



CAMBRIDGE SOUTH EAST TRANSPORT PHASE 2

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INTRODUCTION

1. Introduction

1.1 Terms of Reference

AtkinsRéalis UK Limited was commissioned by Greater Cambridgeshire Partnership to undertake otter and water vole surveys in October 2025, in connection with the proposed Cambridge South East Transport Phase 2 Scheme (hereafter referred to as the Proposed Scheme). The Proposed Scheme is located approximately 3.3 km south-east of Cambridge City Centre and includes the area shown within the Proposed Scheme boundary in **Appendix A.1, A.2 and A.3** (hereafter referred to as the Site).

This report summarises the details of the otter and water vole surveys undertaken including the survey methodologies used and summarised results of the field surveys.

The purpose of the surveys was to determine whether otter and/ or water vole are present or likely absent within the Site; provide recommendations to enable compliance with legislation and policy; and, if necessary, identify the need for avoidance, mitigation, compensation or enhancement measures.

A summary of relevant legislation relating to otter and water vole is provided in **Appendix B**.

1.2 The Site

The Site is located to the south east of the city of Cambridge, with several villages adjacent to or near to the Site areas, including Great Shelford, Sawston, Babraham and Great Abington.

The Site and surrounding landscape predominantly comprise arable fields, bordered by hedgerows as well as patches of mixed and broadleaved woodland. The River Granta also passes through several areas of the Site which is where the otter and water vole surveys were primarily undertaken.

1.3 The Proposed Scheme

The Greater Cambridge Partnership is the local delivery body for a City Deal signed by central Government to bring powers and investment to the region, including improvements to critical infrastructure. The Greater Cambridge Partnership comprises five partners:

- Cambridge City Council;
- Cambridgeshire County Council;
- Cambridgeshire & Peterborough Combined Authority Business Board
- South Cambridgeshire District Council; and
- University of Cambridge.

The Proposed Scheme is a mostly new, segregated, guided bus route, travel hub, and active travel path located to the south-east of the city. The Site comprises all the land within the red line boundary. This is the proposed Order Limits as defined in the draft Transport and Works Act Order (TWAO) for the Proposed Scheme.

1.4 Scope of the Assessment

This report presents ecological information obtained during the following:



- A desk-study undertaken in 2025 and presented in the AtkinsRéalis 2025 Ecological Desk Study Report¹;
- Field surveys for otter and water vole undertaken across four days throughout October 2025: 09/10/2025; 27/10/2025, 29/10/2025 and 30/10/2025.

¹ AtkinsRéalis (2025). Ecological Desk-study Report – CSET.



METHODS

2. Methods

2.1 Desk Study

2.1.1 Designated Sites

The desk study comprised the following:

- The Multi-Agency Geographic Information for the Countryside (MAGIC) database² was accessed to obtain information regarding statutory designated sites of nature conservation designated on account of their otter and water vole populations within 2 km of the Site boundary; and
- Desk study records of non-statutory designated sites within 1 km of the Site boundary were received from the Cambridgeshire and Peterborough Environmental Records Centre (CPERC) in September 2025.

2.1.2 Aquatic Feature Screening for Field Surveys

Watercourses and waterbodies that had potential to support otter and water vole, plus areas with terrestrial habitat suitability for otter only, within 250 m of the Site boundary, were identified from multiple mapping sources, including Ordnance Survey (OS) mapping and publicly available aerial imagery:

- Watercourses are defined as rivers and streams (where regularly flowing water was identified) and ditches/ drains (where it is assumed that the channels contain standing water during normal conditions, and/ or regularly dry out);
- Waterbodies are defined as ponds (man-made or natural standing waterbodies less than 20,000 m² or 2 ha), lakes (man-made or natural standing waterbodies greater than 20,000 m² or 2 ha), or canals (artificial waterway with standing water);
- Suitable terrestrial habitats for otters include woodlands, large reedbeds and large areas of scrub;
- Waterbodies and terrestrial habitats were only considered to have potential when in proximity (within 100 m) to a watercourse providing habitat connectivity for commuting and dispersal.

2.1.3 Biological Records

The MAGIC website was consulted in September 2025 for records of any granted European Protected Species (EPS) mitigation licences for otter within 1 km of the Site.

Recent³ desk study records of otter and water vole within 1 km of the Site were received from the CPERC in March 2025.

2.2 Field Survey

Following the screening exercise, watercourses/ waterbodies that were screened in for survey were subject to a habitat suitability assessment for both otter and water voles (see Section 2.2.2 and Section 2.2.3 for details). Where watercourses/ waterbodies were deemed suitable following the habitat suitability assessments they were subject to presence/ likely absence surveys for both otter (Section 2.2.4) and water vole (Section 2.2.5).

² DEFRA (2019). Multi-Agency Geographic Information for the Countryside (MAGIC). Available at: <https://magic.defra.gov.uk/> [Accessed November 2025].

³ Recent records includes those up to 10 years prior to data request.



As the habitat requirements for otter and water vole are similar, the habitat suitability and presence/ likely absence surveys were combined. Where a watercourse was accessible, otter and water vole surveys were undertaken from within the channel using waders. Where a watercourse was not accessible from within the channel, the survey was completed from the top of the bank or the bank itself.

The otter and water vole surveys were undertaken across four days due to the size of the Survey Area and land access arrangements. The dates of surveys were: 09/10/2025, 27/10/2025, 29/10/2025 and 30/10/2025. Water vole good practice survey guidance⁴, proposes that an early season (mid-April to end of June) survey and late season (July to October inclusive) survey are carried out to account for changes in habitat suitability over the course of the breeding season. This report sets out the results for the first survey covering the late season and the results for the early season survey will be reported in a separate report once the survey has been undertaken. The early season survey is planned for Spring 2026.

All otter and water vole surveys detailed below were planned and undertaken by suitably experienced AtkinsRéalis ecologists in accordance with good practice guidelines^{5,6} Chartered Institute of Ecology and Environmental Management (CIEEM) competencies for undertaking otter⁷ and water vole⁸ surveys.

The surveys also aimed to record any incidental habitat suitability and field evidence for white-clawed crayfish within the study area.

2.2.1 Defining the Survey Area

Aquatic features have been screened for otter field survey where the feature was within 250 m of the Site (hereafter the Survey Area) and not separated from the Proposed Scheme by a major barrier to the movement of otter or subject to a high baseline level of disturbance. The screened in aquatic features were then surveyed approximately 250 m up and downstream from the Site at all interaction points (where considered proportionate to likely fragmentation effects). This forms the Ecological Zone of Impact (EZOI) for otters. It ensures that potential disturbance to natal holts (which can be subject to effects up to 250 m from the source of disturbance) is considered.

Aquatic features were screened for water vole field survey where an aquatic feature considered suitable to support water vole was within 100 m of the Site, this forms the EZOI for water vole. However, where watercourses/ waterbodies were surveyed within 250 m of the Site for otter, checks for water vole were also undertaken.

2.2.2 Otter Habitat Suitability Assessment

Habitat suitability assessment for otter considered habitat preferences for otter and whether each riparian feature surveyed was potentially suitable to support otter, specifically:

- Water level (although otter will utilise dry watercourses for commuting);
- Food supply and variability (varied food types including fish, amphibians, small mammals and birds to provide year-round foraging resource);
- Pollutants (particularly those likely to affect prey availability);
- Levels of disturbance e.g. from people, dogs and livestock;

⁴ Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)*. Eds Mathews, F. and Chanin, P. The Mammal Society, London.

⁵ Chanin, P. (2003). *Monitoring the otter Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No 10. Peterborough, English Nature.

⁶ Strachan, R., Moorhouse, T. and Gelling, M. (2011). *Water Vole Conservation Handbook*. Third Edition. Wildlife Conservation Research Unit, Oxford.

⁷ CIEEM (2013). *Competencies for Species Survey: Eurasian Otter. Technical Guidance Series*. Chartered Institute of Ecology and Environmental Management, Winchester [Online]. Available at: https://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/CSS/CSS_-_EURASIAN_OTTER_April_2013.pdf [Accessed: October 2025].

⁸ CIEEM (2013). *Competencies for Species Survey: Water Vole. Technical Guidance Series*. Chartered Institute of Ecology and Environmental Management, Winchester [Online]. Available at: https://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/CSS/CSS_-_WATER_VOLE_April_2013.pdf [Accessed: October 2025].

- Connectivity to other suitable habitat (including potential barriers such as culverts, weirs and high flows which may impede otter movement);
- Amount of dense, impenetrable cover (e.g. screens and barriers from potential sources of disturbance such as people, livestock, and dogs); and
- Suitable habitat providing resting/sheltering opportunities (e.g. fallen trees, hollow trees, areas of dense scrub, log piles, stone walls or gabion baskets).

During the habitat suitability assessment, any features that were unsuitable to support otters (based on factors including levels of disturbance, surrounding land use, food sources, and connectivity to suitable habitat) were ruled out of further assessment. Where habitats were deemed suitable to support otter, a detailed survey for field signs was undertaken.

2.2.3 Water Vole Habitat Suitability Assessment

The habitat suitability assessment for water vole considered the habitat preferences of water vole and whether each riparian feature surveyed was potentially suitable to support water vole, specifically:

- Dry areas above water level for nesting (burrows or above ground nests);
- Bank profile (steep banks are preferred, though not essential, as water vole may exploit shallower profiles);
- Bank substrate suitable for burrowing;
- Presence, density and type of vegetation on bank and in channel to provide food and cover;
- Shading of the watercourses (excessively shaded watercourses are generally of lower suitability);
- Water level and typical fluctuations;
- Water level as a means of escape from predators; and
- Connectivity to other suitable habitat (including potential barriers such as busy roads and large areas of hard standing, which may affect water vole movement).

During the habitat suitability assessment, any habitat features that were unsuitable to support water voles (based on factors including bank profile, food resources, levels of disturbance, and connectivity to wider suitable habitats) were ruled out of further assessment. Where habitats were deemed suitable to support water vole, a detailed survey for field signs was undertaken.

2.2.4 Otter Field Sign Survey

Where riparian or terrestrial habitat was deemed suitable for otter, a detailed search for signs of otter presence was undertaken on foot adjacent to/ from within the watercourse or waterbody within the study area. The field sign surveys involve searching for the following evidence:

- Footprints;
- Spraints;
- Anal jelly;
- Slides/scrapes;
- Feeding remains;
- Direct observation of individuals; and
- Holts/ potential holts and other potential resting sites.

Where potential holts and other resting site features were identified and could be sufficiently accessed for assessment, these are referred to using the following terms:

- **Holt:** a cavity or hole in a riverbank, in the ground, under tree roots, within rocks, or caves, where the back cannot be readily seen. If active this will usually contain field evidence such as spraints;
- **Hover:** a bolt hole or ledge that will afford an otter temporary cover or a place to feed on captured prey. The back of a hover can usually be seen. If active there may be field evidence present, such as footprints, spraints, or feeding remains;



- **Couch:** above ground location where an otter can lie up or groom. These may take the form of a simple swirl or depression in tall grasses where the otter has laid, or may be covered in a vegetated grass or reed 'roof';
- **Nursery area:** an area utilised for play by young cubs close to the entrance of a holt, usually consisting of a well-worn area of grass/ bank; or,
- **Natal holt:** a holt in which cubs are born.

2.2.5 Water Vole Field Sign Survey

The presence/ likely absence surveys involved a detailed search along the watercourse and waterbody banksides⁹ (where safe and permitted access allowed) for signs of water vole including the following:

- Burrows;
- Runs;
- Droppings;
- Latrines;
- Prints;
- Hearing distinctive sound of water vole entering water;
- Feeding remains; and
- Direct observation of individuals.

In addition, field signs of American mink (a significant predator of water vole) were recorded where encountered, including the presence of any footprints and droppings (scat).

Water vole presence/ likely absence surveys were scheduled to be carried out during dry weather with no heavy rainfall recorded within the previous two days, to avoid conditions where positive field signs would have been washed away.

2.3 Limitations

This section identifies any limitations to the surveys or assessment and provides an explanation as to the effect of these on the appraisal.

An absence of desk study records for a particular species does not necessarily convey an absence of such species in that area but is often a facet of under-recording and/ or reporting to the relevant local environmental records centre. The desk study provides an overview of the species already recorded within the Survey Area and has been used to help inform the requirement for field surveys. As such this is not considered to be a constraint to the interpretation of the desk study records.

The desk study search for watercourses and waterbodies was undertaken using Ordnance Survey plans and aerial photographs. These sources may not show all minor watercourses and waterbodies located within the Survey Area and, therefore, some watercourses and waterbodies may not have been identified and may not have been included in the survey effort. However, UK habitat classification surveys were previously completed within areas where access permission was granted and would have identified the majority of aquatic features including minor watercourses and waterbodies. As such, it is unlikely that minor watercourses and waterbodies have been missed from the survey effort in areas where access was granted.

Some of the watercourses/ waterbodies present within the Survey Area for which land access had been agreed were inaccessible in part due to physical or safety constraints such as steep banks, dense vegetation cover, deep water and

⁹ The strip of marginal vegetation at the toe of the watercourses bank extending at least 1 m out into the water and at least 1 m up the bank.

fencing. In these scenarios best effort approach was employed, surveying from the opposite bank of the watercourse where possible and surveying all accessible areas. This applied to:

- Hobson's Conduit (only one bank could be surveyed as the other bank was dominated by scrub and was almost vertical);
- River Granta Section 1 (dense reed and bankside vegetation in some areas made those areas completely inaccessible);
- River Granta Section 2 (southern bank inaccessible with dense vegetation and water too deep to wade through); and,
- Pond 1 (some areas inaccessible due to dense vegetation). However, this is not deemed to be a significant constraint as at least part of these features were accessible for survey.

Despite these limitations, it is considered that the information provided, and subsequent analysis has given an accurate indication of the otter and water vole populations present within the Survey Area at the time of the surveys.



RESULTS

3. Results

3.1 Desk Study

3.1.1 Designated Sites

There are no statutory designated sites within 2 km or non-statutory designated sites within 1 km of the Site boundary with citations and/ or designations relating to otter or water vole.

3.1.2 Otter

CPERC provided three recent records of otter within 1 km of the Site boundary, with these all of otter spraint recorded in 2017. Two of the spraint records were associated with Hobson's Brook near to the north of the Site (with approximate locations at OSNGR TL 453 549 and TL 459 541). The third spraint record was associated with the River Granta located near to the south of the Site (approximate location of OSNGR TL 510 502).

A search on MAGIC returned no granted EPS mitigation licences for otter within 1 km of the Site boundary.

Surveys for otter were undertaken in 2020¹⁰ and 2022¹¹ as part of previous assessments of the Proposed Scheme. The 2020 survey identified evidence of otter which are summarised in Table 3-1:

Table 3.1 – Summary of 2020 Otter Survey Results

Reference	NGR	Evidence	Notes
1	TL 48477 51240	Otter spraint	The spraint was located on an exposed tree root above the river bank.
2	TL 48477 51240	Potential otter couch	The potential couch was located under a fallen tree which was located on the river bank. Otter footprints were also found on the bank in front of the potential couch and on the bank of the adjacent land drainage ditch discharging into the River Granta.
3	TL 51774 49439	Potential otter couch	The potential couch had smudged suspected otter footprints around the area. The area was well sheltered and located on the northern river bank.
4	TL 51833 49341	Otter spraint	There is otter spraint staining on the northern bank of the river, under the bridge for the A11.
5	TL 51831 49336	Otter spraint	Two otter spraints were found on the southern bank of the River Granta, under the A11.
6	TL 51831 49336	Otter slide	Two potential otter slides were found on the southern bank of the River Granta, under the bridge for the A11. Two otter spraints were found next to the potential slide locations.

¹⁰ Appendix I.2 CSET-059 For Greater Cambridgeshire Partnership June 2020, Cambridge South East Transport Strategy (CSET) Factual Otter Report

¹¹ Greater Cambridgeshire Partnership Cambridge South East Transport (CSET) Phase 2 Water Vole and Otter Survey Report, December 2022

7	TL 51868 49324	Otter slide	A potential otter slide was found on the southern river bank, under the bridge for the A11.
8	TL 51870 49328	Otter spraint	Four otter spraints were found under the bridge for the A11. All four spraints were located within a 1 m linear distance, along the northern river bank.
9	TL 51833 49341	Otter slide	A potential otter slide was located on the northern bank of the River Granta, under the bridge for the A11. Evidence of otter spraint staining was found next to the slide location.
10	TL 51868 49324	Potential otter resting place	The drainage holes from the bridge may provide suitable refuge for otter, due to other features identified including spraints and a potential slide it could not be determined if this feature has been or is being used as a potential otter resting place.
11	TL 51831 49336	Potential otter resting place	The drainage holes from the bridge may provide suitable refuge for otter, due to other features identified including spraints and a potential slide it could not be determined if this feature has been or is being used as a potential otter resting place.

The 2022 survey for otter is summarised in Table 3-2:

Table 3-2 - Summary of 2020 Otter Survey Results

River Section	Suitability	Results
River Granta at Babraham	This section provides good quality habitat for foraging and sheltering otter with plenty of undisturbed bankside cover for resting in woodland, scrub and among mature tree roots.	Spraints and feeding remains recorded along with resting places including lay-ups under mature tree roots on the banks.
River Granta and surrounding ditches – Stapleford	The River Granta provides an undisturbed and sheltered corridor for foraging, commuting and sheltering otter with feeding opportunities including crayfish. The river and surrounding ditch network provide a range of sheltering amongst mature trees, scrub and woodland.	Spraints and feeding remains recorded along with resting places including lay-ups under mature tree roots on the banks.
Hobson's Conduit, Nine Wells D4 and surrounding ditches	Hobson's Conduit provides some commuting and potentially foraging opportunities for otter. The watercourse margins and Nine Wells woodland could also support resting and sheltering otter, although these areas are highly disturbed by dog walkers and cyclists	None recorded

3.1.3 Water Vole

CPERC provided seven recent records of water voles within 1 km of the Site boundary. Six of these records are concentrated around the Hobson's Brook, Hobson's Conduit and Vicar's brook towards the north of the Site boundary (approximate locations at OSNGR TL 4593 5419, TL 460 544, TL 522 490, TL 459 541, TL 455 547, TL 45 56 and TL 45 56) and recorded between 2015 and 2025. The final record is of burrows, feeding remains and latrines associated with the River Granta near to Great Abington at OSNGR TL522490 in 2015.



Surveys for water vole were undertaken in 2020¹² and 2022¹¹ as part of previous assessments of the proposed scheme. The 2020 survey identified evidence of otter are summarised in Table 3-3 below:

Tabel 3.3 - Summary of 2020 Water Vole Survey Results

River Reference	Results
River Granta at Babraham	No evidence of water vole confirmed on either survey. A potential set of water vole footprints were recorded close to the weir.
River Granta at Stapleford	No signs of water vole activity were recorded on the River Granta at Stapleford during survey one. During survey two several feeding stations were noted in stands of reed-canary grass and six burrows were recorded. A small number of latrines was also recorded.
Drainage Ditch at Deal Farm	Due to access constraints floats were used; with droppings recorded.
Hobson's Conduit, Nine Wells	During the first survey approximately 30% of the watercourse could be surveyed with four burrows recorded. The second survey recorded only three burrows. No latrines, droppings or feeding signs were recorded. Floats were used and recorded small numbers of droppings.

The 2022 survey for otter is summarised in Table 3.4 below:

Tabel 3.4 - Summary of 2022 Water Vole Survey Results

River Section	Suitability	Results
River Granta at Babraham	Good quality habitat with sloping earth banks and in-channel and marginal vegetation in more open areas with some areas suitable but poor habitat due to the extent of shading from bankside trees, scrub and woodland.	Two latrines towards the western end of the survey area confirmed presence along with potential water vole burrows, footprints and feeding remains recorded along the majority of the survey area, although latrine evidence was reduced further east.
River Granta – Stapleford	The river provides generally good/ optimal water vole habitat with abundant in-channel, marginal and bankside herbaceous vegetation, soft sloping earth banks for burrow creation and a consistent slow flow of water with only some areas of bankside shading from scattered mature trees.	Water vole latrines were recorded along with potential water vole burrows, footprints and feeding remains along much of the survey area where view of the banks was possible (some areas were very dense).
River Granta surrounding ditches – Stapleford	Ditch D2E and sections south of this also provide good quality habitat with sloping earth banks, vegetation and minimal shading, however these are more prone to drying, with tall in channel vegetation becoming abundant. In consistently dry years, these ditches may provide suitable but poor-quality habitat which water vole may use opportunistically. Similarly, the ditches north of the River Granta appear to dry regularly but could support water	The drainage ditch D2E was dry and densely vegetated with steep banks and so close inspection was not possible. This area has supported water vole previously, as noted in the 2020 surveys, but signs were not able to be identified this year. Water voles may still be present in this area.

¹² Cambridge South East Transport (CSET) Phase 2 Water Vole Report, March 2021

	vole opportunistically, particularly if they occasionally hold water and if populations spread from the River Granta.	Other ditches around D2 Water voles were not confirmed as present in any other ditches surveyed in this area, during these surveys.
Hobson's Conduit, Nine Wells D4 and surrounding ditches	Good/ optimal habitat for water voles with abundant marginal and bankside vegetation, sloping earth banks and only scattered shading on one side.	Burrows are still visible amongst dense vegetation in the channel (not entered due to steep banks and deep silt). One area of water vole droppings was recorded within the shallow channel in Nine Wells woodland, amongst signs of rats including droppings, plus a number of relatively large burrows which are likely also attributable to rats.

3.1.4 Aquatic Feature Screening

Initially six ditches, two waterbodies and one river (The River Granta) were identified within 250 m of the Site boundary, of which all were screened in for field surveys. However, during the field surveys ditches 2 to 6 were screened out of further survey due to being dry at the time of survey and not deemed to be wet during any time of year. During the field surveys, the River Granta was separated into five distinct sections based on changes in character and varying habitat suitability for water vole.

All of the ditches, watercourses and waterbodies located within 250 m of the Site boundary, whether screened in or out, are shown in the watercourse and waterbody plans (Figures A-4 to A-6) in **Appendix A4 – A6**. Photos of the watercourses and waterbodies that were surveyed are shown in Table D-1 in **Appendix D.1**.

3.2 Field Surveys

3.2.1 Otter

A total of one ditch, two sections of the River Granta (where it flows through two separate sections of the Site), and two waterbodies were subject to otter habitat suitability assessments and field sign surveys.

Hobson's Conduit was identified as being suitable for commuting and foraging otter, with this watercourse being a tributary of Hobson's Brook, however, no potential resting sites or any evidence of otter were identified.

The River Granta was found to be suitable for commuting and foraging otter. Numerous potential resting sites were identified on all sections of the river including holts, couches and hovers. Various field signs of otters were recorded along all sections of the River Granta, including spraints of varying age classes, feeding remains (primarily of signal crayfish) and footprints, highlighting the regular use of this watercourse by otter.

The two waterbodies (Pond 1 and Pond 2) located adjacent to the River Granta are likely only used by otter for foraging. The small waterbody (Pond 1) is likely an overflow of the River Granta, whereas Pond 2 is a larger man-made agricultural pond likely used to irrigate adjoining arable fields. Both of these may offer foraging opportunities for otter, mostly of amphibians.

A more detailed overview of the results of these surveys are outlined below in Table 3.1, as well as on the otter habitat suitability and evidence plans in Figures C-1 to C-3 in **Appendix C.1 – C.3**. Photos of several potential resting sites and other otter field evidence recorded during surveys are shown in Table D-2 in **Appendix D.2**.



Table 3.1 - Otter Habitat Suitability Assessments

Feature ID	Date of Visit	Habitat Description	Suitability for Otter
Hobson's Conduit	09/10/2025	Watercourse with clear, slow flowing water approximately 2 m wide and 0.5 m deep. Hobson's Conduit is a manmade trapezoidal watercourse conveying chalk spring water from the Nine Wells Local Nature Reserve to Hobson's Brook. Terrestrial habitat is limited due to adjoining land being arable fields, with patches of longer grassland and is adjacent to Public Right of Way (PROW) indicating some disturbance. Food supply is good, with amphibians and crayfish likely, possibly fish. No obvious pollution but there may be run-off from adjacent arable fields.	Suitable for foraging and commuting but no resting sites and no direct evidence of otter recorded. There was one clear path leading into the watercourse; however, this was near a PROW and likely from dogs with no evidence of otter nearby.
River Granta Sections 1/2/3	30/10/2025	Section of the River Granta, with slow flow and approximately 3 m wide and 0.5 m deep at time of survey. Cobbled bed and earth/ stony banks. There is good terrestrial habitat with lines of trees along river (roughly 30% coverage) and some adjacent woodland. However, there is limited connectivity to other potential areas of terrestrial habitat within the wider area. Connectivity along the river is good for dispersal. Adjacent land is arable farmland with moderate disturbance. Food supply is good, with crayfish and fish. No obvious pollution but could be run-off from adjacent arable fields.	Suitable for foraging and commuting, plus numerous resting sites recorded including one moderate status hover, ten potential couches and one potential holt. Also, evidence of otter throughout with multiple spraints, prints and feeding remains (of signal crayfish).
River Granta Sections 4/5	30/10/2025	Section of the River Granta, with slow flow and approximately 3 m wide and 1 m deep at time of survey. Cobbled bed and earth/ stony banks. There is good terrestrial habitat with lines of trees along river with these dominated by mature willows, and adjacent woodland to the east. Connectivity along the river is good for dispersal, with two adjacent ponds also. Adjacent land is predominantly arable farmland with moderate disturbance. Food supply is good, with crayfish and fish. No obvious pollution but could be run-off from adjacent arable fields.	Suitable for foraging and commuting, plus numerous resting sites recorded mainly afforded by fallen or broken mature willows, including five potential hovers, two potential couches and one potential holt. Also, numerous old and fresh spraints were identified throughout.
Pond 1	09/10/2025	Small pond adjacent to the River Granta, with it likely an overflow from the river.	Only suitable for foraging otter with no resting sites identified.

Feature ID	Date of Visit	Habitat Description	Suitability for Otter
		There are some wooded areas present adjacent to the pond but mostly arable fields. Good connectivity to adjacent river. Food supply is likely amphibians, and some pollution is possible from field run-off.	
Pond 2	27/10/2025	Large pond adjacent to River Granta, with this man-made with lining present and the waterbody pumped to manage water levels and likely for irrigation of arable fields. Areas of taller grass adjacent to the pond and mostly arable fields. Good connectivity to adjacent river. Food supply is likely amphibians, and some pollution is possible from field run-off.	Only suitable for foraging otter with no resting sites identified.

3.2.2 Water Vole

For water vole, Hobson's Conduit, the two distinct sections of the River Granta (separated into five sections for water vole based on habitat suitability assessments), and the two waterbodies were subject to habitat suitability assessments and field sign surveys.

Hobson's Conduit was identified as being good suitability habitat for water vole, yet water vole are considered likely absent from this ditch as no definitive evidence of water vole was recorded during the survey.

Sections 1 and 2 of the River Granta were both considered as suitable but poor habitat for water vole, with their presence here considered unlikely based on an absence of any field evidence. However, Section 3 of this stretch was identified as good habitat for water vole, particularly in areas along the river where shading was minimal and marginal riparian vegetation was most abundant. Based on the late season survey along Section 3 of the River Granta, evidence was identified to indicate the presence of water vole including droppings and latrines, although no burrows were recorded here.

Sections 4 and 5 of the River Granta was considered suitable but poor habitat for water vole. No evidence of water vole was found along this section suggesting their absence from this stretch of the River Granta.

Pond 1 was categorised as good habitat for water vole, although this pond is likely an overflow from the adjacent River Granta. No water vole evidence was identified around the pond so they are also considered likely absent from here. Pond 2, the larger man-made agricultural pond was deemed as being negligible habitat for water vole due to lining preventing burrowing opportunities, steep banks and the absence of any emergent or marginal vegetation. No evidence of water vole was identified around Pond 2.

No evidence of water vole was found on Hobson's Conduit; however, it was identified as good habitat and is a tributary of Hobson's Brook where there are several recent records of water vole. Therefore, the presence of water vole along Hobson's Conduit cannot be ruled out entirely without an early season (mid-April to end of June) survey.

Similarly, the presence of water vole on River Granta Sections 1, 2, 4, and 5, and Pond 1 cannot be entirely ruled out as the habitat is suitable, albeit poor, and water vole were found in Section 3 which is directly connected. However, given the poor habitat suitability (compared to good habitat in Section 3 where water vole are present), the good access for survey, and that evidence of water vole presence was readily found in Section 3 it is considered most likely that water vole are currently likely absent from these locations.



A more detailed overview of the results of the water vole surveys are outlined below in Table 3.2, as well as on the water vole habitat suitability and evidence plans in Figures C-4 to C-6 in **Appendix C4 – C.6**.

Table 3.2 – Water Vole Habitat Suitability Assessments and Survey Results

Feature ID	Date of Visit	Habitat Description	Habitat Suitability	Presence/ likely absence survey results
Hobson's Conduit	09/10/2025	Watercourse with clear, slow flowing water approximately 2 m wide and 0.5 m deep. Hobson's Conduit is a manmade trapezoidal watercourse conveying chalk spring water from the Nine Wells Local Nature Reserve to Hobson's Brook. Earth banks which are steep (approaching 1:1). No noticeable variation in water levels during the summer months, banks are not overtopped regularly, and permanent water throughout year. Bramble and grasses dominant along banks, with 10% cover of marginal/ emergent vegetation including common reed.	Good	No evidence of water vole droppings, latrines or burrows. Some evidence of small mammals: - Two large piles of feeding remains were found but comprised mainly smaller grasses so could be from other vole species; - A potential run along the embankment but not fully accessible to survey.
River Granta Section 1	29/10/2025	Section of the River Granta, with slow flow and approximately 3 m wide and 0.5 m deep at time of survey. Cobbled bed and earth/ stony banks, with the banks steep. No noticeable variation in water levels during the summer months, banks are not overtopped regularly, and permanent water throughout year. Banks were roughly 50% shaded, and bankside, emergent and marginal vegetation were dominated with common reed (with nearly complete cover). Reed clearance would be necessary to improve habitat.	Suitable but poor	Likely absent (no water vole evidence identified)
River Granta Section 2	30/10/2025	Section of the River Granta, with slow flow and approximately 2 m wide and 1 m deep at time of survey. Cobbled bed and earth/ stony banks, with the banks steep.	Suitable but poor	Likely absent (no water vole evidence identified)

Feature ID	Date of Visit	Habitat Description	Habitat Suitability	Presence/ likely absence survey results
		No noticeable variation in water levels during the summer months, banks are not overtopped regularly, and permanent water throughout year. Banks were approximately 50% shaded with bankside vegetation also 50%.		
River Granta Section 3	30/10/2025	Section of the River Granta, with slow flow and approximately 3 m wide and 1 m deep at time of survey. Cobbled bed and earth/ stony banks, with the banks steep. No noticeable variation in water levels during the summer months, banks are not overtopped regularly, and permanent water throughout year. Dominant plant species were bulrush, nettles, and tall herbs with bankside vegetation cover at 75%, marginal/ emergent at 20% and approximately 10% of the banks shaded. Disturbance from dogs and pedestrians due to adjacent PROW.	Good	Water vole present: - One recording of water vole droppings; - Three water vole latrines; - A set of rat droppings were identified based on smell and colour.
River Granta Section 4	09/10/2025	Section of the River Granta, with slow flow and approximately 3 m wide and 0.5 m deep at time of survey. Earth banks, very steep approaching vertical. No noticeable variation in water levels during the summer months, banks are not overtopped regularly, and permanent water throughout year. Bankside vegetation cover was 20% with this mostly dominated by scrub and woodland areas. There was no marginal or emergent vegetation so a lack of food resources. There were some areas of grassy bank but	Suitable but poor	Likely absent (no water vole evidence identified)

Feature ID	Date of Visit	Habitat Description	Habitat Suitability	Presence/ likely absence survey results
		the banks here were vertical limiting suitability.		
River Granta Section 5	30/10/2025	Section of the River Granta, with slow flow and approximately 3 m wide and 1 m deep at time of survey. Cobbled bed and quite stony banks, with the banks steep. Considerable variation in water level throughout the year is likely, but permanent water present throughout year. There is limited riparian vegetation so a lack of food resources, and shading was present along approximately 75% of banks.	Suitable but poor	Likely absent (no water vole evidence identified)
Pond 1	09/10/2025	Small, shallow pond adjacent to the River Granta, with it likely an overflow from the river. The banks are likely not overtopped regularly, but the pond may temporarily dry during summer. There is abundant bankside vegetation (75% cover) dominated by reed canary grass, brambles and nettle so moderate food resources.	Good	Likely absent (no water vole evidence identified)
Pond 2	27/10/2025	Large pond adjacent to River Granta, with this man-made with lining present and the waterbody pumped to manage water levels likely for irrigation of arable fields. Banks are steep and considerable variation in water level is likely due to pumping. Also, it is likely that the waterbody may temporarily dry during summer. There is abundant bankside vegetation in the form of various grass species. However, there is no emergent or marginal vegetation present, and no shading with the banks all exposed.	Negligible	Likely absent (no water vole evidence identified)

Feature ID	Date of Visit	Habitat Description	Habitat Suitability	Presence/ likely absence survey results
		Disturbance is high with the pumping to manage water levels, and the pond is also lined so burrowing is not possible.		

3.2.3 Incidental Observations

During several of the field survey days, numerous evidence of signal crayfish were identified along the River Granta. Along Sections 1, 2 and 3 there were three separate piles of otter feeding remains comprised of signal crayfish with locations shown on Figure C-2 (**Appendix C.2**) and photos in Table D-2 (**Appendix D.2**). Along both Sections 4 and 5, several signal crayfish burrows were identified along the banks of the river with locations of these shown on Figure C-6 (**Appendix C.6**) and photos in Table D-3 (**Appendix D.3**).

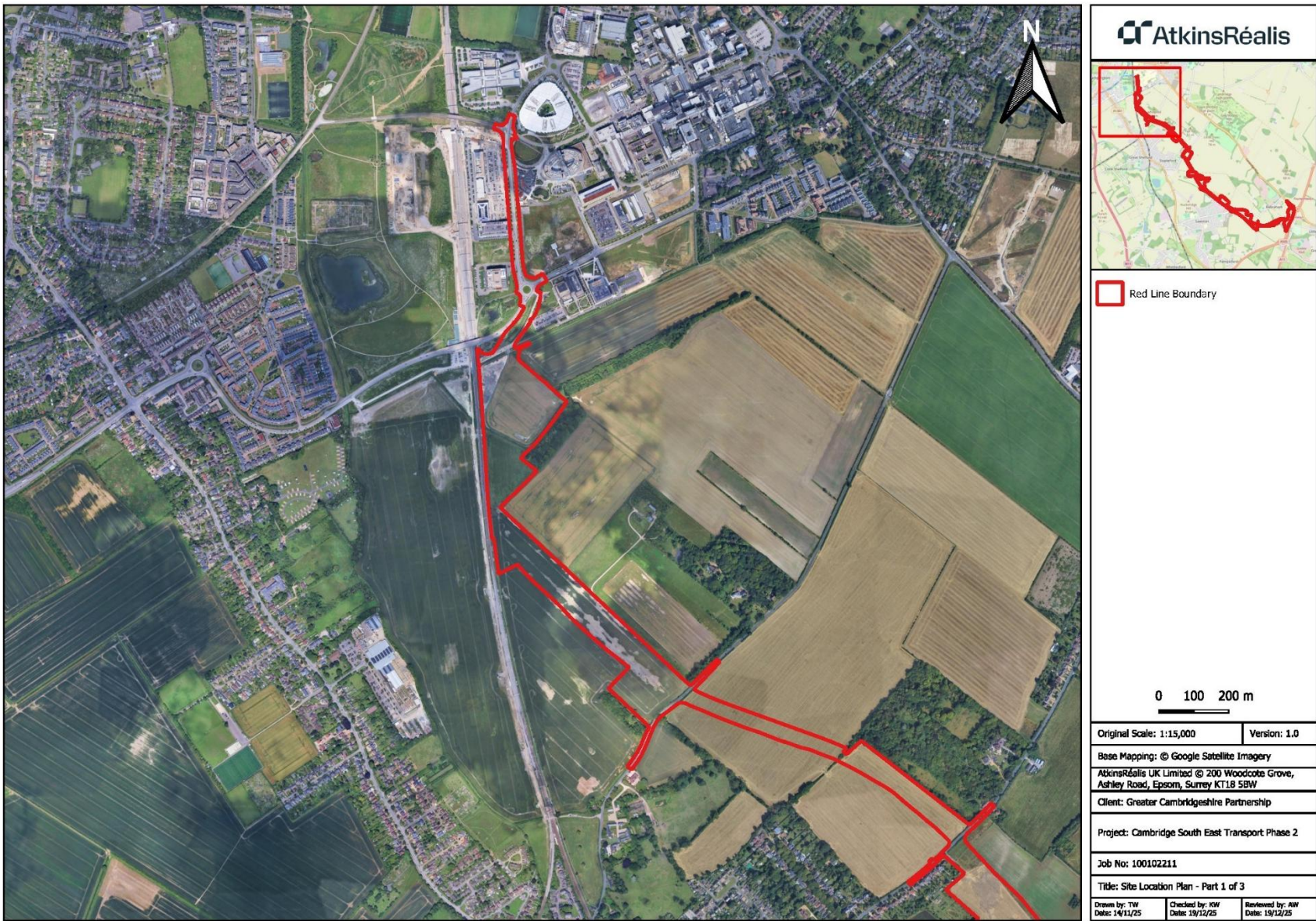
There were several indications of the presence of American mink along the River Granta, recorded on the 30/10/2025. Firstly, within Section 4 and 5 of the River Granta a small hole was identified on the bank with fresh mink scat within the entrance with the location shown on Figure C-3 (**Appendix C.3**) with a photo of this in Table D-3 (**Appendix D.3**). The surveyors also recorded a potential sighting of an American mink within Section 3 of the River Granta adjacent to the river with the approximate location shown on Figure C-5 (**Appendix C.5**).

APPENDICES

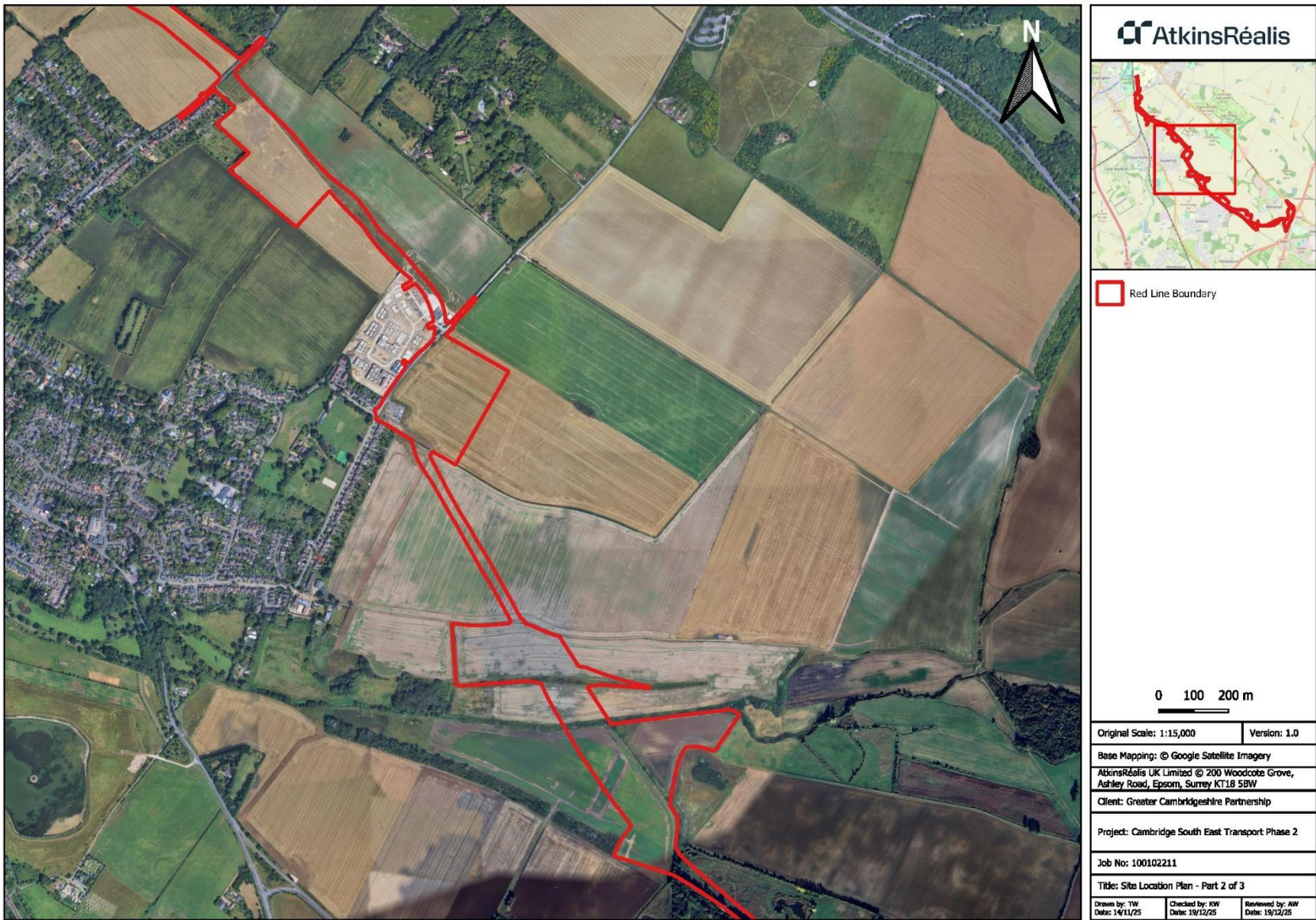
Appendix A. Site Location and Watercourse/ Waterbody Plans



A.1 Figure A-1: Site Location Plan (1 of 3)



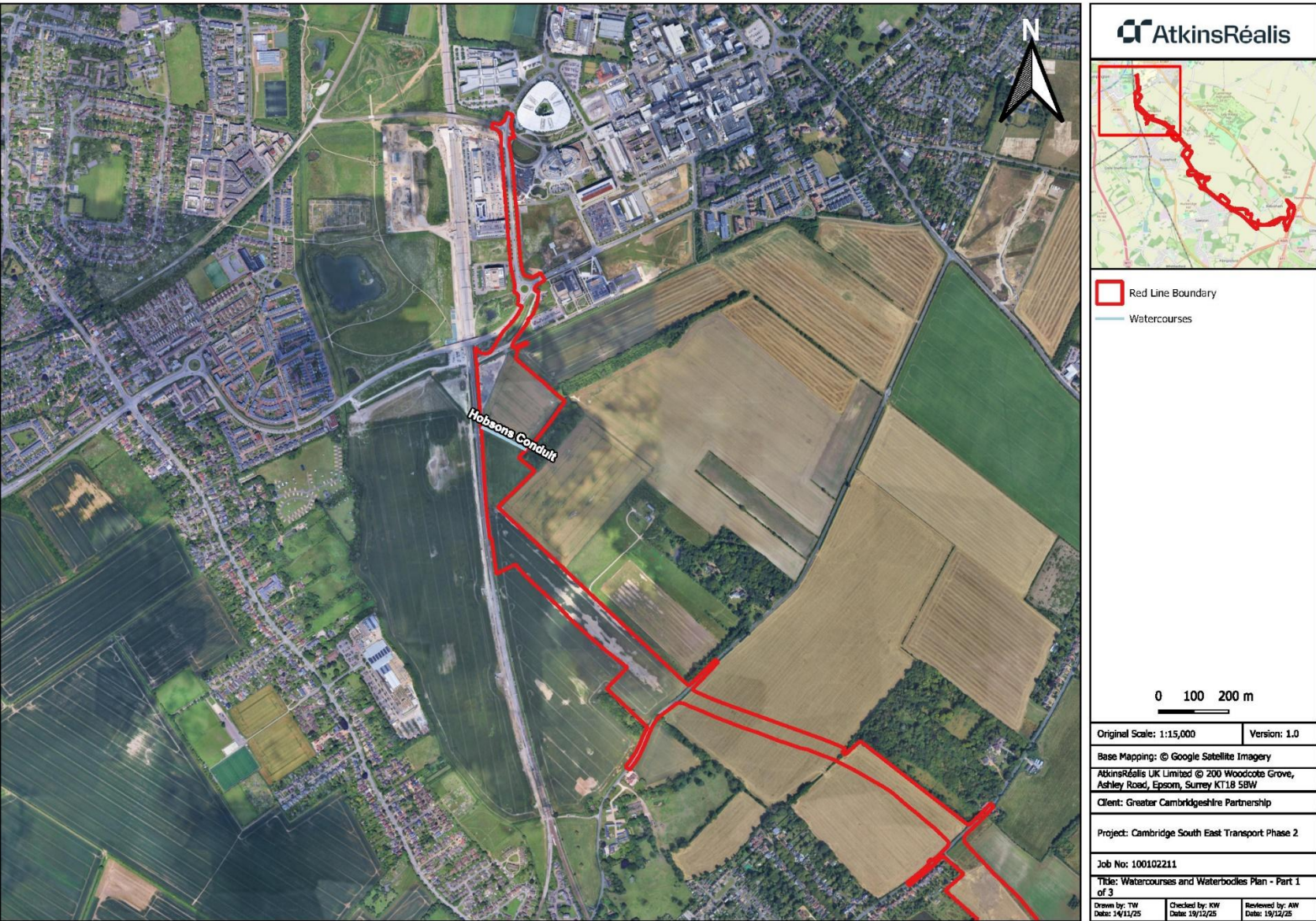
A.2 Figure A-1: Site Location Plan (2 of 3)



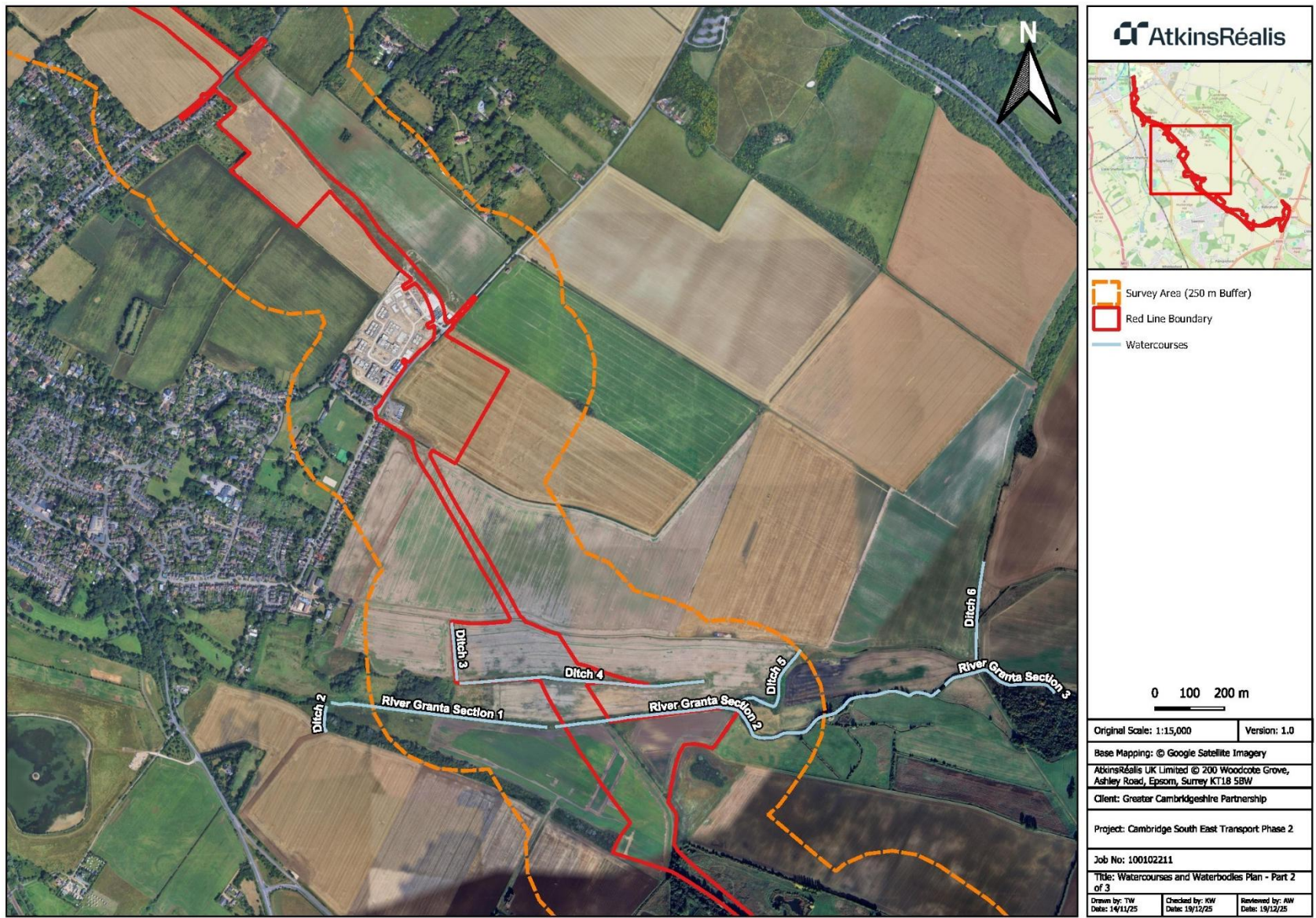
A.3 Figure A-2: Site Location Plan (3 of 3)



A.4 Figure A-3: Watercourses and Waterbodies Plan – Part 1 of 3



A.5 Figure A-4: Watercourses and Waterbodies Plan – Part 2 of 3



A.6 Figure A-5: Watercourses and Waterbodies Plan – Part 3 of 3



Appendix B. Summary of Species Legislation

Species	Legislation	Relevant offences	Licensing procedures and guidance
Otter <i>European protected species</i>	Conservation of Habitats and Species Regulations 2017 (as amended) Reg 43.	Deliberately ¹³ capture, injure or kill an otter; deliberate disturbance ¹⁴ of otters; or damage or destroy a breeding site or resting place used by an otter.	Mitigation licences for development are issued by Natural England. <i>Guidance documents:</i> ▪ <i>Natural England Standing Advice for protected species (2022).</i> ▪ <i>European Protected Species: Mitigation Licensing – How to get a licence (Natural England, 2013).</i>
	Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9.	Intentionally kill, injure or take an otter; intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection or disturb ¹⁵ an otter in such a place.	No licence is required for survey in England. However, a licence would be required if the survey methodology involved disturbance.
Water vole	Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9.	Intentionally kill, injure or take water voles; intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection or disturb ¹² a water vole in such a place.	A licence to displace water voles (CL31) can be obtained for projects that preserve public health and safety, prevent serious damage and/or are for reasons of overriding public interest. A mitigation licence (A11) to cover all Wildlife and Countryside Act 1981 (as amended) offences can be obtained for projects with reasons of overriding public interest, or projects which preserve public health and safety, prevent serious damage to livestock, animal feed, crops, growing timber, fisheries or any other property and/or prevent spread of disease.

¹³ Deliberate capture or killing is taken to include “accepting the possibility” of such capture or killing.

¹⁴ Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.

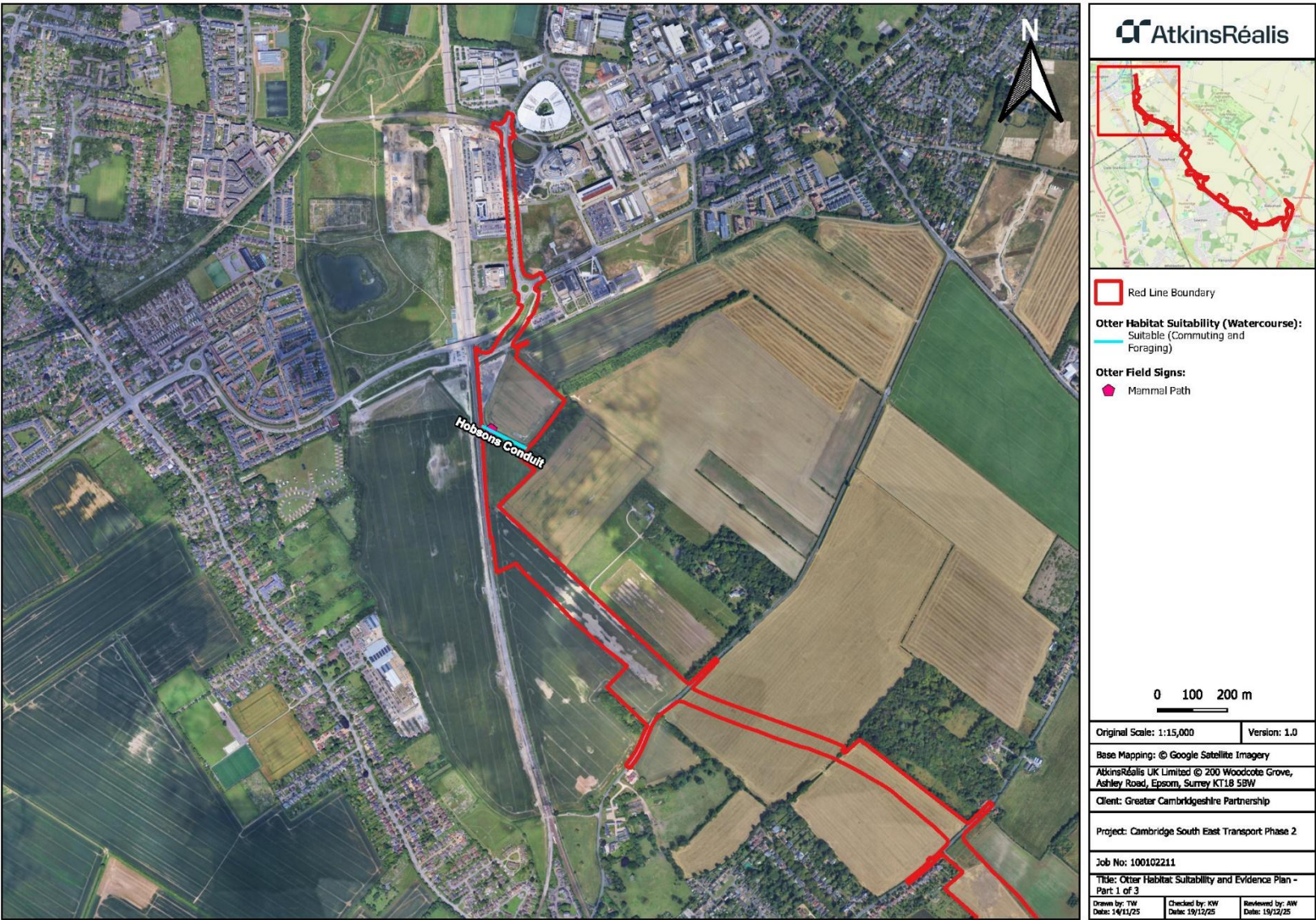
¹⁵ Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2017 (as amended) remain an offence under the Wildlife and Countryside Act 1981 (as amended) although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided.

Species	Legislation	Relevant offences	Licensing procedures and guidance
			<i>Guidance documents:</i> ▪ <i>The Water Vole Conservation Handbook (R. Strachan & T. Moorhouse, Wildlife Conservation Research Unit, 3rd Edition 2011).</i> ▪ <i>Water voles and development licensing policy – Natural England Technical Information Note, (TIN042, 200).</i> ▪ <i>Natural England Standing Advice for protected species (2022).</i> ▪ <i>The Water Vole Mitigation Handbook (M. Dean et al., 2016).</i>
White-clawed crayfish	Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9.	Intentionally take from the wild.	Licences issued by Natural England for survey (to take crayfish by hand, by hand net or by crayfish trap). Use of crayfish traps for survey requires Environment Agency consent. Using crayfish traps to remove crayfish for maintenance or development activities in a watercourse requires a mitigation licence from Natural England and a permit from the Environment Agency. A mitigation licence can be obtained for projects with reasons of overriding public interest (A05a), or projects which preserve public health and safety, prevent serious damage to livestock, animal feed, crops, growing timber, fisheries or any other property and/or prevent spread of disease (A05). <i>Guidance documents:</i> ▪ <i>Natural England Standing Advice for protected species (2022).</i>

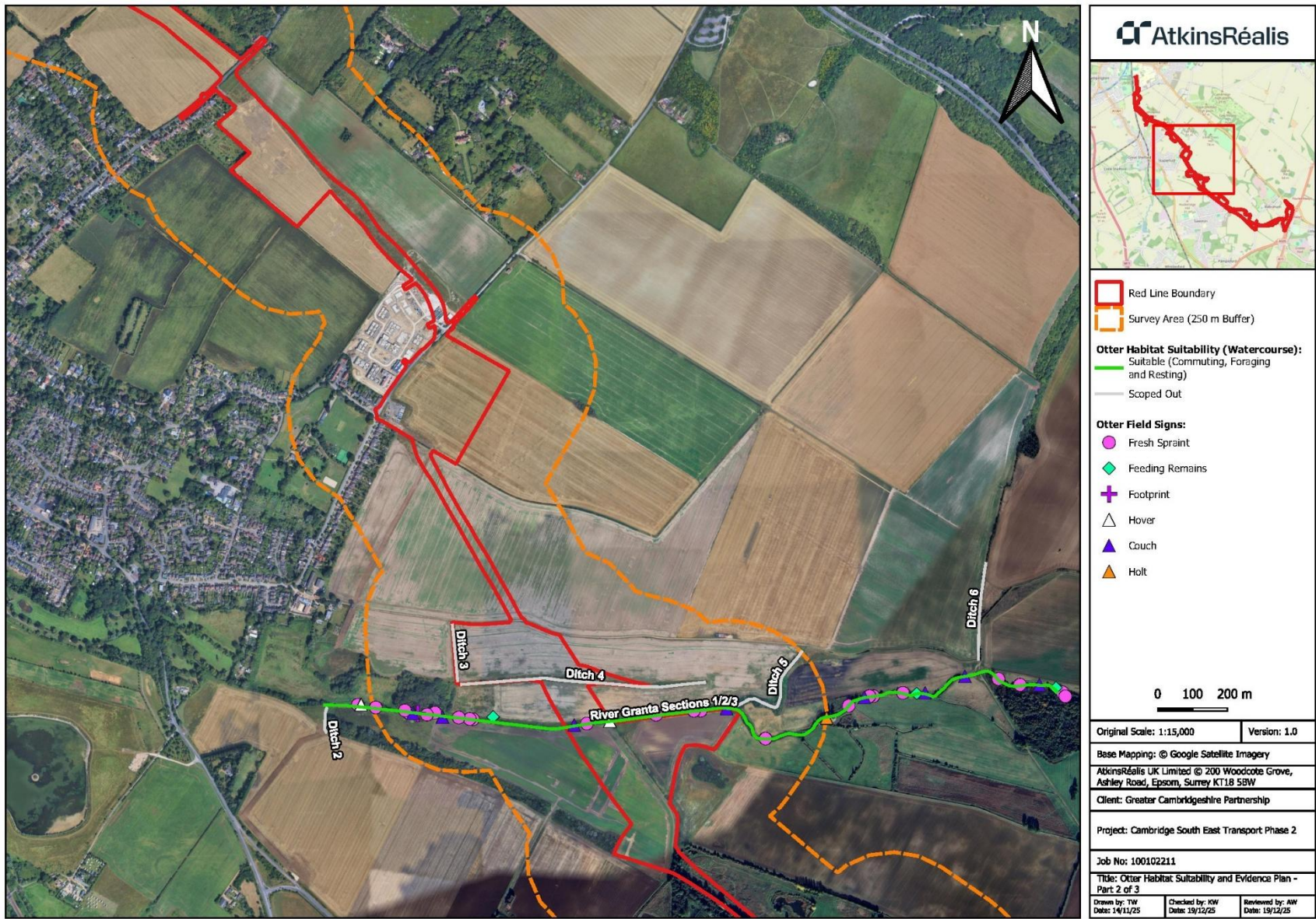
Appendix C. Habitat Suitability and Evidence Plans



C.1 Figure C-1: Otter Habitat Suitability and Evidence Plan – Part 1 of 3



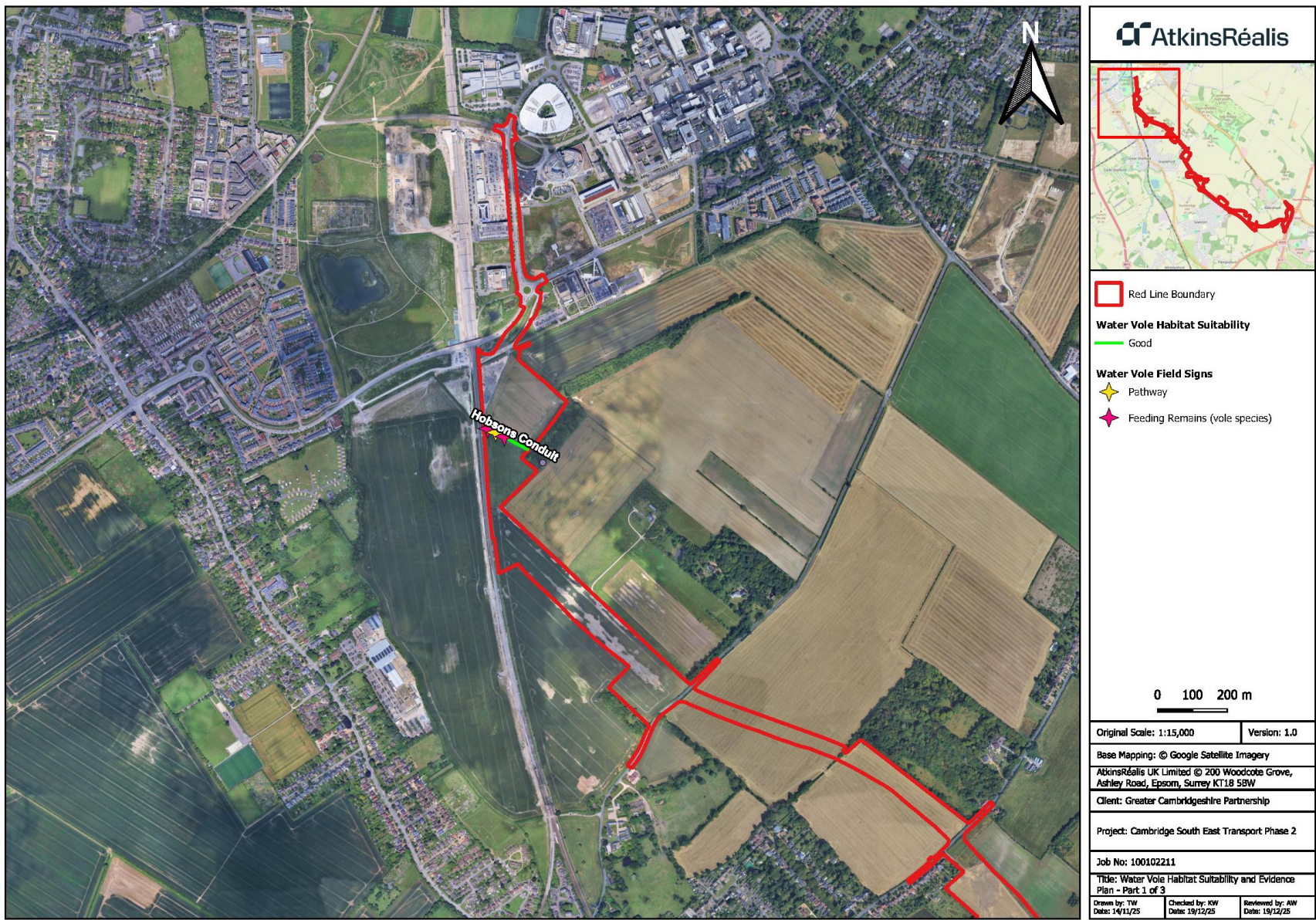
C.2 Figure C-2: Otter Habitat Suitability and Evidence Plan – Part 2 of 3



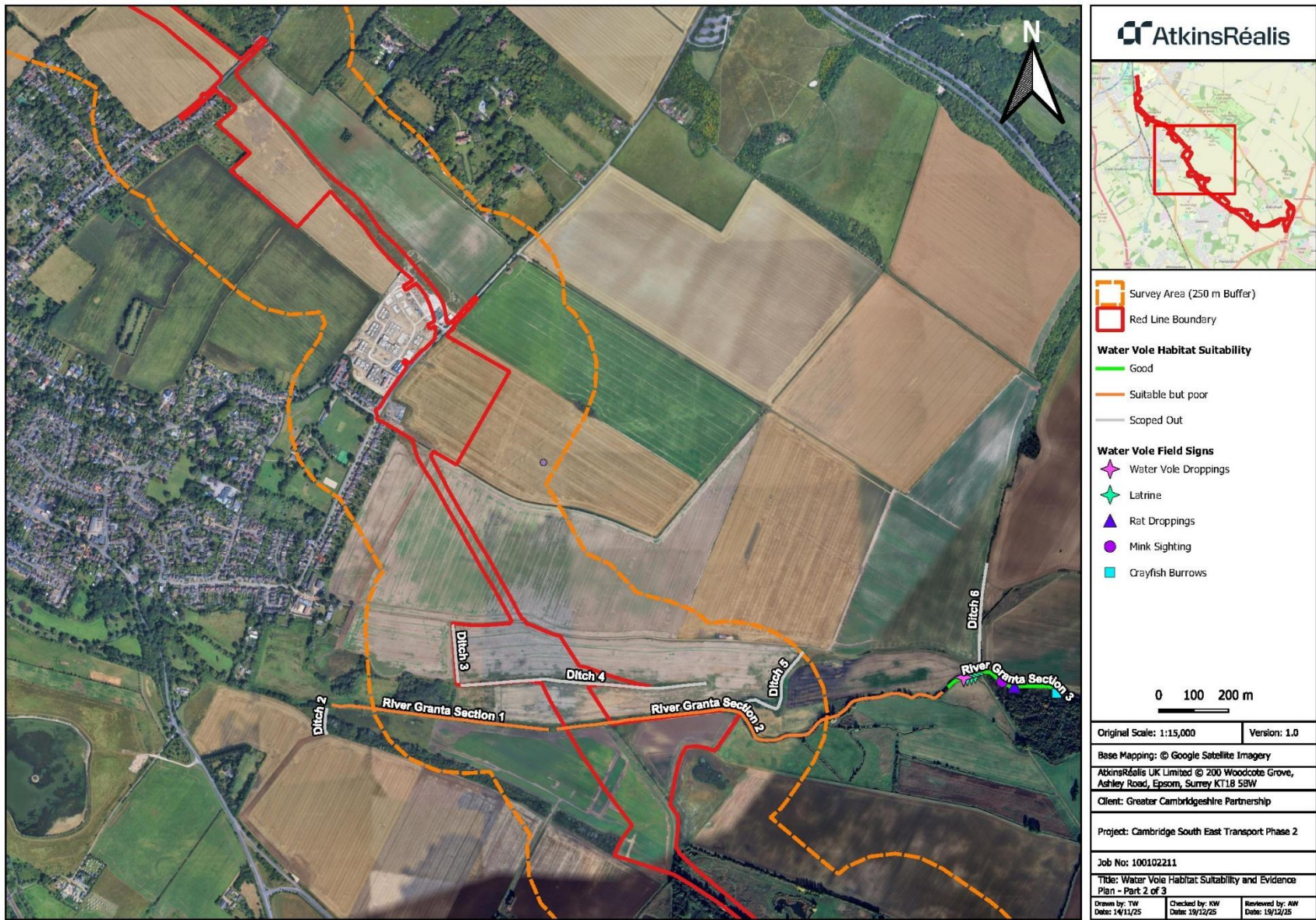
C.3 Figure C-3: Otter Habitat Suitability and Evidence Plan – Part 3 of 3



C.4 Figure C-4: Water Vole Habitat Suitability and Evidence Plan – Part 1 of 3



C.5 Figure C-5: Water Vole Habitat Suitability and Evidence Plan – Part 2 of 3



C.6 Figure C-6: Water Vole Habitat Suitability and Evidence Plans – Part 3 of 3



Appendix D. Photos of Watercourses/ Waterbodies and Field Evidence

D.1 Watercourses and Waterbodies

Table D-1: Photos of the Habitats of the Surveyed Watercourses and Waterbodies

Feature ID	Description of Habitat	Photo(s)
Hobson's Conduit	Watercourse with clear, slow flowing water approximately 2 m wide and 0.5 m deep. Manmade trapezoidal watercourse, conveying chalk spring water from Nine Wells Local Nature Reserve to Hobson's Brook. Adjoining land is arable fields, with patches of longer grassland and is adjacent to a PROW.	

Feature ID	Description of Habitat	Photo(s)
River Granta Section 1	Section of the River Granta, with slow flow and approximately 3 m wide and 0.5 m deep at time of survey. Cobbled bed and earth/ stony banks, with the banks steep. Banks were roughly 50% shaded, and bankside and marginal vegetation was dominated with common reed (with nearly complete cover).	
River Granta Section 2	Section of the River Granta, with slow flow and approximately 2 m wide and 1 m deep at time of survey. Cobbled bed and earth/ stony banks, with the banks steep.	<i>No images available</i>
River Granta Section 3	Section of the River Granta, with slow flow and approximately 3 m wide and 1 m deep at time of survey. Cobbled bed and earth/ stony banks, with the banks steep. Dominant plant species were bulrush, nettles, and tall herbs with bankside vegetation cover at 75%, and some emergent and marginal vegetation.	<i>No images available</i>

Feature ID	Description of Habitat	Photo(s)		
River Granta Section 4	Section of the River Granta, with slow flow and approximately 3 m wide and 0.5 m deep at time of survey. Earth banks, very steep approaching vertical. Bankside vegetation cover was 20% with this mostly dominated by scrub and woodland areas.			
River Granta Section 5	Section of the River Granta, with slow flow and approximately 3 m wide and 1 m deep at time of survey. Cobbled bed and quite stony banks, with the banks steep. Similar to Section 4.			

Feature ID	Description of Habitat	Photo(s)
Pond 1	Small, shallow pond adjacent to the River Granta, with it likely an overflow from the river. The pond may temporarily dry during summer There is abundant bankside vegetation dominated by reed canary grass, brambles and nettle.	
Pond 2	Large pond adjacent to River Granta, with this man-made with lining present and the waterbody pumped to manage water levels likely for irrigation of arable fields. Banks are steep and considerable variation in water level is likely due to pumping. Also, it is likely that the waterbody may temporarily dry during summer. Abundant bankside vegetation in the form of various grass species	No image available

D.2 Otter

Table D-2: Example Photos of Otter Field Evidence and Resting Sites

Feature ID	Type of Evidence or Resting Site	Description	Photo(s)
Hobson's Conduit	Mammal Path	Path leading into the water; however, this is near a PROW and likely from dogs with no evidence of otter nearby.	



Feature ID	Type of Evidence or Resting Site	Description	Photo(s)
River Granta Sections 1, 2 and 3	Potential Holt	Hole in base of willow adjacent to river. Root plate area outside of the hole flattened, with fresh spraint outside. Hole was assessed to be narrow, so possibly not ideal for larger otters. However, the hole seemed to be well-used. The feature was not assessed to be a high-status resting site due to no abundance of spraint within and a lack of odour. The feature may also be inaccessible during high flow. Deemed to be a moderate-status resting site.	
River Granta Sections 1, 2 and 3	Potential Hover	A large area containing a low tree and flattened grassy patch. A range of spraint age classes were present throughout but cover was generally limited. Deemed to be a moderate-status resting site.	

Feature ID	Type of Evidence or Resting Site	Description	Photo(s)
River Granta Sections 1, 2 and 3	Potential Couch	Multiple spraints from fresh to old, with castling, flattened vegetation and compacted earth surrounding the site. Low-status resting site, due to lack of refuge opportunities.	 
River Granta Sections 1, 2 and 3	Fresh Spraint	Numerous fresh spraint was recorded along these sections of the River Granta.	 

Feature ID	Type of Evidence or Resting Site	Description	Photo(s)
River Granta Sections 1, 2 and 3	Feeding Remains	Three separate piles of feeding remains, all comprised of signal crayfish, were recorded throughout these sections of the River Granta.	 
River Granta Sections 1, 2 and 3	Footprint	Otter footprint present within mud along riverbank.	

Feature ID	Type of Evidence or Resting Site	Description	Photo(s)	
River Granta Sections 4 and 5	Potential Holt	Large log pile located near to this section of the River Granta. No evidence to suggest any use by otter but has resting site potential as a holt in voids beneath the log pile.		
River Granta Sections 4 and 5	Potential Hover	Half covered area with old, dry fragmented spraint within. However, no evidence to suggest frequent or recent use so deemed low-status resting site.		

Feature ID	Type of Evidence or Resting Site	Description	Photo(s)
River Granta Sections 4 and 5	Potential Couch	Spraints (fresh to old), otter prints and otter impressions on muddy bank. Suggests frequent use by otter as a lying up spot. Deemed to be a moderate-status resting site Feature extends underneath root plate but is open on both sides; therefore, no possibility of a hole or higher status resting site.	
River Granta Sections 4 and 5	Fresh Spraint	Multiple fresh spraints along these sections of the River Granta, including multiple spraints underneath the A11 road bridge ranging in age between fresh and old. Indicates this is likely a temporary 'stop off' feature for territory marking.	

D.3 Incidental Records

Table D-3: Photos of Incidental Field Evidence

Feature ID	Species and Type of Evidence	Description	Photo(s)
River Granta Sections 4 and 5	American mink hole and scat	Small hole in base of tree roots with fresh mink scat present inside.	

Feature ID	Species and Type of Evidence	Description	Photo(s)
River Granta Sections 1, 2, 3, 4 and 5	Signal crayfish burrows	Several observations of signal crayfish burrows along the River Granta, with their presence confirmed by several recordings of otter feeding remains comprised of signal crayfish.	
River Granta Section 3	Brown rat droppings	Identified as rat droppings due to smell and colour.	

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