



Taylor Wimpey East Anglia

Wolsey Grange, Ipswich – Phase 1B

Construction Environmental Management Plan

663299-01 (01)

MARCH 2021





RSK GENERAL NOTES

Project No.: 663299-01 (01)

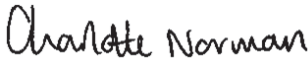

Title: Wolsey Grange, Ipswich – Phase 1B: Construction Environmental Management Plan


Client: Taylor Wimpey East Anglia

Date: 4 March 2021

Office: Hemel Hempstead

Status: Final

Author	<u>Charlotte Norman</u>	Technical reviewer	<u>Andrew Beattie</u>
Signature		Signature	
Date:	<u>04/03/21</u>	Date:	<u>04/03/21</u>

Project manager	<u>Andrew Beattie</u>
Signature [delete row if not required]	
Date:	<u>04/03/21</u>

RSK ENVIRONMENT Ltd (RSK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and RSK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by RSK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of RSK and the party for whom it was prepared.

This document is intended to support the mitigation and management of environmental impacts of the construction project. Adherence to it will not confer immunity from legal action which remains the sole responsibility of the client.

This work has been undertaken in accordance with the quality management system of RSK ENVIRONMENT Ltd.

CONTENTS

1	INTRODUCTION	3
1.1	Aim.....	3
1.2	Objectives	3
1.3	Scope	4
2	THE PROJECT	6
2.1	Outline Project Description/Scope of Works.....	6
2.2	Site Location and Plan	7
2.3	General Site Arrangements.....	9
2.4	Project Programme and Key Dates	12
3	ENVIRONMENTAL ASPECTS	14
3.1	Residents and Local Community.....	14
3.2	Air Quality.....	14
3.3	Noise and vibration	15
3.4	Ecology	17
3.5	Water resources and flood risk.....	19
3.6	Traffic and transport and rights of way	21
3.7	Waste Management	21
3.8	Compliance Obligations	21
3.9	Construction Activities and Associated Risks.....	21
4	ENVIRONMENTAL MANAGEMENT PROCEDURES	22
4.1	Fuel storage and refuelling.....	22
4.2	Use and storage of hazardous materials/substances.....	23
4.3	Use of plant and equipment	23
4.4	Site set up, groundwork and construction	24
4.5	Pollution control/ Nuisance and Disturbance.....	24
4.6	Good Housekeeping	28
4.7	Public Rights of Way	28
4.8	Ecological Management Strategy.....	28
4.9	Waste Management	32
4.10	Traffic Management	34
5	EMERGENCY PREPAREDNESS AND RESPONSE.....	35
5.1	Emergency Preparedness.....	35
5.2	Incident Reporting and Investigation	36

5.3 Incident Response	38
6 GENERAL ENVIRONMENTAL REQUIREMENTS	44
6.1 Roles and Responsibilities	44
6.2 Competence, training and Awareness	46
6.3 Documentation	47
6.4 Monitoring, Inspections and Audits	48
6.5 Daily Inspections	48
6.6 Monthly Audits.....	49
6.7 Monthly Data Reporting/Key Performance Indicators	49
6.8 Review and updates to the CEMP	50
7 REFERENCES	51

APPENDICES

APPENDIX 1- SITE LAYOUT

APPENDIX 2- BUILD ROUTE PLAN

APPENDIX 3- TREE REMOVAL AND RETENTION PLAN

APPENDIX 4- ENVIRONMENTAL OBLIGATIONS REGISTER

APPENDIX 5- CONSTRUCTION ENVIRONMENTAL RISK ASSESSMENT

APPENDIX 6- MITIGATION PLANTING PLAN

APPENDIX 7- ECOLOGICAL ENHANCEMENTS PLAN

1 INTRODUCTION

RSK Environment Ltd. has been commissioned by Taylor Wimpey East Anglia, to produce a Construction Environmental Management Plan (CEMP) for the Phase 1B development at Wolsey grange, Ipswich, Suffolk to support the discharge of Condition 21 issued by Babergh District Council in relation to this phase of development.

1.1 Aim

The aim of this CEMP is to ensure that the construction works outlined in this document do not result in unacceptable environmental impacts. In particular, the CEMP shall:

- Provide a mechanism for ensuring that measures to mitigate potentially adverse environmental impacts are implemented
- Provide assurance to third parties that their requirements with respect to environmental performance will be met
- Provide a framework for compliance auditing and inspection to enable the Project to be assured that its aims with respect to environmental performance are being met.

1.2 Objectives

The main objective of this CEMP is to set out how construction works will be managed to reduce, avoid and mitigate adverse impacts.

Accordingly, this CEMP contains the site-specific control measures that will be applied by the main contractor and where relevant its sub-contractors during the construction stages. In preparing this CEMP the requirements of the client's Health and Safety Executive (HSE) management system and site-specific assessment and management plans have been taken into account. These are inclusive but not limited to the following:

- Construction Environmental Management Plan including Soil Resources Management Plan, Wolsey Grange, Ipswich – Phase One, RSK Environment Ltd., January 2019, ref: 662180 01 (05).
- Wolsey Grange, Ipswich (Hybrid Planning Application) Noise and Vibration Impact Assessment, WSP Parsons Brinckerhoff, July 2015, ref: 70005244.
- Phase 1 and 2 – Desk Study and Site Investigation Report For a Hybrid Planning Application at Wolsey Grange, Poplar Lane, Ipswich, Suffolk, Geosphere Environmental Ltd., July 2015, Ref: 1086, SI/LF,PD/13.07.15/V3.
- Wolsey Grange, Ipswich (Hybrid Planning Application) Ecological Constraints and Opportunities Assessment, Enims, September 2014 (updated October 2018), ref: EN015.
- Wolsey Grange, Ipswich (Hybrid Planning Application) Reptile Survey Report, Enims, September 2014 (updated October 2018), ref: EN015-02.
- Wolsey Grange, Ipswich (Hybrid Planning Application) Badger Survey Report, Enims, September 2014 (updated October 2018), ref: EN015-03.

- Wolsey Grange, Ipswich (Hybrid Planning Application) Bat Tree Inspection Report, Enims, September 2014 (updated October 2018), ref: EN015-04.
- Wolsey Grange, Ipswich (Hybrid Planning Application) Breeding Birds Survey Report, Enims, September 2014 (updated October 2018), ref: EN015-05.
- Wolsey Grange, Ipswich (Hybrid Planning Application) Bat Activity Mitigation and Enhancements Report, Enims, September 2014 (updated October 2018), ref: EN015-11.
- Combined Skylark Mitigation Scheme Chilton Leys, Stowmarket & Wolsey Grange, Ipswich, CSA Environmental, April 2017, Ref: CSA/2833/09.
- Wolsey Grange, Ipswich (Hybrid Planning Application) Reptile mitigation Strategy, Enims, September 2014 (updated October 2018), ref: EN015-14.
- Wolsey Grange, Ipswich (Hybrid Planning Application) Reasonable Avoidance Measures Statement, Enims, September 2014 (updated October 2018), ref: EN015-15.
- Biodiversity Addendum Wolsey Grange, Ipswich, Phase 1B, CSA Environmental, May 2020, Ref: CSA/4100/03.
- Arboricultural Method Statement and Protection Plan For Phase 1 of Residential Development for 145 Dwellings and Associated Infrastructure at Wolsey Grange, Chantry Vale, Ipswich, Barton Hyett Associates, August 2018, Ref: T.2113.
- Construction Traffic Management Plan – Wolsey Grange, Poplar Lane, Ipswich, Taylor Wimpey, March 2019.
- Wolsey Grange, Ipswich Phase 1B Landscape and Ecological Management Plan, Pegasus Design, December 2019, ref: P19-2134_04
- Arboricultural Impact Assessment Land at Wolsey Grange, Ipswich, Rev. C, Barton Hyett Associates, February 2020, Ref: T.3467.
- Wolsey Grange, Ipswich Phase 1B Delivery Management Plan, RSK, March 2021, Ref: 663299- DMP

A copy of this CEMP will be provided to each Contractor working on behalf of Taylor Wimpey. The Contractor is required to maintain a copy of the CEMP at the work site office for reference by the entire workforce. It must be accessible to all site personnel and representatives of the relevant enforcement authority, and all subcontractors.

1.3 Scope

All site works shall be undertaken in compliance with this CEMP and with all applicable legal and regulatory requirements. It is the full responsibility of the client to ensure that their works do not contravene legal requirements, and adherence to this CEMP alone cannot be a full defence regarding legal action against the client. The contractor shall comply as necessary with the Construction (Design and Management) Regulations 2015 (CDM) and shall comply with all applicable pollution control regulations in which case the contractor shall obtain and keep current any necessary consent, authorisation, approval or permission. The contractor shall actively maintain a regulatory compliance checklist (e.g. a Consents Register).

The contractor should where relevant undertake construction works in accordance with current guidance and best practice, including:

- Environmental Good Practice on Site Guide (C741, 4th edition, CIRIA, 2015);
- Taylor Wimpey's policies and procedures;
- Babergh Mid Suffolk District Council (BMSSDC) requirements;
- Pollution prevention guidance set out at <https://www.gov.uk/guidance/pollution-prevention-for-businesses>
- Relevant pollution prevention guidance (PPG) and/or Guidance for Pollution Prevention (GPP) (both now withdrawn); see for instance <http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/>

This CEMP is a live document and is subject to change throughout the project. Where necessary, agreement to the changes will be sought from the local authority.

1.3.1 Environmental Management System

Taylor Wimpey UK Limited operated under a Environmental Management System (EMS) certified to ISO14001:2015. The project will be subject to a site-specific HSE manual which will be reflective of the Taylor Wimpey EMS policies, therefore ensuring that project specific environmental management guidance is adhered to.

The content of this CEMP has been developed in accordance with the Taylor Wimpey EMS policies. All works undertaken as part of the site/ construction works shall be subject to suitable monitoring and surveillance audits. The standards and values set within Taylor Wimpey's EMS policies will be promoted among their staff, subcontractors and suppliers engaged on the construction works.

2 THE PROJECT

The main details of the project are summarised in this section; the description is limited to an overview of the main elements/ approaches sufficient to provide an understanding of the approach to the planned works, and the roles of those main parties responsible for undertaking each part of the works.

2.1 Outline Project Description/Scope of Works

The proposed development consists of Phase 1B of the wider Wolsey Grange development, near Ipswich, Suffolk, being constructed by Taylor Wimpey for which hybrid planning permission (ref: B/15/00993) was granted by Babergh District Council in relation to outline planning consent for 29.7 hectares (ha) for the development of up to 475 dwellings, 4ha of employment land, 1.2ha of primary education land, public open space, Sustainable urban Drainage Systems (SuDS), landscaping and highway improvements; and Full consent for residential development of 11.83ha of the outline application site, relating to the erection of 145 dwellings and associated infrastructure, constituting the Phase 1A of the development.

Phase 1B relates to the remaining residential parts of the outline planning permission and will comprise 305 dwellings, public open space and associated infrastructure,

Reserved matters approval was granted by Babergh District Council (ref: DC/20/01058). Condition 21 of the Outline permission states that:

“Prior to the commencement of development within each phase or sub-phase of development outside Phase 1 (Phase 1 land shown hatched green on site location plan T0294_B received 29th July 2015) a Construction and Environment Management Plan (CEMP) shall be submitted to and approved in writing by the Local Planning Authority for that phase or sub-phase. Details required include:

- *Details of operating and delivery hours (in accordance with condition 20)*
- *Means of access*
- *Traffic routes*
- *Vehicle parking and manoeuvring areas (site operatives and visitors)*
- *Wheel washing facilities*
- *Hours of operation and vehicle movements*
- *Lighting, Location and nature of compounds and storage areas, including maximum heights*
- *Waste removal*
- *Temporary buildings and boundary treatments*
- *Dust management*
- *Noise management to include monitoring as identified in section 6.1.20 of the*
- *Noise and Vibration Assessment received 29th July 2015*
- *Litter management*
- *Measures as identified in 6.1.20 and 6.1.22 of the Noise and Vibration Impact Assessment*

- *Risk assessment of potentially damaging construction activities*
- *Identification of "biodiversity protection zones"*
- *Practical measures to avoid or reduce biodiversity impacts during construction*
- *Location and timing of sensitive works to avoid harm to biodiversity features*
- *Times during construction when specialist ecologist need to be present on site to oversee works*
- *Responsible persons and lines of communication including complaint handling and responses to the Local Planning Authority*
- *Use of protective fences, exclusion barriers and warning signs*

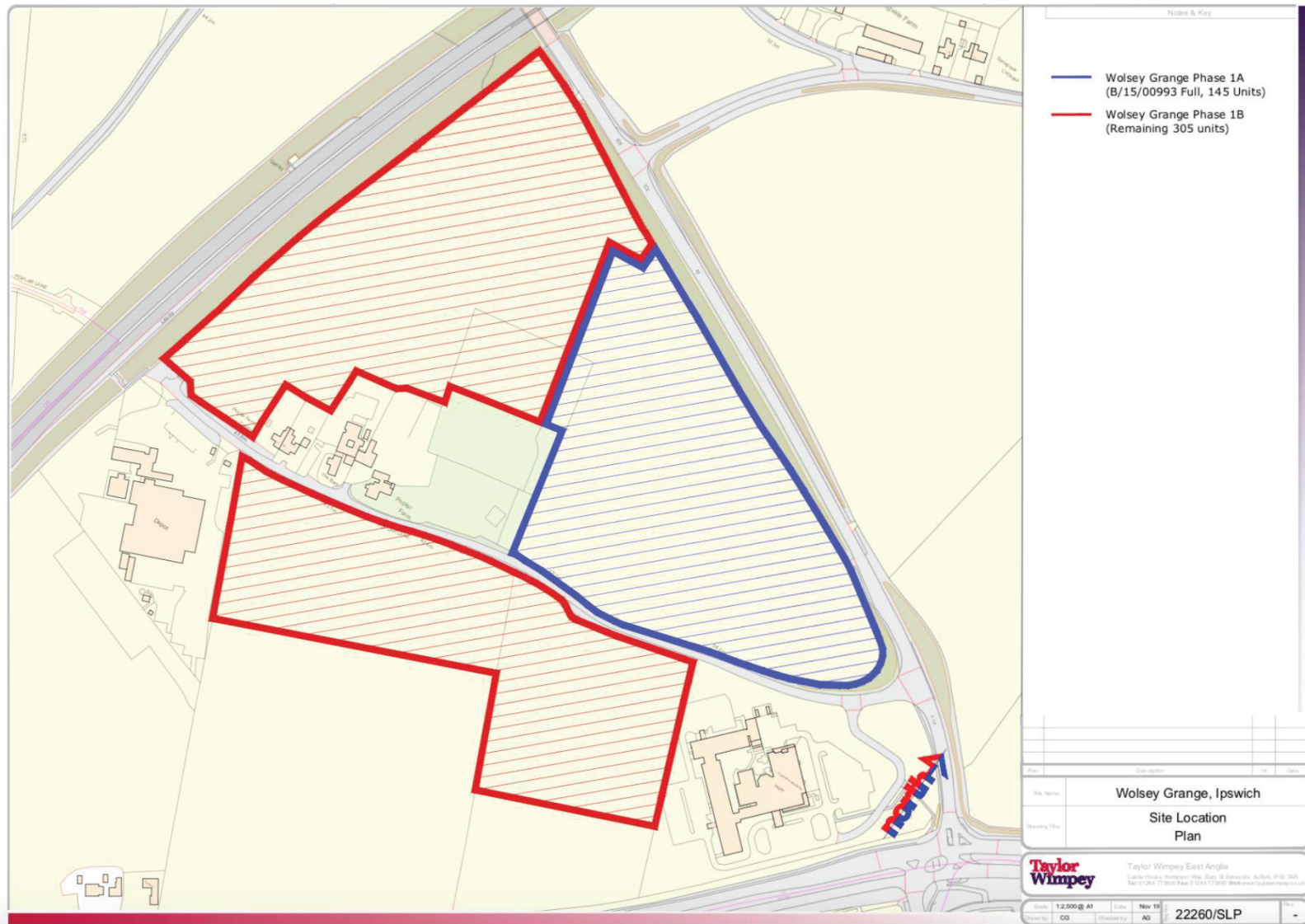
The approved construction plan shall thereafter be implemented in respect of each phase and sub-phase (other than Phase 1) as approved and shall be adhered to during the construction of that phase or sub-phase."

A detailed drawing showing the proposed site perimeter and layout of Phase 1B, prepared by Taylor Wimpey, has been included as Appendix 1 of this CEMP.

2.2 Site Location and Plan

The overall project owner/client is Taylor Wimpey who shall have ultimate responsibility for the construction works. The client will employ a main contractor (and directly or indirectly as required certain sub-contractors to carry out the works on site.

The Project is Wolsey Grange Phase 1B, a residential development located at land north and south of Poplar Lane, Ipswich, Suffolk, as shown in Figure 2.1 below.



Figure

2.1: Location of the site. The Phase 1B site is bounded in red.

The Wolsey Grange Phase 1B site is located on land north and south of Poplar Lane, located west of Ipswich with a central grid reference TM 12725 43218. The site is approximately 10.2 ha and comprises two arable fields, previously in agricultural use. A road, Poplar Lane runs centrally east-west bisecting the site. The northern parcel of land shares its western boundary with the A14, and is bounded to the north by the A1071, which links the site directly with Ipswich to the east, and Sproughton and Hadleigh to the west. To the east, the site is bounded by the Phase 1A of the wider Wolsey Grange development, whereas the southern edge of the site is bounded by Poplar Lane.

The southern part of the site is located to the south of Poplar Lane. Its western boundary is shared with a commercial facility, whilst its eastern boundary is shared with a hotel and its grounds. The south of the site is bounded by more arable fields, which have been allocated for other land uses identified within the Outline application as part of the wider development, and which stretched on to London Road (A1214).

Encompassed by the site is a commercial unit and residential properties located North of Poplar Lane in the centre of the site. The wider context of the site includes largely agricultural land with small pockets of woodland and hedgerows scattered throughout. Residential areas of the town of Ipswich are located to the east.

2.3 General Site Arrangements

2.3.1 Site set up and compound

The site and compounds shall be constructed in accordance with the client HSE policy. Full details can be obtained by reference to the HSE manuals; however, as a minimum this will include the display of:

The site and compounds will be set up in accordance with HSE Manual Section 3.1. Full details can be obtained by reference of the HSE Manual however as a minimum this will include the display of:

- Site Specific Environmental Action Plan Summary;
- Site Information/Services Plan;
- Traffic Management Plan; and
- Taylor Wimpey Silt Run-off Prevention and Protection Poster.

A detailed plan of the Build Route for the site north of Poplar Lane is included in Appendix 2 of this CEMP. Further details and plan of the Build Route for the site south of Poplar Lane will be included in this CEMP upon completion of the detailed project design.

The main compound shall comprise welfare facilities, material storage area, site office, and a brick and block compound including a refuelling area and mortar silo (Figure 2.2). Compound areas shall be segregated from the construction area. Building shall generally be containing type and generally single storey (less than 2.6m) though offices may be stacked given a total height of approximately 5.5m.

The main compound shall also include a car park for site operatives and visitors during construction (Figure 2.2). General traffic management procedures and guidance is supplied in Section 4.10.

The Phase 1B development will share a Site Compound with Phase 1A. The Site Compound will be located in the northwest corner of the Phase 1A site, to the east of Phase 1B, accessed from Phase 1B via the spine road/ Major access road as per Figure 2.2. The site

Details of the location of the site compound for the southern parcel of Phase 1B are to be included upon completion of the detailed design.

2.3.2 Fencing and Site Security

Fencing and site security will be established in accordance with Taylor Wimpey's HSE Policy. Heras fencing (1.8m high) shall be erected around the land in which construction is to take place. A 2.4m high site hoarding barrier (solid construction) will be erected around any part of the Phase 1B site that is immediately adjacent to properties on Poplar Lane as far as is reasonably practicable.

2.3.3 Site Lighting

Any task lighting will be controllable (i.e. able to be switch off) and where necessary, directional lighting will be used to avoid spill outside the boundary. The times of use of task lighting will be dependent upon the seasonal lighting constraints and will mirror the below working hours.

A bat sensitive Lighting Plan will be development and implemented during the operation of the development. Further details are including in Section 4.8.2.

2.3.4 Working hours

The normal hours of working (including access and egress) on any part of the development during the construction period will be:

- 07:30 hours to 18:00 hours Mondays to Fridays.
- 08:00 hours to 13:00 hours on Saturdays.

An additional one hour start up and shut down period is permitted at the start and end of each day. This time may be used for deliveries, movement to place of work, unloading, maintenance and general preparation work. There will be no operation of plant or machinery liable to cause a nuisance.

The following controls will also apply to the works:

- No works including deliveries will take place on Sundays or Public Holidays
- There will be no stacking of lorries on the site boundary outside of the working hours.

Any works outside these normal hours will be subject to the requirement to obtain consent from the Local Authority. The agreement should include working hours and methods to ensure that the 'best practicable means' to control potential nuisance are included.

Normal hours of work set out above do not apply to emergency works nor to equipment that is required to operate continuously.

2.4 Project Programme and Key Dates

The build timescale for the northern parcel of Phase 1B is as follows:

- The construction of roads and services is to commence March 2021
- Foundations to commence June 2021
- Superstructures to commence September 2021
- Last plot legal completion is December 2024

For the southern parcel of the Phase 1B development the build timescale is as follows:

- The construction of roads and services is to commence October/ November 2021
- Foundations to commence February/ March 2022
- Superstructures to commence May 2022

3 ENVIRONMENTAL ASPECTS

The key environmental sensitivities of the site and in the vicinity of the site are identified and described in this section. In addition, the potential for environmental impacts on these features, likely to arise as a result of the planned construction works to be undertaken, are also summarised in this section.

3.1 Residents and Local Community

The site is located within proximity to a number of residential properties including those located on Poplar Lane, in the centre of the site; residential properties located southwest of the A121 (London Road) and Scrivener Driver; residential properties in the settlement of Chantry; scattered residential properties in the rural areas generally to the west of the site; and new properties in the Phase 1A site to the northeast, once constructed. The site is also located within proximity to a number of sensitive community and commercial properties including a hotel and commercial properties on Poplar Lane; a College on Scrivener Driver; and a range of commercial operations on London Road.

Given the location and nature of the development, the construction process may impact upon residential properties located within the vicinity of the proposed development. The particular sensitivity of each receptor to various construction activities will depend on location and proximity to the site and identified transport routes, however, it is anticipated that the following environmental issues will be of concern:

- Nuisance including:
 - Mud on roads spread by construction traffic;
 - Excessive or poorly directed light; and
 - Litter
- Dust and fumes from transport and construction activity;
- Noise and vibration from transport and construction activity;
- Traffic and transport disruption;
- Disruption to business; and
- Reduction of access to amenity space.

3.2 Air Quality

Atmospheric emissions from construction activities will depend on a combination of the potential for emissions (the type of activity and prevailing conditions) and the effectiveness of control measures. In general terms, there are two sources of emissions that will need to be controlled to minimise the potential for adverse environmental effects:

- Exhaust emissions from site plant, equipment and vehicles; and,
- Fugitive dust emissions from site activities.

3.2.1 Exhaust Emissions from Plant and Vehicles

The operation of vehicles and equipment powered by internal combustion engines results in the emission of exhaust gases containing the pollutants Nitrogen Oxide (NO_x), Particulate Matters less than 10 µm (PM¹⁰), volatile organic compounds, and carbon monoxide (CO). The quantities emitted depend on factors such as engine type, service history, pattern of usage and fuel composition. The operation of site equipment, vehicles and machinery will result in emissions to atmosphere of exhaust gases, but such emissions are unlikely to be significant, particularly in comparison to levels of similar emission components from vehicle movements on the surrounding highways network.

Construction traffic is likely to comprise haulage/construction vehicles and vehicles used for workers' trips to and from the site.

3.2.2 Fugitive Dust Emissions from Construction Works

Fugitive dust emissions arising from construction activities are likely to be variable in nature and will depend upon the type and extent of the activity, soil type and moisture, road surface conditions and weather conditions. Periods of dry weather combined with higher than average wind speeds have the potential to generate more dust.

Construction activities that are considered to be the most significant potential sources of fugitive dust emissions are:

- Earth moving, due to the handling, storage and disposal of soil and subsoil materials;
- Construction aggregate usage, due to the transport, unloading, storage and use of dry and dusty materials (such as cement and sand);
- Movement of heavy site vehicles on dry or untreated haul routes; and
- Movement of vehicles over surfaces where muddy materials have been transferred off-site (for example, onto public highways).

Fugitive dust arising from construction and demolition activities is mainly of a particle size greater than the PM¹⁰ fraction (the particle size which can potentially impact upon human health); however, it is noted that demolition and construction activities may contribute to local PM¹⁰ concentrations. Appropriate dust control measures, as described in the Control of Dust from Construction Sites (BRE DTi Feb 2003), will be implemented. These can be highly effective for controlling emissions from potentially dust generating activities identified above, and adverse effects can be greatly reduced or eliminated.

3.3 Noise and vibration

During construction, potential noise receptors are residential properties located on Poplar Lane, in the centre of the site; residential properties located southwest of the A121 (London Road) and Scrivener Driver; residential properties in the settlement of Chantry; scattered residential properties in the rural areas generally to the west of the site; and new properties in the Phase 1A site to the northeast, once constructed; a hotel and commercial properties located on Poplar Lane; a College on Scrivener Driver; and a range of commercial operations on London Road. However, these are not considered to be particularly sensitive receptors and standard construction methodologies are to be

employed for the control of noise and vibration during construction in accordance with current legislation and standards, as detailed below.

3.3.1 British Standard 5228-1:2009+A1:2014: 'Code of Practice for noise and vibration control on construction and open sites - Noise'.

Construction phase noise impacts arising from equipment, vehicular movements and processes related to the construction of the proposed development have the potential for a short-term impact on noise sensitive receptors in the vicinity of the development site. These impacts may be assessed by calculating the change in ambient noise level ($L_{Aeq,10hr}$) as a result of such processes using the methods described by BS 5228.

Noise assessment methodology and criteria for construction sites is covered by the British Standard BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise. The method for assessing the criteria of noise from construction activities are provided within Appendix E of BS 5228 and described as follows.

A detailed criterion for comparing the predicted noise levels from the site against background noise levels at residential receptors is provided in section E.3 of BS 5228. One such method of applying significance to noise effects is repeated in Table 3.1 below

Table 3.1: Example threshold of significant effect at dwellings (Ref: BS5228-1 – Table 1.2)

Assessment category and threshold value period (L_{Aeq})	Threshold value, in decibels (dB)		
	Category A	Category B	Category C
Night-time (23.00–07.00)	45	50	55
Evenings and weekends ^{D)}	55	60	65
Daytime (07.00–19.00) and Saturdays (07.00–13.00)	65	70	75

NOTE 1: A significant effect has been deemed to occur if the total L_{Aeq} noise level, including construction, exceeds the threshold level for the Category appropriate to the ambient noise level.

NOTE 2: If the ambient noise level exceeds the threshold values given in the table (i.e. the ambient noise levels higher than the above values), then a significant effect is deemed to occur if the total L_{Aeq} noise level for the period increases by more than 3 dB due to construction activity.

NOTE 3: Applied to residential receptors only

A) Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.

B) Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values.

C) Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values.

D) 19.00–23.00 weekdays, 13.00–23.00 Saturdays and 07.00–23.00 Sundays.

3.3.2 Control of Pollution Act 1974

The Control of Pollution Act 1974 (COPA 74) gives local authorities power for controlling noise and vibration from construction sites. If deemed necessary by the Local Authority, a Section 61 consent may be utilised to agree methods, times durations and noise levels with the Client.

Measures to mitigate the adverse effects of noise are included in Section 4.6 of this CEMP.

3.4 Ecology and Biodiversity

There are no designated sites found within the application site boundary. There are no statutory designated sites within 2km of the site. The closest is the Stour and Orwell Estuaries Ramsar and Special Protection Area (SPA) which is located 3.9km to the south-east. The site comprises mud flats, low cliffs, saltmarsh and vegetation shingle and regularly supports 64,668 waterfowl over winter. However, given the distance of this designated site from the development site, no adverse impacts are anticipated.

There are four non-statutory designated sites located within 2km of the development site. The closest is Chantry Park – Beechwater and Meadow County Wildlife Site (CWS), comprising woodland lakes and unimproved grassland managed for wildlife, which is 0.5km north of the site. Sproughton Churchyard CWS, comprising unimproved grassland with a rich wildflower diversity, is 1.0km west of the site. Belstead Brook Woodland CWS, comprising medieval woodland bordered by Belstead Brook, is located 1.0km south of the site. Sproughton Park CWS, comprising grassland, alder carr, dense scrub and hedgerows, is located 1.5km north of the site.

The non-statutory designated sites are separated from the development by a minimum of 0.5km of roads and agricultural land. Therefore, no aspects of the construction of the development are anticipated to result in ecological implications for these sites.

Arable Land and Semi-improved Grassland

The majority of the site is comprised of arable fields. At the time of the 2018 ecological update survey, the north field was planted with wheat and the south field covered in wheat stubble.

The fields are bordered by species-poor grass margins approximately 1m in width.

Trees, Woodland, Hedgerow and Scrub

A number of mature trees are present within the site. These are predominantly located within or adjacent to the boundary hedgerows.

Infant species-poor hedgerows are present along much of the site boundary as boundary features to the agriculture fields. There is a mature hedgerow along the centre of the southern parcel diving the current area of agricultural land. Heavily managed hedgerows with numerous gaps are present along Poplar Lane at the centre of the site.

There is an area of bramble scrub to the north of the existing, off-site broad-leaved woodland.

The tree removal and retention plan is included in Appendix 3.

3.4.1 Bats

During bat surveys conducted between June and September 2018, there is moderate bat activity within the site, with three species observed transecting the site and utilising hedgerow present on and adjacent to the site during the surveys.

There are three trees with potential for bat roost activity located within the site. One of the trees with bat roost potential is located within the northern arable field whilst the other two trees are located in the southern arable field. However, when surveyed in 2018 no evidence of roosting or bat activity was found, and it is determined that roosting bats are likely absent from these trees. Since the last survey was conducted in 2018, it is recommended an updated aerial assessment survey be undertaken to ensure roost features have not developed since the time of survey become occupied by roosting bat species.

Further bat mitigation measures are included in Section 4.8.2 of this CEMP.

3.4.2 Dormice

The site lacks suitable habitat for dormice, and no activity or evidence of site use by dormice was recorded during the site visits. Additionally, since the site is considered of low habitat suitability for dormice and is not well connected to the surrounding agricultural landscape, due to being bordered by roads on all sides, it is considered unlikely that dormice are present on-site. Therefore, it is considered that there is a negligible risk of adverse impacts to dormice.

3.4.3 Badgers

No badger setts were identified as being present on-site and no evidence of badger activity was recorded within the site or adjacent woodland during the 2014 and 2018 surveys.

Due to the absence of badger setts on-site, it is considered unlikely that any site works carried out during the construction phase of the development will lead to the death, injury or disturbance of badgers or damage or destruction of setts. However, monitoring of badger activity within the site should be carried out until development works begin, in order to identify and mitigate for any new setts which may arise. Badger mitigation methods are outlined in Section 4.8.3 of this CEMP.

3.4.4 Birds

A variety of bird species have been identified on site, including Red Listed species such as song thrush, linnets, skylark and starling, and Amber Listed species such as dunnocks, black-headed gull, house sparrow and mistle thrush.

The habitat suitability for nesting birds is good within the hedgerows and woodland areas present on-site. If these habitats are to be removed or disturbed during the nesting bird season between March and September (inclusive), there is high risk of direct adverse

impacts to birds, such as killing and injury, or damage or destruction of nests. Bird mitigation methods are outlined in Section 4.8.4 of this CEMP.

3.4.5 Reptiles

The arable fields have limited potential for reptiles and no reptiles may be present along the hedgerows and fields margins over the site. Reptile surveys of suitable habitat within the site were carried out in 2014 and 2018. These surveys confirmed the likely absence of reptiles within the site. The only reptiles recorded during the surveys were grass snakes within land south of the A1071 which is associated with Phase 1A. A Reptile Mitigation Report has been produced and mitigation measures are outlined in Section 4.8.5 of this CEMP.

3.4.6 Great Crested Newt (GCN)

One pond is located within 250m of the site, c.200m to the east. However, any potential dispersal of GCN from this pond to the site is obstructed by the A1214, hence was not considered further.

One pond has been identified c.340m northeast of the site boundary, north of the A1071. eDNA sampling conducted in 2018 confirmed the presence of GCN. In 2019, four torching, egg search and netting surveys were carried out as well as an eDNA survey. These surveys confirmed the absence of GCN. Consequently, GNC were taken as absent from the pond for 2019 and, as per the Biodiversity Addendum, it was concluded that the 2018 survey provided a false positive or identified the presence of a low GCN population which makes use of the pond on a sporadic basis.

Therefore, although there may have been a low population present in 2018, since GCN were confirmed as absent in 2019 and the site consist of poor terrestrial habitat for GCN, it is considered that GCN are likely absent from the site and no GCN specific safeguards or enhancement measures are required within the site.

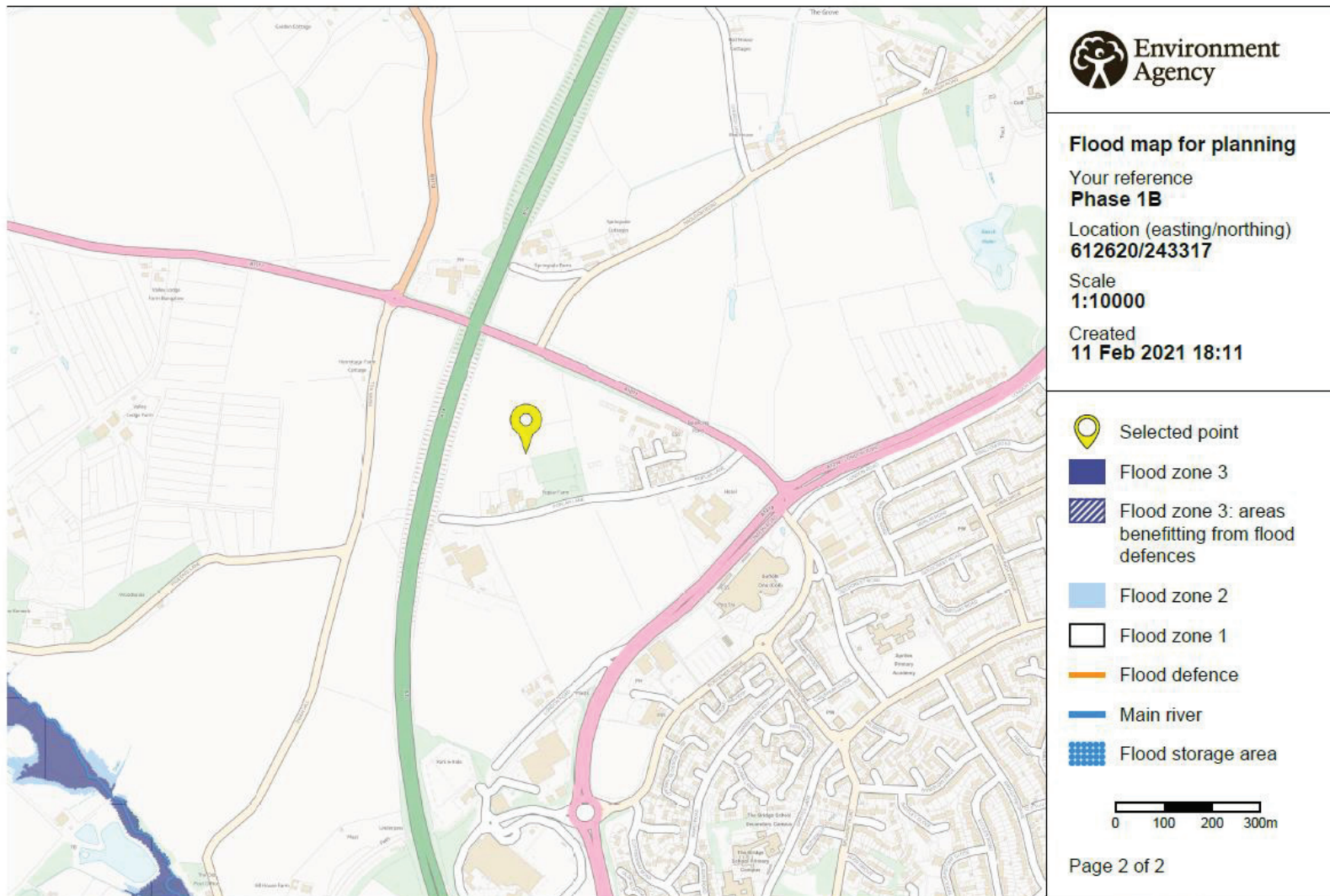
3.4.7 Stag Beetles

No stag beetle were observed during the 2018 walkover, however, numerous deadwood habitat was observed on the boundary habitats of the site and under the mature oaks present.

Given there is potential for the deadwood to be disturbed during clearance work it is considered there is potential for adverse impacts upon stag beetle and larvae which may be present in deadwood. Mitigation measures are included in Section 4.8.6 of this CEMP.

3.5 Water resources and flood risk

No watercourses have been identified on or in the immediate vicinity of the site. Small ditches are present along some of the site boundaries and are thought to serve the adjoining highways. Environment Agency (EA) mapping indicates that the whole site is located within Flood Risk Zone 1 and therefore the probability of river or sea flooding is low with a 1 in 1,000 annual probability of river or sea flooding (<0.1%) (Figure 3.1).



© Environment Agency copyright and / or database rights 2018. All rights reserved. © Crown Copyright and database right 2018. Ordnance Survey licence number 100024198.

Figure 3.1: EA Flood Map for Wolsey Grange Phase 1B, Scale 1:10000

The site is located upon a Principal Aquifer, namely Red Crag Formation, within a Zone II (Outer Zone) groundwater source protection zone.

Temporary measures to manage runoff (quality and quantity) during construction to prevent impacts or pollution of surface water drains will be addressed within Section 4 of this CEMP. These measures will be inclusive of any required mitigation and/or monitoring as well as current best practice measures.

3.6 Traffic and transport and rights of way

For details of traffic routes and means of access to Wolsey Grange Phase 1B, refer to the Delivery Management Plan.

Further Traffic Mitigation measures are detailed in section 4.10.

3.6.1 Public Rights of Way

There is one Public Right of Way (PRoW) crossing the site. The PRoW runs along the western boundary of the northern parcel and runs through the centre of the southern parcel of Phase 1B. This PRoW will be retained as part of the development. Mitigation measures for PRoW are included in Section 4.7.

3.7 Waste Management

The proposed site is predominantly greenfield land meaning that there would be limited, if any, demolition waste to dispose of.

It is considered that this proposed development will make use of existing utilities systems and sustainable methods of recycling will be adopted as part of the proposals. This includes the provision of bin storage areas within the proposed layout. It is therefore considered that this proposed development will not have a significant environmental impact on the surrounding area as a result of waste production. Standard construction waste and materials management will be employed at the site in accordance with Taylor Wimpey's HSE policies and current guidance and regulations. Further details of waste management measures are included in Section 4.8 of this CEMP.

3.8 Compliance Obligations

Certain aspects of the construction work for this Project are subject to environmental permits, consents, authorisations and permissions. A full schedule of the various relevant obligations and the status of each consent is contained in Appendix 4.

3.9 Construction Activities and Associated Risks

A risk assessment of potentially damaging construction activities to the environment is included in Appendix 5 of this CEMP.

4 ENVIRONMENTAL MANAGEMENT PROCEDURES

4.1 Fuel storage and refuelling

Fuel storage and refuelling will be managed as follows during construction:

4.1.1 Fuel Storage

- Fuel levels shall be monitored and recorded regularly (sudden changes may be a sign of leaks).
- Fuel tanks, secondary containers and storage compounds shall be inspected regularly for damage, corrosion, leaks, faults and vandalism. Repair defects/faults immediately and retain records.
- The secondary containment system must provide storage for at least 110% of the tank's maximum capacity and ensure that any valves, filters, sight gauges, vent pipes or other ancillary equipment are also situated within the secondary containment system and arranged so that any discharges would be contained.
- Fully lockable and labelled 'Garic Fuel Safe Static Tank' will be deployed.
- Sufficient spill kits shall be provided. Note: for sites close to water courses and drains, enhanced spill kits must be provided. Spill kit supply to be monitored regularly to ensure adequate stock remains full.
- All drains located adjacent or near to refuelling points shall be covered by Gully Guards before commencing transfer. All fuel transfers to be supervised.
- Drums can only be used for fuel volumes <300gallons and must be stored in a secure interceptor drum store within the designated refuelling area.
- Oil spill and oil impacted water must be collected in a fuel safe container with fuel tag and fuel spills must be contained using the spill kits provided. Spills should be reported to the contractor's Site Manager immediately.
- Records must be maintained of all environmental incidents, mitigation works, clean up method and validation.
- A suitable container for hazardous wastes must be provided within the waste compound.

4.1.2 Refuelling

- The refuelling area shall be located away from drains and watercourses (>10m from a watercourse and >50 metres from a spring, well or borehole).
- No fuel storage or refuelling activities should be placed / carried out on or near permeable pavement. The site manager must be informed before refuelling mobile plant and a drip tray must be used.
- Mobile plant must be refuelled away from surface waters, drains, permeable pavements and open excavations. A fuel drip tray must be used.
- Refuelling compound will be secured/locked out of hours.

4.2 Use and storage of hazardous materials/substances

The use and storage of solvents, cements, adhesives, grout and concrete shall be managed as follows during construction:

- All drains adjacent or near to concreting works shall be covered with Gully Guards before commencing mixing.
- Concrete mixers and associated washout, ready mix concrete lorries and equipment washings may be discharged and naturally filtered within a designated grassy area at least 10m from drains, surface waters and excavations - all contractors and operators must be informed of designated location/s.
- If insufficient space is available, or where 10m separation from drains or surface watercourses is not achievable, the washout is to be collected in a suitable container and allowed to settle before discharging to foul sewer under a valid consent.
- Surplus dry concrete, cement and grout is to be collected and reused where possible e.g. as inert rubble.
- Concrete wash water shall be collected and discharged to an authorised disposal facility.
- Areas of permeable pavement are not to be used for the temporary storage of cement bags. If unavoidable ensure adequate protection measures are in place to prevent the pavement from becoming blocked.
- All hazardous materials shall be labelled, sealed and stored with their COSHH assessment in a bunded and lockable container away from drains and watercourses when not in use.
- Hazardous liquids shall be transferred using a funnel and drip tray and sealed and returned to the container immediately after use. Damaged containers shall be reported to the Site Manager.
- COSHH datasheet will be read and understood before using any hazardous material. All usage shall comply with its requirements.
- Hazardous liquids must be re-sealed after use. Empty containers are to be disposed of to the designated container within the waste compound.
- Construction workers are required to wear PPE such as gloves and face masks (where appropriate) to prevent dermal contact and inhalation or ingestion.

4.3 Use of plant and equipment

- To assist with noise attenuation, where possible, generators are to be located within a refuelling area. If this is not possible they will be located away from adjacent residents, also taking account of prevailing wind conditions.
- Maintain plant and position exhaust away from site boundaries and occupied areas when in use.
- Mains electricity shall be used where available. If not, generators are to be used and must be sized for the required output; if diesel they must be set up by the supplier.

- All plant shall be suitability maintained and noise screens shall be used where required. Use generators having a sound power level rating below 65db(A), fully canopied and silenced.
- Sufficient spill kits shall be provided. Kit must be replenished as required.
- All equipment shall be inspected before use and any defects/faults reported to the Site Manager.
- Portable generators must be authorised by the Site Manager and used within refuelling areas where possible. If not, they must be located above ground in an accessible area and fitted with a drip tray (SP25).
- Turn off all plant overnight.

4.4 Site set up, groundwork and construction

Groundwork and construction will be managed as follows during construction:

- Local Authority consent must be obtained for particularly noisy activities before starting works. For example, crushing and piling. Contractors and operatives must be informed of consent conditions.
- Minimise the use of builders skips and inspect lifting and locking points, doors and door locks and general condition weekly as a minimum.
- Ordered materials shall be adequately managed to avoid spoilage or over-ordering and surplus materials shall be minimised: provide a suitable and sufficiently sized materials storage compound that is lockable and provides an above-ground covered area, protected from wind and rain. Encourage the reuse of cut-offs and arrange for suppliers to take back unused surplus materials and packaging.
- Surplus materials are to be reused on site where possible. All reuse and recycling to be carried out in accordance within the terms of a valid waste exemption or voluntary codes of practice/protocols.
- Excavated material surplus shall be minimised so far as practicable; details of all inert material reuse on site including composition and disposal location must be mapped and records retained.
- If necessary temporary bunding and/or settlement ponds will be installed to allow for isolation and onsite treatment of any sediment laden or contaminated water prior to discharge to the drainage system.

4.5 Pollution control/ Nuisance and Disturbance

Mud, dust, noise, light, litter and water pollution have the potential to cause nuisance and in some cases complaints and statutory nuisance and therefore must be minimised. The following processes and procedures shall be implemented to manage potential nuisance issues.

4.5.1 Noise

- Plant shall be selected with noise levels in mind and it is important that quiet plant or silent plant is used. If possible, electrically powered plant should be used.
- Only plant that conforms to the relevant European Union noise emission standards would be used during the construction of the proposed development.
- All generators shall have a rated sound power level below 65db(A), fully canopied and silenced. They must be located above ground in an accessible area.
- Maintain plant and position exhausts away from site boundaries and occupied areas when in use.
- All generators (and other noisy plant) shall be switched off overnight and when not in use. If heat is needed for drying rooms this should be provided via storage type heaters.
- Noise screens shall be used where required.
- Ensure acoustic covers are closed and contain no gaps when machinery is in use.
- Plant shall be operated with hoods and doors closed.
- All plant items brought to the site shall be properly maintained, provided with effective silencers and operated in a manner so as to avoid causing any excessive noise.
- Noisy works and deliveries to and from the site shall be conducted within the core working hours. Where necessary, deliveries outside of these core hours would be agreed in advance with the local authority.
- If operations involving high noise levels have to take place, consideration should be given to the people in the immediate vicinity and such works should be limited to the times which will have least impact on the neighbourhood.

In addition, as per Section 6.1.22 of the Noise and Vibration Impact Assessment, the contractor will comply with the requirements of the Control of Pollution Act 1974 (with particular reference to Part III), the Environmental Protection Act 1990, the Health and Safety at Work Act 1974 and the Control of Noise at Work Regulations 2005. Best practice measures to mitigate the adverse effects of noise shall include the following:

- All trade contractors will be made familiar with current noise legislation and the guidance contained in BS 5228 (Parts 1 and 2), and this should form a prerequisite of their appointment.
- Unless agreed in advance all deliveries will be during the construction site hours and on a “just-in-time” basis to avoid/minimise vehicles waiting outside or on the site with engines running.
- Loading and unloading of vehicles, dismantling of equipment such as scaffolding or moving equipment or materials around the site will be conducted in such a manner as to minimise noise generation.
- Deviation from approved method statement will only be permitted with prior approval from the principal contractor and other relevant parties. This will be facilitated by formal review before any deviation is undertaken.

- A contact number which the public may use shall be displayed prominently on the site board and any noise complaints will be reported to the principal contractor and immediately investigated.

4.5.2 Lighting

- Lighting shall be switched off when not in use unless specifically needed for construction activities or for security and / or health and safety requirements.
- Glare (and the potential for complaints) caused by poorly directed security and floodlighting shall be minimised by ensuring that light fittings are horizontally mounted and directed inwards on Site.
- Temporary lighting fixtures are to be installed and designed to provide full cut-off or should be directionally shielded to ensure that artificial light is controlled and substantially confined to the defined area intended to be illuminated.
- Post-installation checks and monitoring of the lighting installations shall be undertaken to ensure that correct tilting angles and appropriate direction of lighting is achieved. This will allow adjustments to be made, where practicable, should undue light spill or glare be identified.
- Wherever possible, lighting shall be located and directed so that it does not cause unnecessary intrusion to adjacent buildings.
- The construction areas close to walkways or roadways shall be lit in an appropriate way to minimise glare and shall be clearly defined at all times to ensure the safety of motorists, cyclists, pedestrians. This will also assist in defining the limits of the construction area for motorists, cyclists and pedestrians.
- Temporary walkways, roads or parking areas shall be illuminated in accordance with current guidance stipulated in the current ILP Guidance Notes.
- Care should be taken to avoid casting shadows from hoarding on the surrounding and adjacent footpaths and roads.
- Light spillage shall be reduced by directing any construction lighting below the horizontal plane, at an angle of less than 70 degrees away from features that offer suitable bat roosting potential.

4.5.3 Dust and Mud

- Where foreseeable and significant dust is to be generated during an operation, dust fencing and/or barriers must be provided to minimise impact.
- Timing of earthworks and material movements shall be planned to reduce double handling and minimise traffic movements and therefore associated dust and mud.
- Stripping and stockpiling of soil shall be minimised where possible.
- Site roads shall be kept clear of soil as much as possible.
- All vehicles carrying soil off-site must be sheeted.
- If dust levels remain excessively high when adequate control measures are in place and operating effectively, then reduce or postpone works during such times (e.g. during dry or windy periods).

- Water can be sprayed onto material to dampen down any potential contaminated dust and prevent it from becoming airborne.
- Construction vehicles shall be regularly maintained to ensure mud-flaps etc. are effective.
- Activities associated with the use of construction vehicles (such as washdown facilities) shall be appropriately managed to contain contaminants and regulate the release of water back into the natural environment.
- Site layout shall be planned so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Where feasible the site or specific operations shall be fully enclosed where there is a high potential for dust production and the site is active for an extensive period.
- Hoarding shall be used when construction is to take place immediately adjacent to the existing properties on Poplar Lane and the Hill House Farm properties.
- Haul routes shall be hard surfaced and/or effectively damped down.
- All vehicle engines will be switched off when not in use to reduce particulate emissions.
- Exhaust systems will be fitted with particulate filters and catalytic converters as necessary.
- Stockpiles shall be covered, seeded or fenced (as appropriate) to prevent wind whipping.
- Excavated materials undergoing treatment shall be covered to reduce the release of odours and vapours.
- Mechanical road sweepers along with a water pressures forklift sweeper attachment shall be employed to clean roads of any dust and debris if it is generated within the vicinity of the site entrance.
- All loads entering / leaving the site shall be covered.

4.5.4 Water Pollution

- Surface water and drains must be protected from silt run-off: use gully guards to protect drains and use straw bales, gravel traps or silt fencing to protect surface waters. All silt protection measures must be inspected frequently and maintained throughout the works.
- Stockpiles of contaminated material must be situated on an impermeable surface at least 10m from any surface waters or drains, and run-off collected within a bund.
- Tracking or washing out next to drains/surface waters must be avoided.
- When dewatering, any pump shall be switched off before removing the last portion of water and suspended solids will be allowed to settle out before discharging.
- All drains located adjacent or near to generators to be covered with gully guards.
- Potentially contaminated water must be tested before dewatering. Contaminated water must be treated or discharged off site.
- Road sweepers shall be utilised where necessary.

- Silty water and associated run-off to surface water and drains must be avoided: minimise any areas of soil stripping and stockpiling, control water volumes used to suppress dust, batter/sheet stockpiles where required.
- If a discharge consent is required, then all conditions within the consent must be understood before commencement of dewatering.

4.6 Good Housekeeping

- Maintain good housekeeping and site working practices to control litter, insects or vermin. For example, dispose of food into appropriate receptacles.
- The site boundary shall be secured appropriately for instance using 2.3m 'hit and miss' timber fencing or palisade security fencing with the site entrance gates secured via padlock.
- All site gates shall be kept locked / closed out of working hours and kept closed and /or manned during working hours.

4.7 Public Rights of Way

Public Rights of Way (PRoWs) shall remain open where possible. Pre-construction condition surveys shall be completed. Where a PRoW is disturbed by construction works, the surface of the route shall be reinstated to a standard that is no less than that prior to the works. Existing PRoW will be managed as follows:

- Applications for consent for any closures / diversions to existing PRoWs will be obtained and agreed with the local authority in advance of the required works.
- Advance provision of clear signs to indicate the reasons for, and duration of, the closure or diversion.
- Provision of adequate advance notification of any closure or diversion at car parks along the route and popular starting points for walkers, along with notices to walking clubs and ramblers' websites, and in pubs and accommodation which are known to be used by those using the PRoWs.
- Reinstating footpaths and bridleways/PRoWs fully on completion of construction and restoration works (to the satisfaction of the relevant rights of way officer).

4.8 Ecological Management Strategy

The mitigation measures detailed in this document are to be read in conjunction with the Ecological Constraints and Opportunities Assessment and Landscape and Ecological Management Plan (LEMP).

Prior to any habitat removal/ treatment the following section relating to habitats and species shall be considered.

4.8.1 Trees, Hedgerows and Woodland

Where possible, hedgerows, trees and field margins on site will be retained, and buffer areas will be created around potential habitats. These buffer areas will be at least 5m in

width and will allow suitable habitat to remain on-site for the species identified at risk of adverse impacts.

Details of the trees to be retained or removed are contained in the site wide Tree Removal and Protection Plan, included in Appendix 3.

Retained trees and hedgerows will be protected during construction in line with BS 5837:2012 as set out within an Arboricultural Method Statement.

Site perimeter fencing, comprising of heras fencing or site hoarding, shall be erected around the boundary of the site, and temporary tree protection fencing shall be erected around trees / hedgerows to be retained within the site boundary. Fencing will be installed prior to works commencing. It will be inspected by the Project Arboriculturist and Local Authority before works commence and will remain in place until construction is complete. No construction works shall take place in areas protected the fencing. Where construction activity within the protected areas is essential, they shall be completed in accordance with the Arboricultural Method Statement and may require supervision by an arboricultural consultant;

An arboricultural consultant will be retained to provide ongoing advice.

Tree surgery shall be undertaken by a suitably qualified arboricultural contractor, registered with the Arboricultural Association and in accordance with the requirements of BS 3998:2010 as per the LEMP and Arboricultural Method Statement.

Enhancement of existing trees and hedgerows and planting of new trees, hedgerows and shrubs shall be conducted in line with the measures and planting schedule included in the LEMP and the Mitigation Planting Plan. The Mitigation Planting Plan is included in Appendix 6 of this CEMP.

4.8.2 Bats

As per the Bat Activity Survey Mitigation and Enhancements Report, in order to minimise disturbance to foraging and commuting bats during the construction phase, no night works should be carried out during the active bat season (April to September) inclusive. If this is not possible, and works between dusk and dawn are necessary, then lighting should be kept to a safe minimum and directed away from vegetation.

All hedgerows should be managed at a minimum height of 4m, with the sides cut every year and the tops every three to four years during winter. This will encourage bats to fly at a height above the majority of traffic. Trees should be planted within the hedgerows either side of the access roads to provide a canopy in the future that would minimise the gap and encourage bats to cross at an even greater height.

The new north to south planting over Phase 1A, adjacent to the Phase 1B site, should be established before removal of any sections of hedgerow along the northern boundary or the bramble scrub area is undertaken to ensure continuous commuting and foraging routes are available to bats. A buffer of 5m should be implemented around the off-site woodland area to lessen disturbance to bats using this feature.

A bat sensitive Lighting Strategy will be produced prior to construction and be implemented throughout the development. As per the Biodiversity Addendum Report, measures will include: zero lighting of the ecologically sensitive off-site broadleaved woodland to the west of the development, with directional lighting away from tree and hedge

lines over the entire site and lighting should be kept to a minimum and used only where necessary. Lighting spread should be minimised to a horizontal area by usage of cowls or capped lights to shield upwards lighting and lux levels should decline rapidly from the light source. Warm or neutral white light LED should be used in place of entirely white LEDs.

It would be of significant benefit for all lighting to be switched off between the hours of 0000 to 0530 which will avoid isolating bats present within the off-site woodland, allow bat commuting and allow foraging activity to take place around the new attenuation basin on-site.

In addition, as per the Biodiversity Addendum Report, input will be sought from a suitable qualified ecologist during the creation of the Lighting Strategy to avoid and minimise impacts upon the integrity of on-site wildlife corridors.

In regard to roosting bats, no mitigation is recommended as a result of any proposed redevelopment of the site since plans currently show these trees to remain. However, since the last survey was conducted in 2018, it is recommended an updated aerial assessment survey be undertaken to ensure roost features have not developed since the time of survey become occupied by roosting bat species.

To compensate for the habitat lost and enhance bat roosting, 18No. Habitat 001 Bat Boxes will be installed on new residential buildings across the site as prescribed in the Ecological Enhancements Layout Plan, included as Appendix 7 of this CEMP.

4.8.3 Badgers

Monitoring of badger activity within the site should be carried out until development works begin, in order to identify and mitigate for any new setts which may arise.

Any excavations left uncovered overnight should have a means of escape, such as a ramp or plank at a shallow angle.

4.8.4 Birds

Any clearance of potential nesting habitat (i.e. vegetation including hedgerows, trees and ground level vegetation) should be undertaken outside the bird nesting season (March – September inclusive).

Where this is not possible, measures will be put in place prior to nesting season to discourage nesting occurring and the potential problem of occupation by breeding birds in the spring, including the cutting of above ground vegetation to 200-300mm in winter outside of the active nesting season. The arisings should be removed from site. The ground level vegetation can then be removed between March and October, and in accordance with the mitigation detailed in section 4.8.6.

For clearance of the bramble scrub it is recommended vegetation above ground is cleared during the winter as the potential for active nests in this area is high.

Should any vegetation clearance be necessary during the bird nesting season (March – August inclusive) a check prior to clearance by a suitably qualified ecologist will be required to determine the presence of any nesting birds.

Although no evidence of occupation of the owl box by barn owl was observed during a walkover, it is recommended further survey be undertaken to determine presence/absence of barn owl use of the box on site. Should evidence of barn owl

occupation be found further survey will be required and mitigation may be necessary for development near (within 30m) to the box. Development of the surrounding fields is likely to significantly reduce the foraging habitat available to this species.

Due to skylarks requiring open habitat, on-site mitigation for the loss of breeding territories is not possible at Wolsey Grange. As such, four skylark plots have been provided off-site at land land to the north of Wolsey Grange, as per the Combined Skylark Mitigation Scheme, to compensate for the impact upon two breeding territories adjacent to the Wolsey Grange Site. This mitigation was implemented in 2017, prior to the commencement of Wolsey Grange Phase 1A.

To mitigate habitat loss and enhance bird roosting, 16No. Habitat Swift Boxes and 16No. Habitat Small Bird Nest Boxes will be installed on new residential buildings across the site as prescribed in the Ecological Enhancements Layout Plan, included as Appendix 7 of this CEMP.

4.8.5 Reptiles

As per the Reptile Mitigation Report, the following mitigation strategy shall be adopted. Any ground vegetation clearance works will take place in stages using a Precautionary Method of Works (PMW).

The PMW will be undertaken during the active reptile season (March – October inclusive) and comprise a hand search by a suitable qualified ecologist, with removal of suitable hibernacula prior to cutting on-site vegetation using strimmers and hand tools to a height of 150mm after a second check by a suitably qualified ecologist, then to ground level up to 24 hours later.

Following this, the top few centimetres of ground including rubble and soil should be removed; scraping back to expose any reptiles sheltering in crevices just below the surface. The suitably qualified ecologist should be in place to capture and rescue any reptiles found during this process as they are disturbed. After the initial scrape, deeper excavations can be made. Particular care should be taken when emptying the bucket in case any reptiles are dug up in the spoil.

Clearance of vegetation in the arable fields will start at the furthest point from suitable habitat and work towards suitable habitat, allowing reptiles to disperse to a safe area. For clearance of the bramble scrub, clearance will start at the north and work south, towards the off-site woodland, allowing reptile to disperse to a safe area. This will render the habitat within the site unsuitable for reptiles and eliminate the risk of harm to reptiles during construction.

4.8.6 Stag Beetles

It is recommended during site clearance a suitably qualified ecologist oversees removal of any deadwood, hedges and trees and relocates into a prepared log-pile on a retained area of site.

4.8.7 Summary of Ecological Time Constraints

A summary of the time constraints associated with the above proposed ecological impact mitigation and further survey recommendations is provided in Table 4.1 below.

Table 4.1: Summary of Ecological Time Constraints

	January	February	March	April	May	June	July	August	September	October	November	December
Great Crested Newt Survey			Optimal	Optimal	Optimal	Optimal						
Reptile Survey			Optimal	Optimal	Optimal	Sub-Optimal	Sub-Optimal	Optimal	Optimal			
Bat Roost Survey of trees	Sub-Optimal	Sub-Optimal	Sub-Optimal	Sub-Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Sub-Optimal	Sub-Optimal	Sub-Optimal
Optimum period for removal of above ground vegetation with nesting bird potential	Optimal	Optimal								Optimal	Optimal	Optimal
Optimum period for removal of ground level vegetation with reptile/amphibian potential			Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal		

Key	
	Inappropriate Months
Sub-Optimal	Sub-Optimal Months
Optimal	Optimal Months

4.9 Waste Management

The contractor shall apply the principles of the waste hierarchy (eliminate, reduce, reuse, recycle, dispose) to waste management of the site.

The development shall seek to promote the re-use of excavated materials through optimisation of cut and fill operations in order to improve the sustainable and cost-effective development of land, as per the Definition of Waste: Development Industry Code of Practice (DoWCoP). In many instances the DoWCoP can provide an alternative to Environmental Permits or Waste Exemptions when seeking to reuse excavated materials.

A Site Waste Management Plan shall be prepared by Reconomy. The measures to avoid waste issues are likely to include:

- A waste collection area shall be set up before site works start. This area shall be as close to the site compound as possible with adequate hardstanding for the waste containers and unobstructed access for telehandler and waste removal vehicles.

- Front-end loader (FEL) or rear-end loader (REL) skips shall be provided to segregate wastes including plasterboard, timber and metal. A designated area shall be provided for inert wastes, for example bricks, clay pipes and roof tiles. A designated container[s] shall be provided for hazardous wastes, which and must be clearly labelled.
- Wastes shall be collected by a licenced waste carrier. A copy of all Waste 'Duty of Care' documentation shall be held on site.
- Duty of Care documentation must be completed for all waste transfers and copies provided to the Client every week. Waste transfer notes or hazardous waste consignment notes and Duty of Care procedures are to be audited regularly (monthly as a minimum).
- The Site Waste Management Plan shall be made available on site and its requirements understood by all contractors and operatives before starting work on site.
- Road sweepers shall be deployed as necessary. All road sweepings must be removed from site accompanied with a completed waste transfer note from the driver. If road sweepings are inadvertently discharged on site, these should be disposed of appropriately.
- All waste incidents shall be reported immediately to the Site Manager and Works Environmental Manager.
- Soil and recycled aggregate transfers shall be carried out in accordance with an approved Materials Management Plan (or Remediation Strategy in Scotland) and all transfer tickets must be retained on site.
- Contact the Environmental Advice Line (0845 003 8752) or the Works Environmental Manager if specialist advice on waste segregation and disposal is required.
- Monthly updates on the amount of waste successfully recycled will be made available to the Site Manager and displayed in the site office and can also be issued to the council upon request.

Wherever possible, the following waste streams will be diverted from landfill:

- All Plasterboard waste shall be segregated on site and returned for recycling (e.g. to British Gypsum).
- The site works shall be designed to retain as much soil on site as possible whilst maintaining protection of human health and the environment.
- All timber is to be segregated on site and sent to a local charity (or similar outlet) for recycling.
- All metal is to be segregated on site and sent for recycling.
- All inert waste (e.g. bricks, blocks, concrete) will be segregated on site and used under roads, driveways etc as appropriate.
- All mixed waste removed from site shall be taken to a material recycling facility for further segregation to maximise recycling and recovery.
- All hazardous waste shall be segregated from all other wastes and clearly labelled.

- All other site waste shall be segregated on site.

4.10 Traffic Management

The contractor shall provide for the safe and secure management and control of pedestrians and vehicular movements, both on and off site, to ensure the safety of all members of the general public and workforce at all times throughout the construction work period in accordance with all requisite Acts and Regulations, including, but not limited to, the:

- Health and Safety at Work etc Act 1974
- Management of Health and Safety at Work Regulations 1999
- Construction (Design and Management) Regulations 2007
- Supply of Machinery (Safety) Regulations 1992
- Provision and Use of Work Equipment Regulations 1998.

The contractor shall be responsible for:

- Promotion, management and control of such general provisions and measures for traffic management and control to be implemented by all contractors and sub-contractors throughout the extent and duration of the construction.
- On-site provision for site access roads and pedestrian footways, with controlled access from the public domain for pedestrians and vehicles, on-site parking provisions, standing, lay-down and unloading facilities for delivery vehicles, and on-site compound, welfare facilities and material holding areas for use by all contractors and sub-contractors.
- Ensuring that the on-site provisions are controlled, managed and shall be safe at all times through the provision of planned and informed procedures and segregation between vehicular and pedestrian traffic.

The strategy, together with appropriate procedures and traffic management measures, as well as measures to encourage more sustainable transport choices, are contained in the Traffic Management Plan for the site.

5 EMERGENCY PREPAREDNESS AND RESPONSE

5.1 Emergency Preparedness

5.1.1 Spill kits

Spill kits capable of dealing with hydrocarbon and chemical spills shall be available at all worksites. Each storage location shall be clearly visible to the workforce, for instance by deploying clear signage.

If a construction compound, fuel storage point or COSHH store is provided then additional spill kits will need to be available at each separate location.

The spill kit contents shall include absorbent pads, absorbent booms, absorbent granules and hazardous waste disposal sacks as a minimum. Regular checks of the spill kits shall be completed to ensure they remain adequately stocked to deal with environmental incidents.

Spill drills shall be performed periodically to confirm that the workforce can effectively contain and clear up potentially polluting spillages. All drills will be documented and details kept on record for the duration of the works.

5.1.2 Fire prevention

Means to raise the alarm in the event of a fire shall be available at the points of work. An assembly point shall be designated a safe distance from the active works locations and will be communicated to all members of the workforce before works commence. The workforce shall assemble at the point for a roll-call and to receive further instructions. All individuals at the worksite, including visitors, will be obliged to immediately sign in on arrival.

5.1.3 Extreme weather

The contractor's Site Manager shall register to receive Met Office weather warnings. All warnings issued by the Met Office with the potential to impact upon the works shall be communicated by the Site Manager to the workforce in a timely manner so that measures can be implemented where necessary. In the absence of the Site Manager the Works Environment Manager shall also receive and act upon all alerts.

Each Contractor shall maintain provisions to deal with extreme hot weather events. Measures shall include provision of safe drinking water and adequate shade.

5.2 Incident Reporting and Investigation

5.2.1 Reporting

All incidents, including near misses, shall be classified according to the categories outlined in Table 5.1. All categories of environmental incident shall be reported by the contractor to the Client as outlined below.

Table 5.1: Incident classification

Incident Classification	Definition
Near Miss	An event, controlled through implementation of an effective incident control measure (e.g. drip tray used, effective use of noise barrier).
Minor Environmental Incident	Incidents that have caused minor harm or damage to the environment e.g. <ul style="list-style-type: none"> • a minor fuel spill below 20 litres onto ground which is immediately cleared; • a minor spill of a chemical not classified as presenting an ecotoxic risk; • exceeding noise levels; • silt runoff from site which does not enter into a surface water feature; or • excess dust emissions.
Major Environmental Incident	Incidents that have caused or may cause significant harm or damage to the environment e.g. <ul style="list-style-type: none"> • a minor fuel spill which impacts a sensitive land feature, a water body, or drains; • a major fuel spillage over 20 litres; • any spillage of a chemical which is classified as presenting an ecotoxic risk; • silt runoff from site which enters a water feature; or • receipt of a nuisance complaint.

Minor incidents and near misses must be reported to the Client within 24 hours. Major incidents must be reported to the Client as soon as reasonably practicable.

The contractor, after informing the Client, shall report all environmental incidents that are required to be reported to the Environment Agency and/or to any other relevant statutory or regulatory bodies. Emergency contact details are outlined in Section 5.2.3 for all contacts relevant to the works.

5.2.2 Investigation

Reporting of an incident to the Client shall where necessary commence the incident investigation which shall be jointly conducted between the Client and its contractor[s].

The contractor shall prepare an investigation report for all environmental incidents. The report is to include:

- Summary of the environmental incident, describing the:
 - nature of the incident;
 - details of any pollutant released including the type and quantity of pollutant released;
 - location for the incident (e.g. grid reference);
- Receptors that were or could have been impacted
- An analysis of what led to the incident occurring
- Summary of immediate actions taken to mitigate the incident
- Summary of any remedial action required
- Lessons learned and future measures or actions to be implemented.

The Client will verify the incident investigation and agree with its contractors any further actions which are to be implemented to prevent a reoccurrence of comparable incidents. A timeline for the implementation of all actions shall be established and the contractors shall provide details of when they have been implemented.

An incident investigation shall be complete when all details have been recorded on file.

5.2.3 Emergency Contacts

In the event of an emergency occurrence at the Site, the Client and its contractors shall determine the relevant statutory and regulatory bodies that must be notified. Notification shall be in accordance with the measures outlined above in Section 5.2.1. Emergency contacts are listed in Table 5.2.

Table 5.2: List of emergency contacts

Emergency Contacts	
Contact	Contact details
Taylor Wimpey Site Manager- Alan Mills	07464821712
Contractor Site Manager - TBC	TBC
Contractor Environmental Manager – TBC	TBC
Environment Agency Emergency Number	0800 807060
Health and Safety Executive (HSE Construction)	01519 229235
Local Authority – Babergh and Mid Suffolk District Council	TBC
Major Spill Emergency Response – TBC	TBC
Fire	999 / 112
Police	999 / 112
Ambulance	999 / 112

5.3 Incident Response

This section consists of standard incident response procedures, intended to provide guidance for the containment and limitation of adverse effects. All pollution incidents should be managed through the STOP - CONTAIN - NOTIFY concept.

As soon as an incident is identified, the first action should be to **STOP** and prevent further discharge to drainage/river/ground.

CONTAIN may constitute control of discharge in the event of a spill, or cessation of works if it is the works that are resulting in the incident, e.g. halting excavations until silt runoff is contained. It is recognised that due to personal health and safety risks it may not always be safe to stop the source of the spill, for instance if a significant volume of an unidentified substance has been released.

NOTIFICATION should take place as soon as practicable, and frequently can take place while further release is being stopped or while a spill is being contained. The emergency contact numbers outlined in Table 5.2 should be used.

5.3.1 Oil, fuel or chemical spill to ground

- i. Wearing protective clothing, prevent further release at source e.g. switch off tap/ valve, correct leaking drum and make safe the area.
- ii. If the spill is migrating, create a temporary bund to prevent further spread by using spill kit materials / sandbags.
- iii. If drains or field ditches are located nearby, install drain seals/ deploy additional spill kit materials to prevent the spill discharging to the drain or ditch.
- iv. Apply absorbent granules or pads (available from spill kit) to the affected area.
- v. The Contractor will notify the Environment Agency regarding the nature and scale of incident. The following information should be included in the notification:
 - Time of discharge;
 - Type/quantity of material discharged;
 - Location of discharge; and
 - Site contact details.
- vi. The Contractor will notify the Client of the incident and communicate the information provided to the Environment Agency.
- vii. The Client will notify the Local Planning Authority regarding the nature and scale of the incident as per the requirements of the Environmental Damage (England and Wales) Regulations 2015.
- viii. Containment measures should remain in place until the nature and extent of the contamination can be assessed and a remediation strategy must be prepared.

All impacted materials shall be disposed of in accordance with relevant legislative and regulatory requirements and the Duty of Care requirements outlined in the CoCP.

5.3.2 Discovery of unexpected contamination

- i. On the discovery of unexpected contamination, the Contractor will immediately halt works in the area.
- ii. If impacted materials have already been removed they shall be returned to the excavation or placed on to a membrane, e.g. terram, to prevent migration of the contaminant to another area.
- iii. Contractor to report the situation to the Client.
- iv. Arrangements will be made between the Contractor and the Client for samples of the contamination to be collected and tested on fast turnaround.
- v. Contractor to only continue with works in the area once the test results have confirmed the contaminant and a safe means of working has been established.

The Contractor shall be free to continue works in areas unaffected by the contamination, BUT the Contractor will not speculatively continue to excavate material to find the extent of the contamination without supervision from a geo-environmental engineer.

All impacted materials will be disposed of in accordance with relevant legislative and regulatory requirements as well as relevant Duty of Care requirements.

5.3.3 Oil, fuel or chemical spill to surface water feature

- i. Wearing protective clothing, prevent further release at source e.g. switch off tap/ valve, correct leaking drum and make safe the area.
- ii. If source not readily identifiable, contain first (see below) then identify and prevent further release at source.
- iii. Immediately deploy appropriate sized boom from nearest spill kit across affected surface water feature. Use stakes to attach it to the sides of the surface water feature. Tie booms together to increase length if required.
- iv. Supplement with additional booms across the surface water feature, as required, to contain any migration of the spill not halted by the first installation.
- v. The Contractor shall notify the Environment Agency regarding the nature and scale of incident. The following information should be included in the notification:
 - Time of discharge;
 - Type/quantity of material discharged to surface water feature;
 - Location of discharge; and
 - Site contact details.
- vi. The Contractor shall notify the Client of the incident and communicate the information provided to the Environment Agency.

All impacted materials will be disposed of in accordance with relevant legislative and regulatory requirements and relevant Duty of Care requirements.

5.3.4 Oil, fuel or chemical spill to drainage system

- i. Wearing protective clothing, prevent further release at source e.g. switch off tap/ valve, correct leaking drum and make safe the area.
- ii. If source is not readily identifiable, contain the visible pollutant first, then identify and prevent further release at source.
- iii. Immediately deploy appropriate drain cover(s) to affected gullies.
- iv. Supplement with booms around the gully to contain any migration of the spill.
- v. The Contractor shall notify the Environment Agency and the relevant water company regarding the nature and scale of incident. The following information should be included in the notification:
 - Time of discharge;
 - Type/quantity of material discharged to the drain;
 - Location of discharge, specifically which drain; and
 - Site contact details.
- vi. The Contractor shall notify the client of the incident and communicate the information provided to the Environment Agency.

All impacted materials shall be disposed of in accordance with relevant legislative and regulatory requirements and relevant Duty of Care requirements.

5.3.5 Explosion / Fire Procedure

Explosion/fire incidents should also be dealt with through health and safety procedures. In the event that a fire is detected or an explosion occurs:

- i. Notify the emergency services and evacuate the area.
- ii. Attempt to tackle the fire with site equipment only when it is safe to do so.
- iii. Ensure that pollution of nearby water bodies including surface water drainage from fire control water or other substances is minimised. Where possible and safe to do so, any site drainage systems should be protected through the deployment of drain seals/ spill kit materials to ensure any firefighting waters are captured and can be disposed of appropriately.
- iv. At a time when it is acceptable to do so, the Environment Agency shall be notified regarding the nature and scale of incident. The following information should be included in the notification:
 - Nature of the incident;
 - Time and date of the incident;
 - Quantity of fire control water discharged to surface water feature/drainage, where relevant;
 - Location of discharge; and
 - Site contact details.

5.3.6 Silt

In the event of an unexpected discharge of silty water, then:

- i. Prevent further release at source e.g. cease dewatering the excavations.
- ii. Contain silt and protect sensitive receptors from further discharge:
 - If a drain is located nearby, install drain seals or deploy spill kit materials to prevent discharge.
 - If silt flow is in the direction of surface water features deploy hay bales around surface the feature.
 - If silt is being generated by runoff from stockpiles deploy spill kit materials, silt fencing or move soil to form a bund at the base to prevent further silt laden runoff from the stockpile.
- iii. If silt is discharged without prior approval the Environment Agency shall be notified. If the silt discharge enters the drainage system the relevant water company shall also be notified regarding the nature and scale of incident. The following information should be included in all notifications:
 - Time of discharge;
 - Type/quantity of material discharged;
 - Location of discharge, e.g. which drain or surface water feature; and
 - Site contact details.

5.3.7 Complaint over a nuisance

This procedure should be followed for all nuisance complaints including noise, dust and light.

- i. Immediately stop the activity leading to the complaint; or where not possible to entirely stop the activity reduce it to the lowest possible level e.g. shut off all non-essential plant.
- ii. Remain polite and courteous. If able to resolve the issue through discussion with the complainant, then determine what action is needed and put it into practice.
- iii. Record the details of the complainant including their name, contact details and address. Contractors shall report the details of the complaint and the complainant to the client.
- iv. The contractor and the client will register the complaint on the Complaints Log.
- v. The client will act on the complaint and remedial actions will be put in place within 24 hours.

5.3.8 Contamination of or by waste materials

- i. Assess whether the area needs to be evacuated, such as if fumes are being given off.
- ii. Assess whether the damage can be undone through segregation.
- iii. Complete a risk assessment for the task including consideration of any COSHH risks.
- iv. If it is safe to do so segregate the waste. If it is not safe to do so, then the full waste quantity is to be consigned as hazardous waste.
- v. Contractor to report the incident to the client.
- vi. Waste to be collected from site in accordance with normal practice.

5.3.9 Discovery of archaeological artefact or heritage feature

- i. Immediately stop works in the area of the artefact or feature.
- ii. Ensure the area is isolated from interference by erecting fencing around the discovery. Prevent vehicles from navigating through this area.
- iii. Provide a safe means for pedestrians; and if possible vehicles, to move around the isolated area.
- iv. Contractor shall report the find to the client.
- v. Client to arrange for the find to be assessed by a qualified heritage or archaeological specialist. The Contractor is to prevent tampering with the find until it has been assessed.
- vi. Works to proceed in accordance with the recommendations given by the heritage or archaeological specialist.

5.3.10 Ecological discovery or damage

- i. Immediately stop works in the area.
- ii. Contractor to immediately report the incident to the client.
- iii. Client to arrange for a qualified ecologist to assess the discovery or damage caused.
- iv. Works to proceed in accordance with the advice received from the ecologist.

5.3.11 Vandalism/theft procedure

Acts of theft and vandalism present the risk that damage may be caused to equipment containing hazardous substances that could cause pollution, or damage may be caused to measures which have been installed to prevent the release of pollution. On identifying an act of vandalism or theft:

- i. The contractor shall notify the Police of the incident.
- ii. Inspect all fuel storage tanks/drums and equipment to ensure there has been no release of the fuel or other hazardous substances, e.g. hydraulic fluid.
- iii. If a spill is identified follow the procedures for Oil, fuel or chemical spills.
- iv. Inspect pollution protection measures, e.g. drainage or silt protection, to ensure it has not been interfered with. Where it is possible, correct any issues identified without causing further release.
- v. Inspect site boundaries to identify the access point if not immediately clear and secure the site.

6 GENERAL ENVIRONMENTAL REQUIREMENTS

6.1 Roles and Responsibilities

The contractor shall make available sufficient time and resources for the effective management of environmental risks that could arise during construction work. This includes appointing adequately qualified personnel with knowledge and capability in the environmental management of construction site works. Persons having responsibility for environmental site management, and in particular any persons required to undertake and oversee response to any incidents with potential environmental consequences, shall be empowered to make decisions and take appropriate action necessary to avoid or mitigate adverse environmental effects, even when this may lead to delay and/or additional cost to the contractor.

6.1.1 Project Roles

The Taylor Wimpey project team and all appointed contractors will be responsible for ensuring that the potential risks to the environment are adequately avoided or controlled by the application of measures as documented within this CEMP, which shall be complied with throughout construction.

Table 6.1: Project Roles and Environmental Responsibilities

RACI DETAILS –						
R - Responsible: The individual(s) who perform an activity responsible for action/implementation- although usually only one, Rs can be shared						
A - Accountable: the individual who is ultimately accountable including yes/no decision and power of veto – only one (A) can be assigned						
C - Consulted: the individual (s) to be consulted prior to a final decision being made or action taken – two-way communication						
I – Informed: the individual (s) who need to be informed after a decision is made or action is taken – one-way communication						
Process Task	Developer	Project Manager/Director	Site Manager/ Sub-	Works Environmental	All Site Staff/	Engineers/ Foremen
Developing and maintaining the CEMP	C	R	R	A	I	
Monitor environmental aspects through review of construction method statement, identify and control issues		R	I			
Monitoring construction works to ensure any necessary environmental issues and control measures are in place; ensuring they are effectively communicated and appropriate and implemented on site			R	C		I
Ensuring the work is performed by training and qualified staff; and providing training where necessary		R	R	A		I
Ensuring that adequate resources are allocated for environmental management;	I	C	R		I	
Ensuring that all relevant environmental documentation and information (including permissions, consents, permits and assessments) is communicated;	I	R	C		I	
Ensuring that environmental incidents and complaints are investigated, recorded and reported following the correct procedures and taking preventative action	C	C	C	R	C	I
Regular site inspections and maintaining a record of environmental performance; and reporting performance and monitoring environmental performance	I	A	C	R		
Following good practice and minimising impact of activities on the environment;					R	
Understanding project environmental obligations and mitigation measures;		A			I	R
Liaison with local authority, other statutory bodies, members of the public, press and the media.		R		C		
Supporting all site staff with environmental management including reviewing and commenting on method statements and risk assessments;				R		
Ensuring that the environmental policy of the client is delivered		R	A	C	I	I
Providing information on waste management/reduction procedures to relevant staff			R		I	

6.2 Competence, training and Awareness

The contractor shall ensure that appropriate training is delivered to all site operatives and only appropriately qualified sub-contractors are appointed.

Every member of the workforce shall be required to participate in a site induction prior to starting to work on the Site. The level of induction training will depend upon the position and duties the person is to perform. The site induction will include:

- A brief overview of the works to be undertaken and any potential environmental aspects associated with the construction activities
- A summary of the sensitive environmental receptors near the Site
- An overview of the applicable environmental mitigation and pollution control measures
- An overview of the health & safety management measures in particular emergency response procedures required at the Site.

The Client will require its contractors to provide continuing training and awareness raising of the workforce. This shall be delivered in the form of Toolbox Talks tailored to the specific environmental mitigation measures required dependent on the work activities being undertaken and to raise awareness on environmental best practice.

Records of all inductions and Toolbox Talk deliveries shall be maintained at the site office. Copies shall be made available to the Client on request.

6.2.1 Internal Communication

Environmental mitigation measures shall be incorporated into the Risk Assessments and Method Statements (RAMS) prepared by the Client's contractors. All RAMS shall be communicated to the workforce by the Site Manager. The contractor's Site Manager, Works Environmental Manager and other relevant Team Members shall meet weekly to review the status of environmental aspects including but not limited to:

- Works activities underway and planned
- Mitigation measures required to be implemented
- Results of weekly inspections and any audit results/ feedback
- Any corrective and preventive actions required to be implemented
- Identification of areas for continual improvement
- Status of staff competence and training needs
- Status of the CEMP and of any required consents and approvals and the need for review and updating.

The Client shall be informed of the outcome/ minutes of all such meetings.

Additional and ongoing communication of environmental performance and requirements is to be determined by the Works Environmental Manager and provided as appropriate.

Site notice boards will display the Environmental Policy of the Client, emergency contacts list, relevant statutory and non-statutory advice and guidance; and any other relevant

information. These environmental notice boards will be situated in prominent positions including the main reception area of the site office.

6.2.1.1 *Toolbox Talks*

Schedule of any toolbox talks that will take place over the project

6.2.2 **External Communication**

Details of external communication are to be finalised upon appointment of main contractor. Details of outline procedure are as follows. The main contractor, with the agreement of the Client, shall provide advanced notification of the works to those most affected. All local residents and where relevant businesses shall be notified via letter of the works commencing at least two weeks prior to the contractor starting on site.

All communications received by the contractor that are relevant to these works, including enquiries and complaints, shall be passed to the Client's Project Team. If required by the Client any relevant contractors shall attend community engagement events, such as Parish Council meetings, details of which shall be communicated to stakeholders as part of the advance notification.

All complaints will be acknowledged by the contractor or client on receipt and the Client and Contractor shall assess the complaint and determine what information is required from all parties in order to formulate a response. The contractor will call the complainant on the same day if a phone number is provided. Where a phone number is not provided an email response shall be given within three days. All complaints shall be recorded and investigated.

The main contractor's Site Manager shall serve as the point of contact for the regulatory authorities for their specific activities. Communications from the regulatory authorities received at the worksite by the Site Manager shall be immediately reported to the Client. A record of all communications shall be maintained by the contractor.

Through the induction all members of the workforce shall be made aware that any direct approaches from members of the public should be directed to their Site Manager. The Site Manager shall record all approaches made by members of the public and shall advise the Client's Project Team of all comments received at the worksite from members of the public.

6.3 **Documentation**

The Site Manager and/or Works Environmental Manager shall be responsible for documenting and retaining safe all suitable records relating to environmental issues at the site and/or arising from site operations. Documents shall be stored in a suitable manner and backups created to safeguard the records. This CEMP shall be a controlled document and authorised latest version shall be signed and dated by the responsible person[s]. Other site data records and environmental management documentation would include, but not necessarily be limited to the following:

- Copies of relevant consents, permissions, or other approvals/ authorisations

- Environmental data records including waste transfer notes/ records of waste collection and treatment/disposal
- Records of any environmental incidents including actions taken and resolution
- Records of complaints including actions taken and resolution
- Records of all plant / equipment entering / leaving site together with any relevant compliance documentation (for instance in respect of noise or air pollutant emissions class)
- Copies of any enforcement notices or instructions issued by the local authority or any statutory regulatory body
- Record of any prosecutions pending or resolved and any penalties enforced
- Records of daily site inspections
- Records of weekly/monthly audits and minutes of environmental team briefings
- Records of staff training including site inductions and toolbox talks

6.4 Monitoring, Inspections and Audits

The contractor shall be responsible for monitoring all site works.

6.5 Daily Inspections

Daily inspections shall be undertaken by the Contractor and recorded as follows:

- i. Visual inspection of the site perimeter to check for dust deposition (evident as soiling and marking) on vegetation, cars and other objects.
- ii. Visual inspection of the local haul roads to check their condition to ensure there is no build-up of dust or earth deposits liable to cause dust emissions as vehicles pass.
- iii. Vehicle, equipment and plant inspections shall be completed to check the absence of damage or maintenance issues and that it is correctly functioning.
- iv. Visual inspection of all acoustic barriers / screening to check they are present and in good condition.
- v. Visual inspection of waste containers and waste storage areas to verify wastes are being correctly segregated and to confirm the absence of mixing of hazardous and non-hazardous wastes.
- vi. Visual inspection of all site areas to ensure there is no deposited or wind-blown litter.
- vii. If a waste collection is made, a check shall be made of the Waste Transfer Note / Hazardous Waste Consignment Note provided for the collection.

On all days when potentially dust emitting activities are being conducted, the level of dust generation shall be kept under constant review. A record shall be added to the official site diary when such activities are conducted, the dust emission conditions observed and; when necessary, the mitigation measures taken.

Any elements of the site management found to be in an unsatisfactory condition during the site inspection shall be addressed on the day. In the event it is not possible to address the matter on the day it is raised, a note of the reason why shall be made on the inspection record sheet.

6.6 Monthly Audits

Only suitably trained and competent staff will be authorised to perform environmental audits.

Monthly Audits (or at a suitable frequency to be determined by the nature / duration of the work) of the worksites and contractors shall be undertaken by or on behalf of the client. All aspects of the environmental management at the site shall be assessed against this EMP. The audit shall include checks of the site records including the daily inspection record sheets, vehicle arrival logs and waste disposal paperwork. All audits shall be documented; where audit actions are raised, close out of these actions shall be assessed at the following audit.

6.6.1 Non-conformity and corrective action

Where the client has a concern or raises an issue for resolution, or where potential issues are raised from an inspection or audit of the site/ operations, or by a regulatory authority, the contractor shall investigate the root cause and any implications arising from the issue and shall if necessary following discussion with the client implement measures to rectify the problem.

The contractor shall monitor the effectiveness of the corrective action and report the outcome to the client and where relevant the regulatory authority. All documentation of the issue/ event and corrective action/ outcome shall be retained by the contractor.

Where necessary the CEMP and any associated documentation shall be revised and re-issued to avoid recurrence of the issue/ problem.

6.7 Monthly Data Reporting/Key Performance Indicators

At the end of each calendar month the contractor shall submit to the client all relevant data on the following:

- Energy usage (i.e. electricity meter readings and diesel generator fuel used/ delivered to site)
- Water consumption (i.e. water meter readings or bowser water deliveries to site)
- Waste collections
- Heavy Duty Vehicles entering/ leaving site.

The contractor shall comply with any additional reporting requirements that may be introduced through the conditions of any agreements or permits such as the Section 61 agreement.

6.8 Review and updates to the CEMP

The sitewide CEMP will be reviewed every 6 months as a minimum; or following any significant change to the work activities, client requirements, or legislation and updated as required. Therefore, this CEMP is a live document and will be continuously updated as required.

7 REFERENCES

Environmental Good Practice on Site Guide (C741, 4th edition, Ciria, 2015)

Institute of Lighting Professionals. Guidance Notes for the Reduction of Obtrusive Light. ILP GN01:2011