

**ENVIRONMENTAL SETTING AND SITE
DESIGN REPORT**

**BROCKLEY WOOD QUARRY INERT
RECOVERY OPERATION**

**Report Reference: 3777/ESSD
Final version F1
January 2026**

Report prepared for:

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GENERAL NOTES

Title of report: Environmental Setting and Site Design Report

Site: Brockley Wood

Report ref: 3777/ESSD

Date: January 2026

Version	Date	Issued to
Draft version D1	12 th March 2025	Simon Rees – Greenfield Environmental
Final Version F1	26 th January 2026	Simon Rees – Greenfield Environmental

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1 INTRODUCTION

1.1 Report context

A new sand and gravel extraction is proposed at Brockley Wood, near Ipswich. It is proposed to extract sand and gravel in four phases to 0.5 m above the watertable. The extraction phases will be restored using imported inert fill to return the site to agriculture.

Application for a bespoke Environmental Permit for the proposed Deposit for Recovery (DfR) scheme is required. This report constitutes an Environmental Site Setting and Design (ESSD) to be submitted in support of the Permit Application. The format of this ESSD report is based on the Environment Agency (EA) guidance.

Hafren Water has also produced a Hydrogeological Risk Assessment (HRA) (ref 3777/HRA), which accompanies this report and considers the degree of potential risk of pollution of the local water environment arising from the proposed restoration scheme. The HRA considers the source, pathway, and receptor relationship between the restored site and the surrounding water environment, ie the potential risk to local Controlled Waters, including groundwater.

1.2 Proposed activities

The total site area is 37.5 hectares (ha), including trackways, field boundaries and woodland margins. It is proposed to extract sand and gravel over an area of approximately 29 ha. Mineral extraction will be undertaken to a depth of approximately 10 metres below ground level (mbgl). The base of the mineral workings will be 34 mAOD) or 0.5 m above the watertable, whichever is of higher elevation.

The proposed DfR scheme will involve phased infilling using suitable imported inert fill and replacing retained soils to return the site to agricultural use.

1.3 Data sources

The characteristics of the site and the surrounding area have been assessed using existing published data, site data, previous reports, a previous site visit by Hafren Water and experience of other sites in broadly similar settings. The data sources used for this assessment are (including other data sources cited within):

Suffolk County Council

- Unlicensed water abstractions

Hafren Water Limited

- Hydrogeological Risk Assessment – Brockley Wood Quarry; ref: 3777/HIA. March 2025.

- Hydrology, Hydrogeology and Flood Risk chapter for the 2022 Planning Application; ref: 3272/HIA, 2022.
- Observations made on-site during a visit on 15th December 2021 ('the site visit')

British Geological Survey (BGS) and other online information sources

- 1:50,000 geology (Geoindex online) and Borehole logs

Ordnance Survey

- 1:25,000 mapping

EA guidance documents

- 'What to include in your environmental setting and site design report', April 2021
- 'Plan the environmental setting of your site', January 2020 (updated February 2022)
- Records of licensed water abstractions.

2 ENVIRONMENTAL SETTING

2.1 Site location

2.1.1 Site location and surroundings

Brockley Wood Quarry (the site) is located approximately 2 kilometres (km) to the southwest of Ipswich and 1.4 km southwest of Belstead. The town of Capel St Mary is located 2.2 km southwest of the site. The National Grid Reference (NGR) for the approximate site centre is NGR TM 117 403, and the site location is shown on *Drawing 3777/ESSD/01*.

The total site area is 37.5 ha, of which approximately 29 ha will comprise mineral extraction and infilling with inert material.

The site currently comprises agricultural land. Access to the site will be gained from a slip-road off the A12, which defines the western site boundary.

The site will be worked in four phases. Phases 1, 2 and 3 are adjacent to each other on an interfluvium between two watercourses, located to their north and south. The extant ground elevation of the phases is approximately 45 mAOD, and decreases north, south and eastwards, towards the watercourses. The watercourses are located at an elevation of approximately 35 mAOD and converge approximately 1 km east of the site.

Phase 4 is located to the north of the northern watercourse at an elevation of approximately 45 mAOD. The topography declines southwards towards the watercourse. A north-south orientated dry channel is located immediately east of this phase.

To the east of the site, the land use is predominantly agricultural and woodland. Brockley Wood and Old Hall Wood are located to the south and east of Phases 1, 2 and 3. To the west of the site, residential properties are located along the opposite side of the A12 Road and at least six farms are noted. The land use is predominantly agricultural.

2.2 Surface water features

Local surface water features discussed in this section are shown on *Drawing 3777/ESSD/02*.

2.2.1 Watercourses

The site is located within the catchment of the River Stour, which is located 7.7 km to the south, flowing southeastwards. Belstead Brook, a tributary to the River Orwell, flows eastwards approximately 1.1 km north of the site.

Two unnamed watercourses flow from east to west through the site:

- The southern watercourse rises approximately 1.25 km to the west of the site and flows eastwards, and is conveyed in a culvert beneath the A12 trunk road and the proposed site access route, 335 m southwest of the proposed extraction area. It emerges from the A12 road embankment in a 70 cm (27.5") diameter culvert. The watercourse at this location is heavily silted such that only the topmost 0.25 m of the culvert is able to convey water. This watercourse is subsequently conveyed beneath a farm track in a concrete culvert. There was no discernible flow in this watercourse during the site visit in December 2021
- The northern watercourse rises approximately 2.8 km west of the site and flows eastwards. It enters the site after passing beneath the A12 trunk road in a large (1.75 m) diameter concrete culvert. Approximately 30 m after emerging from the A12 culvert the watercourse is conveyed in three 16 cm diameter pipes beneath a concreted ford, located on a farm track. The watercourse continues to flow eastwards between the proposed Phases 3 and 4 of the quarry. This watercourse does not regularly contain water where it passes between the proposed phases. East of the site, approximately parallel to Charity Farm, the watercourse becomes groundwater supported (Section 2.6.1)

The northern and southern watercourses converge approximately 1 km east-southeast of the site where the watercourse is culverted beneath a railway embankment before flowing further east for some 1 km and then south into Alton Water Reservoir 2.1 km southeast of the site. The reservoir ultimately discharges to the Stour Estuary.

2.2.2 Waterbodies

Numerous small waterbodies are located within a 2 km radius of the site. These are predominantly perched on glacial till to the west of the site. Waterbodies are also associated with the watercourse to the east of the site.

Several small waterbodies are indicated on Ordnance Survey mapping within Brockley Wood, to the south of the proposed extraction area, however these features were not identified during the site visit and therefore are not shown on *Drawing 3777/ESSD/02*.

2.2.3 Springs

Two springs are located approximately 1 km north of the site which discharge to a waterbody located near to Belstead Brook.

2.3 Rainfall

Rainfall data was obtained for the Chantry Rain Gauge which is located 2.8 km east of the site (NGR: TM 14928 41366). Data is available from 1991 to 2023. The average annual rainfall for

the period between 2010 and 2022 is 555.4 mm. The average monthly rainfall varies between 25.1 mm (April) and 64.9 mm (December).

2.4 Flood risk

The site is located wholly within Flood Zone 1 (FZ1), such that there is a less than 0.1% annual probability of flooding by a river (fluvial flooding).

2.5 Geology

Approximately 24 boreholes have been drilled across the site during exploratory investigations in 2022. These indicate a thickness of 5.6 m to 10.6 m of sand and gravel from the Lowestoft Formation and underlying Red Crag Formation. The overburden of sandy clay and sandy topsoil/subsoil is between 0.3 m and 2.7 m thick.

British Geological Survey (BGS) records for boreholes located to the west of the site (TM14 SW/62, TM14 SW/64, TM14 SW/72) indicate that the top of the underlying London Clay bedrock is present at between 21.9 mbgl and 27.7 mbgl.

BGS geological mapping indicates that glacial till overlies the Lowestoft Formation to the west of the site. To the east and southeast of the site, the watercourses have eroded through the superficial deposits exposing the underlying bedrock.

The geological succession at the site is summarised in *Table 3777/ESSD/T1*. The regional geology is shown on *Drawing 3777/ESSD/03*.

3777/ESSD/T1: Geological succession	
Strata	Constituents
Superficial	
Lowestoft Formation	Diamicton
Lowestoft Formation	Sand and Gravel
Bedrock	
Red Crag Formation	Sand
Thames Group (London Clay)	Clay

2.6 Groundwater

2.6.1 Groundwater level

Groundwater levels within the site are monitored in eight boreholes. The locations of these are shown on *Drawing 3777/ESSD/04*. Groundwater hydrographs are shown on *Drawing 3777/ESSD/05*.

The monitoring data indicates that there is limited variation in the groundwater elevation, and negligible seasonal variation, throughout the monitoring period. Groundwater flow is indicated to be towards the east and east-northeast, declining from approximately 35.5 mAOD in the west of the site to 32 mAOD in the east of the site at an estimated groundwater gradient of 0.0027.

The observed groundwater levels indicate that the watercourses crossing the site are not hydraulically connected to groundwater and are therefore rainwater dependent. To the east of the site, the topography is such that a degree of groundwater discharge to the watercourses (baseflow) is expected.

The London Clay is considered to have a low permeability such that it acts as a barrier to vertical flow. Based on the depth to the London Clay, the saturated thickness of the sand and gravel deposit (including the Lowestoft Formation and Red Crag) is considered to be approximately 11 m.

2.6.2 Aquifer characteristics

The Lowestoft Formation is classified as a Secondary A Aquifer by the EA. These are defined as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of baseflow to rivers.

The Red Crag formation is classified as a Principal Aquifer by the EA. These are defined as layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high degree of water storage. They may support water supply and/or river baseflow at a strategic scale.

The site is located within the Total Catchment Zone, Source Protection Zone (SPZ) 3, for abstractions from the Chalk aquifer which underlies the London Clay, the nearest being located some 2 km northeast of the site.

2.6.3 Abstractions

One licensed abstraction is recorded by the EA within a 2 km radius of the site. It is located 1.7 km north-northwest of the site and allows surface water abstraction from a tributary of Belstead Brook. This source is used for spray irrigation.

Suffolk Council have records of seven unlicensed abstractions (private water supplies) within 2 km of the site boundary. The closest is a well located at Charity Farm some 130 m south-southeast of the site. The locations of the identified unlicensed abstractions are summarised in Table 3777/ESSD/T2 and shown on Drawing 3777/ESSD/02.

3777/ESSD/T2: Unlicensed water supplies		
Location	NGR	Distance and direction from site
Charity Farm	TM 12279 40417	130 m SSE
Fen Farm	TM 10940 41910	1.5 km NW
Headlands	TM 10773 42343	2 km NW
Maycroft Farm Shop	TM 10919 40207	350 m NW
Lane Farm	TM 10532 40039	710 m W
Belstead Rise Bungalow	TM 12228 41339	550 m N
Copdock Hall	TM 11919 41561	760 m NW
Coordinates and distances based on post codes provided by council		

Ordinance survey mapping shows three wells within a 2 km radius of the site. One of these is located at Charity Farm, and the second is located 140 m north-northeast of Charity Farm. The third is located 755 m east of Phase 4 near Blacksmith's Corner. These wells are shown on Drawing 3777/ESSD/02.

2.7 Environmentally Sensitive Areas

There are no Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Areas of Conservation (SACs) or RAMSAR sites within a 2 km radius of the site.

The Stour and Orwell RAMSAR site is located approximately 7.5 km downstream of the site.

2.8 Local historical landfill sites

EA data indicates that there are no historic landfills or permitted waste sites within a 2 km radius of the site.

3 SITE OPERATIONS

3.1 Extraction stage

The site is currently greenfield agricultural land and void space will be created as a result of sand and gravel extraction.

Mineral extraction will be undertaken in four phases. Phases 1 and 2 are located adjacent to the A12 road in the southern portion of the site. Phase 3 is located to the east of Phase 1. Phase 4 is located to the north of the northern watercourse that passes through the site. The locations of the phases are shown on *Drawing 3777/ESSD/01*.

Mineral extraction is permitted to a maximum depth of 34 mAOD or to 0.5 m above the watertable, whichever is higher. The groundwater elevation declines from approximately 35.5 mAOD in the west of the site to 33.5 mAOD in the east of the site watertable.

Restoration of the site will be concurrent with mineral extraction, with engineering and infilling commencing after extraction in each phase has been completed.

As mineral extraction will be above the watertable, incident rainfall will infiltrate through the base of the void.

3.2 Restoration stage engineering design

3.2.1 Site engineering

Base and side walls

The site will be restored through importation of selected inert waste material under a DfR scheme. This will require the engineering of an Artificial Geological Barrier (AGB) across the base and sides of the quarry void in preparation for waste placement.

Construction of the AGB in each phase will be undertaken once extraction has been completed within a phase. The base will be completely lined using low permeability materials placed across the entire base and 3 m up the side slopes. As the level of infilling increases, the side slope liner will be extended upwards until the full depth of the void is lined.

The requirements for the minimum thickness and maximum permeability of the liner are determined within the HRA (3777/HRA). The as-built construction specifications of the liner will be proven by Construction Quality Assurance (CQA).

Cap

Inert recovery sites are not required to be capped with an engineered barrier. The inert material will be covered with subsoil and topsoil on reaching final level, prior to the final restoration of the site to agricultural land.

3.3 Proposed waste types and quantity

The proposed waste types to be accepted at the site are shown in *Table 3777/ESSD/T3*.

Phases 1, 2 and 3 are estimated to have a combined footprint of 220,132 m² and Phase 4 is estimated to have a footprint of 72,311 m². This equates to a total area of 29.2 ha. Mineral extraction will be undertaken up to 10 mbgl, therefore the maximum volume of fill that could be placed at the site is estimated at around 2.925 million m³, not accounting for the presence of the engineered AGB.

3777/ESSD/T3: Waste codes for imported materials		
Waste code	Description	Additional restrictions
01 01 02	Wastes from non-metalliferous excavations	
01 01 02	Waste from non-metalliferous excavations	
01 04 08	Waste gravel and crushed rocks other than those containing dangerous substances	
01 04 09	Waste sand and clays	
01 04 12	Mineral Processing (washing) waste	1
10 01 01	Bottom ash and slag from power stations (furnace bottom ash)	
10 01 02	Pulverised fuel ash from power stations	
10 01 05	Gypsum (solid only)	
10 01 07	Gypsum (sludge only)	
10 01 15	Incinerator bottom ash	
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)	
10 13 14	Waste concrete and concrete sludge	
17 01 01	Concrete	
17 01 02	Bricks	
17 01 03	Tiles and ceramics	
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01	
17 05 04	Soil and stones other than those mentioned in 17 05 03	
17 05 06	Dredging Spoil	
17 05 08	Track ballast, soil and stones other than those containing dangerous	

3777/ESSD/T3: Waste codes for imported materials		
Waste code	Description	Additional restrictions
	substances	
19 01 12	Bottom ash and slag (incinerator bottom ash)	
19 02 06	Filter cakes from inert wash plants	1
19 12 05	Glass	
19 12 09	Minerals (such as sand and stones) from the treatment of waste aggregates that are otherwise naturally occurring minerals	1
19 12 12	Minerals (such as sand and stones) from the treatment of waste aggregates that are otherwise naturally occurring minerals Crushed bricks, tiles, concrete and ceramics, including mixtures of materials Soil substitutes other than those containing dangerous substances only Treated bottom ash including incinerator bottom ash and slag other than that containing dangerous substances only	1
20 02 02	Soils and stones	
1: This excludes fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard. It does not include residual 'fines' from mechanical treatment of mixed waste at transfer stations. Source materials must be properly classified as hazardous or non-hazardous and accurately described (characterised).		

3.4 On-site water management

The site is free-draining and this is expected to continue throughout operation of the site as mineral extraction will remain at least 0.5 m above the watertable.

Berms and ditches will be constructed as necessary to limit the amount of surface water run-off entering the active working area during its operational and post-operational phase. Should ponding of water occur on the AGB following a heavy rainfall event, water would be directed towards the active mineral extraction area and infiltrate to ground.

There will therefore be no need to actively manage water on-site and no off-site discharge will be required.

3.5 Post-restoration after-use

Restoration through the importation of inert recovery material will be undertaken progressively alongside mineral extraction. On completion of extraction operations, engineering of the AGB and depositing of inert material will continue until the site has reached the proposed restoration profile. The fully restored site will be used for agriculture.

4 CONCEPTUAL MODEL

4.1 General

The information in relation to the site's location and setting, as summarised in Section 2, is used together with the proposed site design (Section 3) to develop a Conceptual Site Model (CSM) for the site.

The CM describes the significant pollutant linkage (source-pathway-receptor relationship) between the site and the surrounding water environment that will be used to assess the likelihood of pollution of Controlled Waters arising from the deposition of recovery material at the site.

Schematic depictions of the CM described in this section are shown in *Drawings 3777/ESSD/07 and 3777/ESSD/08*.

4.2 Source

The inert material to be deposited at the site has the potential to affect the surrounding water environment and will be required to meet the inert Waste Acceptance Criteria (WAC). However, due to the inert nature of the material, it is considered that there is a low potential for the generation of polluting leachate and therefore the risk is considered to be low.

There are no other historic landfills or permitted waste sites close to the site, therefore it is considered that there no other potential sources of contamination.

4.3 Pathways

4.3.1 Primary pathways

It is considered that there are two primary pathways through which the site could impact receptors:

1. Vertical infiltration of rainfall downwards through the imported material, through the AGB and into the underlying unsaturated sand and gravel to the watertable
2. Horizontal migration of contaminants dissolved within groundwater down-gradient towards specific water receptors

The London Clay, underlying the sand and gravel and the site, is estimated to be some 20 m thick and therefore represents a barrier to vertical flow, therefore it is considered that there is no feasible pathway to the deeper Chalk aquifer. The presence of the London Clay will promote horizontal groundwater flow within the sand and gravel deposit.

4.3.2 Secondary pathways

In the immediate vicinity of the site the watercourses are supported by run-off. However, approximately 300 m east of the site the elevation of the northern watercourse is such that it is considered that groundwater provides a baseflow to the watercourse.

The watercourses flow into the Alton Reservoir approximately 2 km downstream of the site, which subsequently discharges into the River Stour. Therefore the watercourses are considered to be a secondary pathway.

4.4 Receptors and compliance points

4.4.1 Primary receptors

A small thickness of saturated sand and gravel will remain beneath the site following mineral extraction, groundwater contained within the residual deposit is considered to be the primary receptor in this risk assessment.

4.4.2 Secondary receptors

The existing private water supply source at Charity Farm, east of the site, and the watercourses that flow across the site are considered to be secondary receptors due to the potential horizontal migration of contaminants in groundwater.

The River Stour RAMSAR site is considered to be a secondary receptor due to the potential hydraulic connection between the site and the local watercourses.

5 PROPOSED MANAGEMENT MEASURES

5.1 Pollution control measures

5.1.1 Pollution prevention during extraction stage

While the quarry is active, the potential for pollution of groundwater or surface water through the accidental discharge of chemicals such as fuel oil will be minimised in the following ways:

- Re-fuelling and maintenance of vehicles will be undertaken in designated areas and in accordance with manufacturer's specifications
- Use of chemical spill remediation kits, for use within the quarry in the event of an accident that causes chemical discharge

5.1.2 Control of incoming waste material

In order to ensure the incoming material is appropriate for acceptance at the site, the following information will be required for the strict enforcement of waste acceptance procedures:

- Detailed knowledge of where imported waste has been generated
- Requisite testing before receipt on-site

5.1.3 Engineering

The site will be engineered as outlined in Section 3.2 and using the specifications derived in the HRA.

5.2 Surface water management

5.2.1 Operational stage

It is expected that surface water would drain freely during operation of the site as occurs currently, as site operations will remain above the watertable.

Berms and ditches will be constructed as necessary to limit the amount of surface water run-off entering the active working area during its operational and post-operational phase. Should ponding of water occur on the AGB following a heavy rainfall event, water would be directed towards the active mineral extraction area and infiltrate to ground.

5.2.2 Post-restoration

The proposed afteruse for the site comprises returning the site to existing ground levels for agricultural land use.

No active water management will be undertaken after the restoration of the site is complete. Site-derived overburden (topsoil) will be used to complete the infilling to mimic pre-existing run-off characteristics.

5.3 Run-off monitoring

5.3.1 Rainfall

Rainfall monitoring is not required for this site. It is considered that sufficient information is available, if required, from existing EA and Met Office gauges.

5.3.2 Gas

Gas is not expected to be generated within the site as the proposed waste to be accepted is unlikely to contain large amounts of organic/putrescible material. Gas monitoring of perimeter boreholes should be undertaken to confirm that the site continues to pose a negligible risk from landfill gas throughout the operational phase and the post-closure phase of site development.

5.3.3 Groundwater

Groundwater monitoring is not a requirement for waste recovery sites. However, due to the presence of a nearby private water supply (Charity Farm), monitoring of groundwater quality has been proposed.

The groundwater monitoring scheme is recommended in Section 4 of the accompanying HRA report.

5.3.4 Surface water

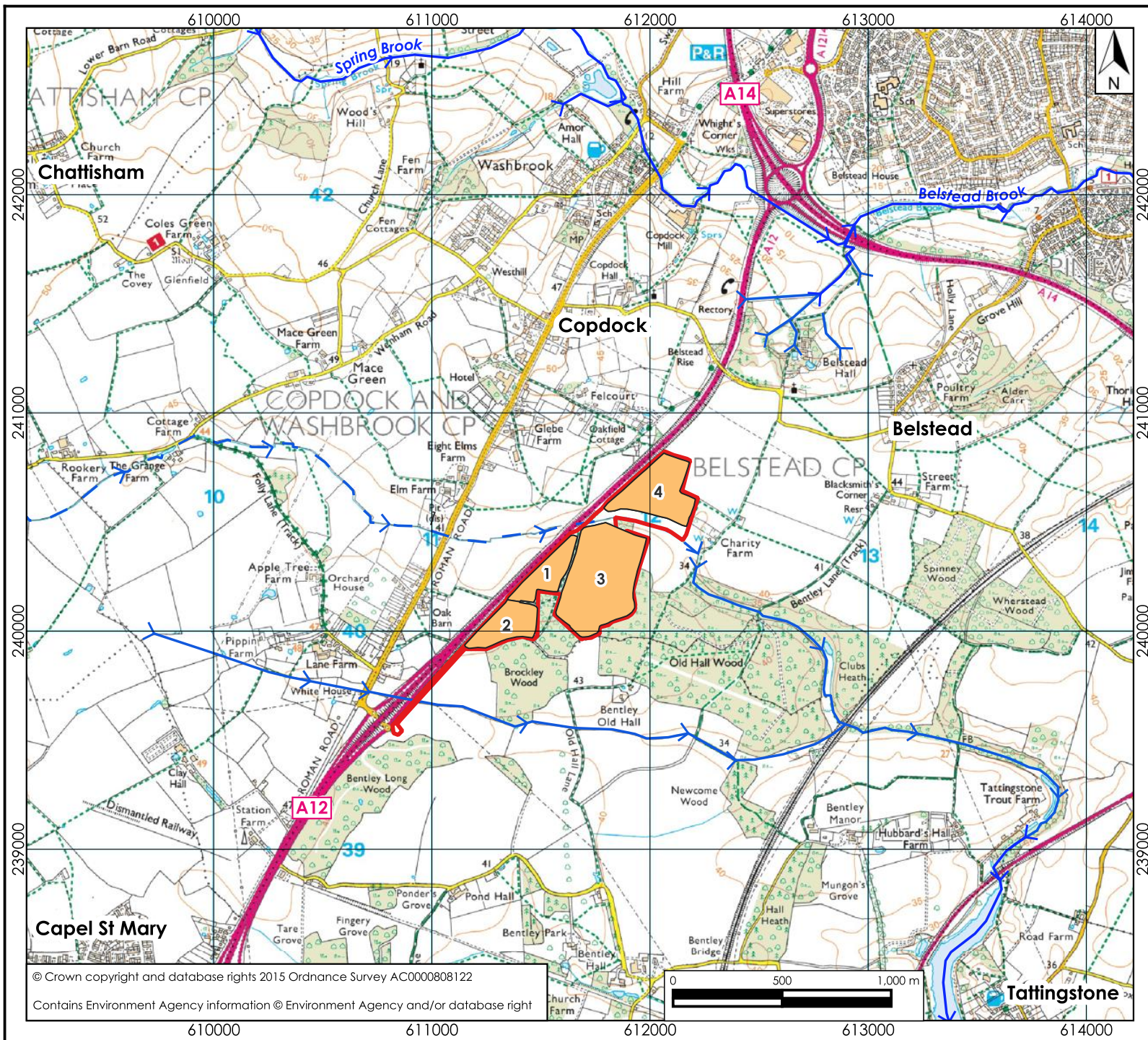
Surface water monitoring is not proposed as it is considered that the groundwater monitoring scheme will be sufficient to identify any impacts before any impact on surface water occurs.

5.3.5 Subsidence and settlement

Differential settlement is not anticipated on a significant scale due to the inert material that will be accepted at the site and the method of its placement. The site and its immediate vicinity are not in an area of former mining, hence subsidence due to mine failure is also not expected.

A final ground level survey will be undertaken after completion of restoration (ie subsequent to any survey undertaken during the operational stage) for comparison with future surveys to identify any settlement that has occurred. In the event of settlement considered to be problematic, remedial measures would be undertaken.

DRAWINGS



Key

Site Location

>—> Watercourse

Extraction Phases

Scale correct at A4

Client Brockley Wood Ventures Ltd

Title Site Location

Project Brockley Wood

Drawing 3777/ESSD/01 Version 2

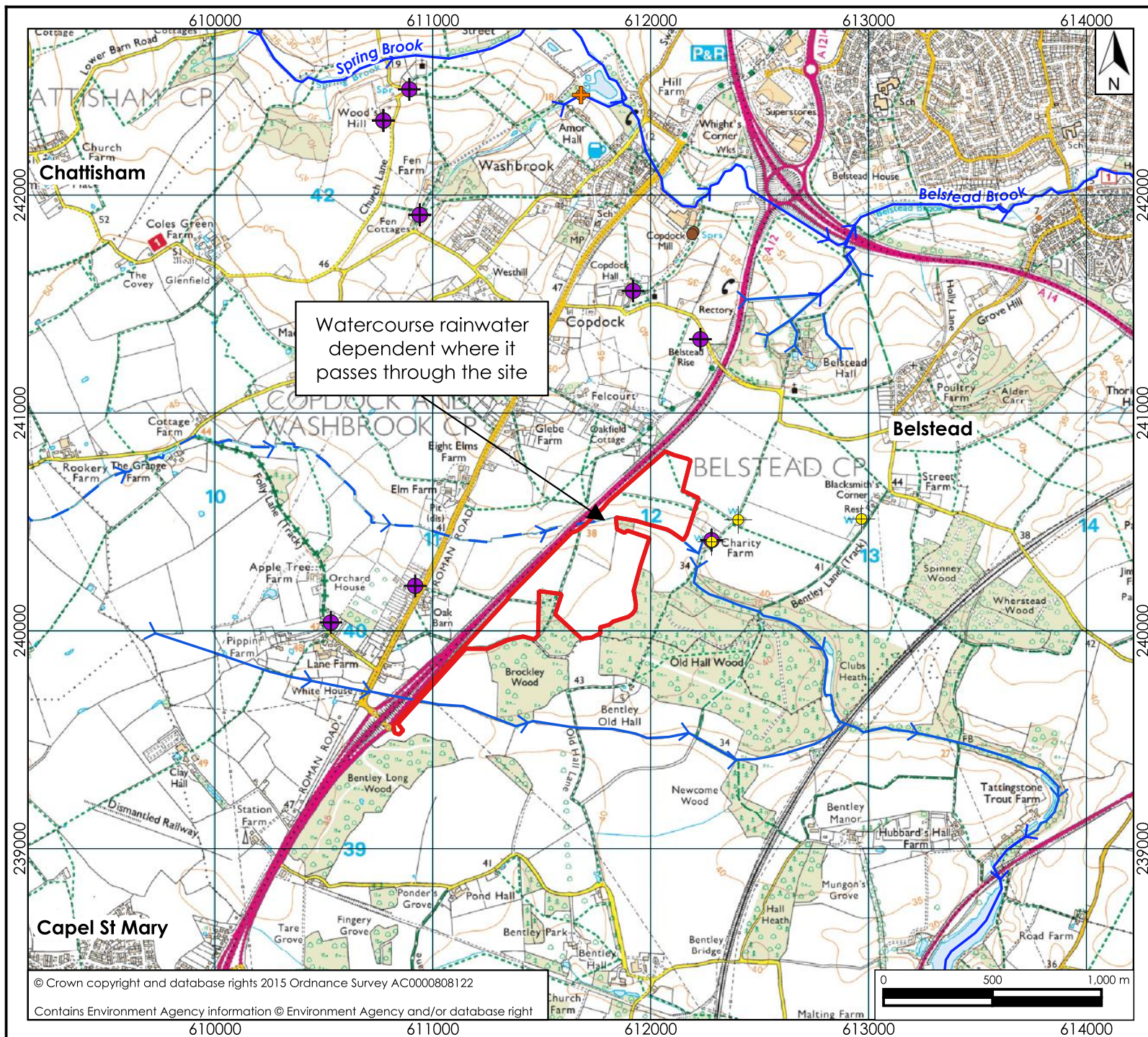
Date Jan 2026 Scale 1:25,000

hafrenwater 
environmental water management

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- Key**
- Site Location
 - > Watercourse
 - + Wells
 - Springs
 - + EA - licensed water abstraction
 - + Suffolk Council - Private water supply

Scale correct at A4

Client Brockley Wood Ventures Ltd

Title Water Features

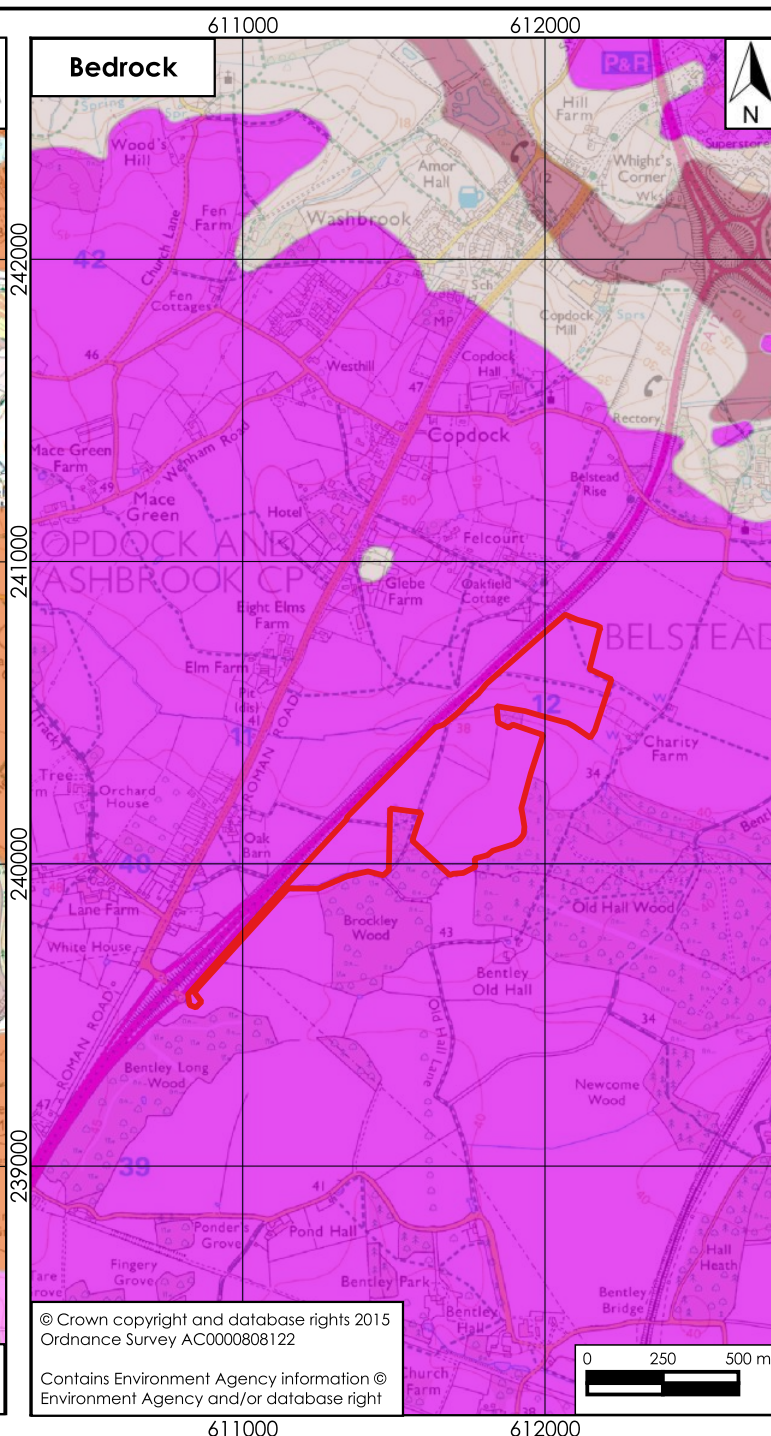
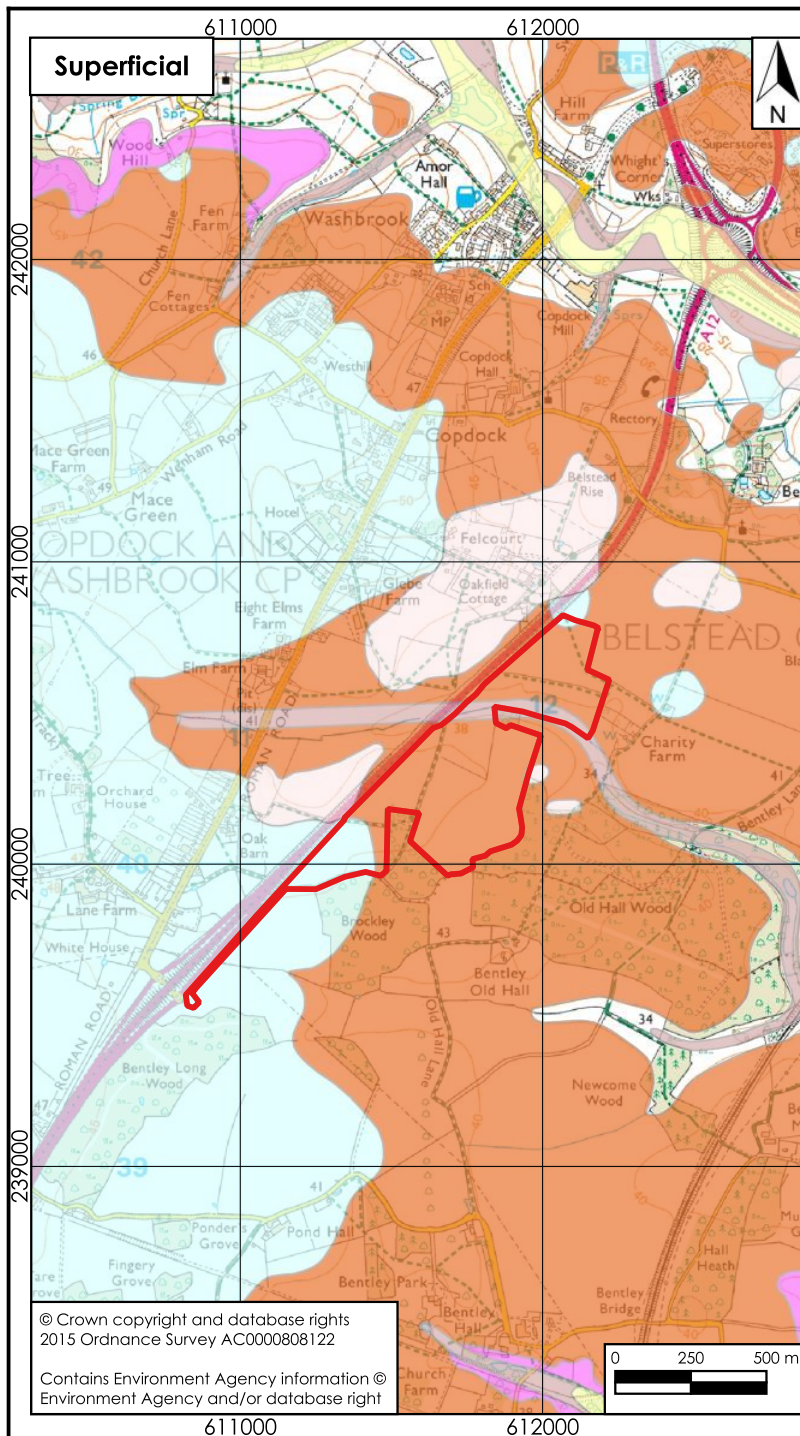
Project Brockley Wood

Drawing 3777/ESSD/02 Version 2

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Key

Site Location

Watercourse

Superficial deposits

Lowestoft Formation - Sand and Gravel

Lowestoft Formation - Diamicton

Head - Diamicton

Bedrock

Red Crag Formation - Sand

Thames Group - Clay, Silt and Sand

Thanet Formation and Lambeth Group (undifferentiated) - Clay, Silt and Sand

Scale correct at A4

Client Brockley Wood Ventures Ltd

Title Geology - Superficial and Bedrock

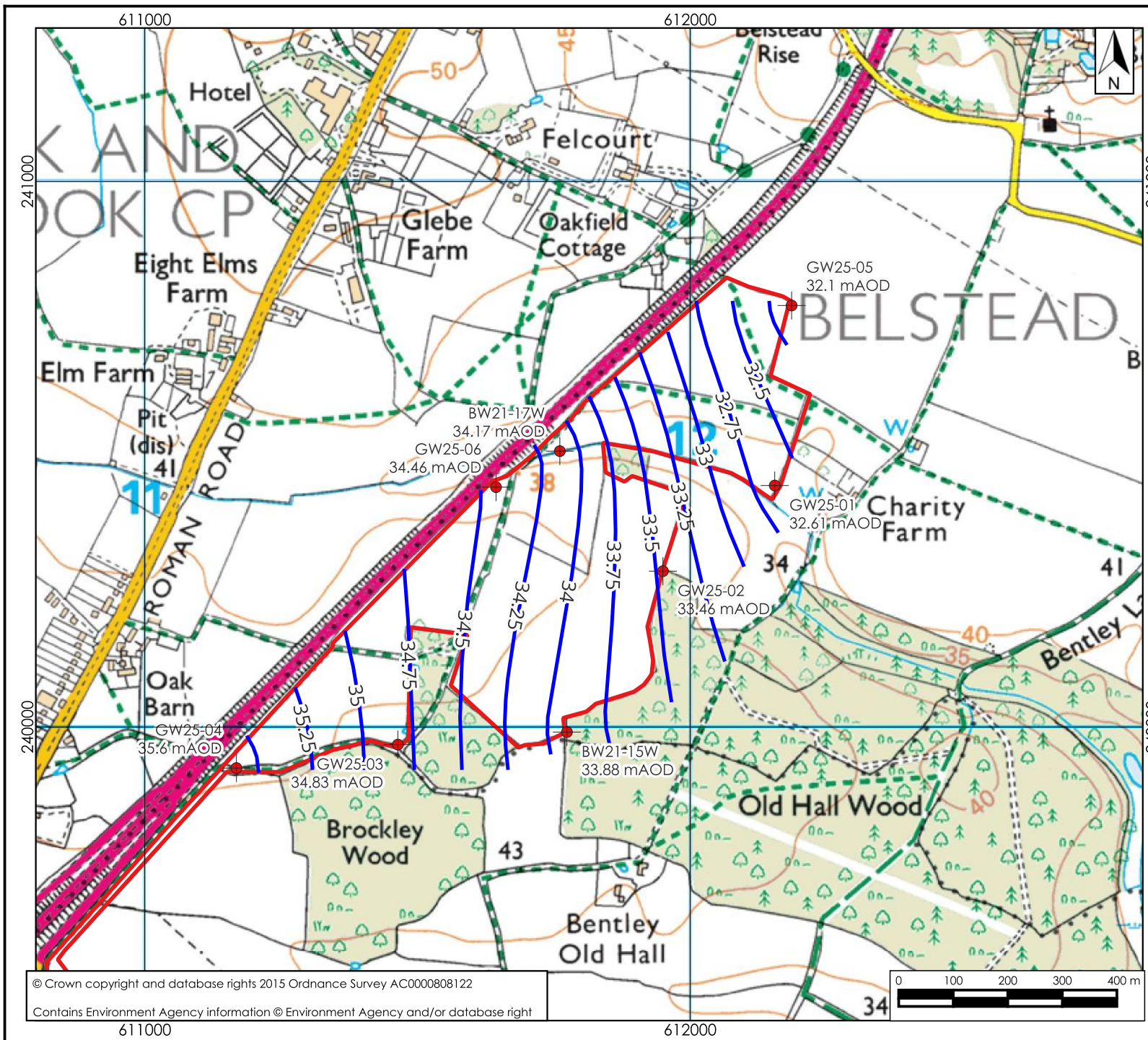
Project Brockley Wood

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environmental water management

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Key

- Site Location
- Monitoring Boreholes
- Groundwater Contours (Sep 2025)

Scale correct at A4

Client Brockley Wood Ventures Ltd

Title Groundwater Contour Plot

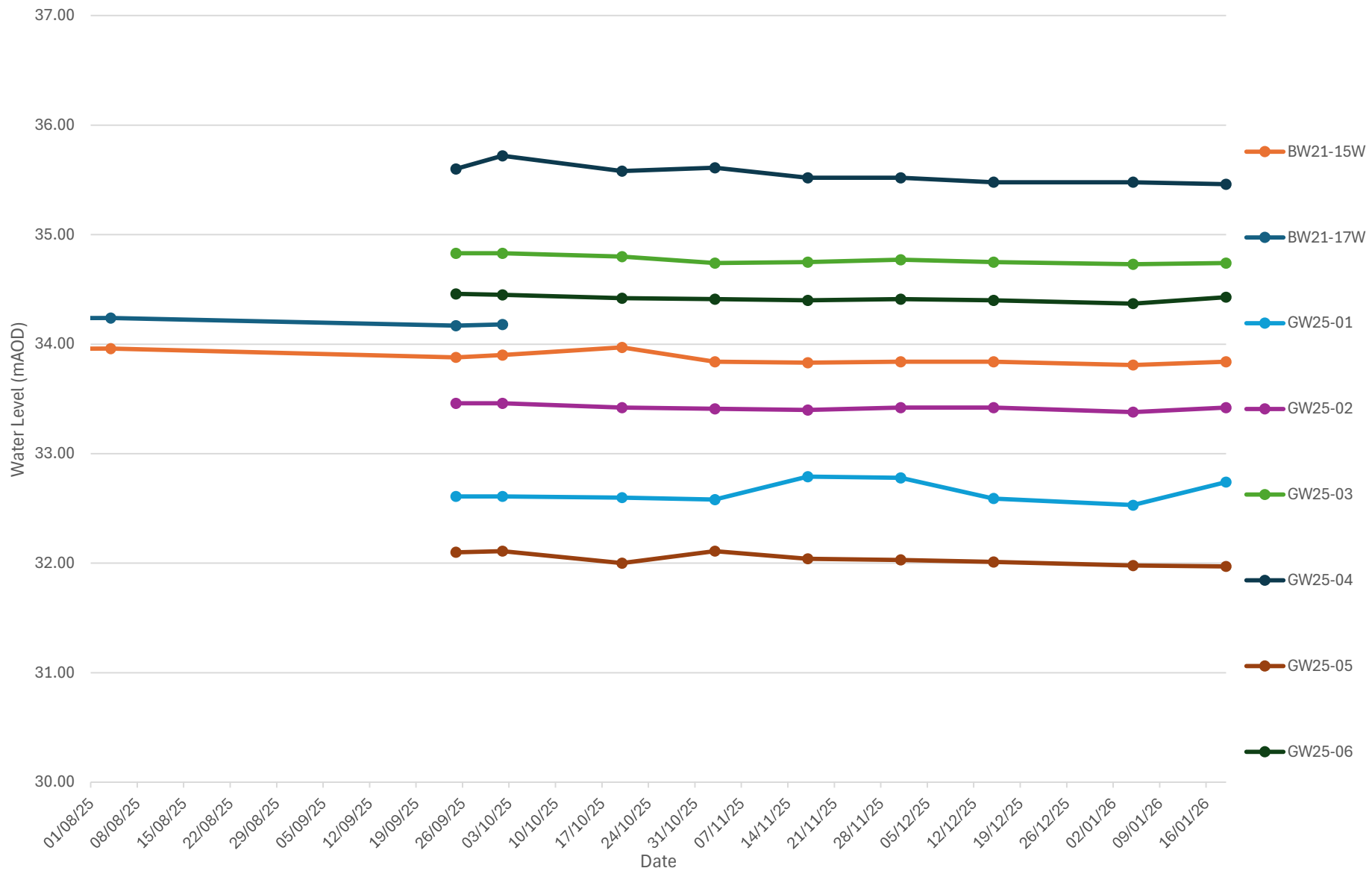
Project Brockley Wood

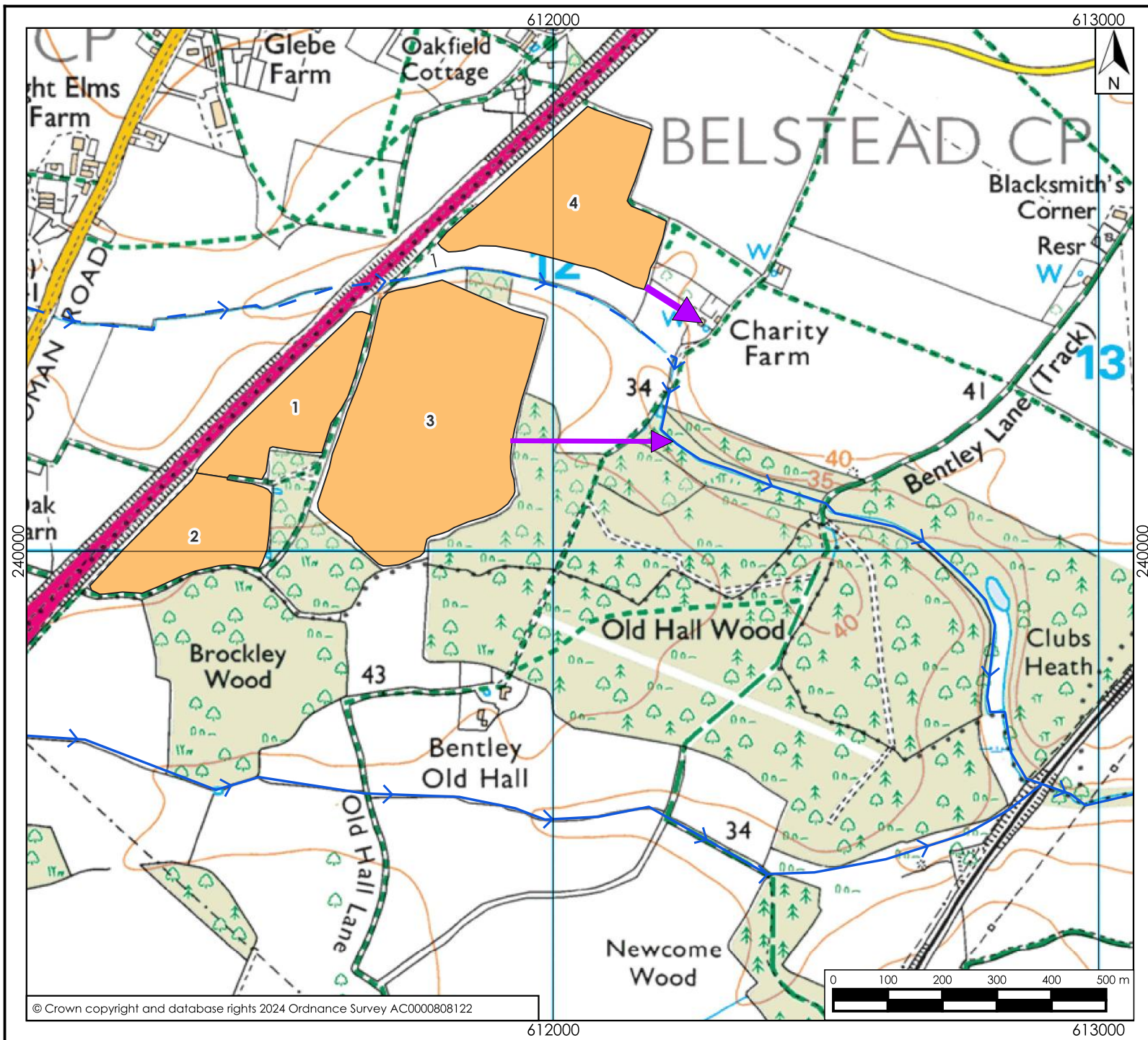
Drawing 3777/ESSD/04 Version 2

Date Jan 2026 Scale 1:10,000

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Key

- Site Boundary
- Extraction Phase
- + Well
- > Watercourse
- > Modelled Pathway

Scale correct at A4

Client Brockley Wood Ventures Ltd

Title Conceptual Plan

Project Brockley Wood

Drawing 3777/ESSD/06 Version 2

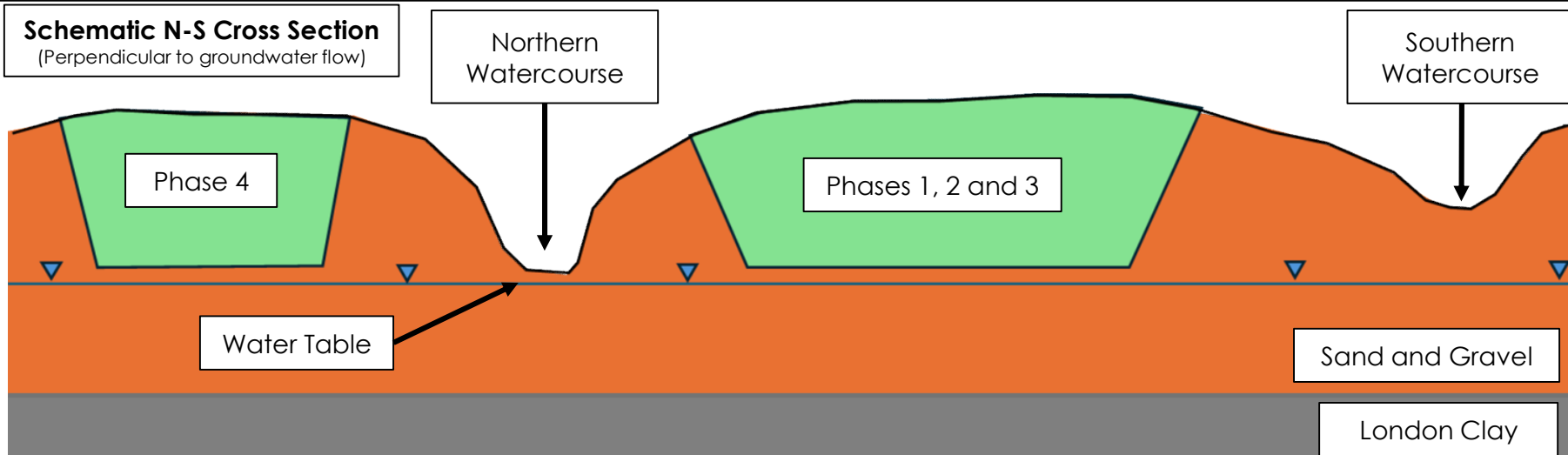
Date Jan 2026 Scale 1:10,000

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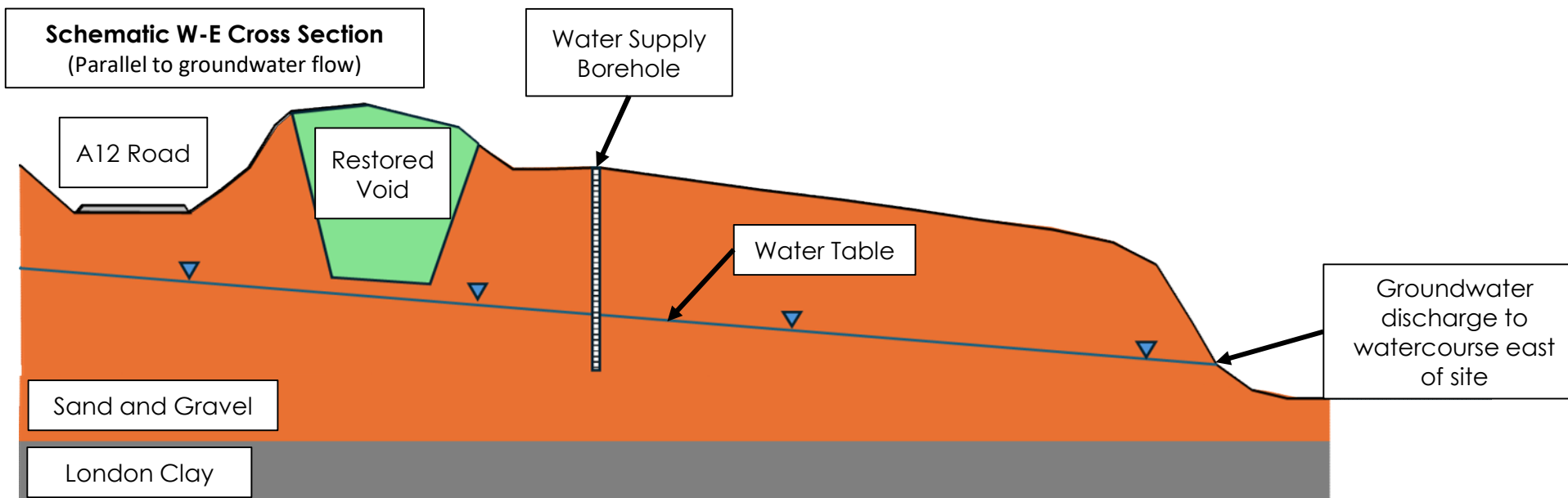
Schematic N-S Cross Section

(Perpendicular to groundwater flow)



Schematic W-E Cross Section

(Parallel to groundwater flow)



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Client Brockley Wood Ventures Ltd

Title Schematic Conceptual Cross Sections

Project Brockley Wood

Drawing 3777/ESSD/07

Date Jan 2026

Version 3

Scale N/A

APPENDIX 3777/ESSD/A1

Groundwater monitoring data

BWV Ltd - Groundwater & Surface Water Levels



Monitoring Borehole	BW21-15W			BW21-17W			GW25-01			GW25-02			GW25-03			GW25-04			GW25-05			GW25-06		
	Ground Level (mAOD)			Ground Level (mAOD)			Ground Level (mAOD)			Ground Level (mAOD)			Ground Level (mAOD)			Ground Level (mAOD)			Ground Level (mAOD)			Ground Level (mAOD)		
	43.526			36.905			35.00			42.44			45.36			45.73			45.02			41.26		
	Casing level			Casing level			Casing level			Casing level			Casing level			Casing level			Casing level			Casing level		
	44.03			37.41			35.43			42.95			45.83			46.22			45.61			41.76		
Min		33.60			33.93			32.61			33.46			34.83			35.60			32.10			34.45	
Max		33.96			34.24			32.61			33.46			34.83			35.72			32.11			34.46	
Average		33.82			34.09			32.65			33.42			34.77			35.55			32.04			34.42	
Date	Depth From Casing	AOD Water Level	Temp / C	Depth From Casing	AOD Water Level	Temp / C	Depth From Casing	AOD Water Level	Temp / C	Depth From Casing	AOD Water Level	Temp / C	Depth From Casing	AOD Water Level	Temp / C	Depth From Casing	AOD Water Level	Temp / C	Depth From Casing	AOD Water Level	Temp / C	Depth From Casing	AOD Water Level	Temp / C
03/07/21	10.24	33.79	N/A	3.32	34.09	N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A
01/08/21	10.27	33.76	N/A	3.37	34.04	N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A
15/12/21	10.43	33.60	N/A	3.48	33.93	N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A
05/01/22	10.40	33.63	N/A	3.44	33.97	N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A
04/08/25	10.07	33.96	N/A	3.17	34.24	N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A		N/A
25/09/25	10.15	33.88	N/A	3.24	34.17	N/A	2.82	32.61	N/A	9.49	33.46	N/A	11.00	34.83	N/A	10.62	35.60	N/A	13.51	32.10	N/A	7.30	34.46	N/A
02/10/25	10.13	33.90	N/A	3.23	34.18	N/A	2.82	32.61	N/A	9.49	33.46	N/A	11.00	34.83	N/A	10.50	35.72	N/A	13.50	32.11	N/A	7.31	34.45	N/A
20/10/25	10.06	33.97	11.9				2.83	32.60	11.9	9.53	33.42	11.9	11.03	34.80	11.9	10.64	35.58	11.9	13.61	32.00	11.9	7.34	34.42	11.9
03/11/25	10.19	33.84	13.8				2.85	32.58	13.8	9.54	33.41	13.8	11.09	34.74	13.8	10.61	35.61	13.8	13.5	32.11	13.8	7.35	34.41	13.8
17/11/25	10.20	33.83	13.1				2.64	32.79	13.1	9.55	33.40	13.1	11.08	34.75	13.1	10.70	35.52	13.1	13.57	32.04	13.1	7.36	34.40	13.1
01/12/25	10.19	33.84	12.7				2.65	32.78	12.7	9.53	33.42	12.7	11.06	34.77	12.7	10.70	35.52	12.7	13.58	32.03	12.7	7.35	34.41	12.7
15/12/25	10.19	33.84	11.6				2.84	32.59	11.6	9.53	33.42	11.6	11.08	34.75	11.6	10.74	35.48	11.6	13.6	32.01	11.6	7.36	34.40	11.6
05/01/26	10.22	33.81	5				2.9	32.53	5	9.57	33.38	5	11.10	34.73	5	10.74	35.48	5	13.63	31.98	5	7.39	34.37	5
19/01/26	10.19	33.84	9.8				2.69	32.74	9.8	9.53	33.42	9.8	11.09	34.74	9.8	10.76	35.46	9.8	13.64	31.97	9.8	7.33	34.43	9.8

SURFACE WATER			SURFACE WATER		
Culvert 1 - Phillip's Road (South)			Culvert 2 - (North)		
Water Present	Temp / C	Picture	Water Present	Temp / C	Picture
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
YES	11.9	YES	NO	N/A	YES
YES	13.8	YES	NO	N/A	YES
YES	13.1	YES	NO	N/A	YES
YES	12.7	YES	NO	N/A	YES
YES	11.6	YES	NO	N/A	YES
YES	5	YES	NO	N/A	YES
YES	9.8	YES	YES	9.8	YES