
NORTH LONDON WASTE AUTHORITY
NORTH LONDON HEAT AND POWER
PROJECT

CODE OF CONSTRUCTION PRACTICE

The Planning Act 2008 The Infrastructure
Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009
Regulation 5 (2) (q)

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Glossary

Refer to Project Glossary (AD01.05)

1 Introduction

- 1.1.1 This Code of Construction Practice (CoCP) has been prepared to support North London Waste Authority's (the Applicant's) application (the Application) to the Secretary of State for Energy and Climate Change for a Development Consent Order (DCO) pursuant to Section 37 of the Planning Act 2008 (as amended).
- 1.1.2 The Application is for the North London Heat and Power Project (the Project) comprising the construction, operation and maintenance of an Energy Recovery Facility (ERF) capable of an electrical output of around 70 megawatts (MW_e) at the Edmonton EcoPark in north London with associated development, including a Resource Recovery Facility (RRF). The proposed ERF would replace the existing Energy from Waste (EfW) facility at the Edmonton EcoPark.
- 1.1.3 The Project is a Nationally Significant Infrastructure Project for the purposes of Section 14(1)(a) and section 15 in Part 3 of the Planning Act 2008 (as amended) because it involves the construction of a generating station that would have a capacity of more than 50MW_e.

1.2 Purpose of this document

- 1.2.1 The purpose of this CoCP is to outline minimum control measures and the standards of construction practice required of the Contractor and the Applicant as they affect the environment, amenity and safety of local residents, businesses, the general public and the surroundings in the vicinity of the Application Site. This includes any period of enabling works, to control potential impacts and provide a mechanism to engage with those who may be potentially affected by the construction of the Project.
- 1.2.2 This CoCP has also been developed to facilitate the identification of suitable mitigation for use as part of the Environmental Impact Assessment (EIA) process.
- 1.2.3 The CoCP will provide a consistent approach to the management of construction activities during the Project.
- 1.2.4 In this CoCP "construction" includes all Contractor activities related to Application Site preparation, demolition, materials delivery and removal and all related engineering and construction activities.
- 1.2.5 This document forms part of a suite of documents accompanying the Application submitted in accordance with the requirements set out in section 55 of the Planning Act and Regulations 5, 6 and 7 of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (APFP Regulations 2009), and should be read alongside those documents (see Project Navigation Document AD01.02).

1.3 Status of the CoCP

- 1.3.1 Prior to construction works commencing this CoCP will be reviewed and updated by the Applicant where appropriate, to ensure that any new relevant guidance is considered. This CoCP is certified under Article 34 of the draft DCO and the Project will be undertaken in accordance with this CoCP pursuant to the requirement set out in Schedule 2 of the DCO.

1.4 Enforcement of the CoCP

- 1.4.1 The Applicant will ensure that the provisions of the CoCP are contained in and will be enforceable through the works contracts. The Contractor will have primary responsibility for ensuring that construction works are carried out in compliance with the CoCP and will be responsible for monitoring compliance.

1.5 Abatement of nuisance

- 1.5.1 Under the Environmental Protection Act 1990 where a local authority is satisfied that a statutory nuisance exists, or is likely to occur or recur, in the area of the authority, the local authority can serve a notice requiring the abatement of the nuisance or prohibiting or restricting its occurrence or recurrence.

1.6 Document structure

- 1.6.1 This document comprises the following sections:
- a. Section 1 Introduction;
 - b. Section 2 Environmental management principles and implementation – outlines how environmental requirements are to be managed;
 - c. Section 3 Community relations – outlines the approach to managing community relations; and
 - d. Sections 4-13 Requirements by environmental topic – sets out the measures that will be implemented to limit the disturbance from construction activities, as far as reasonably practicable, on a topic by topic basis, including:
 1. General requirements
 2. Air quality and odour
 3. Archaeology and cultural heritage
 4. Ecology
 5. Ground conditions and contamination
 6. Noise and vibration
 7. Townscape and visual
 8. Transport
 9. Water resources
 10. Waste

1.7 The Applicant

- 1.7.1 Established in 1986, the Applicant is a statutory authority whose principal responsibility is the disposal of waste collected by the seven north London boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest (the Constituent Boroughs).
- 1.7.2 The Applicant is the UK's second largest waste disposal authority, handling approximately 3 per cent of the total national Local Authority Collected Waste (LACW) stream. Since 1994 the Applicant has managed its waste arisings predominantly through its waste management contract with LondonWaste Limited (LWL) and the use of the EfW facility at the existing Edmonton EcoPark and landfill outside of London.
- 1.7.3 LWL is a private waste management company wholly owned by the Applicant, and is the freeholder of the Edmonton EcoPark and the operator of the existing EfW facility. LWL has a current contract with the Applicant for management of its waste which expires in December 2025 with flexibility for termination sooner. The contract includes:
- a. the reception, treatment and disposal of residual wastes;
 - b. the operation of Reuse and Recycling Centres (RRC), including the recycling of wastes and the transfer of residual wastes to a disposal point;
 - c. the reception and treatment of separately collected organic wastes;
 - d. the reception and transportation of other separately collected wastes for recycling by third parties; and
 - e. the reception and transportation of other separately collected clinical and offensive wastes for treatment by third parties.

1.8 The Application Site

- 1.8.1 The Application Site, as shown on the Site Location Plans (A_0001 and A_0002) in the Book of Plans (AD02.01), extends to approximately 22 hectares and is located wholly within the London Borough of Enfield (LB Enfield). The Application Site comprises the existing waste management site known as the Edmonton EcoPark where the permanent facilities would be located, part of Ardra Road, land around the existing water pumping station at Ardra Road, Deephams Farm Road, part of Lee Park Way and land to the west of the River Lee Navigation, and land to the north of Advent Way and east of the River Lee Navigation (part of which would form the Temporary Laydown Area and new Lee Park Way access road). The post code for the Edmonton EcoPark is N18 3AG and the grid reference is TQ 35750 92860.
- 1.8.2 The Application Site includes all land required to deliver the Project. This includes land that would be required temporarily to facilitate the development.
- 1.8.3 Both the Application Site and the Edmonton EcoPark (existing and proposed) are shown on Plan A_0003 and A_0004 contained within the Book of Plans (AD02.01). Throughout this report references to the Application Site refer to the proposed extent of the Project works, and Edmonton EcoPark refers to the operational site. Upon completion of the Project the operational site

would consist of the Edmonton EcoPark and additional land required to provide new access arrangements and for a water pumping station adjacent to the Deephams Sewage Treatment Works outflow channel.

Edmonton EcoPark

1.8.4 The Edmonton EcoPark is an existing waste management complex of around 16 hectares.

1.8.5 Current use of the Edmonton EcoPark comprises:

- a. an EfW facility which treats circa 540,000 tonnes per annum (tpa) of residual waste and generates around 40MW_e (gross) of electricity;
- b. an In-Vessel Composting (IVC) facility which processes food, landscaping and other green waste from kerbside collections and Reuse and Recycling Centres (RRCs) as well as local parks departments. The facility currently manages around 30,000tpa, and has a permitted capacity of 45,000tpa;
- c. a Bulky Waste Recycling Facility (BWRF) and Fuel Preparation Plant (FPP) which receive bulky waste from RRCs and direct deliveries. These facilities respectively recycle wood, metal, plastic, paper, card and construction waste; and separate oversized items and shred waste suitable for combustion. These integrated facilities manage over 200,000tpa;
- d. an Incinerator Bottom Ash (IBA) Recycling Facility which processes ash from the existing EfW facility;
- e. a fleet management and maintenance facility which provides parking and maintenance facilities for the Edmonton EcoPark fleet of operational vehicles;
- f. associated offices, car parking and plant required to operate the facility; and
- g. a former wharf and single storey building utilised by the Edmonton Sea Cadets under a lease.

1.8.6 In order to construct the proposed ERF, the existing BWRF and FPP activities would be relocated within the Application Site; the IVC facility would be decommissioned and the IBA recycling would take place off-site.

Temporary Laydown Area and eastern access

1.8.7 The proposed Temporary Laydown Area is an area of open scrubland located to the east of the River Lee Navigation and north of Advent Way. There is no public access to this area. The Temporary Laydown Area would be reinstated after construction and would not form part of the ongoing operational site.

1.8.8 In addition to the Temporary Laydown Area the Application Site includes land to the east of the existing Edmonton EcoPark which would be used for the new Lee Park Way entrance and landscaping along the eastern boundary.

Northern access

- 1.8.9 The Application Site also includes Deephams Farm Road and part of Ardra Road with land currently occupied by the EfW facility water pumping station between the junction of A1005 Meridian Way and Deephams Farm Road.

1.9 Surrounding area

- 1.9.1 The Application Site is located to the north of the A406 North Circular Road in an area that is predominantly industrial. The Lee Valley Regional Park (LVRP) is located to the east of the Edmonton EcoPark.
- 1.9.2 Land to the north and west of the Application Site is predominantly industrial in nature. Immediately to the north of the Edmonton EcoPark is an existing Materials Recovery Facility (MRF) which is operated by a commercial waste management company, alongside other industrial buildings. Further north is Deephams Sewage Treatment Works. Beyond the industrial area to the north-west is a residential area with Badma Close being the nearest residential street to the Application Site (approximately 60m from the nearest part of the boundary) and Zambezie Drive the nearest to the Edmonton EcoPark at approximately 125m west.
- 1.9.3 Eley Industrial Estate located to the west of the Application Site comprises a mixture of retail, industrial and warehouse units.
- 1.9.4 Advent Way is located to the south of the Application Site adjacent to the A406 North Circular Road. Beyond the A406 North Circular Road are retail and trading estates; this area is identified for future redevelopment to provide a housing-led mixed use development known as Meridian Water.
- 1.9.5 The LVRP and River Lee Navigation are immediately adjacent to the eastern boundary of the Edmonton EcoPark, and Lee Park Way, a private road which also forms National Cycle Network (NCN) Route 1, runs alongside the River Lee Navigation. To the east of the River Lee Navigation is the William Girling Reservoir along with an area currently occupied by Camden Plant Ltd. which is used for the crushing, screening and stockpiling of waste concrete, soil and other recyclable materials from construction and demolition. The nearest residential areas to the east of the Application Site and LVRP are located at Lower Hall Lane, approximately 550m from the Edmonton EcoPark and 150m from the eastern edge of the Application Site.

1.10 The Project

- 1.10.1 The Project would replace the existing EfW facility at Edmonton EcoPark, which is expected to cease operations in around 2025, with a new and more efficient ERF which would produce energy from residual waste, and associated development, including temporary works required to facilitate construction, demolition and commissioning. The proposed ERF would surpass the requirement under the Waste Framework Directive (Directive 2008/98/EC) to achieve an efficiency rating in excess of the prescribed level, and would therefore be classified as a waste recovery operation rather than disposal.

- 1.10.2 The main features of the Project once the proposed ERF and permanent associated works are constructed and the existing EfW facility is demolished comprise:
- a. a northern area of the Edmonton EcoPark accommodating the proposed ERF;
 - b. a southern area of the Edmonton EcoPark accommodating the RRF and a visitor, community and education centre with offices and a base for the Edmonton Sea Cadets ('EcoPark House');
 - c. a central space, where the existing EfW facility is currently located, which would be available for future waste-related development;
 - d. a new landscape area along the edge with the River Lee Navigation; and
 - e. new northern and eastern access points to the Edmonton EcoPark.
- 1.10.3 During construction there is a need to accommodate a Temporary Laydown Area outside of the future operational site because of space constraints. This would be used to provide parking and accommodation for temporary staff (offices, staff welfare facilities), storage and fabrication areas, and associated access and utilities.
- 1.10.4 There are some aspects of the Project design that require flexibility and have therefore yet to be fixed, for example, the precise location and scale of the buildings associated with the Project. It would not be possible to fix these elements in advance of the detailed design and construction which would be undertaken following appointment of a contractor should the DCO be granted. In order to accommodate this and ensure a robust assessment of the likely significant environmental effects of the Project, the Application is based on the limits of deviation set out in the Book of Plans (AD02.01), which identifies:
- a. works zones for each work or group of works (to establish the area in which the development can be located); and
 - b. maximum building envelopes (to establish the maximum building length, width, height and footprint).
- 1.10.5 The Book of Plans (AD02.01) is supplemented by Illustrative Plans (included in the Design Code Principles, AD02.02) that set out the indicative form and location of buildings, structures, plant and equipment, in line with the limits of deviation established by the draft DCO (AD03.01).
- 1.10.6 A separate Environmental Permit would need to be obtained from the Environment Agency (EA) for the operation of the waste facility under the Environmental Permitting (England and Wales) Regulations 2010. The existing EfW facility at the Edmonton EcoPark is subject to an Environmental Permit issued by the EA. The Applicant is currently in discussions with the EA regarding an application for the new Environmental Permit(s) associated with the proposed ERF with a view to submitting an application in parallel with the DCO process.

Principal development (Works No.1a)

1.10.7 The principal development comprises the construction of an ERF located at the Edmonton EcoPark, fuelled by residual waste and capable of an electrical output of around 70MW_e (gross) of electricity. The principal development consists of the following development, located within the limits of deviation shown on Drawing C_0002 and within the building envelopes shown on Drawing C_0003 (in the Book of Plans (AD02.01)):

- (i) a main building housing:
 1. a tipping hall;
 2. waste bunker and waste handling equipment;
 3. two process lines (with each line having a capacity of 350,000 tonnes of waste per annum), consisting of a moving grate, furnace, boiler and a flue gas treatment plant;
 4. facilities for the recovery of incinerator bottom ash and air pollution control residue;
 5. steam turbine(s) for electricity generation including equipment for heat off-take; and
 6. control room containing the operational and environmental control and monitoring systems, and offices.
- (ii) entry and exit ramps to the ERF;
- (iii) a stack containing flues for flue gas exhaust;
- (iv) cooling equipment; and
- (v) an observation platform enclosure.

Associated development (Works No. 1b – 7)

1.10.8 Associated development within the meaning of section 115(2) of the Planning 2008 Act (as amended) in connection with the Nationally Significant Infrastructure Project referred to in Works No.1a, comprising:

- (a) Works No.1b – works required to provide buildings, structures, plant and equipment needed for the operation of the ERF as shown on Drawing C_0002 (AD02.01) comprising:
 - (i) a wastewater treatment facility;
 - (ii) a water pre-treatment plant;
 - (iii) external stores and workshops;
 - (iv) a fuelling area and fuel storage, vehicle wash, transport offices and staff facilities, toilets, natural gas intake and management compound, and fire control water tank(s); and
 - (v) electrical substation(s).
- (b) Works No.2 – the construction of a resource recovery facility comprising the following building, structures and plant, as shown on Drawing C_0004 and within the building envelope shown on Drawing C_0004 (AD02.01):

- (vi) a Recycling and Fuel Preparation Facility (RFPF);
 - (vii) a RRC;
 - (viii) offices, and staff and visitor welfare facilities;
 - (ix) odour abatement and dust suppression plant and equipment; and
 - (x) fire control water tank(s) and pump house and equipment.
- (c) Works No.3 – the construction of a building to provide visitor, community and education facilities, office accommodation, and a boat canopy, as shown on Drawing C_0006 and within the building envelope shown on Drawing C_0007 (AD02.01).
- (d) Works No.4 – utilities and infrastructure work, landscaping, access, security and lighting, and weighbridges, as shown on Drawing C_0008 (AD02.01), comprising:
- (i) With regard to the following
 - (a) potable water;
 - (b) waste water;
 - (c) surface water;
 - (d) foul water;
 - (e) raw water;
 - (f) electricity;
 - (g) gas; and
 - (h) CCTV, telecoms and data,works could include:
 - the diversion, repositioning, decommissioning, removal, replacement, modification or upgrading of existing pipes, cables, systems and associated apparatus;
 - the laying or installation of new pipes, cables, systems and associated apparatus; and
 - the creation of connections to existing or new pipes, cables, systems and associated apparatus.
 - (ii) the erection of a raw water pumping station;
 - (iii) stabilisation works to the eastern bank of Salmon's Brook;
 - (iv) the construction of surface water pumps, pipework and attenuation tanks;
 - (v) landscaping works;
 - (vi) the installation of areas of green roof and/or brown roof;
 - (vii) the widening of the existing entrance into the Edmonton EcoPark from Advent Way, including modification or replacement of the bridge over Enfield Ditch;
 - (viii) construction within the Edmonton EcoPark of vehicle and cycle parking, vehicle, cycle and pedestrian routes, and weighbridges;

- (ix) construction of an access into the Edmonton EcoPark from Lee Park Way, including bridging over Enfield Ditch;
 - (x) improvements to Lee Park Way including vehicle barriers and the creation of segregated pedestrian and cycle paths;
 - (xi) improvements to Deephams Farm Road and use of Deephams Farm Road as an access to the Edmonton EcoPark;
 - (xii) the resurfacing of Ardra Road (if required);
 - (xiii) security, fencing, and lighting works and equipment;
 - (xiv) the erection of security facilities and equipment and gatehouses within the operational site at access points from Advent Way, Ardra Road, and Lee Park Way;
 - (xv) the upgrade and maintenance of the existing bridge over the River Lee Navigation; and
 - (xvi) the installation of photovoltaic panels at roof level of the ERF and RRF.
- (e) Works No.5 – works for the creation of the Temporary Laydown Area and its temporary use, as shown on Drawing C_0009 (AD02.01), as follows:
- (i) areas of hardstanding;
 - (ii) the erection of fencing, hoarding or any other means of enclosure;
 - (iii) the erection of security facilities and equipment and gatehouses;
 - (iv) vehicle parking;
 - (v) office and staff welfare accommodation;
 - (vi) storage, fabrication, laydown area;
 - (vii) foul water storage and pumps and surface water attenuation storage and pumps;
 - (viii) utility works including electricity, water, CCTV, telecoms and data;
 - (ix) the creation of vehicular, cycle and pedestrian access from Lee Park Way to the Temporary Laydown Area; and
 - (x) restoration of the Temporary Laydown Area.
- (f) Works No.6 – site preparation and demolition works within the area as shown on Drawing C_0010 (AD02.01), comprising:
- (i) demolition of existing buildings, structures and plant excluding demolition of the existing EfW facility;
 - (ii) construction of a temporary ash storage building;
 - (iii) realignment of the exit ramp from the existing EfW facility; and
 - (iv) works to prepare the land shown on Drawing C_0008 (AD02.01) for the construction of works numbers 1a, 1b, 2, 3, 4 and 5.
- (g) Works No.7 – as shown on Drawing C_0011 (AD02.01), comprising decommissioning and demolition of the existing EfW facility and removal of:
- (i) the existing stack;
 - (ii) demolition of the existing water pumping station on Ardra Road; and

(iii) making good the cleared areas.

1.10.9 The draft DCO also identifies such other works as may be necessary or expedient for the purposes of or in connection with the construction, operation and maintenance of the authorised development which do not give rise to any materially new or materially different environmental effects from those assessed and set out in the Environmental Statement (ES) (AD06.02).

1.11 Stages of development

1.11.1 The proposed ERF is intended to be operational before the end of 2025, but with the precise timing of the replacement to be determined. In order to do this, the following key steps are required:

- a. obtain a DCO for the new facility and associated developments;
- b. obtain relevant environmental permit(s) and other licences, consents and permits needed;
- c. identify a suitable technology supplier;
- d. agree and arrange source(s) of funding;
- e. enter into contract(s) for design, build and operation of new facility and associated development;
- f. move to operation of new facility; and
- g. decommission and demolish the existing EfW facility.

1.11.2 Site preparation and construction would be undertaken over a number of years and it is expected that the earliest construction would commence is 2019/20, although this may be later. Construction would be implemented in stages to ensure that essential waste management operations remain functioning throughout. This is especially relevant for the existing EfW facility and associated support facilities.

1.11.3 The stages of the Project are as follows:

- a. Stage 1a: site preparation and enabling works;
- b. Stage 1b: construction of RRF, EcoPark House and commencement of use of Temporary Laydown Area;
- c. Stage 1c: operation of RRF, EcoPark House and demolition/clearance of northern area;
- d. Stage 1d: construction of ERF;
- e. Stage 2: commissioning of ERF alongside operation of EfW facility, i.e. transition period;
- f. Stage 3: operation of ERF, RRF and EcoPark House, demolition of EfW facility; and
- g. Stage 4: operation of ERF, RRF and EcoPark House, i.e. final operational situation.

Stage 1a

- 1.11.4 Stage 1a involves a series of site preparation and enabling works required for the Project. The works would include:
- a. enabling works along Deephams Farm Road to create the Deephams Farm Road access;
 - b. demolition of clinical waste building and maintenance workshop building;
 - c. infill of artificial pond and clearance of landscaped area to form temporary storage and parking area;
 - d. layout of replacement fleet parking areas and temporary support buildings on the site of the maintenance workshop;
 - e. establishment of hoarded demolition work sites with safe pedestrian and vehicular access to the existing EfW facility main entrance and staff car parks. Access to the existing EfW facility would continue to be from the existing Edmonton EcoPark access;
 - f. relocation of Edmonton Sea Cadets to existing EfW facility meeting rooms with safe pedestrian and vehicular access via the existing Edmonton EcoPark access at Advent Way to the main entrance and staff car parks; storage of Edmonton Sea Cadets equipment in a container located at front of the existing EfW facility and relocate their boats to an off-site location provided by the Edmonton Sea Cadets;
 - g. diversion of utilities and services affected by demolition and clearance works including diversion of the sewer trunk main owned by Thames Water Utilities Limited (TWUL) which runs under the proposed location of the RRF;
 - h. demolition and clearance of EcoPark House and RRF construction zones;
 - i. creation of new Lee Park Way access and temporary diversion of footpaths and cycleways; and
 - j. establishment of the Temporary Laydown Area to the north of Advent Way and east of the River Lee Navigation to provide for site offices; storage of construction materials, plant and machinery; fabrication/sub-assembly; and construction staff/contractor vehicle parking. Temporary diversion of footpaths and cycleways at the Temporary Laydown Area access points.
- 1.11.5 The existing EfW facility would continue to operate at current capacity. The existing IBA recycling facility would continue to process ash from the existing EfW facility. The existing BWRf, FPP and IVC would continue to operate in this period.
- 1.11.6 Operational vehicles would continue to access the Edmonton EcoPark via the access at Advent Way. This accounts for approximately 1,063 one way vehicle movements per day.
- 1.11.7 Traffic associated with the Stage 1a demolition and enabling works would arrive at the Edmonton EcoPark via the existing access on Advent Way.

Stage 1b

- 1.11.8 During Stage 1b, the RRF and EcoPark House buildings would be constructed in the southern part of the Edmonton EcoPark. It would be necessary to construct these buildings prior to the construction of the proposed ERF and demolition of the operations north of the existing EfW facility. The works required during this stage of construction would include:
- commencement of use of Temporary Laydown Area;
 - relocation of LWL vehicle fleet to the north of existing EfW facility;
 - construction of EcoPark House;
 - construction of RRF and its weighbridges;
 - erection of temporary ash storage building;
 - layout of staff and visitor parking area immediately adjacent to EcoPark House;
 - commencement of use by staff and visitor vehicles of the new Lee Park Way access;
 - construction of the attenuation tank and associated drainage of the RRF sub-catchment; and
 - existing EfW facility exit ramp arrangements aligned with RRF construction area and required RRF operational vehicles routes.
- 1.11.9 The existing EfW facility would continue to operate at current capacity. The Edmonton Sea Cadets would continue to occupy space in the existing EfW facility.
- 1.11.10 The existing BWRF, FPP and IVC would continue to operate in this period, until the RRF is completed (see Stage 1c). The IBA recycling facility would continue to process ash from the existing EfW facility.
- 1.11.11 Operational vehicles would continue to access the Edmonton EcoPark via the existing Edmonton EcoPark access from Advent Way. The new Lee Park Way access would become available and be used by some staff and Edmonton Sea Cadets traffic.
- 1.11.12 Traffic associated with the construction of the RRF and EcoPark House would arrive at the Edmonton EcoPark via the existing access on Advent Way. Some traffic may arrive at the Temporary Laydown Area, travelling from the Temporary Laydown Area to the Edmonton EcoPark via Walthamstow Avenue and the existing access. Some light vehicles including construction staff shuttle buses may travel to the Edmonton EcoPark via the new Lee Park Way access.

Stage 1c

- 1.11.13 During this stage of construction the facilities to the north of the existing EfW facility would be demolished to make way for the proposed ERF. The works required involve:
- completion of RRF and transfer of FPP/BWRF operations;

- b. completion of EcoPark House and occupation by the Edmonton Sea Cadets;
 - c. relocation of Edmonton EcoPark stores;
 - d. disconnection of obsolete services and utilities within demolition zones;
 - e. demolition and clearance of existing FPP area;
 - f. demolition and clearance of existing BWRf area;
 - g. demolition and clearance of existing IBA area; and
 - h. demolition and clearance of existing IVC facility – composting activities to be relocated off-site and bulking facilities provided within the RRF to enable transport to third party treatment sites.
- 1.11.14 The existing EfW facility would continue to operate at current capacity, with a temporary ash storage building provided to replace the existing IBA area and allow the transfer of ash off-site for recycling.
- 1.11.15 The Recycling and Fuel Preparation Facility (RFPF) operations would commence within the RRF, with capacity to treat around 390,000 tpa. The RRC element of the RRF building would be open to members of the public and small businesses with access via the new Lee Park Way access. On completion of EcoPark House this would be available for community and education activities, the Edmonton Sea Cadets and for office accommodation associated with operation of the Edmonton EcoPark.
- 1.11.16 Operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way to serve both the existing EfW facility and proposed RRF. Members of the public and small business vehicles visiting the RRC element of the RRF, users of EcoPark House and staff would access the Edmonton EcoPark via the new Lee Park Way access.
- 1.11.17 Traffic associated with the northern Application Site clearance would use the new Deephams Farm Road access.

Stage 1d

- 1.11.18 During Stage 1d, the main build for the proposed ERF would occur within a defined work zone at the northern area of the Edmonton EcoPark. The works involve:
- a. construction of ERF including piling and excavation works, civil and structural works, establishment of new utilities connections;
 - b. construction of the surface water attenuation tank(s) and associated drainage of the ERF sub-catchment;
 - c. erection of a new pumping station and associated pipework to provide raw water from Deephams Sewage Treatment Works outflow channel; and
 - d. partial landscaping.
- 1.11.19 The majority of heavy goods vehicles associated with the construction of the proposed ERF would arrive at the Edmonton EcoPark via the Deephams Farm Road access. Vehicle movements associated with the delivery of

concrete would be undertaken directly to the Edmonton EcoPark while approximately 50 per cent of all other construction vehicle movements would be to the Temporary Laydown Area, with onward movement to the Edmonton EcoPark when required. The majority of these vehicles would travel via the A406 North Circular Road and A1055 Meridian Way to the Deephams Farm Road access. However, any abnormal loads may travel between the Temporary Laydown Area and the Edmonton EcoPark via the existing access. This would be undertaken at a time that minimises any conflict with Edmonton EcoPark operational vehicles.

- 1.11.20 The existing EfW facility would continue to operate at current capacity and the proposed RRF and EcoPark House would be operational.
- 1.11.21 Operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way to serve both the existing EfW facility and RRF. Members of the public and small businesses visiting the RRF element of the RRF, users of EcoPark House and staff would access the Edmonton EcoPark via the new Lee Park Way access.

Stage 2

- 1.11.22 This stage marks the completion of the proposed ERF, commissioning of the facility and start of operations. The existing EfW facility would then be ready for decommissioning and demolition. The works required involve:
 - a. commissioning of proposed ERF;
 - b. installation of ERF weighbridges;
 - c. relocation of operations contractors compound from adjacent to the existing EfW facility to adjacent to the southern side of the ERF;
 - d. relocation of operational stores adjacent to the ERF;
 - e. relocation of operational fleet depot to adjacent to ERF; and
 - f. completion of landscaping works that are not linked to or affected by the EfW facility demolition.
- 1.11.23 The commissioning stage of the proposed ERF is estimated to take between six and twelve months. The commissioning stage is necessary in order to test all of the equipment and processes before the proposed ERF is fully operational. During this stage both the existing EfW facility and the proposed ERF would be operational as waste inputs are gradually transferred from the existing EfW facility to the proposed ERF.
- 1.11.24 Landscaping and relocation of support facilities would take place during the ERF commissioning stage with use of the Deephams Farm Road access remaining in place for the operations contractor's use, alongside staff shuttle buses from Lee Park Way as required.
- 1.11.25 The existing EfW facility would continue operation at a reduced capacity as incoming waste is transferred to the proposed ERF to allow its commissioning. The proposed ERF would increase the proportion of the waste that it takes as its commissioning progresses and both treatment lines are brought online.
- 1.11.26 The proposed RRF and EcoPark House would be operational.

1.11.27 Operational vehicles would continue to access the Edmonton EcoPark via Advent Way as before to serve both the existing EfW facility and proposed ERF and RRF. Some operational vehicles travelling to the ERF would use the Deephams Farm Road access. Members of the public and local businesses visiting the RRC element of the RRF would access the Edmonton EcoPark via the new Lee Park Way access.

Stage 3

1.11.28 Decommissioning, stripping out and demolition of the existing EfW facility would commence after the proposed ERF is fully commissioned and tests including the reliability period have been successfully completed. The works required would involve:

- a. hoarding of the demolition work zone;
- b. clearance of northern half of existing EfW facility site – once cleared the northern area of the EfW facility site would be used as a laydown for demolition equipment which is required before the demolition of the main EfW facility building can proceed;
- c. completion of fleet parking and facilities area;
- d. construction of widened southern entrance and new security gatehouse;
- e. demolition and decommissioning of water pumping station;
- f. demolition of main EfW facility building;
- g. excavation of bunker and infilling with suitable material;
- h. levelling of site and make good;
- i. completion of Edmonton EcoPark landscaping works;
- j. completion of staff car parks and surface water attenuation tanks on removal of EfW facility exit ramp; and
- k. restoration of the Temporary Laydown Area.

1.11.29 The proposed ERF would operate at the capacity required with each process line capable of 350,000 tonnes per annum with a total capacity of the facility at 700,000 tonnes per annum. The proposed RRF and EcoPark House would also be operational.

1.11.30 Operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way as existing to serve both the ERF and RRF. Members of the public and small businesses visiting the RRC element of the RRF, users of EcoPark House and staff would access the Edmonton EcoPark via the new Lee Park Way access.

1.11.31 Traffic associated with the decommissioning and demolition of the existing EfW facility would travel to and from the Edmonton EcoPark via the existing Edmonton EcoPark access on Advent Way to minimise any conflicts with the operational ERF. Some vehicles associated with the removal of materials may be marshalled at the Temporary Laydown Area, waiting there until required on the Edmonton EcoPark. The new Deephams Farm Road access may also be used, if necessary.

Stage 4

- 1.11.32 Stage 4 would see the full operation of all new facilities. The proposed ERF would operate at full required capacity with each process line capable of processing 350,000 tonnes per annum with a total capacity of the facility at 700,000 tonnes per annum. The RRF would operate with a capacity of around 390,000tpa.
- 1.11.33 EcoPark House would be occupied by the site operator and the Edmonton Sea Cadets, and would also be available for other community and education activities.
- 1.11.34 Operational vehicles would continue to access the Edmonton EcoPark via the existing access on Advent Way to serve both the ERF and RRF while some movements would be undertaken using the Deephams Farm Road access. Members of the public and small businesses visiting the RRC element of the RRF, users of EcoPark House and staff would access the Edmonton EcoPark via the new Lee Park Way access.

2 Environmental management principles and implementation

2.1 Compliance with applicable codes, standards and legal requirements

- 2.1.1 The Applicant will require the Contractor to comply as a minimum with applicable environmental legislation, code of practices, good industry practice, standards and guidance e.g. British Standards relevant to the various construction activities in which they are engaged at the time of construction. The references to applicable statutory requirements and guidance documents within this document are not intended to be exhaustive.

2.2 Considerate Constructors Scheme

- 2.2.1 The Contractor will be required to sign up to and adhere to the Considerate Constructors Scheme (www.ccscheme.org.uk) and will aim to attain a Certificate of Performance Beyond Compliance.

2.3 Contractor's Environmental Management System

- 2.3.1 The Contractor will be required to develop and implement an Environmental Management System (EMS) that follows the principles of BS EN ISO 14001 and will include the Contractor's environmental policy, operational, monitoring and auditing procedures. The Contractor's EMS will ensure compliance with environmental requirements of the contract as well as ensuring relevant legislation, standards, regulations and consents are being met including commitments from the ES and requirements of the DCO are complied with.
- 2.3.2 The EMS will be set out in the Contractor's Construction Environmental Management Plan (CEMP). The CEMP will document roles and responsibilities, together with appropriate risk assessments and control measures, operational procedures, training and competency of site personnel, stakeholder engagement and monitoring systems to be implemented for all relevant topic areas. One of the key aspects of an EMS is

to continually improve performance and therefore aspects of the system are regularly reviewed, audited and updated in accordance with BS EN ISO 14001. The Contractor's CEMP will therefore also be regularly reviewed and updated as appropriate to reflect the changes in the EMS.

- 2.3.3 A part of the CEMP the Contractor will be required to prepare and implement a Green Procurement and Construction Plan taking account of, where appropriate, the Mayor of London's responsible procurement themes and also guidelines on sustainable procurement within BS8903 principles and framework for procuring sustainability.

2.4 Construction site monitoring

- 2.4.1 The Contractor will undertake the necessary monitoring as outlined for each environmental topic (see Sections 4 to 13). This will include energy use, water use and transport emissions relating to major construction and waste materials.
- 2.4.2 Monitoring will assess the effectiveness of mitigation measures and the impact of construction works. Additional actions that may be necessary to enable compliance will also be considered.

2.5 The Applicant's representative supervision of construction

- 2.5.1 The Applicant's representative will establish a process prior to the commencement of construction to monitor the Contractor's implementation of the provisions of the measures within the CoCP.

2.6 Training and competence

- 2.6.1 The Applicant will require the Contractor to employ an appropriately qualified and suitably experienced workforce. Where appropriate, this will include holding a registration with relevant recognised competence schemes.
- 2.6.2 The Contractor will be responsible for identifying the training needs of their personnel to enable appropriate training to be provided and engaging suitably qualified and experienced professionals for this purpose. The Contractor's staff training will include site briefings and toolbox talks to equip relevant staff with the necessary level of knowledge on health, safety, community relations and environmental topics, and an ability to follow environmental control measures and to advise the construction workforce of changing circumstances as work progresses.

2.7 Method statements

- 2.7.1 The Contractor will set out the procedures to be followed for construction operations in method statements that will address health, safety, site security and the environmental issues associated with construction operations.
- 2.7.2 Method statements will define any specific environmental control measures, including environmental protection works, to be implemented to meet the requirements of this CoCP.

2.8 Liaison with statutory authorities

- 2.8.1 As appropriate the Contractor will liaise with statutory authorities, including Natural England, Historic England, Canal and River Trust and Transport for London.
- 2.8.2 The Contractor will identify a point of contact for the regulatory and statutory authorities during the construction works. The Contractor will provide the regulatory authorities with the relevant contact details prior to commencement of construction.

3 Community relations

- 3.1.1 Maintaining good community relations will be a key aspect of the Project as it progresses. The Applicant will prepare a community relations plan prior to the commencement of Construction and will consult on such plan with LB Enfield prior to implementation. The Community Relations Plan will take into account the fact that the existing EfW facility will continue to operate within the Edmonton EcoPark during construction of the replacement facility.
- 3.1.2 The Applicant and the Contractor shall take reasonable steps to engage with those potentially affected in the local community, particularly those who may be affected by construction impacts including residents, businesses and local community groups.
- 3.1.3 The Applicant and/or the Contractor will implement the community relations plan and will provide personnel who will implement the strategy, provide relevant construction information and shall be the point of contact to resolve issues of concern and complaints.

3.2 Community engagement

- 3.2.1 The Applicant will establish a dedicated section of the Project or corporate website for Project updates as construction progresses. A regular newsletter about the Project will be prepared and can be requested through the website, and social media will be used for more frequent updates.
- 3.2.2 Briefings will be offered to local area forums, whether existing at the start of the Project or formed during the construction period. For example, the tenants of the Eley Estate, or the residents and businesses at the anticipated Meridian Water development (once established) may wish to have a dedicated forum in which their points can be discussed.
- 3.2.3 Prior to and during construction, a programme of effective and informative communications will be provided to the local community.
- 3.2.4 A Community Liaison Group will be established comprising representatives from the Contractor, LondonWaste Ltd, LB Enfield, Lee Valley Regional Park Authority, neighbouring borough councils, Eley Industrial Estate and community representatives.
- 3.2.5 The Applicant working with the Community Liaison Group will ensure that local residents, businesses, occupiers, general users of the area and LB Enfield are informed in advance of construction activities that may affect them. Notifications will detail the nature, estimated duration and working hours of the construction works. All notifications will include the community helpline number to which any enquires can be directed. The Contractor will be responsible for preparing and issuing the notifications subject to the Applicant's approval.
- 3.2.6 Opportunities to educate the local community about the construction process, for example through the use of a webcam, will also be considered by the Contractor.

3.2.7 The Applicant and/or the Contractor will undertake on-going consultation with local crime prevention officers on security proposals to help build and maintain positive attitudes towards the Project during construction.

3.3 Enquiries and complaints

3.3.1 A dedicated email address will be provided, and enquiries will be logged by the Applicant and/or the Contractor and answered by the appropriate officer.

3.3.2 The Applicant and/or the Contractor will establish an email address and telephone helpline staffed at all times during working hours to manage enquiries or complaints on construction activities. Such communication means will also be used as the first point of contact in the event of an emergency or incident. Contact details will be available on the Project website and promoted and displayed at appropriate locations around the Application Site hoarding.

3.3.3 The Applicant and/or the Contractor will establish a system and procedure for handling all enquires including complaints. All enquires will be recorded and a log will maintained that will include details of the response and action taken. All enquires whether a query or a complaint will be dealt with in a timely manner.

4 General site requirements

4.1 Good housekeeping and site layout

- 4.1.1 To reduce the likelihood of either an environmental incident or nuisance occurring the following measures will be used, where relevant:
- a. prohibition of open fires, and a requirement to take measures to reduce the likelihood of fires;
 - b. maintenance of wheel washing facilities or other containment measures;
 - c. removal or stopping and sealing of drains and sewers taken out of use as well as no discharge of site runoff to ditches, watercourses, drains, sewers or soakaways without agreement of the appropriate authority;
 - d. positioning of storage, machinery, equipment and temporary buildings to reduce environmental effects e.g. plant machinery such as generators or compressors to be positioned as far away from sensitive locations as possible and ideally in naturally screened positions and where practicable, outside flood risk areas;
 - e. provision of site layout map showing key areas such as material storage, spill kits, material and waste storage and drains etc.;
 - f. the use of modern specification noise alarms that meet the particular safety requirements of the Application Site, such as broadband/white noise reversing warnings, or proximity sensors to reduce the requirement for traditional tonal reversing alarms;
 - g. appropriate lighting and security such as controls on lighting/illumination to reduce visual intrusion or any adverse effect on sensitive ecology;
 - h. security measures, including, closed circuit television (CCTV);
 - i. maintenance of public rights of way (PRoW) (including diversions) for pedestrians and cyclists affected by the scheme, including providing alternative rights of way within the approved zones of diversion under the DCO to maintain or achieve inclusive access;
 - j. containing and limiting the visual intrusion of construction, as far as reasonably practicable;
 - k. effective preventative pest and vermin control and prompt treatment of any pest and vermin infestation, including arrangements for disposing of food waste or other material attractive to pests and vermin. If infestation occurs the Contractor will take prompt action to eliminate the infestation and prevent further occurrence
 - l. adequate welfare facilities for staff, and designated smoking areas and containers for their waste;
 - m. all loading and unloading of vehicles will take place off the public highway wherever this is practicable; and
 - n. on-site vehicle routes and pedestrian/cycle pathways will be marked out as required with traffic and/or directional signs and appropriate traffic control provided where necessary.

4.2 Hours of working

- 4.2.1 The Contractor will seek to obtain Section 61 consents from the LB Enfield under the Control of Pollution Act (COPA) 1974 for the proposed construction works (see Section 9) including proposed working hours.
- 4.2.2 Core working hours are planned to be from 0800 to 1800 on weekdays (Monday – Friday excluding Bank Holidays) and 0800 to 1300 on Saturdays. Where practicable, activities likely to cause disturbance will be limited to these hours or unless permitted under Section 61 of the COPA.
- 4.2.3 The Contractor may require a period of up to one hour before and one hour after core working hours for start-up and close down activities such as:
- a. arrival and departure of workforce and staff on site;
 - b. deliveries and unloading;
 - c. checks and examinations of plant and machinery (including test running) and the carrying out of essential repairs/maintenance to plant and machinery;
 - d. re-fuelling of plant and machinery engines;
 - e. site inspections and safety checks prior to commencing work;
 - f. site meetings; and
 - g. site clean-up.
- 4.2.4 Certain specific construction activities will require extended working hours for reasons of engineering practicability and safety such as major concrete pours and piling, surveys and lifting/fitting of infrastructure and abnormal deliveries. The nature and timing of these works and the associated extended working hours will be discussed with LB Enfield and approval sought through the Section 61 consent process. The Contractor will be required to liaise and consult with the LB Enfield prior to applying for a Section 61 consent and will be required to maintain regular consultation with LB Enfield throughout the duration of the construction works to help facilitate the Section 61 process with regards to additional working hours.
- 4.2.5 In the case of work required in an emergency, or which if not completed would be unsafe or harmful to workers, the public or local environment, LB Enfield will be informed as soon as reasonably practicable of the reasons and likely duration. Examples may include: where the ground needs stabilising if unexpected ground conditions are encountered, concrete pouring taking longer than anticipated due to delayed deliveries or equipment failure.

4.3 Hoarding, fencing and screening

- 4.3.1 Hoardings and fencing will be provided and maintained by the Contractor. The Application Site will be fenced from public ingress, with controlled access. All fencing and hoarding should be fit for purpose taking into consideration location, construction activities and the surrounding landscape. Where hoarding is required, it will be 2.4m minimum height. Hoarding height and type may be altered to enhance acoustic performance for specific locations.

- 4.3.2 The following measures will be applied, as appropriate:
- a. maintenance of adequate fencing and hoardings to an acceptable condition to prevent unwanted access to the construction site, to provide noise attenuation, screening and site security where required;
 - b. use of different types of fencing and hoarding (e.g. mesh fence or solid hoarding including hoardings used for noise control);
 - c. painting the side of hoardings facing away from the Application Site, consideration of artwork or other decoration and to keep them free of graffiti or posters;
 - d. providing site information boards with out of hours contact details, telephone helpline number (for comments/complaints) and information on the works;
 - e. displaying notices on site boundaries to warn of hazards on site such as deep excavations, construction access, etc.;
 - f. installing adequate lighting near hoardings; and
 - g. positioning and constructing gates in the fencing or hoarding to minimise the noise transmitted to nearby noise sensitive buildings from the Application Site direct or from plant entering or leaving the Application Site.

4.4 Construction site security

- 4.4.1 Appropriate measures will be used by the Contractor to prevent unauthorised access to the Application Site such as:
- a. site lighting around site perimeter;
 - b. CCTV and alarm systems where required;
 - c. adequate security guards and patrols;
 - d. when there is no site activity, site gates will be closed and locked and site security provisions will be set in motion;
 - e. consultation with neighbouring properties on site security matters;
 - f. on-going consultation with local crime prevention officers on security proposals; and
 - g. preventing access to restricted areas and neighbouring properties by securing site equipment such as scaffolding and ladders.

4.5 Construction site lighting

- 4.5.1 The Contractor will ensure site lighting is switched off when not necessary for carrying out the works, health and safety or security reasons. It will be at the minimum luminosity necessary and use low energy consumption fittings. Where appropriate, lighting to site boundaries will be provided and illumination will be sufficient to provide a safe route for the passing public. Where appropriate, lighting will be activated by motion sensors to prevent

unnecessary usage. It will comply with the Institute of Lighting Professionals Guidance Notes for the Reduction of Obtrusive Light GN01:2011¹.

- 4.5.2 Site welfare cabins, equipment and lighting will be sited so as to minimise visual intrusion insofar as is consistent with the safe and efficient operation of the work site. Site lighting will be designed, positioned and directed so as not to unnecessarily intrude on adjacent buildings, ecological receptors, structures used by protected species and other land uses to prevent unnecessary disturbance, interference with local residents or passing motorists.

4.6 Welfare facilities

- 4.6.1 Welfare facilities will be provided, as appropriate, for site personnel such as mess rooms, locker rooms, toilets and showers etc.

4.7 Pollution incident control and emergency preparedness

Pollution Incident Control

- 4.7.1 The Contractor will prepare and implement appropriate measures to control the risk of pollution due to construction activities, materials and extreme weather events and document in an incident control plan as part of the Contractor's CEMP.
- 4.7.2 The Contractor will be required to investigate and provide a report to the Applicant in the event a pollution incident does occur, including the following:
- a. a description of the pollution incident, including its location, the type and quantity of contaminant and the likely receptor(s);
 - b. contributory causes;
 - c. adverse effects and the measures implemented to mitigate adverse effects; and
 - d. recommendations to reduce the risk of reoccurrence.
- 4.7.3 The Contractor will consult with the relevant organisations statutory bodies and other relevant parties such as the Health and Safety Executive (HSE) (Construction), the Fire Authority, the Ambulance Service, EA, Natural England (NE), utilities companies and the LB Enfield (emergency planning and pollution control functions) when preparing response measures. Reference should also be made to the EA Pollution Prevention Guidelines (PPG) 6 (Working at construction and demolition sites) and 21 (Incident Response Planning).

Emergency preparedness

- 4.7.4 The Contractor will develop prior to the commencement of construction an emergency procedure in consultation with the emergency services for potential risks during construction and will be required to follow the procedure in any site emergency.

¹ Institute of Lighting Professionals (2011), Guidance Notes for the Reduction of Obtrusive Light GN01:2011

- 4.7.5 The procedures will contain emergency phone numbers and the method of notifying Local Authorities and all other relevant statutory authorities including emergency services for action by the Contractor and/or the Applicant. Contact numbers of the Contractors' and the Applicant's key personnel will also be included.

Emergency access

- 4.7.6 The Contractor will ensure that the requirements of the relevant fire authority will be followed for the provision of construction site access points (and suitable for emergency services). Emergency access points will be included in the emergency procedures and updated as required.

4.8 Fire protection

- 4.8.1 All construction sites and welfare facilities will have in place appropriate plans and management controls to prevent fires in liaison with the Fire Authority.

4.9 Unexploded ordnance

- 4.9.1 The Contractor will prepare procedures to deal with any unexploded ordnance encountered on site and ensure that all operatives are aware of them. Should unexploded ordnance be discovered on-site the site emergency procedures will be implemented to evacuate the work area and the emergency services contacted.

4.10 Extreme weather events

- 4.10.1 The Contractor will consider the impacts of extreme weather events and related conditions during construction. The Contractor will use a short to medium range weather forecasting service from the Met Office or other approved meteorological data and weather forecast provider to inform short to medium term programme management, environmental control and impact mitigation measures.
- 4.10.2 The Contractor's CEMP should consider all measures deemed necessary and appropriate to manage extreme weather events and should specifically cover training of personnel and prevention and monitoring arrangements. As appropriate, method statements should also consider extreme weather events where risks have been identified.

5 Air quality and odour

5.1 General

5.1.1 The Contractor will manage dust, air pollution, odour and exhaust emission during the construction works in accordance with best practicable means (BPM), this is defined in the Control of Pollution Act 1974 and Environmental Protection Act 1990 as measures which are “*reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications*”. This will include the following as appropriate:

- e. reference to the general site requirements and good housekeeping procedures (relevant to limiting dust and air pollution);
- f. controls and measures to control or mitigate the effect of potential adverse effects caused by the construction works; and
- g. dust and air pollution controls and monitoring measures to be employed during construction of the Project.

5.2 Vehicles, plant and equipment

5.2.1 Measures to be implemented for limiting emissions and avoiding nuisance will include the following, as appropriate:

- a. ensuring that the engines of all vehicles and plant within the Application Site boundary are not left running unnecessarily;
- b. siting plant away from the Application Site boundary and potential sensitive receptors and enclosures, using shielding and filters where appropriate;
- c. dust suppression measures will be deployed for cutting and grinding operations as well as general damping down of dust generating vehicles, equipment and roads;
- d. movement of construction traffic will be kept to a minimum;
- e. plant, vehicles and equipment will be operated and maintained in accordance with manufacturer’s guidance and will be regularly maintained and checked, with records kept on site;
- f. use of mains electric/battery powered equipment and low emission vehicles where practicable;
- g. using low emission vehicles and plant fitted with catalysts, diesel particulate filters or similar devices;
- h. use of non-road mobile machinery (NRMM) listed on the Energy Saving Trust’s NRMM Register, where reasonably available; and
- i. all commercial road vehicles used in construction must meet the European Emission Standards pursuant to the EC Directive 98/69/EC (commonly known as Euro standards) of Euro VI during any works. This will also be in compliance with the London Low Emissions Zone.

5.3 Transport storage and handling

- 5.3.1 Dust and air quality management measures will be implemented to limit pollution arising from the transportation and storage of materials, including the following, as appropriate:
- a. vehicles entering and the leaving the Application Site transporting dusty materials and deliveries will be fully covered by sheeting;
 - b. dry, dusty materials will be stored inside or enclosed to ensure no escape;
 - c. for certain dust generating activities such as mixing grout or cement based materials, appropriate techniques to prevent dust emission will be used;
 - d. the number of handling operations for materials will be kept to the minimum reasonably practicable;
 - e. materials handling areas will be maintained to minimise dust emissions using watering facilities to reduce or prevent escape of dust from the Application Site boundaries; and
 - f. stockpiles will be located away from sensitive receptors, watercourses and surface drains, will take into account the predominant wind direction relative to sensitive receptors where reasonable practicable and will be enclosed/ sheeted and sprayed with water as appropriate.

5.4 Conveyors

- 5.4.1 To control dust pollution associated with conveying material, the Contractor will adopt the following measures, as appropriate:
- a. drop heights from conveyors to stockpiles will be kept to the minimum reasonably practicable; and
 - b. conveyer transfer points will be enclosed, and damping of conveyor loads will be undertaken.

5.5 Demolition

- 5.5.1 To control dust pollution from demolition activities the Contractor will adopt the following measures, as appropriate:
- a. screening/wrapping of buildings or structures to be demolished;
 - b. use water as dust suppressant to spray any buildings or structures to be demolished prior to and during demolition;
 - c. use of enclosed waste chutes and covered skips;
 - d. use of water as dust suppressant or suitable local extract ventilation for cutting equipment; and
 - e. where reasonable, the Contractor will avoid prolonged storage of waste materials on the construction site.

5.6 Excavations and earthworks

- 5.6.1 Dust pollution from excavations will be managed through the use of the following measures, as appropriate:
- drop heights from excavators to vehicles involved in the transport of excavated material will be kept to the reasonably practicable minimum;
 - compacting deposited materials, with the exception of topsoil, as soon as possible after deposition; and
 - suppressing dust emissions by spraying with water or using other appropriate measures.

5.7 Processing, crushing, cutting and grinding activities

- 5.7.1 Appropriate measures will be used by the Contractor for any processing, crushing, cutting and grinding activities as required to limit dust pollution. Permits will be sought for concrete crushing as required.

5.8 Monitoring

- 5.8.1 The Contractor will develop and implement inspection and monitoring procedures to assess the effectiveness of measures to prevent dust and air pollutant emissions. The monitoring procedure will include the following measures, as appropriate, based on the level of risk as set out in the EIA:
- inspection procedures for inspections within the construction site and adjacent to the construction site to visually assess any dust and air pollution which may be generated on a daily basis;
 - record any results of visual inspections in a daily dust log;
 - identification of dust sensitive premises to be used as the location for any dust monitoring as well as the frequency of monitoring and reporting arrangements;
 - continuous dust monitoring to be carried out up and downwind of construction and demolition activities on or near the Application Site boundary, the monitors should be an Osiris or similar and monitor for PM₁₀, PM_{2.5} and total suspended particulates;
 - monitoring results to be available for inspection by the local authority upon request; and
 - reference to inspection and maintenance records for construction vehicles, plant and machinery.

5.9 Odour

- 5.9.1 The Contractor will adopt appropriate measures to avoid creating a statutory nuisance or significant loss of amenity due to odours. The Contractor's CEMP will include measures to minimise odour.

6 Archaeology and cultural heritage

6.1 General

6.1.1 During the works the Contractor will seek to minimise any impact on heritage assets, their setting and the wider historic environment.

6.2 General management measures

6.2.1 General management measure will include:

- a. the Contractor will consider locations and descriptions of all known cultural heritage assets (as set out at Vol 2 Section 3 of the ES (AD06.02)) within and adjacent to, construction works, including restrictions to construction methods to protect cultural heritage assets;
- b. the Contractor will review and consider the location of heritage assets and their setting in determining access routes to the Application Site, in accordance with Historic England (HE) guidance Transport and the Historic Environment (2004) 2;
- c. the Applicant will ensure that any cultural heritage survey and mitigation works prior to and during construction including archaeological watching briefs and heritage recording are programmed;
- d. the Contractor will use a suitably qualified organisation or person to undertake all archaeological/cultural heritage works; and
- e. the Applicant and/or the Contractor will submit a written scheme of investigation (WSI) to LB Enfield as appropriate through relevant stages of the implementation of any programme of cultural heritage works. The WSI would detail the generic principles, standards, methods and techniques to be employed for archaeological works.

6.3 Measures in the event of unexpected discoveries

6.3.1 Should unexpected archaeological or cultural heritage assets be discovered or revealed during construction, the Contractor will consult with HE and the LB Enfield (where appropriate) to enable appropriate measures to be implemented to mitigate potential impacts. This will include the preparation of a WSI for any stage of archaeological work required. The WSI will include the following, as appropriate:

- a. investigation and assessment of discoveries to determine their significance;
- b. assessment of potential Project impacts to inform design of appropriate mitigation measures;
- c. targeted geo-archaeological boreholes on selected proposed pile locations:

2 English Heritage (2004) Transport and the Historic Environment, March 2004. Since the publication of this guidance English Heritage has changed name to Historic England.

- d. excavation, recording and reporting on any discoveries;
- e. recording and implementing measures to preserve any discoveries in situ, if required or if appropriate; and
- f. the requirements to implement appropriate watching briefs and archaeological monitoring.

6.4 Monitoring

- 6.4.1 The Contractor will implement watching briefs and archaeological monitoring during construction works as required.

7 Ecology

7.1 General

7.1.1 The Contractor will adopt appropriate measures to protect biodiversity and limit losses to areas of conservation interest and impacts to legally-protected and notable species in the area of the Application Site, in accordance with the measures set out below, and relevant legislation (including DCO) and/or policy guidance.

7.1.2 The following general principles will be applied where practicable:

- a. habitat loss will be minimised and the removal of habitats and enhancement works will be undertaken as appropriate, in consultation with NE and the EA;
- b. preparation of individual species/habitat management plans as required;
- c. procedures to be developed in the event of an unexpected protected species or important habitat being encountered;
- d. undertaking ecological surveys prior to and during construction taking account of seasonality and local habitats;
- e. covering of any deep holes or trenches overnight and the provision and maintenance of planked escape routes;
- f. any burrows would be excavated sensitively, using hand tools where practical;
- g. an ecological clerk of works will oversee the implementation of any ecological mitigation and sensitive activities, such as clearance of vegetation, and will undertake ecological watching briefs as required;
- h. standards of dust and air pollution control, as set out in Section 5 will be applied to protect adjacent wildlife habitats;
- i. minimise night-time working to limit impacts on sensitive species (such as bats) and habitats, for example, near watercourses; and
- j. ensure measures contained in Section 4.5 for construction lighting and Section 9 for noise and vibration in order to protect biodiversity.

7.2 Statutory and non-statutory designated sites

7.2.1 There are two designated sites located within 500m of the Application Site, the closest of which is Lee Valley Site of Metropolitan Importance for Nature Conservation (SMINC), which fall within and beyond the eastern Application Site boundary. Chingford Reservoirs Site of Special Scientific Interest (SSSI) is a statutory site located approximately 270m north east of the Application Site. These sites support sensitive wetland habitats and a range of protected and notable species. The Contractor will not direct lighting towards Chingford Reservoirs SSSI and Lee Valley SMINC. The only exception relates to part of Lee Valley SMINC that falls within the Application Site, which will be subject to clearance and landscaping works. Light spill over the River Lee Navigation and along Lee Park Way and the eastern boundary of the Edmonton

EcoPark, including EcoPark House, would be reduced as far as practical. Lighting in these areas will be designed to reduce disturbance to foraging and commuting bats.

7.3 Habitats and species

- 7.3.1 The Contractor will manage impacts on statutory and non-statutory sites of ecological interest and notable habitats and species where relevant. This will be achieved through the production of method statements specific to species and habitats and the presence of an ecological clerk of works at appropriate stages of clearance and construction.
- 7.3.2 Pre-construction surveys will be undertaken by an ecologist to determine the current status and distribution of protected and notable species and to inform requirements for any mitigation. This would include a bat and badger scoping survey within the fenced off area in the north-eastern part of the Application Site. The timing of construction works will be undertaken with due regard to seasonal constraints for a range of species and their habitats (including breeding birds and roosting bats).
- 7.3.3 In particular, to mitigate potential impacts on breeding birds, no removal of hedgerows, trees or shrubs will take place between 1st March and 31st August inclusive, unless an ecologist has first undertaken an appropriate and timely inspection of vegetation for active birds' nests prior to the vegetation clearance and the ecologist confirms that no birds will be harmed and/or that there are appropriate measures in place to protect nesting bird interests on the Application Site.
- 7.3.4 Consideration should also be given to impacts on nesting birds outside of, but adjacent to, the Application Site in terms of potential disturbance. The Contractor will prepare a method statement detailing the inspection methodology and the use of exclusion zones, where necessary, to prevent disturbance to nesting birds.
- 7.3.5 Two white willow *Salix alba* trees located along the River Lee Navigation were assessed as having a potential to support roosting bats (Category 1³). The Contractor will be required to:
- a. retain and protect the trees during the course of the Project, including to avoid any potential for disturbance; or
 - b. undertake further survey work to assess the presence or likely absence of roosting bats and measures implemented as recommended.
- 7.3.6 The Contractor will comply with the requirements of any wildlife licences, including all protected species licences as necessary.
- 7.3.7 The Contractor will aim to maintain dark areas around the Application Site, where practicable and safe. Lighting across the Application Site and

³ Bat Conservation Trust (BCT), (2012); 'Bat Surveys; Good Practice Guidelines. Second Edition'. Category 1 trees are those with definite bat potential, supporting fewer suitable features than category 1* trees or with potential for use by single bats.

particularly along Lee Park Way will be minimised, in accordance with guidelines set out by the Bat Conservation Trust (BCT)⁴.

7.3.8 The Contractor will have regard to the requirements of Sections 4.5 Site Lighting, Section 5 Air Quality and Odour and Section 9 Noise and Vibration of this CoCP.

7.4 Control of invasive and non- native species

7.4.1 The Contractor will implement appropriate treatment and control of any invasive non-native species in order to comply with legislation and prevent their further spread, including, as appropriate:

- a. Japanese knotweed (*Fallopia japonica*);
- b. Himalayan balsam (*Impatiens glandulifera*); and
- c. Giant hogweed (*Heracleum mantegazzianum*).

7.4.2 The measures will comply with appropriate, control, treatment and disposal procedures in relation to these and any other species listed in Schedule 9, Part II of the Wildlife and Countryside Act 1981, as amended, or the Weeds Act 1959 to prevent the spread of such species. Appropriate measures will also be set out to control other invasive species, such as Russian vine (*Fallopia baldschuanica*), in line with recognised best practice.

7.5 Monitoring

7.5.1 The Contractor will consult with NE, EA, LB Enfield and any local wildlife trusts, as appropriate, prior to and during construction.

7.5.2 The Contractor will undertake appropriate monitoring during construction to enable the effectiveness of construction methods and mitigation measures to be identified.

⁴ http://www.bats.org.uk/pages/bats_and_lighting.html (last accessed on 18 September 2015)

8 Ground conditions and contamination

8.1 General

- 8.1.1 The Applicant will require the Contractor to adopt appropriate measures to protect, assess, mitigate and remediate land where appropriate.
- 8.1.2 Measures will be implemented to assess and control risks to humans including risks from encountering contaminated dust, soils and groundwater and the presence of ground gas and/or vapours.

8.2 Site investigation and remediation

- 8.2.1 The Contractor will review existing site assessments and undertake further site assessments, investigations and/or risk assessments wherever construction work is planned in order to assess the potential for contamination in both soil and groundwater. The necessary measures will be consulted on with the EA and the LB Enfield as part of the construction planning process. Where required, this investigation will be undertaken in accordance with UK best practice (*BS 10175 Investigation of potentially contaminated sites. Code of practice and BS5930 the code of practice for site investigations*). Where significant contamination is encountered, a risk based approach will be applied in line with the Defra/EA's Model Procedures for the Management of Land Contamination (CLR11).
- 8.2.2 Where site investigations reveal the presence of contamination, an appropriate remedial strategy will be developed to identify the most appropriate option for dealing with the presence of contamination. The Contractor will produce the remediation strategy for approval by the LB Enfield and where applicable, produce a verification plan providing details of the data that will be collected in order to demonstrate that the remedial works are complete, identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements. The verification plan will be issued to the Applicant for review prior to submitting to the LB Enfield.
- 8.2.3 Any material used for the works will be proven 'suitable for use' by adoption of acceptance criteria and will be deposited under either environmental permitting regulations or the Definition of Waste. Development Industry Code of Practice (CL:AIRE, 2011).
- 8.2.4 Where appropriate, the risk to ground water resources (see also Section 12), processes and abstractions will be assessed. In addition to the excavation and treatment of contaminated soils, it may also be necessary to install gas and leachate control systems at the Application Site, on a temporary or permanent basis, in order to ensure that gas and leachate migration pathways are controlled.
- 8.2.5 Any contaminated material encountered will be dealt with in compliance with the written scheme relating to contaminated land that is approved pursuant to requirements of the DCO, as well as best practice and statutory guidance; for example the Control of Substances Hazardous to Health (COSHH) Regulations and through the Construction Design and Management (CDM) Regulations.

8.3 Monitoring

- 8.3.1 The Contractor will develop and implement appropriate monitoring and take into account any monitoring measures contained within the scheme approved pursuant to requirement of the draft DCO during construction to enable the effectiveness of construction methods and mitigation measures to be identified.
- 8.3.2 The Contractor will undertake gas monitoring at the required frequency for any works which ground gas may be encountered. Appropriate gas protection measures will be implemented where necessary. Gas monitoring criteria for each construction task will be detailed within the Contractor's method statements.

9 Noise and vibration

9.1 Measures to reduce potential noise and vibration impacts

- 9.1.1 The Contractor will assess, and implement best practicable means (BPM) at all times to control noise and vibration from the construction works.
- 9.1.2 BPM is defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990 as those measures which are 'reasonably practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications'.
- 9.1.3 As part of BPM the Contractor will take reasonable account of the following:
- a. noise and vibration control at source - for example the selection of quiet and low vibration equipment, review of construction programme and methodology to consider quieter methods (including non-vibratory compaction plant, where required), location of equipment on the Application Site, control of working hours (see Section 4.2), the provision of acoustic enclosures and the use of less intrusive alarms, such as broadband vehicle reversing warnings; and
 - b. screening - for example local screening of equipment, perimeter hoarding or the use of temporary stockpiles.
- 9.1.4 The recommendations of BS 5228-1:2009+A1:2014 - Code of practice for noise and vibration control on construction and open sites – Noise (BS 5228-1), and BS 5228-2:2009+A1:2014 - Code of practice for noise and vibration control on construction and open sites – Vibration (BS 5228-2), will be implemented, together with the specific requirements of this CoCP.

9.2 Noise and vibration management

- 9.2.1 The effects of noise and vibration from areas of construction within the Application Site will be controlled by introducing management and monitoring processes to ensure that BPM are planned and employed during construction. As part of the Contractor's CEMP, noise and vibration management measures will be prepared and will set out these processes. The measures will include management and monitoring processes to ensure as a minimum:
- a. integration of noise and vibration control into the method statements;
 - b. proactive links between noise and vibration management activities and community relations activities (see Section 3);
 - c. preparing details of site hoardings and screens that will be put in place to provide acoustic screening during construction, together with an inspection and maintenance schedule for such features;
 - d. preparing risk assessments to inform structural surveys of buildings and structures which may be affected by vibration from construction;

- e. developing a noise and vibration monitoring protocol including noise and vibration monitoring locations as well as publishing all monitoring required to ensure compliance with all acoustic commitments and consents;
- f. preparing and submitting Section 61 consent applications; and
- g. implementing management processes to ensure ongoing compliance, improvement and actions to avoid any potential non-compliances with the noise and vibration management measures.

9.3 Section 61

- 9.3.1 The Contractor will seek to obtain Section 61 consent from the LB Enfield under the *Control of Pollution Act 1974*. Section 61 applications will be made to the LB Enfield at least 28 days before the relevant work is due to start or earlier if reasonably practicable.
- 9.3.2 The Contractor will submit the application to the Applicant for review and approval, prior to submission to the LB Enfield.
- 9.3.3 Details of construction activities, prediction methods and levels, location of sensitive receptors and noise and vibration levels will be discussed with the LB Enfield, prior to and during construction work. Dialogue between the Applicant, the Contractor and the LB Enfield will continue for the duration of the construction period.
- 9.3.4 An example Section 61 application template is included in Appendix A. The Applicant and/or the Contractor will seek to agree a common format for the Section 61 application, consent conditions or any dispensations, variations and over-runs.

9.4 Dispensation/variation/overrun

- 9.4.1 In the event that works for which a Section 61 consent has been applied for have to be rescheduled or modified (e.g. method or working hours) for reasons not envisaged at the time of submitting the Section 61 consent application, the Contractor will apply for a dispensation or variation of the Section 61 consent application from the LB Enfield. The Contractor will apply for and obtain the dispensation or variation before commencing those works, at the time specified within the Control of Pollution Act 1974.
- 9.4.2 In the event that planned works extend beyond the approved working hours and continue due to unforeseen circumstances that would affect safety or engineering practicability, the Contractor will notify the LB Enfield as soon as reasonably practicable of the overrun using a pre-agreed approach with the LB Enfield.

9.5 Monitoring

- 9.5.1 The Contractor will undertake regular noise and vibration monitoring including physical measurements and visual checks/audits at the Application Site in line with the Section 61 consent to highlight any potential noise impacts arising from the construction of the Project.

- 9.5.2 The relevant Section 61 application will include a detailed description of the monitoring and monitoring locations proposed for the particular works covered by the consent application.

10 Townscape and visual

10.1 General

- 10.1.1 The Contractor will employ appropriate measures to protect the landscape from construction activities and to protect visual amenity.
- 10.1.2 Appropriate controls will be put in place to protect landscape and visual amenity from construction activities and will include, as appropriate:
- a. locating construction buildings and equipment such as to reduce visual intrusion consistent with the efficient operation of the construction site. The Contractor will mitigate against the visual intrusion of the Application Site with hoardings and lighting measures as described in Section 4 of this CoCP;
 - b. a plan showing areas of existing trees and vegetation within the construction site to be retained (and protected), and those to be removed;
 - c. the involvement of an arboriculture and/or ecology specialist as required, in relation to vegetation clearance, tree works and the creation of new habitats; and
 - d. protection of on-site landscape features to be retained.

10.2 Protection of trees

- 10.2.1 The Contractor will protect trees in line with the recommendations in BS5837: Trees in relation to design, demolition and construction.
- 10.2.2 Measures will be implemented to protect trees, including the following, as appropriate:
- a. employ an arboriculture specialist to oversee works relating to the protection of trees;
 - b. installation of appropriate protective fencing to reduce the risks associated with vehicles driving over root systems or beneath canopies;
 - c. measures to prevent compression of soils;
 - d. maintenance of vegetation buffer strips, where practicable;
 - e. selective removal of lower branches to reduce the risk of damage by construction plant and vehicles; and
 - f. follow guidance for working within root protection zones (RPZ).
- 10.2.3 Any tree surgery operations will comply with the recommendations in BS 3998; Tree work. Recommendations, as appropriate and will need to consider the legal protection given to roosting bats and breeding birds.

10.3 Tree replacement

- 10.3.1 Any tree that is damaged or cut down without approval or dies as a consequence of the construction will be treated or be replaced by a suitably sized transplant to the approval of the Applicant and the LB Enfield.
- 10.3.2 The supply, storage, handling, planting and maintenance of new planting will be undertaken in accordance with appropriate British Standards, including BS 4428 Code of practice for general landscape operations (excluding hard surfaces), BS 3936 Nursery stock, BS 4043 Transplanting semi-mature trees, BS 5236 Cultivation and planting of trees in the advanced nursery stock category and other appropriate guidance including the UK.

10.4 Monitoring

- 10.4.1 The Contractor will undertake appropriate inspection, monitoring and maintenance of any trees that will be protected during the construction works.

11 Transport

11.1 General

- 11.1.1 During construction the Applicant will require, as far as reasonably practicable, that impacts on the local community from construction traffic are minimised by the Contractor and that access to the Edmonton EcoPark and the surrounding area is maintained. Impacts on road based construction traffic will be reduced by identifying clear controls, hours of site operation and routes for large goods vehicles. To reduce construction workforce and visitor car trips alternative modes of travel, including public transport, will be encouraged through the Construction Travel Plan.
- 11.1.2 Prior to the commencement of the works, the Applicant will ensure that a Construction Logistics Plan (CLP) is produced and agreed in consultation with the LB Enfield, Transport for London (TfL) and the emergency services. This will include Traffic Management Plans (TMPs) if needed. The CLP will include the proposed traffic management strategy, temporary diversions of highways or other public rights of way and the Application Site boundary access points.

11.2 Works within the road or on a Public Right of Way

- 11.2.1 Where PRow diversions are required, the Contractor will provide and maintain a temporary route for users. The Contractor will apply for any consents and prepare any orders or regulations required for temporary traffic management schemes and comply with the requirements of the LB Enfield in this regard. As any orders or regulations may have to be promoted by the highway authority, the Contractor will provide the necessary supporting information if the relevant authority assumes responsibility for the preparation of the orders or regulations.
- 11.2.2 Reasonable pedestrian access to premises will be maintained. Local residents and businesses will be informed in advance (as far as is reasonably practicable) of the dates and durations of closures and provided with details of diversion routes.
- 11.2.3 The design and operation of the works will take account of people with reduced mobility.
- 11.2.4 Works will be undertaken on Lee Park Way to create the new Lee Park Way access to the EcoPark. This will require the temporary diversion of the existing pedestrian and cycle routes on Lee Park Way. However, a safe route for vehicles, pedestrians and cyclists will be maintained at all times with appropriate segregation from the construction works provided. Signage will also be provided to aide navigation and to alert construction vehicles to the presence of pedestrians and cyclists. The cycle crossing point, which connects National Cycle Network Route 1 on Lee Park Way to the local cycle route on Lower Hall Lane and is located some 15m north of Advent Way, will also be maintained with the aim of ensuring that cyclists can connect between the two routes safely.

11.2.5 Works may be undertaken at the junction of Walthamstow Avenue with Lower Hall Lane as part of the establishment of the Temporary Laydown Area to the north of Advent Way and east of the River Lee Navigation. This could include, for example, carriageway resurfacing to avoid damage to construction vehicles as well as other vehicles using the junction and route. The works, if required, would be undertaken such that at least one lane would be open at all times to maintain access to Lower Hall Lane. The works may also require the temporary diversion of the pedestrian and cycle route on Lower Hall Lane, which crosses the route which would be used to access the Temporary Laydown Area. A safe route for pedestrians and cyclists will be maintained at all times. Signage will also be provided to aide navigation and to the alert construction vehicles to the presence of pedestrians and cyclists.

11.3 Measure to reduce construction traffic impacts

11.3.1 A new entrance will be provided at the north of the Edmonton EcoPark, connecting with Ardra Road and Deephams Farm Road. This will ensure that the effect of construction traffic will be kept separate from operational traffic at the southern access to the Edmonton EcoPark.

11.3.2 Where appropriate, the Contractor will provide a haul route(s) through the Application Site for use by construction vehicles to reduce the potential conflict between construction vehicles and operation vehicles.

11.3.3 The Contractor will implement the following traffic management measures during construction of the Project:

- a. where reasonable and practicable, construction vehicles will avoid travelling in convoys on public roads;
- b. maintain and restore the highway to its existing condition, where affected by the works and appropriate, to the approval of the LB Enfield and TfL;
- c. adhere to standard procedures under the Highways Act 1980 for the temporary diversions of public rights of way or accesses;
- d. measures to reduce the impact on existing parking;
- e. take all reasonable precautions to prevent or reduce any disturbance or inconvenience to the owners, tenants or occupiers of adjacent properties, and to the public generally and ensure access is maintained at all times; and
- f. procedures to address any highway incidents or vehicle breakdown of construction traffic especially at peak times.

11.3.4 Works may be undertaken at the junction of A1055 Meridian Way and Ardra Road and on Ardra Road (other than works associated with the creation of a give-way junction with Deephams Farm Road), for example, carriageway resurfacing required to avoid damage to construction vehicles as well as all other vehicles using the Ardra Road. If such works are required, the works will be undertaken in short sections and at least one lane would be open at all times in the sections where works are undertaken to ensure continued access to affected businesses. To minimise disruption, night working will

also be considered, subject to agreement from LB Enfield and consent under Section 61 of the Control of Pollution Act 1974 and consultation with the Community Liaison Group. Notice will be given to any resident or local business that would be affected, with the durations provided.

11.4 Lorry movements, management and control

- 11.4.1 Deliveries will be arranged to minimise the impact on the road network.
- 11.4.2 Deliveries and all vehicle movements will be restricted to standard core working hours, unless agreed with LB Enfield and TfL.
- 11.4.3 Abnormal and special loads (as defined in the Road Vehicles (Authorisation of Special Types) (General) Order 2003 (Statutory Instrument (SI) 2003/1998) may be delivered outside standard working hours, subject to the requirements of the LB Enfield, TfL and the Metropolitan Police.
- 11.4.4 Lorry movements (except abnormal and special loads) outside of core working hours must relate to the activity that requires extended working hours (e.g. concrete pouring).
- 11.4.5 The Contractor will consult and agree with the LB Enfield and TfL the access routes that may be used to access the construction sites, including consultation regarding any particular timing restrictions on the use of roads. The routes will be specified as part of the TMP produced by the Contractor. The Contractor will agree Heavy Goods Vehicle (HGV) routes with LB Enfield prior to commencing work on the Application Site. These routes will be restricted to the Transport for London Route Network (TLRN) and the Strategic Road Network (SRN), as far as reasonably practical.
- 11.4.6 The routes between the Application Site and the TLRN will be selected to reduce effects on local sensitive receptors where practicable. A plan identifying the agreed routes will be displayed at all site access points and other relevant site locations
- 11.4.7 The Contractor will communicate to all suppliers the access requirements for the Application Site to ensure that lorries do not arrive before core working hours or wait in non-agreed areas.
- 11.4.8 Deliveries will be scheduled and will require authorisation to enter the construction site. Where a delivery vehicle arrives at a time other than its scheduled time slot, it will be turned away and if this occurs, it will preferably not reverse onto the highway. An appropriate control system will be implemented for the dispatch of all vehicles containing excavated material, demolition materials or other waste materials to prevent congestion around the worksite and its access routes. Only vehicles notified in advance will be allowed to enter the Application Site.
- 11.4.9 All loading and unloading of vehicles will take place off the public highway wherever this is practicable with vehicles entering and leaving the public highway in forward gear unless otherwise agreed with LB Enfield. Vehicle movements at site entrances will be managed and marshalled where required.

11.5 Worker access

- 11.5.1 Given the location of the Application Site and the limited access to public transport services, some employee parking will be required on the Application Site. However the number of parking spaces required will vary during the different stages of the construction programme but will not exceed 225 spaces during the peak or any other period of construction. The Contractor will put measures in place to monitor and aim to eliminate 'fly-parking' by workers in the vicinity of the Application Site.
- 11.5.2 To reduce construction workforce and visitor car trips alternative modes of travel, including public transport, will be encouraged. The Contractor will prepare a Construction Travel Plan to be agreed with LB Enfield and TfL prior to the commencement of the construction work. This will be based on the Framework Construction Travel Plan submitted as part of the DCO and will include a range of measures to reduce the number of employee vehicle trips, in particular single occupancy vehicle trips, to the construction site. The measures will include the promotion of car sharing, the promotion of sustainable travel and the potential provision of a shuttle bus between the Application Site and local National Rail/Underground stations (e.g. Tottenham Hale or Walthamstow Central).

11.6 Road cleanliness

- 11.6.1 All reasonable measures will be put in place to avoid/limit and mitigate the deposition of mud and other debris on the highway, which will also minimise dust generation. These will include, but not necessarily be limited to:
- a. the provision of easily-cleaned hard-standings at access and egress points;
 - b. vehicle wash-down points to clean wheels at each exit point on to the highway;
 - c. appropriate loading of vehicles and sheeting of loads where necessary to avoid spillage on the journey; and
 - d. use of mechanical road sweepers combined with water sprays to suppress dust and clean site hard-standing, roads and footpaths in the vicinity of the Application Site.

11.7 Traffic safety

- 11.7.1 The Contractor will consider the risk of incidents when transporting materials (including hazardous materials) and include measures to reduce the likelihood of impact of any incident. Preventative containment measures will also be considered in advance.
- 11.7.2 The Contractor will provide, erect and maintain such traffic signs, road markings, lamps, barriers and traffic control signals and such other measures as may be necessitated by the construction of the scheme and to the approval of the LB Enfield (and TfL, if required).
- 11.7.3 The Contractor will not commence any work that affects the public highway until all traffic safety measures necessitated by the work are fully operational.

- 11.7.4 The traffic signs, road markings, lamps, barriers and traffic control signals will be in accordance with the requirements of the Traffic Signs Regulations.
- 11.7.5 All traffic signals including temporary signals used at road works must be type approved before they can legally be installed on public roads. Portable traffic signals must also comply with the current requirements of Regulation 31(2) of The Traffic Signs Regulations, which lays down the size, colour and type of prescribed traffic signals.
- 11.7.6 The Contractor will keep clean and legible at all times all traffic signs, road markings, lamps, barriers and traffic control signals and they will position, reposition, cover or remove them as required by the progress of the works and to the approval of the LB Enfield (and TfL, if required).
- 11.7.7 The Contractor will undertake the following activities in relation to work related road risk:
- a. liaise with the LB Enfield and TfL in relation any requirement to temporarily restrict car parking on construction access routes to facilitate access to the Application Site by large vehicles;
 - b. register for membership of TfL's Fleet Operator Recognition Scheme (FORS) or equivalent;
 - c. ensure that all construction vehicles bear prominent signage and have an external warning device to warn cyclists of the dangers of passing the vehicle on the inside;
 - d. ensure that all HGV's are fitted with appropriate 'active' equipment to warn the driver of the presence of cyclists passing the vehicle on the inside. This could include, but is not limited to, side safety bars, a close proximity warning system comprising a front-mounted, rear-facing closed circuit television camera or Fresnel lens, a close proximity sensor, an in-cab warning device (visual or audible) or an external warning device to make nearby road users aware of the driver's planned movements;
 - e. ensure that all HGV;'s display prominent signage on the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside;
 - f. ensure that all drivers have a driving licence check before commencing work and undertake appropriate driver training or a TfL-recommended lorry drivers awareness course for travelling in and around London;
 - g. in the event of a collision investigate the collision and provide a Collision Report to LB Enfield, TfL and any other interested parties (e.g. the Health and Safety Executive);
 - h. liaise with the LB Enfield/TfL to determine any need for route signage for construction vehicles and provide such signage as agreed;
 - i. ensure that adequate signage to warn cyclists and pedestrians of the presence of large construction vehicles is prominently located at site access points and on construction vehicle routes between the Application Site and the TLRN and SRN;
 - j. ensure that pedestrian, cycle and equestrian (where appropriate) crossing points at site access points and where NCN Route 1 crosses Lee Park

Way are laid out in a safe manner and that where necessary the movement of large construction vehicles is supervised to minimise the risk of accident;

- k. maximise the use of any other appropriate safety measures; and
- l. ensure that any subcontractors are advised of and comply with the same requirements as appropriate.

11.8 Monitoring

11.8.1 The Contractor will monitor traffic management schemes to maintain their effectiveness and condition and to provide for the safety of traffic, the public and construction staff during traffic management works and temporary traffic control measures.

11.8.2 During construction, vehicular traffic along Deephams Farm Road will be controlled through the use of traffic marshals at both the northern and southern ends of the road. This will help to regulate traffic entering and leaving the site during the busiest construction periods. The need for traffic marshals at both the northern and southern ends of Deephams Farm Road will be reviewed periodically. The Community Liaison Group will be consulted upon review of this strategy.

11.8.3 The HGV monitoring strategy will be consulted on with the Community Liaison Group and agreed with LB Enfield. It is likely to include the following:

- Recording of all vehicles entering/exiting the Edmonton EcoPark via the northern access, including details of the trip purpose and origin/destination;
- Undertaking regular (at least once a year) traffic surveys on Ardra Road during the construction period to understand the vehicle movements to the Edmonton EcoPark in the context of the traffic flows at that time. Traffic surveys will also be undertaken in the first year following the completion of construction. Given that the volume of traffic associated with the Project using Ardra Road is likely to remain unchanged, no further monitoring is proposed beyond this point;
- A mechanism to review the use of the northern access and will identify if vehicles should be using an alternative access (e.g. RRF construction vehicles which should be arriving via the southern site access on Advent Way); and
- Regular liaison with the other business which use Ardra Road to understand any issues and/or concerns that arise during the construction period.

12 Water resources

12.1 General

- 12.1.1 The Contractor will undertake the works and implement working methods that will be developed to protect surface and groundwater from pollution and other adverse impacts including change to flow volume, water levels and quality. This will be completed in accordance with relevant legislative requirements (including the DCO), and appropriate industry guidance.
- 12.1.2 Measures to deal with pollution incidents at the Application Site will be included within the overall emergency planning and will be detailed in the incident control plan as detailed in Section 4.7. EA guidance on pollution incident response planning will be reflected in the emergency plans.

12.2 Surface water, groundwater and waste water

- 12.2.1 The Contractor will apply for the necessary consents and approvals from the relevant authorities to enable discharge of dewatering, surface water run-off and waste water from the construction site to soakaway or filtration systems, watercourses, foul sewers or disposal off-site.
- 12.2.2 The Contractor will adhere to the following control measures that will be applicable during construction:
- a. storage of potentially polluting materials, plant and equipment will be more than ten metres from any water body. The Contractor will seek the required permits from the EA if there are any necessary work within 8m of a controlled water course;
 - b. fuel stores will be located away from surface water drainage, and would be within bunds with sealed bases;
 - c. refuelling will always be undertaken remote from drainage and surface water features and using automatic shut-off fuel delivery systems and drip trays, where practicable;
 - d. pumps, generators and small plant will have drip trays to collect any fuel or oil spills;
 - e. oil drums and containers or other potential contaminants stored on the Application Site to be controlled in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations 2002;
 - f. provision of a suitable construction site drainage system including cut-off valves, ditches, attenuation storage or drains and sustainable drainage systems, or equivalent, with suitably sized treatment facilities such as settlement or detention basins;
 - g. implementation of a site drainage plan;
 - h. spill kits will be available in the event of a fuel spillage and personnel will be trained in their use;
 - i. procedures for monitoring groundwater levels and quality at abstraction boreholes where appropriate;

- j. emergency response procedures would be developed and implemented that covered any incidents that might lead to release of pollutants to the aquatic environment; and
- k. adopting measures to comply with relevant EA Pollution Prevention Guidelines (PPG): temporary construction methods and CIRIA publications (including Control of water pollution from construction sites. Site guide (C649) and Site handbook for construction of SUDS (C698)).

12.2.3 Where contaminated land is identified at the Application Site, measures will be included in the Contractor's CEMP to comply with all relevant handling and disposal legislation (including dewatering discharge from piling operations). Detailed site investigations at all sites where excavations and piling are planned will be carried out, prior to works commencing, in order that appropriate mitigation can be implemented.

12.3 Protection of aquifers

12.3.1 The Contractor will have due regard for underlying aquifers and adhere to appropriate EA documents and guidance including the EA's Groundwater Protection Policy as set out in EA GP3 Groundwater Protection: Principles and Practice Pollution, EA (2001) Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention, and EA (2002) Piling into Contamination Sites. Appropriate protection of aquifers will be undertaken, following liaison with the EA regarding piling and construction techniques to be employed. Details of appropriate measures to prevent groundwater contamination (including monitoring) will be agreed with the EA prior to commencement of the relevant work.

12.4 Control and management of foul drainage

12.4.1 The Contractor will dispose of foul water and sewage effluents from site facilities complying with Pollution Prevention Guideline No.4 Treatment and disposal of sewage where no foul sewer is available. The Contractor will ensure connection to the local foul sewer system as agreed with the relevant authorities or containment by temporary foul drainage facilities and disposal off-site by a licensed contractor. Appropriate post construction checks will be implemented to ensure mis-connections have not occurred.

12.5 Flood management

12.5.1 The Contractor will, as far as reasonably practicable, ensure that flood risk is managed throughout the construction period and that all designs are compliant with the Flood Risk Assessment (AD05.14) submitted as part of the DCO application.

12.5.2 The contractor will implement necessary measures, e.g. temporary drainage, to protect the ongoing construction from flood risk from the existing surface water drainage system, while this still operates, as noted in the Flood Risk Assessment.

- 12.5.3 The Contractor will consult with the relevant regulatory bodies and other relevant risk management authorities on areas at risk of flooding and make appropriate use of the EA's Floodline flood warning service for works within areas at risk of flooding. An Emergency Flood Plan will be drawn up for the construction period, if required by the EA.

12.6 Monitoring

- 12.6.1 Consultation with the EA will be required by the Contractor with respect to requirements for water quality monitoring of discharges to surface or groundwater.
- 12.6.2 The Contractor will carry out surface and groundwater monitoring as appropriate to identify pollution risks and pollution incidents including spillages and leakages.

13 Waste

13.1 General

- 13.1.1 The Contractor will maintain a duty of care at all times to ensure that waste generated during excavation, demolition and construction is handled in accordance with the measures set out below, and relevant legislation (including DCO) and/or policy guidance.
- 13.1.2 Excavated materials, demolition, and construction wastes generated at the Application Site will be managed, so far as reasonably practicable, in accordance with the waste hierarchy. The waste hierarchy aims to use material resources more efficiently, reduce waste at source and reduce the quantity of waste that requires final disposal to landfill.

13.2 Waste management

- 13.2.1 The Contractor will implement the waste hierarchy (i.e. prevention, preparing for re-use, recycling, other recovery and disposal) as set out in the Waste (England and Wales) Regulations 2011 (as amended) to ensure that material resources are used to maximum efficiency.
- 13.2.2 The Contractor will minimise the waste generated from their activities where reasonably practicable. This will include processes such as just-in-time deliveries, consolidation centres for the storage of materials on-site, use of packaging take-back schemes, and the use of pre-fabricated construction components.
- 13.2.3 Where prevention of waste is not possible, the Contractor will reduce the quantity of waste sent to landfill by maximising re-use, recycling and recovery.

Site Waste Management Plan (SWMP)

- 13.2.4 A SWMP will be prepared for the Project by the Contractor, in accordance with the Waste and Resources Action Programme (WRAP) guidance.
- 13.2.5 The SWMP will include information regarding the classification, type and quantities of waste to be produced, measures for reducing waste generation and for recycling and/or re-use, any permitting arrangements and waste carrier and off-site treatment and disposal sites to be used.
- 13.2.6 The SWMP will include an audit programme to be undertaken by the Contractor.
- 13.2.7 Opportunities will be considered and measures will be implemented in the design and construction of the scheme to reuse waste or surplus materials, as appropriate. The Contractor will need to demonstrate that where practicable reuse has been maximised and where this is not practicable this needs to be recorded. The Contractor will also be expected to investigate, secure and record where the reuse of materials and waste has been used elsewhere off site.
- 13.2.8 The Contractor will set out measures that aim to divert, at minimum, 85 per cent of non-hazardous waste by weight or volume from landfill, with a

strategic objective to divert a minimum of 95 per cent of non-hazardous waste by weight or volume.

13.3 Identification and classification

- 13.3.1 The SWMP will be used to identify the specific types and quantities of waste likely to arise during demolition and construction. Waste will be classified in accordance with the statutory controls governing the management of inert, non-hazardous and hazardous wastes. The options for managing waste will be determined in accordance with the waste hierarchy.
- 13.3.2 The Contractor will undertake a pre-demolition survey, to facilitate the early identification of materials potentially suitable for on-site reuse.

13.4 Segregation and storage

- 13.4.1 The Contractor will make provision for a waste storage area on the Application Site that will include appropriately sized containers for the collection and segregation of waste types generated and will be clearly labelled and colour coded as per the scheme developed by the Institution of Civil Engineers (ICE). This is to facilitate re-use, recycling and recovery of waste. Containers will be covered with sheeting or lids as will any stockpiles/excavated materials.
- 13.4.2 Hazardous waste and materials will be stored separately to other waste streams and materials and will be removed and managed in accordance with legislative requirements.
- 13.4.3 The Contractor will comply with approved guidance and procedures in the identification, handling, storage, and management of waste and any waste leaving the Application Site will be accompanied by appropriate duty of care documentation.
- 13.4.4 The Contractor will ensure that staff are given appropriate training both as part of site induction and at intervals throughout the life of the Project, to ensure that they are familiar with the waste and recyclable segregation strategy, and pollution prevention systems in place.

13.5 Duty of care

- 13.5.1 The Contractor will be required to comply with the 'duty of care' regulations to protect the interests and safety of others from the potential effects of handling, storing, transporting and depositing of excavated materials and demolition/ construction wastes arising under the Project. Duty of Care documentation will be retained by the contractors in line with statutory requirements.
- 13.5.2 The SWMP will include detailed procedures for compliance with the requirements for waste transfer notes, in accordance with the Waste (England and Wales) Regulations 2011, and arrangements for auditing the actions of other parties in the waste handling chain.
- 13.5.3 The arrangements for registering the Application Site, consigning, handling and transporting hazardous wastes will be followed in the context of duty of

care and the specific consignment note procedures applicable under the Hazardous Waste (England and Wales) Regulations 2005 (SI 2005 No.894) or any succeeding relevant legislation.

- 13.5.4 The Contractor will also ensure that any required environmental waste management permits or registered exemptions are in place prior to any off-site transfer, treatment or disposal of waste being undertaken.

13.6 Monitoring

- 13.6.1 Details of the waste generated included waste type, quantity and end use will be monitored and recorded in the SWMP.
- 13.6.2 The Contractor will be required to undertake audits and inspections of waste management controls on site as well as third party audits of waste contractors and facilities.

Appendix A: Example section 61 application consent form

CONTROL OF POLLUTION ACT 1974

EXAMPLE APPLICATION FORM FOR SECTION 61 CONSENT

To be developed further (with explanatory notes) in consultation with the relevant local authorities

Submission No:	
Local Authority Reference:	

To the¹

I/WE HEREBY MAKE APPLICATION for prior consent in respect of works to be carried out on the construction site(s) specified below, under Section 61 of the Control of Pollution Act 1974.

Signed †.....
Date.....

Name and address of applicant †
(in block letters please)

.....

Telephone No:
email:

¹ Insert name of Local Authority.

† Where application made by a Company the signature should be of a Director or the Company Secretary and the address should be the Company's registered office.

(Note: Supplementary sheets should be used for fuller descriptions and additional information as required)

1. Address or location of proposed works	
2. Name and address of main contractor Telephone No.	
3. Particulars of works to be carried out	

<p>4. Methods to be used in each stage of development</p>	
<p>5. Hours of Work</p>	
<p>6. Number, type and make of plant and machinery (including heavy vehicles) stating Sound Power Levels</p>	
<p>7. Proposed steps to manage noise and</p>	

vibration	
8. Predicted Noise Levels	
9. Approximate duration of works	
10. Site Plan (Attached, yes/no)	

11. Other Information	
12. List of Plans and documents attached	



Series 05 Technical Documents

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