

# **Volume 3: Environmental Management Plan**

## Land East of Warwick Road, Banbury

March 2023



**Turley**

The document provides a summary of all the mitigation measures identified in the EIA process in order to manage the environmental effects during the construction and operational stages of the Proposed Scheme and to establish a suitable mechanism to secure and deliver mitigation. This document should be read in conjunction with **Volume 1: Main Text and Figures**, **Volume 2: Technical Appendices** and **Volume 4: Non-Technical Summary**.

As set out in **Volume 1, Chapter 2: Approach to EIA**, the EIA has considered primary, secondary and tertiary mitigation in line with the Institute of Environmental Management & Assessment's (IEMA) Environmental Impact Assessment Guide to Delivering Quality Development<sup>a</sup>. These are defined as follows:

- **Primary** – modifications to the location or design of the Proposed Scheme made during the pre-application stage that are an inherent part of the project;
- **Secondary** – actions that will require further activity in order to achieve the anticipated outcome; and
- **Tertiary** – actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislation requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects.

All primary, secondary and tertiary mitigation referenced throughout the Environmental Statement (ES) has been collated and is summarised in the EMP (**Table 1**).

Each of **Volume 1, Technical Chapters 6 and 7** has considered primary and tertiary mitigation prior to undertaking the assessment of likely significant effects. Following the conclusion of effects based on the Proposed Scheme, any further mitigation measures or monitoring arrangement (i.e. secondary mitigation) have been detailed.

It should be noted that, given the definition of primary mitigation and the fact that the measures are inherent to the Proposed Scheme, all primary mitigation is to be secured through approval of plans submitted for approval (**Volume 1, Figures 4.1 and 4.2**) **Volume 1, Chapter 4: Development Specification** and any associated design strategies/principles referenced in **Volume 1, Chapter 4: Development Specification** that are submitted in support of the ES or wider Application. Therefore, within the EMP (**Table 1**) is a summary of primary mitigation measures used to inform **Volume 1, Technical Chapters 6 – 7**

The mitigation relied upon to 'scope out' environmental topics as part of the EIA Scoping Report (**Volume 2, Appendix 2.1**) is also included within the EMP (**Table 1**).

With respect to secondary mitigation, it is assumed these measures will be secured either through appropriately worded condition and / or Section 106 agreement as determined by Cherwell District Council (CDC), as the determining authority.

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<sup>a</sup> IEMA (2016) EIA Guide to Delivering Quality Development.

**Table 1: Environmental Management Plan**

<b>Ref.</b>	<b>Primary Mitigation</b>
	All forms of primary mitigation are based on those measures identified in the EIA Scoping Report ( <b>Volume 2, Appendix 2.1</b> ) the description of the Proposed Scheme set out in <b>Chapter 4: Development Specification</b> and the plans as set out in <b>Volume 1, Figure 1.1 and Figure 4.1</b> , which the Proposed Scheme will be delivered in accordance with. Elements of the Landscape Strategy are set out in <b>Volume 1, Figure 4.2</b> for illustrative purposes only.
<b>Land Use and Quantum</b>	
P1	The Proposed Scheme will deliver up to 170 residential dwellings (Use Class C3), internal roads (from a new junction on Warwick Road (B4100)), parking, surface water drainage and green spaces/landscaping.
P2	All dwellings and internal roads will be located within Parcel A (the Site's western parcel), and be sited to avoid areas of retained below ground archaeological assets where possible.
<b>Heights</b>	
P3	Residential dwellings will be up to 2.5 storeys in height (11.5m AFL).
<b>Access and Circulation</b>	
P4	Vehicular access to the Site will be via a new access point from Warwick Road (B4100) at the western Site boundary.
P5	Gullicote Lane, PRoW 191/6/30 and PRoW 239/7/20 at the eastern Site boundary will be retained in their current alignments to provide pedestrian and cycle access.
<b>Public Realm, Landscape and Biodiversity Strategy</b>	
P6	Approximately 7.1ha of Public Open Space will be provided within the Proposed Scheme, set out as follows.
P7	Approximately 4.94ha will be species-rich Wildflower Meadow and Parkland.
P8	Approximately 1.33ha of Woodland Planting will be located close to the Site boundaries, comprising retained and new planting.
P9	Approximately 0.45ha of Informal Sports Provision will be provided in the northwest of Parcel A.

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P10 A SuDS attenuation basin will be provided in the northeast of Parcel B. The natural low point of the Site.

P11 A Children and Youth Combined Natural Play Space will be provided in the southwest of Parcel B.

P12 A network of mown grass trails through the Site will connect to an enhanced PRow 191/6/30 in a green corridor.

P13 Existing hedgerows will be enhanced, and new hedgerows will be planted throughout the Site.

P14 Suitable bird boxes will be integrated into/erected onto new buildings within the Site and mature trees at the Site boundaries, such as house sparrow terraces, swift 'nest bricks' and swallow 'cups'. The quantum, design and location of integrated bird nesting features would be designed with reference to CDC guidance note 'Biodiversity in the Built Environment, Good Practice Guide 1'.

P15 Badger setts will be retained and buffered along the northern Site boundary from the built development by at least 30m.

P16 In addition to the Lighting Strategy measures set out below, 'dark zones' will be located in close proximity to retained/created linear foraging habitats and/or roosts, especially along Gullicote Lane and woodland edge habitats of the Site, which was identified as a commuting and foraging corridor for bats during the activity surveys.

**Lighting Strategy**

P17 External lighting sources will be installed at the Site access and along internal circulation routes.

P18 Obtrusive light will be avoided through appropriate lighting design in line with best practice, guidance and standards, including British Standard 5489-1:2020<sup>b</sup>.

P19 All lighting installations will meet Institute of Lighting Professionals (ILP) Guidance Note for the Reduction of Obtrusive Light 2021<sup>c</sup>

<sup>b</sup> British Standard (2020). 5489-1:2020 Design of road lighting. Lighting of roads and public amenity areas. Code of practice.

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requirements, and also comply with the mitigation measures given in Guidance Note 08/18 Bats and Artificial lighting in the UK ILP 2018 and Bats and Artificial Lighting in the UK (08/2018)<sup>d</sup>.

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P20 External lighting will be 3,000K or less and have a warm white output where possible, with directional capacity such as LED and with no UV component. In addition, optics will be used to increase lighting directionality. Additional mitigation has the potential to include shielding of lights with accessories such as hoods, covers, louvres and shields where appropriate, to be determined at the detailed design stage.

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P21 Compliance with ILP's Guidance Note for the Reduction of Obtrusive Light 2021 will ensure that no more than 4 luminaries will undertake an Upward Flux Ratio, thereby minimising sky glow which may otherwise affect the Hanwell Community Observatory.

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P22 As a worst case scenario, lux levels along the woodland to the south of the Site will be below 1 lux.

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**Surface Water Drainage Strategy**

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P23 The surface water drainage strategy for the Proposed Scheme will be based on the drainage hierarchy set out in Paragraph 080 (Reference ID: 7-080-20220825) of Planning Practice Guidance (PPG) on Flood Risk and Coastal Change<sup>e</sup>.

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P24 To address paragraph 051 (Reference ID: 7-051-20220825) of PPG<sup>f</sup>, and in accordance with CIRIA 753 – The SuDS Manual, the Surface Water Drainage Strategy includes a SuDS attenuation pond fed by drainage swales from dwellings, located in the northeast of Parcel B.

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<sup>c</sup> Institute for Lighting Professionals (2021). Guidance Note 01/21 for the Reduction of Obtrusive Light.

<sup>d</sup> Bats and Artificial Lighting in the UK (08/2018). *Bats and the Built Environment Series*. The Bat Conservation Trust, London.

<sup>e</sup> Department for Levelling Up, Housing and Communities (DLUHC) and Ministry of Housing, Communities & Local Government (MHCLG) (2022). Guidance: Flood risk and coastal change. Available at: <https://www.gov.uk/guidance/flood-risk-and-coastal-change> [Accessed 14/02/2023].

<sup>f</sup> DLUHC and MHCLG (2022). Guidance: Flood risk and coastal change. Available at: <https://www.gov.uk/guidance/flood-risk-and-coastal-change> [Accessed 14/02/2023].

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P25 In addition, rain gardens<sup>g</sup> will flank the primary access road and permeable paving will be used for secondary roads and driveways/parking areas within the Development Zones.

P26 The design of the surface water drainage system which will take into account the 1 in 100 year storm event and required climate change allowances (40%), plus a 10% allowance for urban creep. Attenuated run-off will discharge at pre-development greenfield runoff rates and seek to meet the surface water runoff peak flow and volume control criteria set out in the Non-statutory technical standards for Sustainable Drainage Systems.

**Foul Water Drainage Strategy**

P27 A new foul water sewer network will be constructed to serve the Proposed Scheme, with flows discharging to the existing Thames Water foul sewer located beneath Warwick Road (B4100).

P28 A foul water pumping station will be constructed to the southern extent of Parcel A, from which the Development Zones are proposed to be set back by approximately 20m. This will ensure that flows to the foul sewer are not restricted by localised topography.

**Ground Contamination/Gas Protection and Stabilisation**

P29 In an event that significant contamination is identified during Phase II investigations, a programme of mitigation or remediation work will be carried out as part of the enabling works in line with a Remediation Strategy approved by the regulators. Any potential direct exposure risk to future users will be removed through the placement of clean cover systems to areas of garden and soft landscaping.

P30 It is assumed that there will be a cut and fill balance and that this will be subject to a Material Management Plan to ensure soil resources are maintained with the Site and are managed to avoid any deterioration in soil quality.

<sup>g</sup> Infiltration SuDS comprising shallow depressions with absorbent, free draining soil and vegetation that can withstand occasional inundation.

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P31 All new buildings will be designed in line with CIRIA 'Assessing risks posed by hazardous ground gases to buildings' (C665)<sup>h</sup> and British Standard 8485 'Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings'. In addition, testing and verification of such systems will be completed in line with C735<sup>i</sup>.

P32 Information regarding the exact foundations has not been finalised and will be subject to final building design and underlying ground conditions; however, a mix of piled and non-piled foundations are anticipated as a worst case scenario. At this stage, foundations could include a combination of shallow strips and piled foundations.

P33 All proposed dwellings and their foundations will be designed in accordance with CIRIA Report C572: Treated ground engineering properties and performance<sup>j</sup>; British Research Establishment document FB75: Building on Fill - Geotechnical Aspects<sup>k</sup>; British Standard 6031:2009: Code of Practice for Earthworks<sup>l</sup>; and Building Regulations Approved Document A - Structure<sup>m</sup>.

**Radon Protection Strategy**

P34 The Site lies within a higher probability radon area, requiring radon protection measures to be installed (in accordance with BRE211<sup>n</sup>).

P35 Radon protection measures will include the use of 1200 gauge polyethylene radon resistant Damp Proof Membrane/Damp Proof Course, with suspended floors (with sub-floor ventilation) or ground bearing floor slabs with a radon 'sump', continuous membrane across cavity

<sup>h</sup> CIRIA (2007) C665 Assessing risks posed by hazardous ground gases to buildings.

<sup>i</sup> CIRIA (2014) C735 Good practice on the testing and verification of protection systems for buildings against hazardous ground gases.

<sup>j</sup> CIRIA (2002). Report C572: Treated ground engineering properties and performance.

<sup>k</sup> British Research Establishment (2015). FB75: Building on Fill - Geotechnical Aspects. 3<sup>rd</sup> Edition.

<sup>l</sup> British Standard (2009). 6031:2009: Code of Practice for Earthworks.

<sup>m</sup> HM Government (2013). Approved Document A - Structure (2004 Edition incorporating 2004, 2010 and 2013 amendments).

<sup>n</sup> BRE (2015) Report BR211 Radon: Guidance on protective measures for new dwellings.

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walls, cavity tray in external walls and fully sealed service entries/exits.

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**Noise Mitigation**

P36 To meet BS 8233:2014<sup>o</sup> guideline values within habitable rooms (30dB  $R_{w} + C_{tr}$ ), appropriate glazing specifications will be selected at the detailed design stage (with standard thermal double glazing generally considered suitable to achieve these noise levels).

P37 No primary mitigation is required to achieve external amenity area limits required to remain within the BS 8233:2014 guideline value of  $L_{Aeq,16hr}$  55dB.

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**Sustainability Strategy**

P38 The Proposed Scheme will achieve a net gain in biodiversity utilising species/habitats known to be present in the local area and will make use of climate tolerant species (in accordance with The England Biodiversity Strategy<sup>p</sup> and Natural England's Climate Change Adaptation Manual<sup>q</sup>).

P39 As part of the detailed design a sample of units in buildings will undergo thermal dynamic modelling, or will be assessed in accordance to emerging national overheating guidance through the Building Regulations to assess and reduce the risk of summer overheating taking into account future climate scenarios.

P40 Where measures are provided to reduce the risk of overheating this will be done in accordance with the cooling hierarchy.

P41 To ensure that changes to seasonal temperatures and/or rainfall patterns do not affect ground conditions, all proposed dwellings and their

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<sup>o</sup> British Standard BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings.

<sup>p</sup> DEFRA (2011). Biodiversity 2020: A strategy for England's wildlife and ecosystem services.

<sup>q</sup> Natural England (2020). Climate Change Adaptation Manual (NE751).



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foundations will be designed in accordance with relevant industry guidance, including but not limited to CIRIA Report C572: Treated ground engineering properties and performance<sup>r</sup>; British Research Establishment document FB75: Building on Fill - Geotechnical Aspects<sup>s</sup>; British Standard 6031:2009: Code of Practice for Earthworks<sup>t</sup>; and Building Regulations Approved Document A - Structure<sup>u</sup> which covers building structure, their loading, potential ground movement and the possibility of disproportionate collapse.

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**Site Security Measures**

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P42 The detailed design of the Proposed Scheme will be informed by ‘Secure by Design’ principles.

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P43 Sites will be kept secure during the construction stage to ensure that potential for crime and anti-social behaviour is minimised. Adoption of security measures including security lighting and on-Site security.

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P44 Buildings will include fire alarms.

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**Waste Strategy**

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P45 Provisions for waste storage facilities and access for refuse collection will be included within the detailed design of the Proposed Scheme as part of a future reserved matters application and delivered in accordance with the requirements of CDC.

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<sup>r</sup> CIRIA (2002). Report C572: Treated ground engineering properties and performance.

<sup>s</sup> British Research Establishment (2015). FB75: Building on Fill - Geotechnical Aspects. 3<sup>rd</sup> Edition.

<sup>t</sup> British Standard (2009). 6031:2009: Code of Practice for Earthworks.

<sup>u</sup> HM Government (2013). Approved Document A - Structure (2004 Edition incorporating 2004, 2010 and 2013 amendments).

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P46 It is assumed that an Operational Waste Management Plan will be prepared in line with the Controlled Waste (England and Wales) Regulations 2012<sup>v</sup> and local guidance and will include measures to reduce waste and increase recycling.

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<sup>v</sup> The Controlled Waste (England and Wales) Regulations 2012 No.811. Available at: <https://www.legislation.gov.uk/uksi/2012/811/contents/made> [Accessed 24/10/2022].

**Ref Tertiary Mitigation**

A Construction Environmental Management Plan (CEMP) will deliver a number of primary tertiary measures during the construction stage, as stated below

**General**

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- T1 Site securement will be achieved through a combination of secure fencing, barriers and hoarding, depending on the exact requirements and proximity to specific works. In addition, the principal contractor will be responsible for the provision of construction staff at key interfaces if appropriate.
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- T2 Either a central compound and/or a number of satellite compounds will be required for the contractor and appointed subcontractors. The exact location of the construction compound(s) is unknown at this time, but it will be within the Site. It is assumed that the principal contractor will identify the proposed compound locations within a Site Layout Plan as part of the CEMP.
- 
- T3 Construction will be phased to reduce the prominence of construction works on the local skyline (where possible).
- 
- T4 Site security arrangements during the construction stage will be in line with the requirements set out in the Construction (Design and Management) Regulations 2015<sup>w</sup>.
- 
- T5 The CEMP will include a suitable location for stockpiles.
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- T6 Construction working hours will be 08:00 to 17:00 Mondays to Friday; 08:00 to 12:30 on Saturday. There will be no construction on Sundays, Public and Bank Holidays. Exceptions may arise, for example, when abnormal loads are delivered / offloaded or to conduct specialist activities (e.g. service diversions) and appropriate permissions will be sought from CDC should these circumstances arise.
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**Traffic Management**

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- T7 A Construction Traffic Management Plan (CTMP) will be prepared by the principal contractor (when appointed) which will set out the proposed timing and routing of construction traffic and measures to enforce such routing (i.e. signage). The CTMP will include best practice measures where construction traffic is expected to be within proximity to pedestrian footways. The CTMP will be submitted as part of the CEMP to CDC for approval prior to any commencement on Site.
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<sup>w</sup> The Construction (Design and Management) Regulations 2015, Statutory Instrument 2015 No. 51.

**Ref Tertiary Mitigation**

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T8 Each construction working area will include clearly defined vehicular and pedestrian access to the construction working area, with separate entrances for each.

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**Air Quality and Dust Management**

T9 The CEMP will be informed by the Institute of Air Quality Management (IAQM) Guidance and would include prevention measures, such as screening stockpiles of materials, deployment of windbreak netting, dampening exposed soils and use of less polluting Non-Road Mobile Machinery as appropriate and set out requirements for ongoing monitoring and liaison with the local community, and CDC.

T12 Implementation of a Dust Management Plan (DMP) in line with Institute of Air Quality Management (IAQM) Guidance, including the measures set out below:

T13 Communications:

- Display the name and contact details of the person(s) accountable for air quality and dust issues on the Site boundary. This may be the environment manager / engineer or the site manager;
- Develop and implement a stakeholder communications plan that includes community engagement before work commences on-Site; and
- Display the head or regional office contact information. A contact number which will be operational 24/7 will be provided.

T14 Dust control measures:

- Measures to control emissions, approved by CDC (if required).

T15 Site management:

- Record all dust and air quality complaints, identify the cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken;
- Make the complaints log available to CDC when asked;
- Record any exceptional incidents that cause dust and / or air emissions, either on- or off-Site and the action taken to resolve the

Ref Tertiary Mitigation

A Construction Environmental Management Plan (CEMP) will deliver a number of primary tertiary measures during the construction stage, as stated below

situation in the log book; and

- Hold regular liaison meetings with other contactors from high risk construction sites within 500m of the Site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions in respect to transport / deliveries which might be using the same road network routes. As such, meetings will include a review of upcoming significant activities on the sites which would impact on the traffic management, with a view to reducing the effects to a minimum.

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T16 Monitoring:

- Undertake daily on / off-Site inspection, where receptors are nearby, to monitor dust, record inspection results, and make the log available to CDC when asked. This should include regular dust soiling check of surfaces such as street furniture, cars, windowsills within 100m of the Site boundary, with cleaning to be provided if necessary;
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to CDC when asked;
- Agree dust deposition, dust flux, or real-time PM<sub>10</sub> continuous monitoring locations with CDC; and
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on-Site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

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T17 Preparing and maintaining the Site:

- Plan layout so that machinery and dust causing activities are located away from receptors, as far as is possible;
  - Erect solid screens or barriers around dusty activities or the Site boundary that are at least as high as any stockpiles on-Site;
  - Fully enclose Site or specific operations where there is a high potential for dust production and the Site is active for an extensive period;
  - Avoid runoff of water or mud;
  - Keep fencing, barriers and scaffolding clean using wet methods;
  - Remove materials that have the potential to produce dust as soon as possible, unless being re-used on-Site. If they are being re-used
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**Ref Tertiary Mitigation**

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cover as described below; and

- Cover, seed or fence stockpiles to prevent wind whipping.

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**T18 Operating vehicles/machinery:**

- Ensure all vehicles switch off engines when stationary – no idling vehicles; and
- Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.

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**T19 Operations:**

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction (e.g. suitable local exhaust ventilation systems);
- Ensure an adequate water supply on the Site for effective dust / particulate matter suppression / mitigation, using non-potable water where possible and appropriate;
- Use enclosed chutes and conveyors and covered skips;
- Minimize drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate; and
- Ensure equipment is readily available on-Site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

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**T20 Waste management:**

- Avoid bonfires and burning of waste materials.

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**T21 Construction:**

- Avoid scabbling (roughening of concrete surfaces) if possible;
  - Ensure sand and other aggregates are stored in bonded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place;
  - Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission
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Ref **Tertiary Mitigation**

A Construction Environmental Management Plan (CEMP) will deliver a number of primary tertiary measures during the construction stage, as stated below

control systems to prevent the escape of material and overfilling during delivery; and

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

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T22 Trackout:

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the Site. This may require the sweeper being in continuous use;
- Avoid dry sweeping of large areas;
- Ensure vehicles entering and leaving the Site are covered to prevent the escape of materials during transport;
- Inspect on-Site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable;
- Record all inspections of haul routes and any subsequent action in a log book;
- Install hard surfaced routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned;
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the Site where reasonably practicable);
- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and exit onto public highway, wherever site size and layout permits;
- Access gates to be located at least 10m from receptors where possible;
- In order to manage emissions from Non-Road Mobile Machinery (NRMM), the appropriate emission standards from EU Regulation 2016/1628<sup>x</sup> will be incorporated into the CEMP; and
- Routing strategy to control road traffic emissions.

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<sup>x</sup> Official Journal of the EU (2016) Regulation (EU) 2016/1628 of the European Parliament and of the Council. Available: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016R1628>. [Accessed: 09/02/2023].

Ref **Tertiary Mitigation**

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**Noise Management**

- 
- T23 Best Practical Means (BPM) will be adopted, as defined in the Control of Pollution Act (CoPA)<sup>y</sup>, along with practical advice received from CDC.
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- T24 Any compressors brought on to the Site will be silenced or sound reduced models will be fitted with acoustic enclosures.
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- T25 All pneumatic tools will be fitted with silencers or mufflers.
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- T26 Care will be taken when erecting or striking scaffolds to avoid impact noise from banging steel. All operatives undertaking such activities will be instructed on the importance of handling the scaffolds to reduce noise to a minimum.
- 
- T27 Care will be taken when unloading vehicles to minimise noise. Delivery vehicles will be routed so as to minimise disturbance to local residents. Delivery vehicles will be prohibited from waiting within or in the vicinity of the Site with their engines running.
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- T28 All plant items will be properly maintained and operated according to manufacturers' recommendations in such a manner as to avoid causing excessive noise. All plant will be sited so that the noise impact at nearby noise sensitive properties is minimised.
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- T29 Piling and compaction plant and practices (if require) will be selected to ensure that vibration levels are at the lower end of the ranges.
- 
- T30 Compaction plant will not be started up in proximity to receptor locations (residential properties). Any steady state compaction work that is necessary close to receptors will be of the minimum necessary duration such that any adverse impacts will be kept to a minimum.
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- T31 Particularly noisy activities, or activities taking place close to receptors (residential properties) (commensurate with the worst-case conditions assessed) will be screened by local hoarding as necessary.
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**Habitat Management**

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- T32 Any vegetation clearance is recommended to take place between September – February, outside of the peak nesting period. Any
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<sup>y</sup> Control of Pollution Act 1974.



Ref Tertiary Mitigation

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vegetation clearance that takes place between March – August should have a check for the presence of nesting birds completed no more than 48 hours prior to the vegetation being removed by a suitably qualified ecologist.

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**Water and Utility Management**

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T33 A temporary drainage strategy will be implemented, which will reduce the risk of mobilisation of contamination into nearby ditches/watercourses and underlying groundwater in the proximity of the Site via overland flow / run-off during construction.

T34 Appropriate construction stage drainage strategies, using either existing, temporary or permanent drainage infrastructure and take account of industry best practice and guidance (e.g. British Standard 8582:2013<sup>z</sup>) will be implemented.

T35 Guidance will be adhered to, such as CIRIA's Control of Water Pollution from Construction Sites<sup>aa</sup> and Guidelines for Pollution Prevention (GPP) 2: above ground oil storage tanks<sup>bb</sup> and GPP 5: Works and maintenance in or near water<sup>cc</sup> (albeit these have been withdrawn). Measures include: Washing down or equipment cleaning associated with concrete or cementing processes and provision of facilities to remove sediment prior to disposal; Use of sediment traps on surface water drains; The safe storage of materials and fuels and oils; Wheel washing facilities; Screening stockpiles and materials; Use of impermeable materials to prevent ingress into the ground; Provision of treatment facilities for runoff from construction areas; Provision of treatment facilities to runoff from construction areas; and Regular sweeping to remove loose sediments.

T36 Abstraction and discharge licences (if required) will be sought from the Environment Agency under the terms of The Water Abstraction and Impounding (Exemptions) Regulations.

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<sup>z</sup> British Standard Institution (2013) British Standard 8582:2013 – Code of practice for surface water management for development sites.

<sup>aa</sup> CIRIA (2001) Control of Water Pollution from Construction Sites. Guidance for consultants and contractors (C532).

<sup>bb</sup> <https://www.netregs.org.uk/media/1475/gpp-2-pdf-jan-2018.pdf>.

<sup>cc</sup> <https://www.netregs.org.uk/media/1303/gpp-5-works-and-maintenance-in-or-near-water.pdf>.

Ref Tertiary Mitigation

A Construction Environmental Management Plan (CEMP) will deliver a number of primary tertiary measures during the construction stage, as stated below

T37 Adherence to CIRIA's Groundwater control – design and practice<sup>dd</sup>.

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**Contamination and Waste Management**

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T38 Measures to protect construction workers from exposure to any contaminated material which is unexpectedly encountered will be required of the appointed contractor under the Construction (Design and Management) Regulations and other health and safety legislation.

T39 Use of Personal Protective Equipment (PPE), the preparation of method statements and provision of environmental awareness training

T40 The potential risks from ground gases are to be dealt with by the appointed contractor in accordance with health and safety legislation, including the Confined Space Regulations<sup>ee</sup>. monitoring equipment, safe-entry procedures and use of Respiratory Protective Equipment (RPE) where required, to mitigate the potential risk of exposure to hazardous gas and vapours and / or depleted oxygen levels.

T41 A Waste Management Plan will be prepared. This will include the waste provisions of the Environmental Protection Act 1990<sup>ff</sup> and the Environmental Protection (Duty of Care) Regulations 1991<sup>gg</sup>, which will be adhered to and the principles and legal requirements relating to waste (including hazardous waste) will be set out. A description of how materials will be managed efficiently and disposed of legally during all sub-phases of construction will be included. It will also outline the aims, objectives and ongoing management responsibilities as well as containing targets for the reduction / diversion from landfill and reuse of waste.

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<sup>dd</sup> CIRIA (2016) Groundwater control - design and practice (C750).

<sup>ee</sup> Confined Space Regulations (1997) No. 1713.

<sup>ff</sup> Environmental Protection Act 1990.

<sup>gg</sup> Environmental Protection (Duty of Care) Regulations 1991.

**Ref Tertiary Mitigation**

A Construction Environmental Management Plan (CEMP) will deliver a number of primary tertiary measures during the construction stage, as stated below

T42 Where it is necessary to transport waste to and from the Site, this will be completed in compliance with the Waste (England and Wales) Regulations 2011 (as amended)<sup>hh</sup> including: transporting waste via registered carriers, disposal to appropriately licensed sites and maintenance of appropriate waste transfer documentation.

T43 The disposal of all waste or other materials removed from the Site will be undertaken in accordance with applicable legal requirements.

T44 An appropriate person will be responsible for on-Site waste management practises and will be agreed with CDC in advance of works commencing.

T45 Measures will be detailed to reduce resource use.

**Climate Change Resilience**

T46 Provision of shaded refuges and drinking water supplies will be provided for all construction workers to avoid the health and safety risks associated with increasing summer temperatures.

T47 Water supplies will be monitored, and water reduction targets set to manage the risk of reduced water supplied during periods of low rainfall.

<sup>hh</sup> Waste (England and Wales) Regulations 2011 (as amended).

Ref **Secondary Mitigation**

A summary of the measures identified in **Volume 1, Chapter 6: Built Heritage and Archaeology** is provided below.

**Archaeology**

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- S1 Targeted areas of archaeological excavation will be undertaken at two discrete areas of archaeological interest identified by the Archaeological Evaluation Report (**Volume 2, Appendix 6.3**) which comprise late Iron Age enclosures.
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- S2 These works will be carried out under Written Schemes of Investigation (WSIs) (to be secured by condition) that conform to recognised standards and guidance and which will be prepared in consultation with and approved by the OCC Archaeologist. The measures will mitigate the effects of the Proposed Scheme by preserving the remains through record and will be set out in a WSI to be agreed with the OCC Archaeologist and secured through a Condition.
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