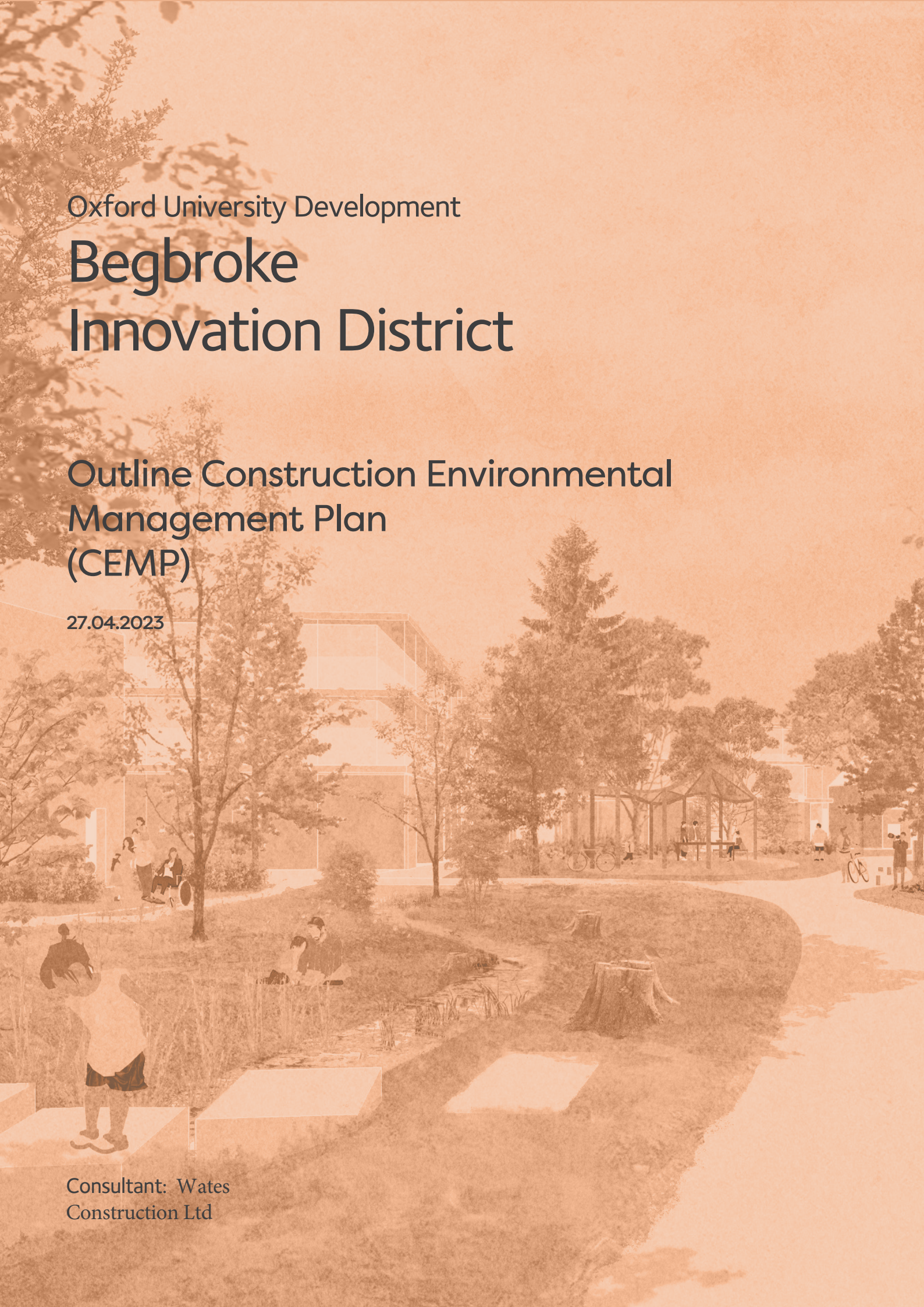
Oxford University Development

Begbroke Innovation District

Outline Construction Environmental Management Plan (CEMP)

27.04.2023



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1. Introduction

1.1. The aim of this Outline Construction Environmental Management Plan (CEMP) is to set out the responsibilities and requirements with regard to legal and regulatory compliance and the implementation of Environmental Management Systems and Mitigation measures.

1.2. This Outline CEMP details procedures and plans for the avoidance, minimisation and mitigation of potential environmental impacts as a result of the construction phase of works in accordance with the mitigation hierarchy. This provides a framework for the production of detailed CEMP, as detailed design and commencement of construction works progresses on the Site.

1.3. These plans constitute a framework of measures, targets and monitoring strategies for the environmental management of the project's construction phase.

1.4. All of these plans and procedures are bespoke to the project and exist within a dynamic system of management which will be reviewed and edited throughout the progression of the project.

1.5. The document has been developed with the aim of managing environmental impact arising from construction activities in accordance with the mitigation hierarchy. As such, it should be regarded as a guidance document subject to change and review as environmental risks and potential impacts change during project progression.

1.6. For the purposes of this Outline CEMP the definition of "Working Area" was defined as "any area that will require either temporary or permanent works to facilitate the progression of the development's construction phase." This includes areas required for access, temporary construction works and temporary storage areas.

2. Regulatory Framework and Planning Conditions

2.1. The Outline CEMP is required to encompass environmental controls when required with due consideration to relevant environmental legislation and local authority requirements.

2.2. The Outline CEMP sets out the contractor's approach to environmental management throughout the construction phases with the primary aim of reducing any adverse impacts from construction on local sensitive receptors and managing the sustainability impacts of the project's development.

2.3. An Environmental Consents Checklist will be produced and used to determine the necessary permits, licences and consents required to comply with regulatory requirements and also note any exemptions applicable.

2.4. This Outline CEMP has been produced in support of the submission of an outline planning application for the Begbroke Innovation District.

3. Site Location & Project Description

3.1. The Site allocation is shown in the Cherwell Local Plan 2011 – 2031 (Part 1) Partial Review[1], under Policy PR8. This allocation is a 190-hectare Site located approximately five miles north of the centre of Oxford, between the villages of Begbroke, Yarnton and Kidlington, however the Site extent comprises 170ha of this area.

3.2. Primary access to the Site is from the A44 (Woodstock Road) which lies immediately to the west along Begbroke Hill Road. Access can also be gained from Sandy Lane (which bisects the Site roughly east west) and from Yarnton Lane to the east of the Oxford to Banbury railway line which runs through the Site. To the north, the Site is bounded by Rowel Brook and Rushy Meadows Site of Special Scientific Interest (SSSI). The Oxford Canal forms the easternmost Site boundary. The southern boundary is bound by Flit Solar Farm and agricultural land.

3.3. Two main roads provide direct connections to the city centre, the A44 running along Yarnton provides direct access to Oxford providing a main point of vehicular access to the west of the Site. The A4260 running through Kidlington is another direct route through to Oxford providing direct access to the East of the Site. Other relevant sections of strategic road network in this area are the A40 which links the Site with Osney Mead or Headington to the west and east of Oxford and the A34 which provides the link between the A40 & M40.

3.4. Sandy Lane crosses the Site at an approximate west-east alignment, joining the A44 (Woodstock Road) to the west of the Site and Yarnton Road to the east of the Site. To the south of Sandy Lane are two residential properties, 86 and 88 Sandy Lane, which lie outwith the Site boundary. Two additional residential properties – Crossing Cottage and The Caravan – are located to the east and west of the Sandy Lane crossing respectively, also outwith the Site boundary.

3.5. The University of Oxford's Begbroke Science Park, which comprises a number of laboratories, engineering facilities and administrative buildings and a Grade II listed Jacobean farmhouse, lies roughly central in the northern part of the Site. Other than the existing Science Park, the predominant land use is agriculture. A section of the agricultural land in the southeast of the Site is currently used as a poultry and deer farm. The Cherwell Valley Railway also passes through middle of Site.

3.6. A historic landfill Site, known as Sandy Lane East, is located south of Sandy Lane in the centre of the Site, approximately 250m south of Begbroke Science Park. The historic landfill Site is approximately 5.2ha in area. The landfill historically received inert and industrial waste from unrecorded sources over an unspecified timeframe. Site investigation work indicates that the landfill is predominantly comprised of brown gravelly sand (predominantly ash) and other man-made materials.

3.7. A circa 1 ha area of allotments is located within the Site, adjacent to the south of the Site access junction off the A44 with Begbroke Hill.

3.8. The topography of the Site slopes moderately from northwest to southeast, towards the Oxford Canal. The highest elevation at 69m Above Ordnance Datum (AOD) is within the Begbroke Science Park. The surrounding land falls away in all directions towards low points at Rowel Brook, Hallam

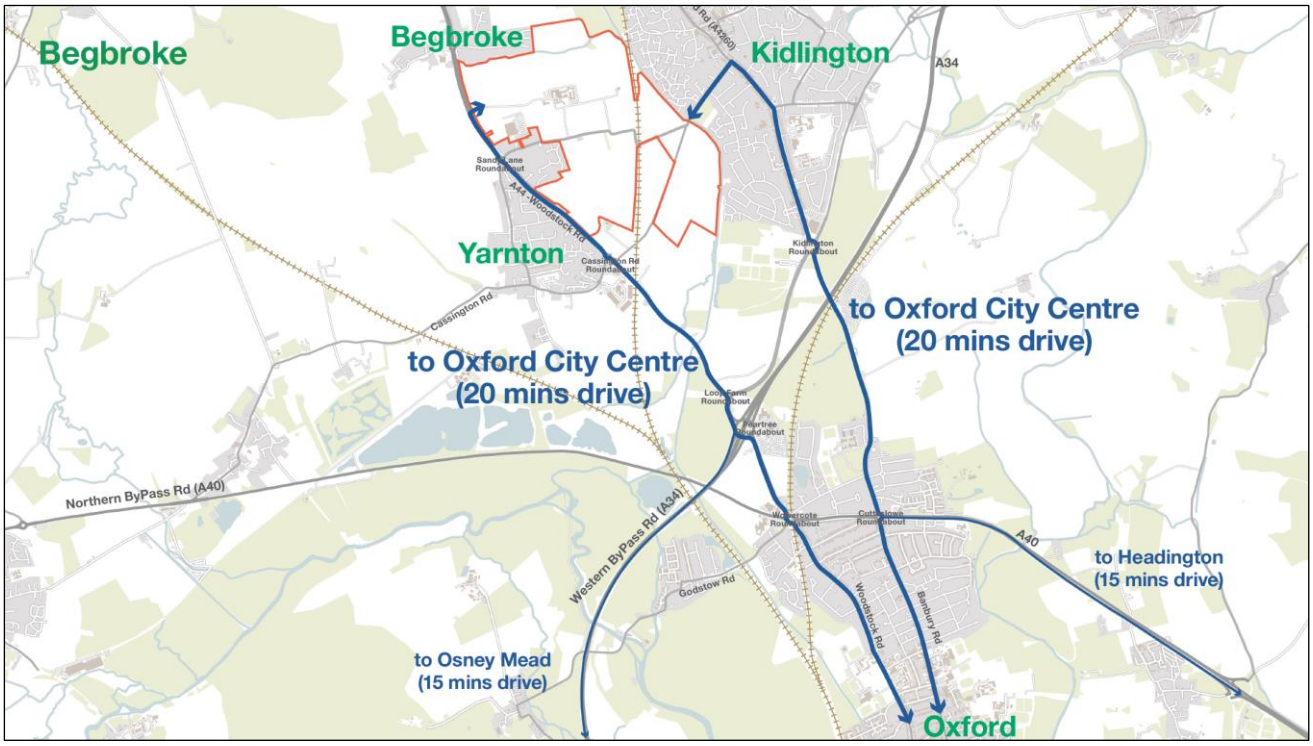
[1] Cherwell District Council, 2020. Cherwell Local Plan 2011 – 2031 (Part 1) Partial Review. September 2020

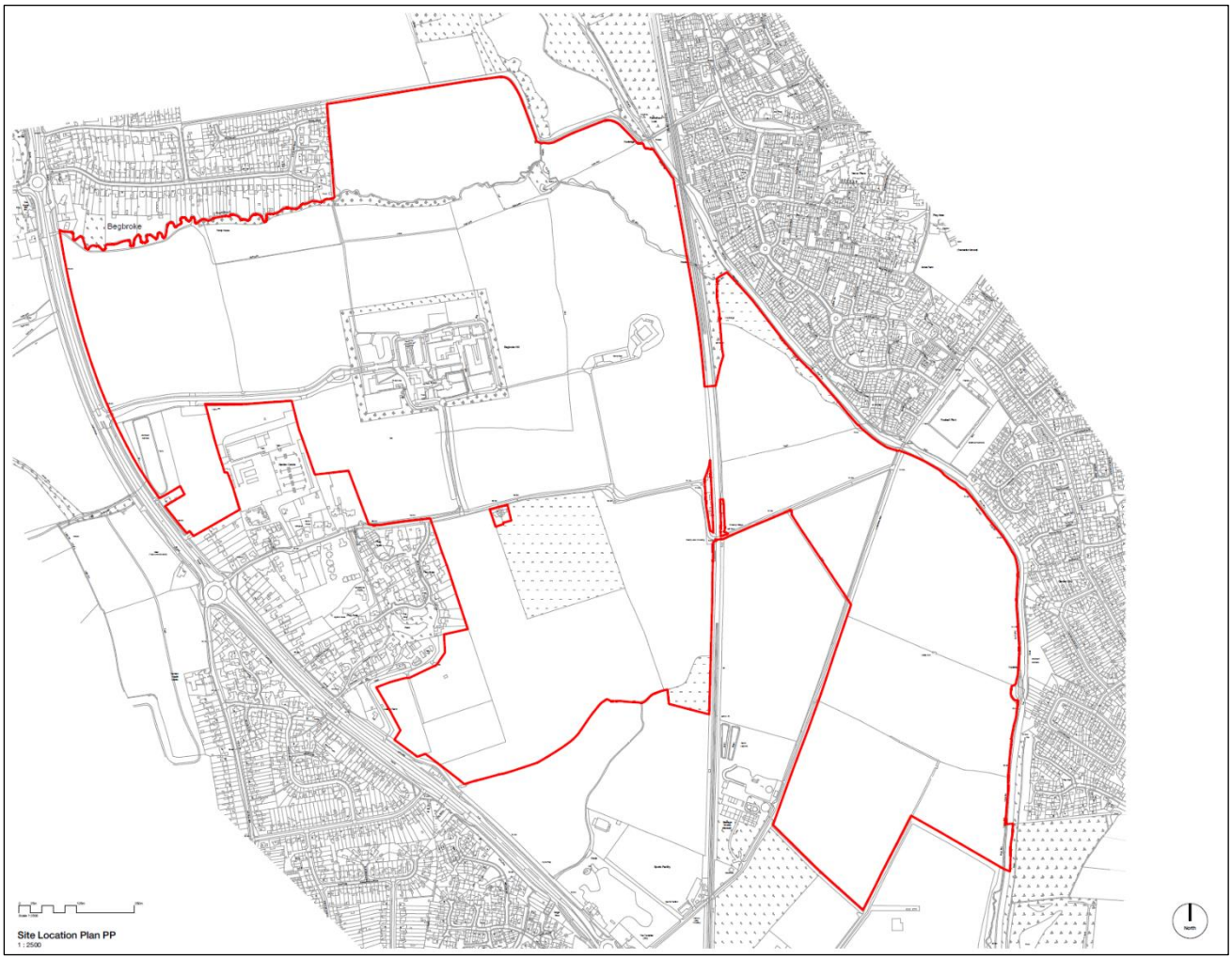
Land and the Network Rail boundary, dipping to 60.5m in the southeast of the Site towards the Oxford Canal.

3.9. The proposed development would provide up to 155,000sqm of new faculty, research and development space associated with the expansion of the existing Begbroke Science Park, up to 215,000sqm (TBC) of residential floorspace that would deliver apartments, communal and shared accommodation, traditional houses and associated amenity, education and community uses.

3.10. The Description of Development is as follows - Outline application, with all matters reserved, for a comprehensive residential-led mixed use development comprising:

- Up to 215,000sqm (TBC) gross external area of residential floorspace within Use Class C3/C4 and large houses of multiple occupation (Sui Generis);
- Supporting social infrastructure including secondary school/primary school(s) (Use Class F1); health, indoor sport and recreation, emergency and nursery facilities (Class E(d)-(f))
- Supporting retail, leisure and community uses, including retail (Class E(a)), cafes and restaurants (Class E(b)), commercial and professional services (Class E(c)), local community uses (Class F2), and other local centre uses within a Sui Generis use including public houses, bars and drinking establishments (including with expanded food provision), hot food takeaways, venues for live music performance, theatre, and cinema.
- Up to 155,000 square metres gross external area of flexible employment uses including research and development, office and workspace and associated uses (Use E(g)), industrial (Use Class B2) and storage (Use Class B8) in connection with the expansion of Begbroke Science Park;
- Highway works, including new vehicular, cyclist and pedestrian roads and paths, improvements to the existing Sandy Lane and Begbroke Hill road, a bridge over the Oxford Canal, safeguarded land for a rail halt, and car and cycle parking with associated electric vehicle charging infrastructure;
- Landscape and public realm, including areas for sustainable urban drainage systems, allotments, biodiversity areas, outdoor play and sports facilities (Use Class F2(c));
- Utility, energy, water, and wastewater facilities and infrastructure;
- Together with enabling and associated works, including temporary meanwhile uses.


Begbroke
Begbroke
Kidlington
A34
Yarnton
Cassington Rd
to Oxford City Centre
(20 mins drive)
to Oxford City Centre
(20 mins drive)
Northern ByPass Rd (A40)
Western ByPass Rd (A34)
Godstow Rd
A40
to Headington
(15 mins drive)
to Osney Mead
(15 mins drive)
Oxford


Begbroke
Site Location Plan PP
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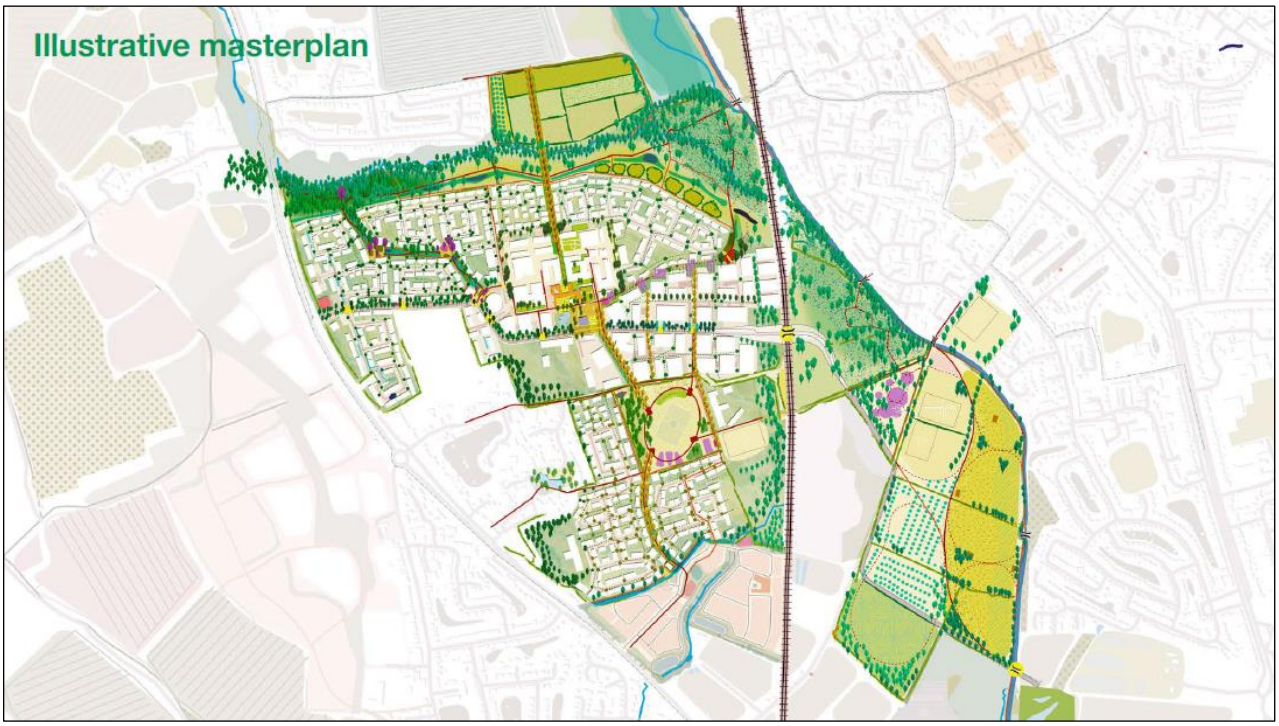


4. Construction Programme

4.1. The detailed Construction Programme will be made available for review in the Site office.

4.2. The timeline and key milestones for the construction works is as set out below:

- Work commencing on Site in 2025;
- First residential occupation at the Site in 2026;
- Peak of construction activity year in 2028; and
- Completion in 2033.

4.3. We anticipate Site working hours to be:

- 08:00 – 18:00 hours Monday to Friday
- 08:00 – 13:00 hours Saturday
- No planned working on Sundays or Bank Holidays

In order to maintain these working hours, contractor(s) will require a period of 30 minutes before and at the end of the working shift (times stated above) to start up and close-down the works activities.

All noisy works will be carried out within the acceptable hours noted by Cherwell District Council as below:

- Monday to Friday - 7:30am to 6:00pm
- Saturday - 8:00am to 12:30pm
- Sunday - No noisy work
- Public and Bank Holidays - No noisy work

All works will be undertaken within the agreed hours stated, unless in the event of unforeseen or exceptional circumstances arising, such as:

- Health and safety issues which require continuation of the works.
- Works being carried out within the existing building envelope.
- Completion of operations that would otherwise cause greater interference to the environment or members of the public if not completed.
- Completion of concrete pours due to unforeseen overruns such as batching plant delays or traffic delays.
- Delivery of abnormal loads i.e., large police advised loads requiring specific transport notification.
- Operations that need to be undertaken outside of standard working hours which include tower crane erection and removal will be agreed in advance with Highway Authority.

4.4. During the construction period it may be necessary in exceptional circumstances to work outside the prescribed hours. Should this occur, the duration of works will be subject to consultation with Cherwell District Council and Oxford County Council Highways.

4.5. During construction, vehicles will access and egress the Site from the west via the A44 ('Woodstock Road') and Begbroke Hill. To reduce the construction impact on the development and surrounding areas an additional temporary access route has been proposed further south off the A44. The existing Begbroke Hill Road will be used to provide access for the initial Phases of work and construction of the main spine road to the south of the Site.

4.6. All construction activities will be carried out with due regard to the identified items in the Constraints Plans noted in Appendix C.

5. Roles & Responsibilities

5.1. The Project Manager is responsible for:

- Ensuring that the CEMP is developed & held on Site and that it is implemented throughout all phases of the project. Ensuring the CEMP details are updated as and when relevant information is provided by the stakeholders associated with each section of the CEMP; e.g. further consent conditions, pre-construction surveys, etc.
- Maintaining the CEMP and ensuring that all contractors and visitors comply with it.
- Ensuring that environmental issues identified within the Pre-Construction Information and the pre-construction Site surveys and relevant information gathered from agencies, local councils etc are addressed.
- Producing environmental project specific controls for all significant risks identified and implementing control measures to minimise the risk of damage to the environment.
- Communicating the CEMP and other related document to employees, contractors and client representatives.
- Ensure the Site and all stored materials and chemicals are safe and secure.
- The Site is kept in a tidy manner
- Main Contractor signage indicating where and whom visitors should report to are clearly displayed, the Site is kept in a tidy and orderly fashion. Waste will be managed in conjunction with the Main Contractor procedure.

- Controlled access arrangements as so those entering Site may avoid hazards.
- Emergency egress arrangement so those leaving Site in the event of a pollution or spillage incident may do so safely.
- There are First Aid Facilities and appropriately trained First Aid staffs, spill kits are available and appropriately trained staff.

Ensure all those that work on Site:

- Have Main Contractor Site Induction including briefing on environmental issues pertinent to the project and relevant toolbox talks.
- Understand and obey the Site Rules.
- Are made aware of the Emergency egress arrangements, Muster points, First Aid facilities and First Aiders, spill and clean up procedures.
- Read and understand the Site hazard board.
- Have current certification for activities as required.
- Are aware of all environmental matters which arise on Site.

Ensure the activities on Site:

- When necessary are carried out under Client Operational Safety Rules.
- Have task specific risk assessments and method statements (RAMS) in place identifying any environmental issue which may be applicable.
- Are carried out in accordance with the requirements of any associated RAMS.

5.2. Contractors and visitors to the project will be responsible for:

- Ensuring that the control measures identified from environmental surveys are implemented as they are relevant to their work / visit.
- Ensuring that the project management team are notified of any nonconformance of control measures or environmental incident where the environment has been put at risk.
- Reporting relevant details and providing evidence pertaining to environmental aspects within which their operations are influential, as necessary or requested by the Principal Contractor.

5.3. The Site Safety, Health & Environment Advisor (SHE Advisor) is responsible for:

5.3.1. Ensuring work is carried out:

- In a safe manner.
- In accordance with any manufacturers' instructions etc., good standards of workmanship.
- Ensure Site staff are working in accordance with agreed Risk Assessments and Method Statements (RAMS) particularly where activities have the potential to cause environmental harm.
- Health and safety advisor to complete the Site waste management plan and ensure it is followed.
- Ensuring that the CEMP is implemented throughout all phases of the project.

5.3.2. Monitoring SHE issues by:

- Carrying out regular checks on Site to ensure the Site is secure and tidy.
- Monthly audits.

- Consulting workers on the effectiveness of measures to reduce risk to the environmental, reviewing and improving conditions or methods/procedures where appropriate.
- Keeping records of and reporting any incidents and close calls (near misses).

5.4. The Environmental Manager shall be responsible for:

5.4.1. Ensuring that the CEMP is developed & held on Site and that it is implemented throughout all phases of the project. Ensuring the CEMP details are updated as and when relevant information is provided by the stakeholders associated with each section of the CEMP; e.g. further consent conditions, pre-construction surveys, etc.

5.4.2. Maintaining the CEMP and ensuring that all contractors and visitors comply with it.

5.4.3. Ensuring that work is carried out:

- In accordance with legislation & consents, objectives, targets and the Construction Environmental Management Plan with regards to any environmental activities on Site.
- Ensure Site staff operates in accordance with agreed Risk Assessments and Method Statement (RAMS) and in accordance with the Main Contractor induction and toolbox talk training with regards to environmental risk.

5.4.4. Monitor/Report Environmental Issues by:

- Carrying out weekly checks and “toolbox talks” carried out and recorded as necessary
- Carrying out Monthly Audits of Environmental Data and Statistics
- Ensuring compliance with Environmental legislation & consents, objectives, targets, and the Construction Environmental Management Plan.
- Carrying out Inspections, Audits and Non – conformance reports.
- Responsible for delivering environmental training.
- Environmental Advisor to liaise with Health and Safety advisor to complete the Site waste management plan and ensure it is followed.
- Environmental performance data reporting.
- Ensure work is carried out in accordance with the Environmental Statement.
- Compliance with environmental legislation, consents, objectives, targets and other environmental commitments.

6. Information for Contractors and Visitors

6.1. All contractors and visitors to the Site will be made aware of the Environmental Policy and the controls applicable to their presence and activities on Site including but not limited to:

- Method Statements
- Risk Assessments
- Site inductions containing environmental briefings
- Toolbox Talks

6.2. The Project Manager will be responsible for monitoring communications between all relevant parties to the project ensuring that all environmental matters to the project are discussed and managed and observation of the communications will be documented in the weekly Site meetings and sent by e-mail. In addition, a copy of all correspondence will be held in this file.

6.3. Relevant Site layout and locations plans / CDM drawing detailing the location and construction of the Site compound, storage locations and car parking are to be displayed on an information board at the Site entrance.

7.0 Sustainability Strategy

7.1 Environmental considerations are assessed in the Sustainability Strategy Report as a part of the planning submission which contains a Sustainability Implementation Plan. A tracker schedule will be implemented to monitor compliance during the Construction Phase.

8.0 Construction Site Waste

8.1 Waste has been identified as a key area of environmental risk within the construction industry and a Site Waste Management Plan (SWMP) will be developed by the Main contractor in accordance with OUD sustainability strategy, confirming measures being undertaken to manage and reduce waste generated during the construction phase.

8.2 Quantities of general construction and demolition wastes are made up of waste such as soils & stone, wood, glass, packaging, metals, plastics, concrete, bricks, blocks, canteen waste, hazardous waste (e.g. oils, paints and adhesives), Site clearance and residual waste which are generated during the construction phase.

8.3 Asbestos containing materials (ACM) may be present in the structures to be demolished. This will be confirmed following detailed R&D surveys. If asbestos is found, the relevant authorities will be notified, and asbestos removed and disposed of by licenced contractors.

8.4 The Waste Hierarchy which should be implemented on Site is as follows:

- Prevention/Reduction
- Re-use - Products and material can sometimes be used again, for the same or a different purpose.
- Recycling and composting - Resources can often be recovered from waste.
- Energy recovery - Value can also be recovered by generating energy from waste.
- Disposal - Only if none of the above options offer an appropriate solution should waste be disposed of.

8.5 Waste on Site will be managed by licensed subcontractors and carrier companies aiming to segregate waste streams wherever possible and ensure secure storage wherever possible.

8.6 Where practicable waste will be segregated on Site. An external consolidation centre will be in use for improved management and segregation of waste.

8.7 Reviews will be carried out at regular intervals across the project in order to optimise waste management and design out waste from the project's operations wherever possible.

8.8 Good site practice is to be implemented with perimeter fences and tight control of materials and waste to minimise the risk of debris entering water bodies.

8.9 A Materials Management Plan (MMP) will be implemented through the CEMP(s) to coordinate reuse of material reduces deliveries to the Site and the amount of waste for disposal.

9.0 Ecology

9.1 All construction works on Site will be carried out with due consideration to the recommendations and mitigation measures set out in Section 13.5 of the Environmental Statement (ES), Volume I, July 2022, Chapter 13: Ecology.

9.2 The main habitats present at the Site are arable land, poor semi-improved grassland, semi-improved woodland, hedgerows, streams, and ditches. Six ponds are present within the Site, as are numerous mature trees, and there are small areas of good semi-improved grassland, scrub, tall ruderal vegetation, amenity grassland, plantation woodland, and hardstanding. Buildings are present at Begbroke Science Park in the centre-north of the Site and at Parker's Farm in the north-east of the Site. Of these habitats, the woodland and hedgerows, and one of the ponds are classified as Habitats of Principal Importance in England. Of the 54 hedgerows present at the Site, 38 hedgerows are species-rich, and 31 are considered Important under wildlife and landscape criteria of the Hedgerow Regulations 1997.

9.3 A range of notable animal species were also identified within and along the Site boundaries as noted in the Baseline Ecology Report. The results of surveys indicate that the Site supports the following protected species: badgers (including setts), bats (roosting, foraging, and commuting), birds (ground and scrub/tree nesting), great crested newts, and reptiles (slow-worms, common lizards, and grass snakes). The following further Species of Principal Importance are present: common toad, brown hare, brown hairstreak butterfly, and several bird species. Refer to Baseline ecology Report 2022 which provides further details of extents and locations relative to the Site.

9.4 The important flora and fauna features on the development Site and details of ecological impacts from the construction works are noted in Table 10: Construction Stage Impacts on Important Features of the Environmental Statement (ES), Chapter 13: Ecology. As a part of the construction process an Ecology Management Plan and schedule will be developed, taking into account the ecological features noted, and mitigation measures put in place to prevent an ecological incident from occurring. Proposed actions will be put forward and agreed with Cherwell District Council Ecology Officer & Client's Ecologist.

9.5 Existing hedges and trees located within Site supports local wildlife, including roosting bats. Hedges/Trees located within the construction zones which are to be retained, will be suitably protected with barriers and warning signage affixed. If works are required to be carried out with the tree protection zones, then the arboriculturist will be contacted and an agreed methodology agreed and implemented. Protection measures (e.g., fencing) for retained ponds, grassland, watercourses, other retained habitats and the adjacent SSSI will also be employed during clearance and construction.

9.6 Any tree/hedgerow clearance works should be planned outside of the main bird breeding season from March-August. All birds, their nests and eggs are protected by the Wildlife and Countryside Act (1981) under which it is an offence to intentionally kill, injure, disturb or take any wild bird. This

legislation and its requirements will be highlighted at staff inductions, toolbox talks and signed by all contractors, operators and sub-contractors. Any tree/hedge works required during the season; additional advice should be sought from the Ecologist.

9.7 Protection measures for reptiles (such as slow worm), amphibians (such as common toad) and brown hare will be employed during vegetation clearance and initial digging works. This would involve two-stage cutting of vegetation and/or destructive searches by a suitably experienced ecologist, with any captured animals being move to suitable retained or new habitats at the Site.

9.8 Main Ecological receptors on Site are as noted below:

Oxford Canal	The Oxford Canal flows from north to south to the east of the Site and is part of the Lower Cherwell Valley Conservation Target Area. The Oxford Canal is part of a larger river network and it forms an important continuous green blue connection corridor for many wildlife Sites.
Rowel Brook	The toponym "Begbroke" is Old English for "Little Brook". This refers to Rowel Brook which runs through the village and was the reason for its early settlement. Rowel Brook is a tributary of the River Cherwell. Rowel Brook traverses the Site at the northern boundary.
Rushy Meadows Site of Special Scientific Interest (SSSI)	Rushy Meadows are a group of privately owned wet meadows just West of the Oxford Canal in Kidlington. The meadows support a rich diversity of grassland flora and flora, largely because they have not been tampered with through use of ploughing, reseeding, fertilizers or herbicides. Rushy Meadows also provide an important breeding site and habitat for the endangered British water vole.
Historic Hedgerows	The site contains four historic hedgerows marking the historic parish boundaries between Yarnton and Kidlington, Yarnton and Begbroke, and Dovercote, Begbroke and Yarnton.

9.9 Protection measures are to be put in place for any work in fields adjacent to Rushy Meadows SSSI, to prevent accidental incursion into, or other damage to, the SSSI during construction.

10.0 Air Quality

10.1 The application of dust control measures included in the IAQM Guidance on the assessment of dust from demolition and construction (Holman et al (2014).) will be implemented in agreement with the local authority air quality/pollution control officer or Environmental Health Officer.

10.2 Potential dust emissions from the Site may be generated from activities associated with:

- Vehicle movements in and out of the Site and around the Site;
- Handling, movement and tipping of waste;
- Wind blowing across soil stockpiles.

Dust production may increase during periods of strong winds or dry weather.

10.3 Staff will be trained in the control of dust and will ensure the Site is monitored for levels of surface dust. Dust monitoring will be implemented along the build phase boundaries of Site to ensure that dust particles in the air are kept to safe and acceptable levels throughout the build phases. Acceptable thresholds will be agreed with Local Authority.

10.4 The recommended construction dust mitigation measures are detailed in the air quality ES chapter supporting the application, and include the following measures to mitigate for the impact of dust and fumes:

- Record any exceptional incidents that cause dust and/or air emissions, either on- or offSite, and the action taken to resolve the situation in the Aspects & Impacts register.
- The access road into and out of the Site will be monitored for excessive dust build up. The haul roads and access roads will be dampened and swept to suppress the creation of air borne dust.
- Bonfires and burning of waste materials will be strictly prohibited.
- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- 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.
- Use enclosed chutes, conveyors and covered skips (as deemed necessary).
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Plan Site 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.
- Ensure soil stockpiles are dampened down, sealed and/ or seeded to prevent dust becoming airborne or soil erosion occurring and potentially entering sensitive receptors.

11.0 Heritage

11.1 The Site both contains and is located close to a number of heritage assets, all of which are to be protected from accidental damage/disturbance during the construction process.

11.2 The following heritage, natural and environmental assets are the identified within or adjoining the proposed development:

Heritage assets	Description
Oxford Canal	The Oxford Canal is a conservation area which contains several listed buildings. The Oxford Canal flows from north to south to the east of the Site and is part of the Lower Cherwell Valley Conservation Target Area. The Oxford Canal is part of a larger river network and it forms an important continuous green blue connection corridor for many wildlife Sites.
Begbroke Hill Farmhouse	Grade II Listed three storey building located within the Begbroke Science Park.
Cherwell Valley Railway	The Cherwell Valley line is the railway line between Didcot and Banbury via Oxford. It links the Great Western Main Line and the south to the Chiltern Main Line and the Midlands. The line follows the River Cherwell for much of its route between Banbury and Oxford. There are several buildings identified as non-designated heritage assets alongside the railway. These include Crossing Cottage, a 19th century dwelling at the

	Yarnton Lane/Kidlington Lane railway crossing, and Yarnton Crossing Cottage, a similar dwelling located on Green Lane.
Yarnton Bridge	Grade II listed bridge (Bridge No. 228) spanning the Oxford Canal. One of a few listed bridges along the Oxford Canal.
Bullers Bridge	Grade II listed bridge (Bridge No. 227) spanning the Oxford Canal. One of a few listed bridges along the Oxford Canal.
Kidlington Green Lock	Grade II listed lock (No. 43) is a minor waterways place on the Oxford Canal (Southern Section - Main Line) between Wolvercote Junction (Junction of Duke's Cut with Oxford Canal) and is a Grade II listed building.
Roundham Lock	Grade II listed lock dating to the mid-19th century. It is situated on a minor waterway on the Oxford Canal between Yarnton Lane Bridge (No.228) and Sparrowgap Bridge (No. 223).
Ivy House	A non-designated but historic 2-storey building, built in 1842. This is situated on the corner of Gravel Pits Lane and Woodstock Road.
Sandy Lane Cottages	A pair of non-designated semi-detached houses on the southern side of Sandy Lane, dated to 1883.
Tudor Cottage	Two Grade II listed cottages, now house located I Yarnton. Mid/late C17 with mid C18 extension to right. Colourwashed coursed limestone rubble; gabled thatch roof; brick end stacks.
Historic Hedgerows	The site contains four historic hedgerows marking the historic parish boundaries between Yarnton and Kidlington, Yarnton and Begbroke, and Dovercote, Begbroke and Yarnton.

11.3 Awareness of their presence, carrying out condition surveys, putting appropriate protection measures in place (where the construction works may impact) will be part of the Construction Phase plan for the development, and agreed with the local authority and Oxford Archaeology.

11.4 Any construction compounds, haul roads, access roads etc. should be located within the previously evaluated area. If this is not possible, archaeological evaluation would need to be carried out prior to their construction to prevent accidental damage to archaeological deposits.

12.0 Water Consumption

12.1 Effective construction management can deliver major savings in water use and the associated costs of energy, water supply and wastewater treatment. This can be achieved without compromising the performance and user acceptability of the project.

12.2 Water reduction methods will be identified, considered, and implemented where appropriate across the project. The project should where appropriate, utilise the following examples of best practice or equivalent:

- Ensure all areas of Site water consumption are quantified.
- Consider splitting welfare and “Site-based” water consumption.
- Water consumption will be monitored monthly and reported against to track resource efficiency.
- Reduce the risk of uncontrolled water use: e.g. sensor-actuated devices (such as infra-red actuated taps and occupancy sensors).
- Minimise the risk of leakage: Checks will be made across the project for leaks and other wastages of water to prevent unnecessary wastage of resources

- Use of recycling water systems such as wheel washes, site toilet flushing and where feasible, the use of rainwater harvesting system for use in equipment and vehicle washing.
- Selection and specification of equipment to facilitate reduction in water usage.
- leak detection equipment (including pulsed meters for regular monitoring); ensure valves and overflows are visible for early detection of water loss and easy to access for maintenance.
- Good housekeeping (e.g. reporting/repairing leaks, turning off taps which are not in use, and generally using water in an efficient manner) can assist the Site reduce its overall water usage. The provision of information on appropriate use of fittings and appliances; awareness raising of the costs and environmental importance of water efficiency via Tool Box Talks.
- Influence user behaviour: Creating a culture that changes attitude and behaviour to accepting ownership of water efficiency is fundamental to improving the use of water in an efficient manner.

13.0 Pollution Prevention and Hazardous Material Storage

13.1 Pollution incidents are a potential risk during the construction phase where soils, COSHH materials, waste, oils and fuels will be used or stored. The potential pollution activities are shown below along with measures that will be put in place to prevent a pollution incident occurring during construction works.

13.2 Elevated sediment loads in surface water and dewatering of excavations -

- Gradients of soil stockpiles will be kept as shallow as possible and sealed to prevent large amounts of earth being washed away during periods of heavy rainfall. Areas which are exposed should be reseeded or surfaced as soon as practicable.
- Enforce tight control of Site boundaries, including minimal land clearance and restrictions on the use of machinery adjacent to water bodies. Where possible, do not locate stockpiles within 10 m of water bodies or drainage lines.
- Wheel wash facilities should be provided at all entry and exits points. Water from wheel wash facilities must not be discharged into water bodies or the on-site surface water sewerage network.
- Capture run off from Site in perimeter cut off ditches, settlement lagoons and/or settlement tanks where possible. Any dewatering required from site excavations should be pumped into a settlement tank or lagoon and not discharge direct to a water body or the on-site surface water sewerage network.
- Sediment should be removed from water pumped during any extractions required. Sediment should be removed prior to discharges to the surface water network through the use of a baffle tank system or equivalent.
- Sediment/soils encountered during construction activities such as boring and other earthworks could be contaminated. This has an associated risk of mobilising pollutants, which could be released to surface waterbodies. The working practices that should be put in place to prevent and manage this issue are described in Chapter 15 of the ES, Ground Conditions and Contamination.
- Dust suppression measures such as dampening, and wheel washing.

13.3 Accidental release of hydrocarbons and oils into the on-site drainage system or directly to water body -

- Incorporation of interceptors where appropriate into the Site drainage system at high risk areas, such as parking, unloading and refuelling areas, to remove hydrocarbons and oils from surface water prior to discharge.
- Designated locations for the storage of fuels and refuelling of operational plant and machines will be identified in the interest of limiting the potential spread of high-risk areas.
- Other measures including drip trays placed under equipment such as generators, and wheel washing facilities will also be implemented to minimise the risk of pollutants infiltrating groundwater or the surface water drainage network.

13.4 Accidental leaks and spillages of significant amounts of hazardous materials migrating into the on-site drainage system or directly to water body -

- Provision of storage facilities and tanks and conduct refuelling of machinery within bunded areas, which should not be located within 10 m of water bodies or drainage lines.
- Storage and bunded areas to be constructed of impervious floors and walls with the capacity for the contents of the storage tank and an additional ten per cent safety margin.
- In preparation for the potential of a spill incident, spill kits will be provided across Site and distributed to areas of likely risk, around COSHH materials and fuel stores, near COSHH bins and wherever plant is operating or being stored.
- Mixing of construction materials, such as cement, will be conducted in designated areas located away from water bodies and drainage lines.
- Concrete to be washed out in lined skips or suitably bunded areas, with washout areas located away from drains and Site water bodies.

13.5 Leak or breakage of temporary sewerage system causing crude sewage to migrate to water -

- Provision and maintenance of temporary septic tank, cesspit and/or sewerage connection for disposal of sewage from the toilet facilities to reduce the likelihood of crude sewage infiltrating groundwater or migrating towards water bodies.
- Any temporary toilet facilities will be positioned at least 10 m away from the banks of the Oxford Canal/any on Site water bodies.

13.6 Dewatering of excavations causing sediment and capacity issues in water bodies/foul water network -

- Capture run off from Site in perimeter cut off ditches, settlement lagoons and/or settlement tanks where possible. Any dewatering required from Site excavations should be pumped into a settlement tank or lagoon and not discharge direct to a water body or the on-site surface water sewerage network.
- Sediment should be removed from water pumped water during any extractions required. Sediment should be removed prior to discharges to the surface water network through the use of a baffle tank system or equivalent.
- If there is a requirement for discharge to the sewer network, this should be throttled to a flow rate that is agreed with Thames Water prior to commencement of work.

13.7 Spill response training will be carried out regularly for Site operatives for whom it is relevant to ensure that in the event of a spill incident there is adequate knowledge for proper response and remediation.

14.0 Soil & Geology

14.1 Earthworks and excavation are a large aspect of the project. Soil waste will be managed by approved and licenced waste carriers and destinations with reuse of the soil being implemented wherever possible.

14.2 A Desk review and Ground Investigation report has been produced by Hydrock, doc. Ref 19114-HYD-XX-XX-RP-GE-1002, to investigate and classify the ground and geological conditions. The Ground investigation also identifies any potential areas of contamination and water table levels within the construction zone.

14.3 The ground conditions encountered from the ground investigation carried out comprise:

- A surface covering consisting of a mixture of topsoil made ground, landfill made ground, localised made ground and agriculturally disturbed topsoil.
- Superficial deposits comprising alluvium, head deposits and river terrace deposits.
- Solid Geology, comprising Oxford clay formation, Kellaways Sand Member sub-cropping, Cornbrash Limestone Formation, forest Marble Formation and White Limestone Formation.

14.4 Evidence of petroleum hydrocarbon contamination were noted in some soils, mainly those associated with the landfill. No evidence of hydrocarbon contamination was noted elsewhere including the area of Parkers Farm. Groundwater was encountered at depths between 0.10m bgl and 4.00m bgl during the investigation. Groundwater levels recorded post-fieldwork ranged between 0.03m bgl and 5.83m bgl (57.52m OD to 67.28m OD).

14.5 If unforeseen contamination is encountered during Site works, the specific element of work will be suspended and the area will be segregated. The result of any notification will also be reported to the LPA and the Environment agency, remediation options shall be considered following assessment and identification of contaminants. Any remediation process shall comply with all legislative guidance.

14.6 As the project is within close proximity to natural water bodies, construction methods will be selected to avoid contamination of the below ground water:

- Permanent drainage systems will be installed early on in the programme as part of the infrastructure works to manage the control of water discharge into neighbouring areas.
- Temporary drainage pits will be setup around the perimeter and will be pumped out to “dewater” the Site prior to main excavation works to water level commencing.
- Consent will be sought from Cherwell District council and put in place to discharge any pumped water in the surrounding water bodies. Water quality will be checked, and settlement tanks will be used to remove any silt prior to discharging.

14.7 Contractors will be advised that whilst carrying out ground-breaking activities such as piling, trenching, tunnelling etc., if items or materials are encountered not in keeping with the expected nature of the Site soils and geology, work is to be stopped and advise sought from the geotechnical consultant.

14.8 Risk Assessments and Method Statements (RAMS) from contractors will be scrutinised and authorised before work commences to ensure the requirements above are understood, factored into working methods and adhered to.

15.0 Construction Lighting

15.1 Lighting provisions will be implemented across the Site to ensure the safety of employees during operations, particularly during the winter months and in areas of limited natural light.

15.2 Where possible lighting will be designed to be energy efficient and used only when required with all lights requested to be LED's and split circuit lighting to allow for control of lighting requirement by location.

15.3 Censored security lighting will be implemented for safety and security around Site with overriding switches for security to control localised area lighting as necessary. Lighting sensors and time delay switches will be used to reduce light pollution out of hours and reduce energy inputs.

15.4 Where possible lighting will be directed into the site (i.e., away from the boundary and adjacent areas) to prevent nuisance for neighbours and wildlife in the surrounding area. Particular care will be taken to avoid light spill onto tees, woodland, hedgerows, watercourses and other vegetation that could be used by bats, and on to buildings at Begbroke Science Park that support bat roosts.

16.0 Noise & Vibration

16.1 Noise and vibration nuisance are potential issues for local building users, members of the public and structures within the vicinity of Site.

16.2 Noise Management will be carried out in accordance with the principles described in BS5228-1:2009 : Part 1: Code of practice for noise and vibration control on construction and open Sites.

16.3 Baseline assessment, trigger levels will be determined and monitoring methodology agreed with suitable qualified acoustician and local authority, in particular in the location of the noted heritage assets and existing buildings (Begbroke science Park, Begbroke Hill Farmhouse, etc.) within close proximity of the development.

16.4 Construction methods will take consideration to minimise noise and vibration and will be agreed with the Local Authority once the Construction Phase Health and Safety Plan is developed.

16.5 The contractor will follow best practicable means to reduce the noise effect on the local community including the following:

- Materials will be handled with care e.g. material such as scaffolding and steelwork will be placed rather than dropped.
- Drop heights of materials from lorries and other plant will be kept to a minimum.
- With regards to the piling of foundations, to ensure where possible, that noise and vibration effects during these works are minimised.
- Fixed and semi-fixed ancillary plant such as generators, compressors and pumps liable to create noise and/or vibration whilst in operation will, as far as reasonably practicable, be located away from sensitive receptors.

- The use of barriers to absorb and/or deflect noise away from noise sensitive areas will be employed where required and reasonably practicable.
- All plant used on Site, paying particular attention to the integrity of silencers and acoustic enclosures will be maintained in good and efficient working order and operated such that noise emissions are minimised as far as reasonably practicable.
- As far as reasonably practicable, any plant, equipment or items fitted with noise control equipment found to be defective should not be operated until repaired.
- Where reasonably practicable, fixed items of construction plant should be electrically powered in preference to diesel or petrol driven.
- Vehicles and mechanical plant, where reasonably practicable, will be fitted with effective exhaust silencers and will be maintained in good working order and operated in a manner such that noise emissions are controlled and limited as far as reasonably practicable.
- Machines in intermittent use should be shut down or throttled down to a minimum during periods between works.
- Where required, noise assessments will be carried out in conjunction with the contractor who will create the noise. The area will be appropriately signed and screened (if required after the assessment) with appropriate ear protection being used by operatives working in the zone.
- Risk Assessments and Method Statements (RAMS) from contractors will be scrutinised and authorised before work commences to ensure the requirements above are understood, factored into working methods and adhered to.

17.0 Housekeeping & Security

17.1 Security will be implemented on Site using BioSite access systems along with the implementation of video cameras and security guards at Site entrances. Sufficient hoarding will be provided prevent unauthorised access to the various sections of the project.

17.2 All walkway and pedestrian routes will be cleaned regular through the day. No builders waste will be left outside the Site boundary at any time. Road cleaning and wheel washing facilities will be implemented on Site. Additionally, road sweeper will be available as required to ensure roads are kept clean.

17.3 Waste will be segregated and disposed of into skips via wheelie bins.

18.0 Incident Response

18.1 All environmental incidents should be reported directly to the Main Contractor's Project Manager and reported on an incident reporting system as soon as reasonably practical.

18.2 An environmental incident can be:

- A fuel or chemical spillage to ground, into drains or a watercourse
- Damage to the habitat of protected species or nesting birds
- Damage to protected species, either plants or animals
- Incidents involving waste such as fly-tipping or the illegal transfer of waste

18.3 Main Contractor emergency response plan to be completed collaboratively by environmental manager, SHE adviser and Construction Manager.

18.4 As a minimum, contractors will be required to complete a risk assessment in order to assess requirements for spillage equipment and pollution prevention storage. Any equipment should be clearly labelled, readily available and the locations and operations should be detailed in an environmental toolbox talk to contractors.

18.5 The Main Contractors Stop/Go app will be used by all project staff to help identify examples of both good and bad environmental practice. Stops for bad practice will be investigated and addressed, whilst Go's for good practice will be promoted and communicated.

18.6 Where necessary in the event of a pollution incident the Environment Agency (EA) will be contacted, and Main Contractor and client Environmental Project Manager will be notified. The EA Pollution Hotline Number is 0800 807060. In addition, there may be the need to contact Natural England.

18.7 Main Contractor reporting policy and procedures shall always be complied with for investigations of incidents as necessary.

18.8 If a workplace hazard is spotted a "close-call" must be raised to prevent any incidents or activity that could be potentially harmful to the environment or the community.

18.9 If an incident or event is likely to give rise to public concern and adverse media attention or involves significant spills, leaks or toxic substances or pollution then relevant incident investigation should be carried out in accordance with Main Contractors reporting procedures.

19.0 Internal Communication and Training

19.01 The CEMP will be distributed to the project team, including subcontractors, to ensure that the environmental requirements are communicated effectively. Key activities and environmentally sensitive operations will also be briefed to staff & subcontractors. Project, Client and company environmental policies shall be displayed on Site.

19.02 A schedule of meetings will be developed to include weekly safety, health and environment meetings. At these meetings any issues or incidents will be raised and communicated with the client, along with proposed remedial and mitigation actions and additional controls as required. An environmental register must be signed and updated to confirm toolbox talks, training and weekly meetings by the environmental team.

19.03 During the construction phase, internal communication will include reporting on the following: Inspections, audits and non-conformance, environmental performance data including any incidents, near misses and progress on reaching targets. Main contractors SHEQ-S and the account director will be informed of any visits by external bodies and the outcome or feedback of any such events.

19.04 Site staff will be competent to perform tasks that have potential to cause environmental impact. Competence s defined in terms of appropriate education, training and experience. Where project specific training is required, training will be appropriate to the role and seniority of staff.

19.05 Environmental awareness and training shall be achieved by:

- All managers and supervisors to be briefed on the CEMP. All sub-staff and operators are to undergo an environmental induction and toolbox talks and the CEMP will be signed and updated on the environmental register.
- Site inductions, including relevant environmental issues such as waste management, working near watercourses, noise & dust managements and ecological risks
- Emergency preparedness and response briefings, including communication and reporting of incidents, use of spill kits and other equipment.
- Method statement and risk assessment briefings including reference to environmental risks
- Toolbox talks to cover specific task related matters of environmental risk
- Key project specific environmental issues and briefings

19.06 Meetings provide the project manager and team an opportunity to exchange information and receive immediate feedback

20.0 External Communications

20.01 All complaints or information requests will be made aware to the Project Manager and will be logged promptly. A Public Liaison Officer will be appointed by Main Contractor & identified to local residents and the public. They will serve as the first point of contact for members of the public.

20.02 Noise may be a key subject of complaint where construction works take place in close proximity to residential / business areas. Working hours, plant types, construction methods and noise mitigation measures may be subject to section 61 consent under the Control of Pollution Act 1974. This will be applied for via the local authority and a mitigation plan developed liaising with local environmental authorities.

20.03 The local authority environmental health team will be first point of contact for residents affected by noise, dust or other nuisance issues with the potential requirement that they be kept informed on progress, programme and upcoming phases of works that may give rise to disturbance in order to develop plans and respond to complaints.

20.04 Careful monitoring of complaints received, including recording details of the location of the affected party, time of the disturbance and nature. This is to assist with managing the works to reduce the likelihood of further complaints.

21.0 Other Comments

21.01 In addition to the mitigation measures, Main Contractor is to maintain an Environmental Management System (certified to ISO14001) from which information will be extracted as required to complete method statements upon which operatives will be briefed.

21.02 A commitment register for the scheme will be maintained, including the commitments identified within the Outline CEMP. This will include any additional surveys, authorisations, consents, licenses and permissions required by the project in service of the construction operations of the development. The register will be updated with any new issues identified during the pre-construction and construction phase.

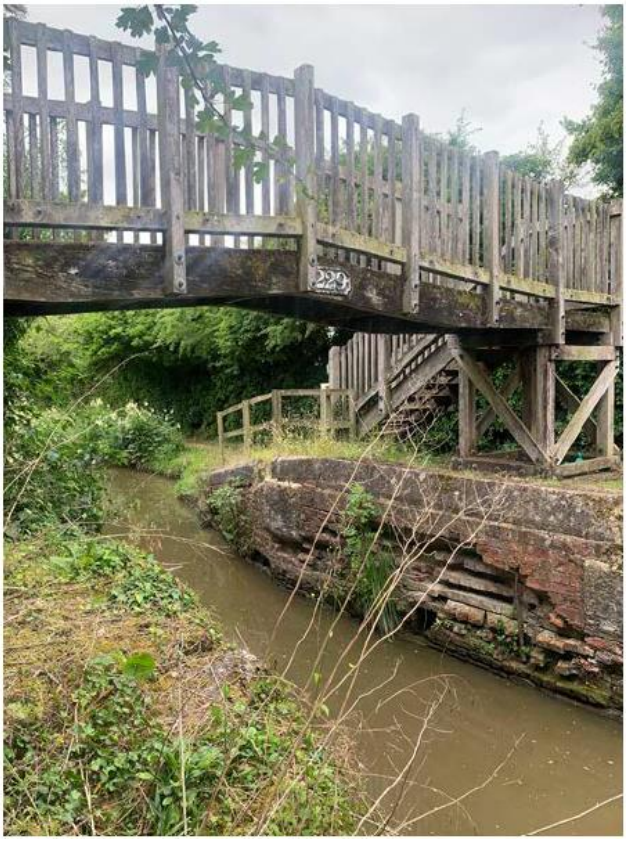
21.03 When visibility is low / weather conditions impair the plant operator's visibility, all mobile cranes will be lowered in height until the crane operations are is deemed operationally safe.

Appendix A

Site Photos

Begbroke Science Park

Begbroke Hill Farmhouse – Grade II listed



Oxford Canal

Yarnton Bridge over the Oxford Canal

Rushy Meadows SSSI

Sandy Lane

Appendix B

Example Visual Environmental Standards

VISUAL STANDARD
ENVIRONMENTAL RULES

Sub-contractors must comply with the **following:**

Environmental Assessment Standards

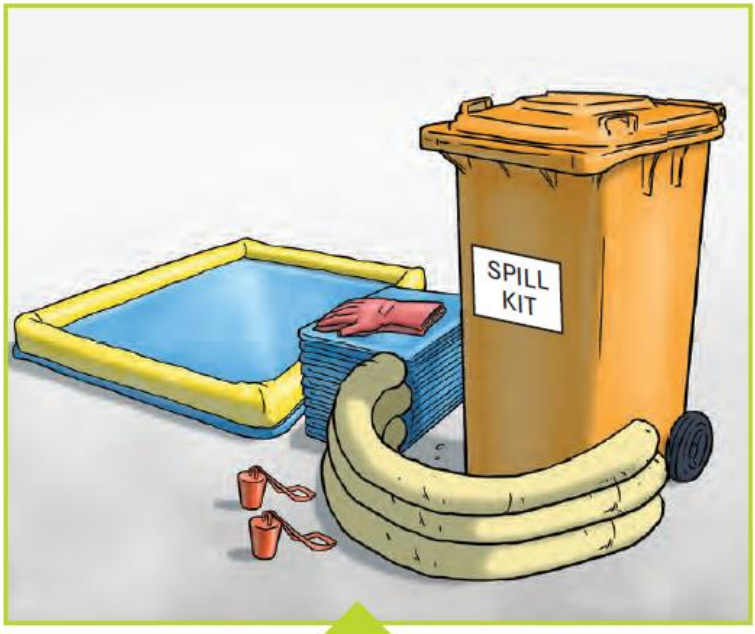
- Assist Wates in achieving any **environmental assessment scheme rating** required by the Main Contract.
- Provide any documentary evidence in a timely manner, if requested, to **ensure the awarding of credits against specific criteria.** Assessment schemes may include **BREEAM, LEED, Ska Rating, DREAM and SHIFT.**

Environmental Incidents & Observation Reporting (Stop/Go)

- All on-site **environmental incidents, complaints or enforcement notices** must be **reported immediately** to the site management team.
- If an incident must be reported to an enforcing authority (Environment Agency), **first report it to the Wates Project Team,** who will make the necessary notifications.

- **Co-operate with site management** during the investigation of environmental incidents, and when implementing remedial action.

- Help **identify risks to the environment** and opportunities to improve on-site environmental performance and notify the Wates' site team using **Say What You See (STOP/GO) cards.**



Safety, Health & Environmental (SHE) Induction, Training, and Competency

- Ensure supervisors have a **SEATS (Site Environmental Awareness Training Scheme) qualification** and are able to prove it before starting on-site work.

Fuel, Oil and Chemical Storage

- Comply with the **Control of Pollution (Oil Storage) (England) Regulations 2001.**
- **Supply enough spill kits** to deal with the worst possible spill, and ensure that they are:
  - The **correct type** for the types of oils and chemicals used on site.
  - **Located where oils and chemicals are** stored and used e.g. refuelling areas.
  - **Close to sensitive areas** e.g. watercourses.
- **Safely store used spill kits** before off-site disposal.
- Re-order spill kits to **ensure constant availability.**

Spill kits may include absorbent granules, mats and socks, plant nappies, drain covers, drain bungs and floating booms.

Hazardous Substances/COSHH

- Preferably use less hazardous and **more environmentally-friendly substances** on Wates' sites i.e. water-based rather than solvent-based.
- **Identify, assess and store all materials** in compliance with the **COSHH Regulation**, where applicable.
- Ensure the COSHH assessment includes **information on how and where to store substances** on site, what to do in an emergency or spill, and what its disposal procedure is.
- Use the **manufacturer's safety data sheet to classify waste**, identify its hazardous properties and give clear guidance on disposal arrangements. Refer to Technical Guidance WM3 for further details.

Site Environmental Monitoring

- **Correct any non-compliance** on site after the Wates site team has completed a monthly Site Environmental Checklist or an activity has been monitored through the Integrated Monitoring System (iMS).

Supply Chain Sustainability School (SCSS)

- Consider becoming a **member of the Supply Chain Sustainability School**, which is a free virtual learning centre that holds workshops and monitors performance. (www.supplychainschool.co.uk).

Waste Management

- If sub-contractors are responsible for removing waste, they must:
  - **Comply with the specific requirements for waste management companies**, detailed in the Wates PQQ Process.
  - Provide **waste licences/permits** as required for each carrier and facility/ disposal site before removal.
  - Provide written information or **Waste Transfer Notes (WTN)** that complies with Regulation 35 of the Waste (England and Wales) Regulations, when transferring inert and non-hazardous waste to another party (use a consignment note for hazardous waste).
  - **Guarantee recovery targets** in excess of 90% for construction, demolition and excavation waste, where applicable.
  - Identify ways to **increase the recovery rate of materials** e.g. finding end-destinations with high recover rates.
  - **Monitor and record reports** (normally monthly) according to Wates' waste measurement and reporting criteria. This includes the quantities in tonnes, and percentage recovered, recycled, reused, etc.
  - **Report** construction, demolition and excavation **waste separately**.

- **Ensure containers are suitable** for transporting waste to prevent loss, harm to the public, and enforcement of agency compliance.
- **Ensure skips and vehicles are sheeted and not overloaded.**

- Support the site team to **meet and exceed corporate goals for waste reduction** and develop the Site Waste Management Plan.
- Where sub-contractors are responsible for designs, they must:
  - Develop **a design solution that minimises waste** and is technically and commercially practicable.
  - **Estimate the expected level of waste,** and update the wastage allowances for the materials' order accordingly.
  - **Specify materials** with higher levels of recycled content where cost or performance is not affected.

Construction Site Impacts

- **Provide information** relating to Construction Site Impacts **on a monthly basis.** This includes:
  - **Total site energy consumption** according to fuel type e.g. electricity, natural gas, gas, diesel oil and petrol. Also include the total energy consumption of accommodation, where relevant.
  - **Total site water consumption** (m^3).

Control of Noise, Dust and Vibration:

- At the outset of any works, careful consideration should be given as to **how noise, dust and vibration can be kept under control.**
- Talk with the **Wates Project and HSE team** at Plan Rights to consider the best approach to **avoid receipt of a Section 60 notice under the Control of Pollution Act (COPA),** or an abatement notice under the **Environmental Protection Act (EPA).**

SUB-CONTRACTORS' PROFESSIONAL **STANDARD:**

The above items are representative of the minimum standards that are required by Wates from the Sub-Contractor in the performance of its duties in meeting its obligations under the Sub-Contract. They are the minimum standards of care for the activity or trade identified in the title of this page that are necessary to seek to protect against damage or injury to people and property. They are not intended as an exhaustive list, nor are they intended to define maximum limits of performance.

WE'RE SAFER TOGETHER ZERO HARM

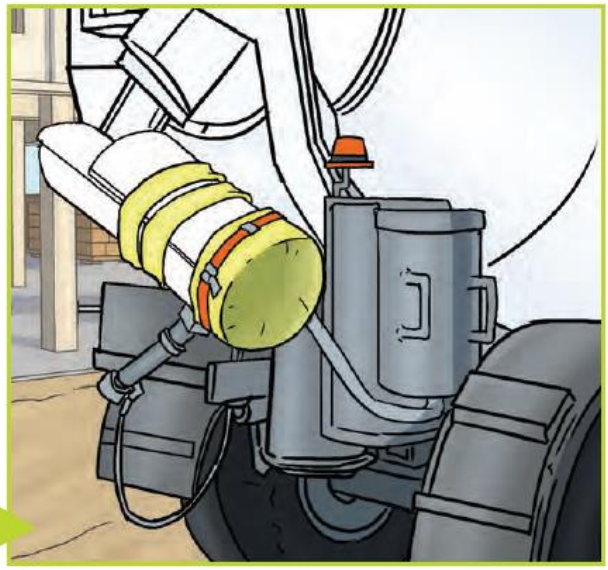
VISUAL STANDARD

CONCRETE WASHOUT AND SOCKS

KEY CONTROLS:

- Sub-contractors must ensure that wash out is undertaken at the **batching plant** when possible.
- Where wash out takes place on site, use a **fully-lined skip.**
- The concrete wash out area must be **located away** from drains and watercourses.
- Ensure the wash out skip is emptied regularly to **avoid overspill.**

- Ensure a **proprietary washout platform** or scaffold platform is in place for crane concrete skips.



- All concrete vehicles leaving site must have **socks** fitted to the concrete chute to avoid spills on public roads.

SUB-CONTRACTOR PROFESSIONAL STANDARD

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WE'RE SAFER TOGETHER ZERO HARM

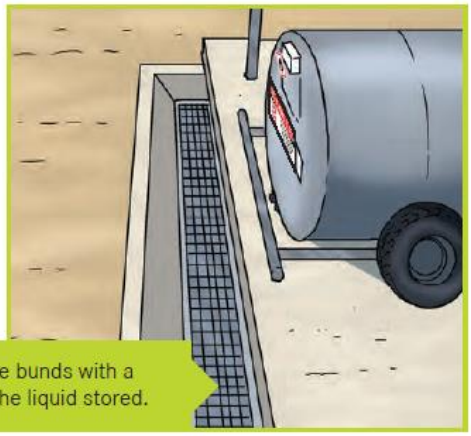
VISUAL **STANDARD**

FUEL STORAGE AND **REFUELLING**

KEY **CONTROLS:**

- Refuelling must be carried out at a **designated fuel storage area.**
- Ensure fuel storage areas are:
  - **Protected from rain to reduce water build-up in sump.**
  - **Segregated** from welfare/ working areas.
  - Located **away** from **drains, rivers** and **streams.**
  - **Locked** when not in use.
  - Highlighted in the gate **grab pack/fire plan.**
  - **Identified** in induction.
- Have **spill kits at hand** and trained operatives on site to use them.
- **Fire-fighting provision** must be in close proximity.
- **Signage** must show the capacity of the storage and types of liquid stored.

- Ensure enclosed bunds have **good levels of ventilation.**



- Ensure fuel storage areas have bunds with a capacity of at least **110%** of the liquid stored.

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WE'RE SAFER TOGETHER
ZERO HARM

VISUAL STANDARD

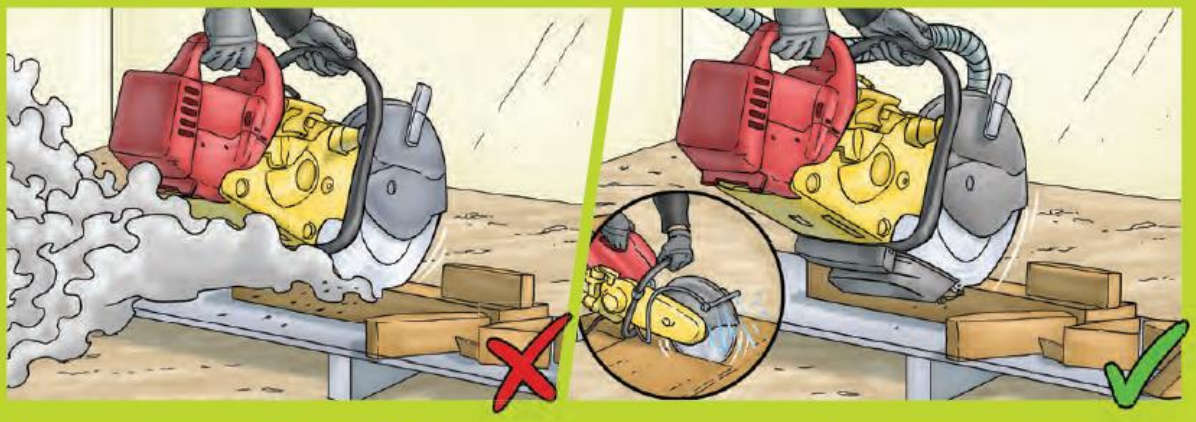
MANAGING DUST

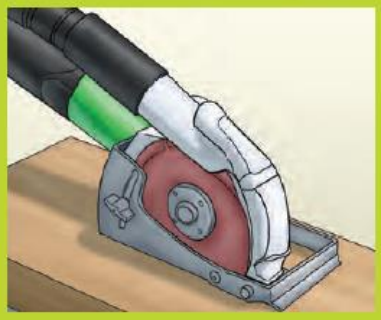
Dust builds up in the lungs and while the effects may not immediately be obvious, over a prolonged period of time, exposure to high levels of dust can lead to permanent damage to the lungs and airways. The UK Construction sector has the largest number of reported cases of lung disease. These include chronic obstructive pulmonary disease (COPD), asthma, lung cancer and silicosis.

KEY CONTROLS:

Sub-contractors **must:**

- Consider **off-site** cutting or manufacture.
- **Identify and risk assess** residual dust-producing activities.
- Provide and maintain **local exhaust ventilation** with a minimum of **M-class filtration.**
- Control dust at the source through the use of **on-tool extraction**, cutting cabinets and water suppression.
- In addition to the above, **RPE** will still be required.





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WE'RE SAFER TOGETHER
ZERO HARM

VISUAL STANDARD

VIBRATION

Hand arm vibration can cause a disorder of the blood supply to the fingers and hands. It can lead to the loss of sensation in the fingers and increasingly frequent painful attacks that get worse with repeated exposure and can lead to permanent damage. Sub-contractors are to consider cutting off-site during Plan Right meetings.

KEY CONTROLS:

Sub-contractors must **ensure:**

- Tools with **low vibration** are selected.
- Risk assessments include **vibration mitigation measures.**
- All vibrating tools and equipment have a **published trigger time.**
- Operatives are aware of **daily vibration limits.**
- All equipment and tool users have their **trigger times recorded.**
- **Whole body vibration** is considered when using plant.
- Vibration is monitored as part of the **health surveillance program.**

SUB-CONTRACTOR PROFESSIONAL **STANDARD:**

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WE'RE SAFER TOGETHER ZERO HARM

VISUAL STANDARD

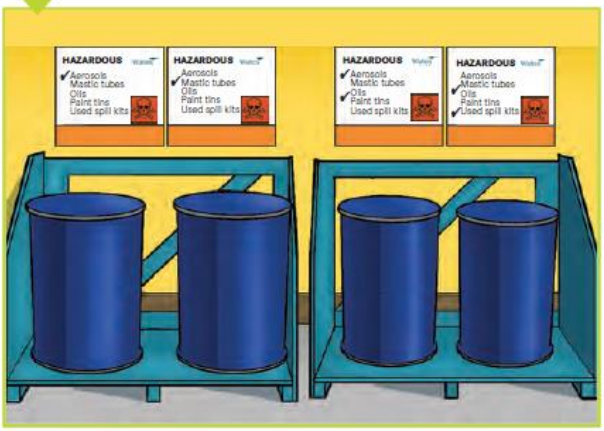
MANAGEMENT OF **WASTE**

KEY CONTROLS:

Project teams **must:**

- Ensure a **waste management strategy** is developed.
- Ensure a **site waste management plan** is in place and reviewed monthly.
- Ensure waste is **stored correctly** and **properly contained.**
- Ensure there are **sufficient bins** and skips for all waste produced.

- Ensure waste is only taken to a **authorised disposal site.**
- **Complete** or **obtain** from the supply chain the appropriate **duty of care documents** for the waste stream.
- Always **segregate hazardous waste.**



- Ensure **waste transfer notes** are completed, including written description for all waste that leaves sites.
- Ensure **records of transfers** are kept for three years.

WATES PROJECT **STANDARD:**

The above items are representative of the minimum standards that are required by Wates in the performance of its duties in meeting its obligations whilst on site. They are the minimum standards of care for the activity or trade identified in the title of this page that are necessary to seek to protect against damage or injury to people and property. They are not intended as an exhaustive list, nor are they intended to define maximum limits of performance.

WE'RE SAFER TOGETHER
ZERO HARM

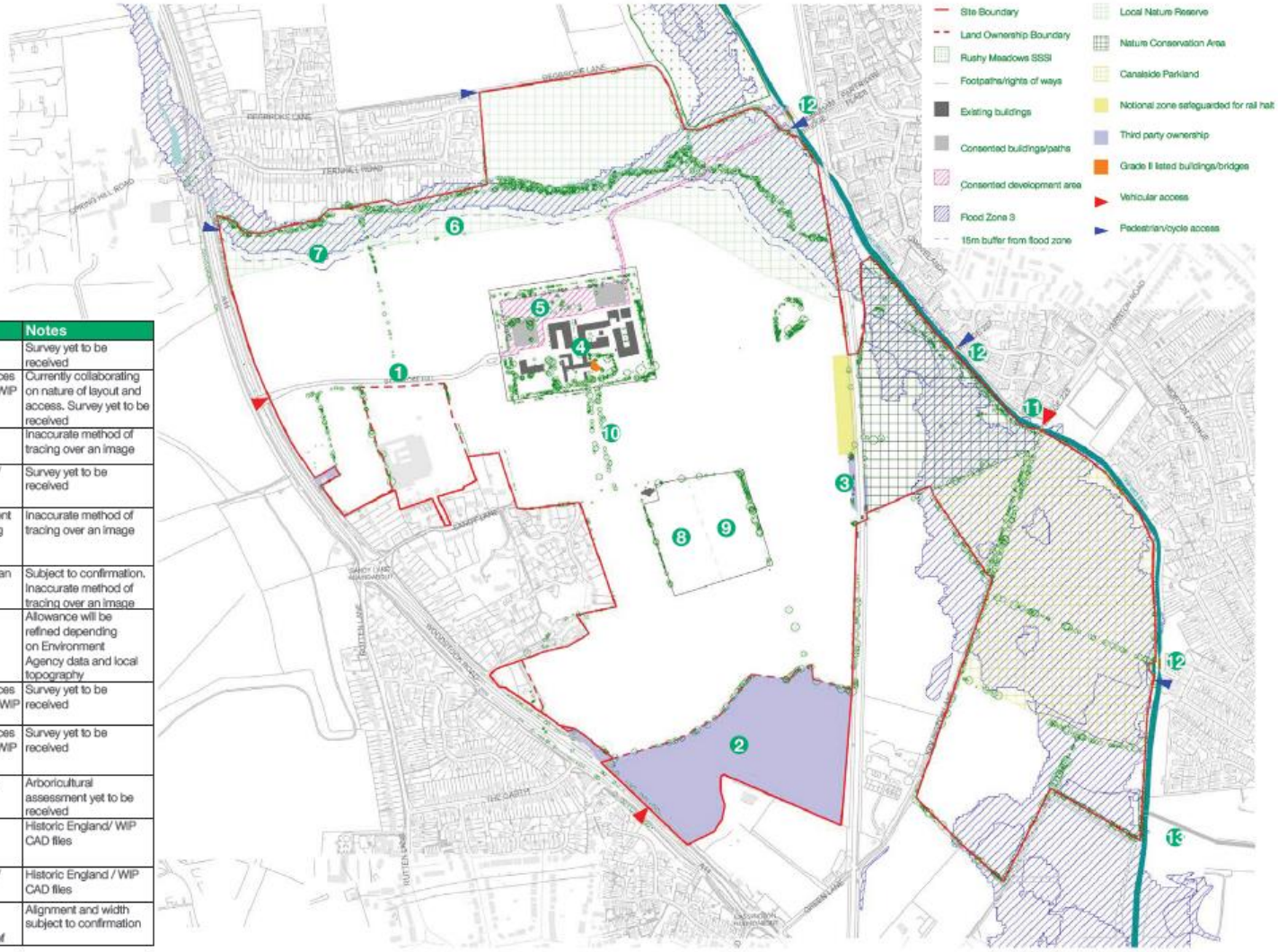
Appendix C

Site Constraints

4 Summary of site constraints

4.1 'Hard fixes'

Hard fixes represent significant site constraints that will affect the Masterplan Framework layout in their current form.



No.	Item	Description	Source	Notes
1	Begbroke Hill	Existing access road to be retained	WIP CAD files	Survey yet to be received
2	Hallam Land	Third party land ownership	OU Estates Services Survey drawing/ WIP CAD files	Currently collaborating on nature of layout and access. Survey yet to be received
3	Permanent Travellers site	Requires retained vehicular access	Land Registry	Inaccurate method of tracing over an image
4	Begbroke Science Park buildings	Grade II listed farmhouse to be retained	Historic England / WIP CAD files	Survey yet to be received
5	Consented development	Begbroke Science Park consented development boundary and surrendered property cycle path	NBBJ Development Area Plan drawing	Inaccurate method of tracing over an image
6	Green Belt	Extent of local nature reserve	Cherwell Local Plan Policy PR8	Subject to confirmation. Inaccurate method of tracing over an image
7	Flood zone	Extent of flood zone 3. 15m buffer zone suggested by BH	WIP CAD files	Allowance will be refined depending on Environment Agency data and local topography
8	Landfill	Covenant restriction over any new development	OU Estates Services Survey drawing / WIP CAD files	Survey yet to be received
9	Landfill	Covenant restriction over any new development except agriculture/agricultural research	OU Estates Services Survey drawing/ WIP CAD files	Survey yet to be received
10	Trees	Pending arboricultural assessment	OKRA WIP visual assessment	Arboricultural assessment yet to be received
11	Listed bridge	3t weight limit and humpback profile prohibitive to long wheelbase vehicles	Advised by BH	Historic England/ WIP CAD files
12	Listed structures	Grade II listed bridges and canal locks to be retained	Historic England / WIP CAD files	Historic England / WIP CAD files
13	New PR7b road	Proposed road	PR7b Land at Stratfield Farm Development Brief	Alignment and width subject to confirmation

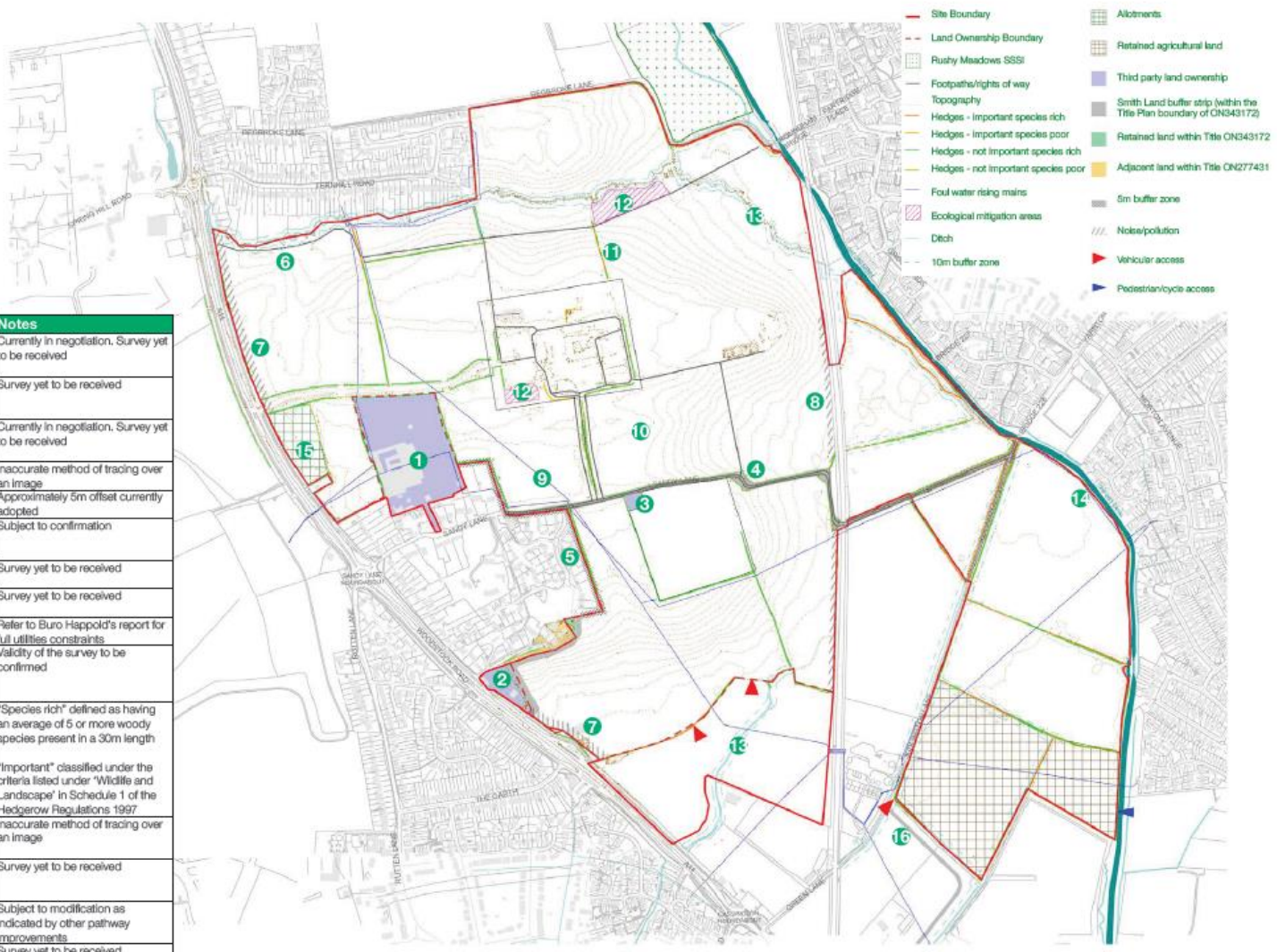
4 Summary of site constraints

4.2 'Soft fixes'

Soft fixes represent site constraints that may affect the Masterplan Framework layout in their current form. They should be considered but could be overcome through design or delivery means, for example site acquisition in the case of Newcore land, or reallocation in the case of the allotments.

Further biodiversity constraints may apply subject to ecological surveys.

Further constraints may be identified as part of Gateley's legal title review.

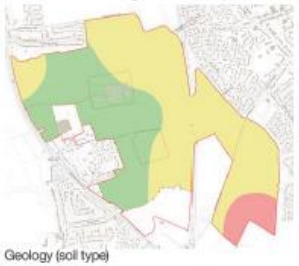


No.	Item	Description	Source	Notes
1	Newcore	Third party land ownership	OU Estates Services Survey drawing/ WIP CAD files	Currently in negotiation. Survey yet to be received
2	Smith Land	Third party land ownership, requires buffer strip	OU Estates Services Survey drawing/ WIP CAD files	Survey yet to be received
3	Houses land ownership	Third party land ownership	OU Estates Services Survey drawing/ WIP CAD files	Currently in negotiation. Survey yet to be received
4	Adopted highway	Extent of adopted highway	OU Estates Services Survey drawing	Inaccurate method of tracing over an image
5	Yarnton village edge	Buffer zone to existing properties	Advised by OUD at DTM of 02.08.2022	Approximately 5m offset currently adopted
6	Begbroke village edge	Buffer zone to existing properties	Coming from neighbours at public consultation July 2022	Subject to confirmation
7	A44	Noise/pollution from A44	Discussions at DTM in July 2022	Survey yet to be received
8	Railway line	Noise from railway line	Discussions at DTM in July 2022	Survey yet to be received
9	Foul water rising mains	Early phasing consideration	Groundwise Utilities Report CAD	Refer to Buro Happold's report for full utilities constraints
10	Topography	Natural slopes and plateau of the topography informing the masterplan	Topographical Survey	Validity of the survey to be confirmed
11	Existing hedges	Hedges to be further investigated for their significance	BSG Ecology Report	"Species rich" defined as having an average of 5 or more woody species present in a 30m length "Important" classified under the criteria listed under 'Wildlife and Landscape' in Schedule 1 of the Hedgerow Regulations 1997
12	Ecological mitigation areas	Extent of ecological mitigation areas	Fira Ecological Mitigation Areas Landscape Information	Inaccurate method of tracing over an image
13	Drainage	Ditch and 10m minimum buffer zone both sides of the bank	BSG Ecology Report	Survey yet to be received
14	Canalside	Local Plan protection of canalside character	WIP CAD files	Subject to modification as indicated by other pathway improvements
15	Existing allotments	To be kept or re-provided within the masterplan	WIP CAD files	Survey yet to be received
16	New Network Rail road	Network Rail to provide new connection	Network Rail	Alignment subject to confirmation

4 Summary of site constraints
4.3 Base plan

- The site includes a series of conditions and assets, described throughout the context chapter inform the emerging masterplan.
- Some of these have significant weight on the emerging design and therefore form part of the basic plan from which the proposals will emerge.
- Key aspects of the site include:

Flood zone and drainage



Geology (soil type)

Existing connections

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