surface water flooding.</p> <p>The surface water drainage system follows performance requirements that ensure all surfaces are suitably graded, so surface water is conveyed to the drainage system and the drainage systems will adequately convey flows and meet self-cleansing velocities.</p> <p>Routine maintenance of the onsite drainage system will help prevent surface water drains from being obstructed by debris.</p> <p>An emergency response plan is applied to the existing EC1 site and will be incorporated into the new EC2 site, to be enacted in the event of flooding.</p>	Very low	<p>Flooding / water damage to the generators could impact resiliency for operations.</p> <p>Flood water pollution from flooded generators could have an adverse impact to the local environment.</p>	Low
Fire	Emissions to Air / Water	Air & Water	<p>All generator enclosures are fitted with fire detection systems. Generators and tanks are to be fitted with valves that will automatically shut in the event of a fire shutting off the fuel supply.</p> <p>Fire suppression systems will rely on mains water to extinguish fires. In the unlikely event of a fire, there is potential for fire water from either site suppression systems / emergency services to enter the environment and cause harm. Emergency preparedness and response plans are to be produced once the site is operational to mitigate this risk.</p>	Very low	<p>Fire damage to generators could impact resiliency for operations.</p> <p>Fire would also cause emissions to air, having an adverse impact to local environment and receptors.</p> <p>Firewater could infiltrate local water courses, adversely impacting the local environment.</p>	Low

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Vandalism	Land / Surface Water / Ground Water / Air	Drainage systems, air, surface	The site is operated 365 days a year with monitoring by security staff from a security office using a CCTV system. The site has internal access restrictions of varying levels of authority to the buildings and throughout. Entry and exit to the site are tightly controlled via a security gate and turnstiles. The ~2.5m palisade security fence will act as an impenetrable perimeter to prevent unauthorised access to the site.	Very low	<p>Damage arising from vandalism to the generators / storage tanks could impact emergency back-up potential and/or lead to fugitive emissions.</p> <p>Localised pollution from a spill could adversely impact the local environment.</p>	Very low

5.3

Odour

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Odour from storage and combustion of fuel	Employees & residents	Airborne	<p>The ESGs and associated tanks for both data centres are located internal to the Energy Centre buildings in sealed bulk/day tanks. Emissions are not expected to be significant and an odour management plan is not required.</p> <p>Fuel tank filling will be carried out by trained fuel tanker drivers. This removes any significant risk of vapour release and spillages during deliveries.</p> <p>The complaints procedure should be followed in the event the site receives an odour complaint relating to the permitted activities.</p>	Very low	Nuisance to on site staff and local human receptors. Could lead to complaints.	Very low

5.4 Noise and Vibration

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Noise and Vibration from start-up and operation of generators	Employees, residents, and adjacent premises / pedestrians / road users immediately surrounding the installation.	Air	<p>A noise impact assessment has been completed and submitted as part of the permit application (“Noise Impact Assessment”). This report concluded that “the noise levels are predicted to achieve the noise limits at the nearest noise sensitive properties and therefore noise impacts are not considered to be significant.” Please refer to the noise report submitted with the application for further details.</p> <p>Generators are located inside the respective Energy centre building which provides extensive noise attenuation. The flues/stacks for all generators terminate vertically at approx. 23m, above building height at 21.1m.</p> <p>A bespoke generator acoustic canopy, for every generator pair, has been designed to reduce acoustic sound pressure to 75 dBA at 1m from the exterior of the unit at 1.5m above ground level.</p> <p>Significant noise breakout is not expected as the ESGs operate infrequently as they are emergency standby plant designed to provide power in the event of grid failure. This is a highly rare event given grid reliability. As such, annual operation is likely to be limited to testing and maintenance.</p> <p>Generators are to be maintained in accordance with manufacturer guidelines as part of a planned preventative maintenance (PPM) regime.</p> <p>Generator testing and maintenance runs are to be undertaken one generator at a time to reduce cumulative noise and emissions impact.</p> <p>The complaints procedure should be followed in the event the site receives a noise complaint relating to the generators.</p>	<p>Low – maintenance and testing</p> <p>Very low – grid failure</p>	<p>Complaints from local residences.</p> <p>Potential harm to human health due to elevated noise levels.</p>	<p>Low – maintenance and testing</p> <p>Low – grid failure</p>

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Noise from site traffic, e.g., fuel deliveries	Employees, residents, and adjacent premises / pedestrians / road users immediately surrounding the installation.	Air	<p>The data centre is located within the Bulls Bridge Industrial Estate. Industrial/commercial buildings are in the immediate vicinity of the site, with residential properties to the north and south.</p> <p>All generators are emergency standby plant operated infrequently as discussed above. As such, fuel consumption is low meaning fuel deliveries are infrequent. Deliveries will be during the day and during working hours. The data centre may have no deliveries in a year therefore noise from associated traffic is not expected to be significant.</p>	Low	<p>Complaints from local receptors.</p> <p>Potential harm to human health due to elevated noise levels.</p>	Very low

5.5 Fugitive Emissions (from uncontrolled sources)

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Fuel spills during refuelling / leaks / accidents, e.g., damaged tanks / pipework.	Groundwater, surface water, sewer system, soils.	Surface run off / surface waters via drainage or vertical leaching.	As detailed in Section 5.2	Very low – bulk tanks Low – refuelling	Leaks of fuel or other substances associated with permitted installation into the surrounding environment can cause adverse impacts to the ground water as well as adjacent water ways.	Very low – bulk tanks Medium – refuelling
VOCs / fumes from storage / delivery of fuel	Industrial, commercial, and residential receptors	Air	<p>The fuel tanks are located internal to the Energy Centre building and are containerised in bunded belly tanks. Emissions are not expected to be significant. Fuel volume and leak detection alarms are in place, which will minimise the likelihood of release to the environment.</p> <p>Refuelling activities are carried out by approved suppliers with trained competent individuals that operate in accordance with the sites refuelling procedures which will be developed as part of the sites Environmental Management System (EMS).</p> <p>Deliveries are rare, and best practices are adhered to in order to limit durations which fumes could escape into the environment.</p>	Very low	Emissions to air have an adverse impact to human health and ecological receptors in surrounding areas.	Very low

5.6 Visible emissions

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Visible Emissions from generator stacks	Industrial, commercial, and residential receptors	Visual	<p>Smoke may be visible during the first 10-15s of generator operation. After this time visible plumes are not anticipated due to high due to exhaust temperatures (approx. 450°C). In the unlikely event that visible emissions after still present, these are to be investigated as part of the sites PPM regime.</p> <p>Plumes may not be visible due to line of sight, weather conditions, and the timing of generator operation (e.g. nighttime / during working hours). They may also be infrequent therefore are not considered to be likely / significant.</p> <p>The installation of SCR, the site's PPM regime, and regular fuel polishing is intended to remove impurities, and to help ensure the engine burns as cleanly as practicable to reduce visible emissions.</p> <p>The complaints procedure should be followed in the event the site receives complaints relating to the visible emissions from the generators.</p>	Low	Potential visual impacts, particularly during generator start-ups.	Very low

5.7 Global warming potential

Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Global Warming Potential from combustion of fuel by generators	Global population	Airborne	The generators are emergency standby plant designed to provide power in the event of grid failure. This is a highly rare event given grid reliability. As such, annual operation and fuel consumption is likely to be limited to testing and maintenance. Currently generators are permitted to 19 hours per generator / year. Actual operation and consumption are likely to be far lower (approximately 5-10 hours per generator / year). This level of operation is not considered to provide a significant global warming impact.	Very low	Contribute to climate change, due to increase in greenhouse gases present in the atmosphere.	Very low

5.8 Waste

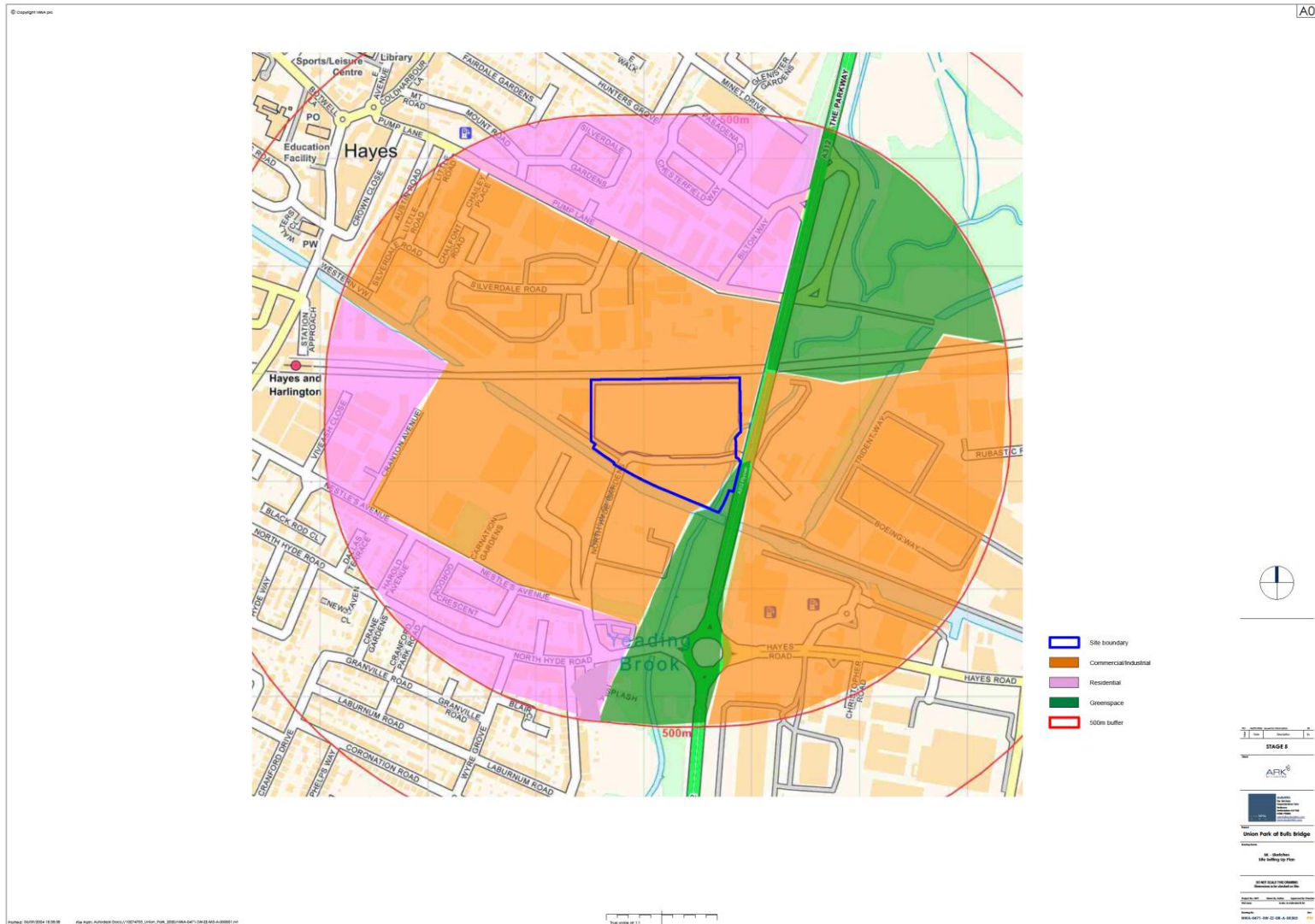
Hazard	Receptors	Pathway	Controls / Mitigation / Risk management	Probability of exposure	Consequence of exposure	Overall risk
Waste associated with generators e.g. waste fuels, oil sorbents and rags, lubricants & hydraulic fuels, solid wastes (air filters, packaging and spare parts) and end of life plant.	Ground, soil, ground water, surface water, sewer system.	Land/ water	<p>Small quantities of wastes may be generated from routine generator maintenance activities or in the event of a spillage/leakage. This is likely to be low given the standby nature of the generators and the procedures in place to minimise waste generation.</p> <p>Procedures for licenced and responsible collection of waste oils and other hazardous wastes are to be developed once the site is operational. This will include the retention of relevant Duty of Care information.</p> <p>Waste generated by maintenance of the generators will be removed from site upon completion of the works as part of the service contract.</p>	Very low	Potential to contaminate water/ land.	Very low

6.0 CONCLUSION

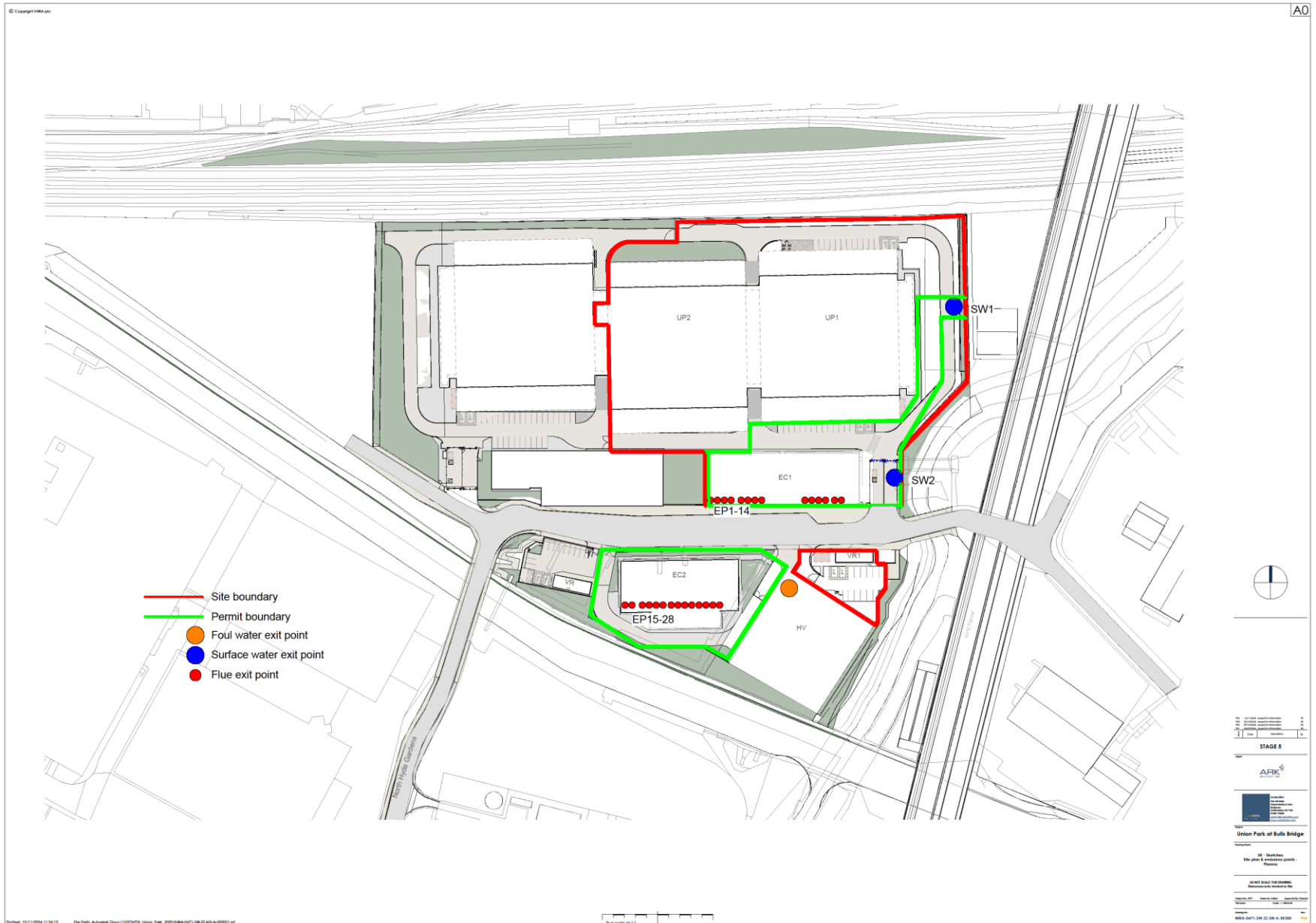
This ERA has identified and assessed the potential risks and hazards associated with the operation of the facility and from accidents.

This ERA has shown that potential environmental hazards associated with the development have been identified. The risks assessed and mitigation measures have been taken either through design or clearly defined operation procedures such that the potential consequences arising from these hazards is low or very low, in line with a Datacentre Facility of this size, nature and location.

APPENDIX A
SITE SETTING PLAN



APPENDIX B
SITE PLAN AND EMISSION POINTS



APPENDIX C

EA NATURE AND HERITAGE CONSERVATION SCREENING REPORT

Nature and Heritage Conservation

Screening Report: Bespoke installation

Reference	EPR/DP3442QV/P001
NGR	TQ 10514 79252
Buffer (m)	0
Date report produced	19/08/2024
Number of maps enclosed	1

This nature and heritage conservation report

The nature and heritage conservation sites, protected species and habitats, and other features identified in the table below **must be considered in your application**.

In the further information column, there are links which give more information about the site or feature type and indicate where you are able to self-serve to get the most accurate site boundaries or feature locations.

Most designated site boundaries are available on [Magic map](#). Using Magic map allows you to zoom in and see the site boundary or feature location in detail, Magic map also allows you to measure the distance from these sites and features to your proposed boundary. [Help videos](#) are available on Magic map to guide you through.

Where information is not publicly available, or is only available to those with GIS access, we have provided a map at the end of this report.

Sites and Features within screening distance	Screening distance (km)	Further Information
Special Areas of Conservation (cSAC or SAC)	10	Joint Nature Conservation Committee and Magic map
Richmond Park		
Special Protection Area (pSPA or SPA)	10	Joint Nature Conservation Committee and Magic map
South West London Waterbodies		

Ramsar	10	Joint Nature Conservation Committee and Magic map
South West London Waterbodies		
Local Wildlife Sites (LWS) (see map below)	2	Appropriate Local Record Centre (LRC)
London's Canals		
Yeading Brook, Minet Country Park and Hitherbroom Park		
Crane Corridor		
Cranford Countryside Park and Open Space		
Hartlands Wood and Lower Park Farm		
Lake Farm Country Park		
Cranford Lane Gravel Workings		
Airlinks Ponds		
Bolingbroke Way Sunken Pasture		
St Mary's, Wood End		
Thornclyffe Rough		
Havelock Cemetery		

Where protected species are present, a licence may be required from [Natural England](#) to handle the species or undertake the proposed works.

The relevant Local Records Centre must be contacted for information on the features within local wildlife sites. A small administration charge may also be incurred for this service.

The following nature and heritage conservation sites, protected species and habitats, and other features have been checked for, where they are relevant for the permit type requested, but have not been found within screening distance of your site unless included in the list above.

Special Areas of Conservation (cSAC or SAC), Special Protection Area (pSPA or SPA), Marine Conservation Zone (MCZ), Ramsar, Sites of Special Scientific Interest (SSSI), National Nature Reserve (NNR), Local Nature Reserve (LNR), Local Wildlife Sites (LWS), Ancient Woodland, relevant species and habitats.

Please note we have screened this application for features for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or permissions will be required.

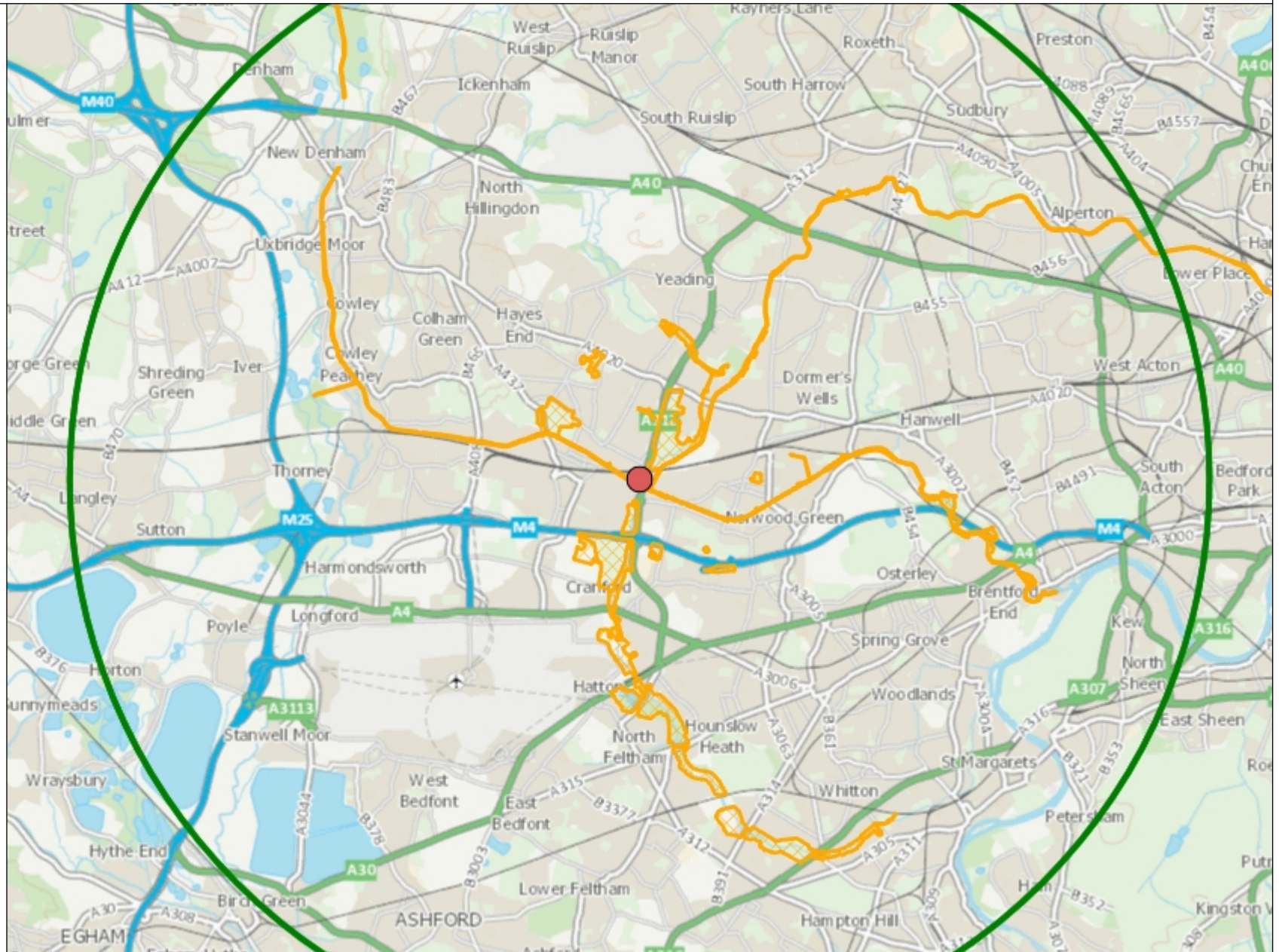
The nature and heritage screening we have conducted as part of this report is subject to change as it is based on data we hold at the time it is generated. We cannot guarantee there will be no changes to our screening data between the date of this report and the submission of the permit application, which could result in the return of an application or requesting further information

Local Wildlife Sites



Legend

 Local Wildlife Sites



1: 100,000

0 2,500

Metres

