

Southampton to London Pipeline Project

Volume 6

Environmental Statement (Volume D)
Appendix 7.9: Dormouse Factual Report
Application Document: 6.4

Planning Inspectorate Reference Number: EN070005
APFP Regulation No. 5(2)(a)
Revision No. 1.0
May 2019



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Southampton to London Pipeline Project

Esso Petroleum Company, Limited

Appendix 7.9: Dormouse Factual Report

B2325300-JAC-000-ENV-APP-000078

January 2019



Southampton to London Pipeline Project

Project No: B2325300
Document Title: Appendix 7.9: Dormouse Factual Report
Document No.: B2325300-JAC-000-ENV-APP-000078
Revision: P01
Date: January 2019
Client Name: Esso Petroleum Company, Limited

Jacobs U.K Limited

1180 Eskdale Road
Winnersh, Wokingham
Reading RG41 5TU
United Kingdom
T +44 (0)118 946 7000
F +44 (0)118 946 7001
www.jacobs.com

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1 Introduction

1.1 Overview

- 1.1.1 Esso Petroleum Company, Limited (Esso) is making an application for development consent to replace 90km (56 miles) of its aviation fuel pipeline that runs from the Fawley Refinery near Southampton, to the West London Terminal storage facility in Hounslow.
- 1.1.2 This Dormouse Factual Report has been produced to support the application for a development consent under the Planning Act 2008 and the accompanying Environmental Statement (ES).

1.2 Scheme Description

- 1.2.1 Esso has already replaced 10km (6 miles) of pipeline between Hamble and Boorley Green in Hampshire and now wants to replace the 90km (56 miles) of pipeline between Boorley Green and the West London Terminal storage facility in Hounslow. The areas of land to be permanently or temporarily used for the project are known as the Order Limits.
- 1.2.2 The replacement pipeline starts near Boorley Green at the end point of the previously replaced pipeline. The route runs generally in a northeast direction via Esso's Pumping Station in Alton. It terminates at the Esso West London Terminal storage facility. The replacement pipeline is 97km (60 miles) long, and within this report is referred to as 'the project'.

1.3 Legal Context

- 1.3.1 The hazel dormouse (*Muscardinus avellanarius*) is listed in Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017. Dormice are afforded full protection under this legislation which, taken together, makes it an offence to:
- deliberately or intentionally injure, kill or take a dormouse;
 - damage or destroy a breeding site or resting place; and
 - deliberately disturb a dormouse in such a way as to impair their ability to survive, breed, reproduce, rear or nurture their young, hibernate or disperse.
- 1.3.2 A mitigation licence may be obtained from Natural England if works have the potential to affect the species in any of the ways listed above and if the 'three tests' are satisfied, as detailed in Regulation 55 of the Conservation of Habitats and Species Regulations 2017.
- 1.3.3 The hazel dormouse is also listed as a Species of Principle Importance in Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006). Species listed in Section 41 of the NERC Act (2006) are identified as the most threatened and requiring conservation under the UK Biodiversity Action Plan (BAP).



2 Methodology

2.1 Introduction

- 2.1.1 The survey methodology is primarily based on that described in the project's Scoping Report (Esso, 2018). It has also been informed by consultation and engagement with appropriate stakeholders (e.g. Natural England (NE)), the results of desk studies, and professional judgement.
- 2.1.2 The methodology used aligns with new Natural England European Protected Species Licencing Policy 4 (Natural England, 2016) on appropriate and relevant surveys where the impacts of development can be confidently predicted.

2.2 Desk Study

Data Search

- 2.2.1 As set out in Chapter 7 Biodiversity, the desk study area for all data requests was initially based on the pipeline corridor options in early 2018 and then the preferred corridor, until the route (with associated Order Limits) was defined (see Chapter 4 Design Evolution).
- 2.2.2 Recent records (recorded within the last 10 years) of dormice were requested from Greenspace Information for Greater London (GiGL), Surrey Biodiversity Information Centre (SBIC) and Hampshire Biodiversity Information Centre (HBIC) between January and March 2018. Results were received from GiGL in January 2018 and results from HBIC were received in February 2018. At the time of writing this report results have not been received from SBIC.
- 2.2.3 The National Biodiversity Network (NBN) was searched for recent records of dormice within the study area.
- 2.2.4 A search using the Multi-Agency Geographical Information for the Countryside (MAGIC) website was conducted to identify any locations where European Protected Species (EPS) licenses have been granted by NE for hazel dormice within an extended 2km study area within the last 10 years.
- 2.2.5 Each dormouse record was assessed for relevance to the project. For example, factors such as barriers to dispersal (e.g. main roads) between the record's location and the project area were considered as these might prevent dormice from accessing habitats potentially affected by the project. These results were, therefore, not used to automatically assume dormouse presence.

Desk-Based Habitat Suitability Assessment

- 2.2.6 High resolution aerial imagery and habitat maps (provided by HBIC and the MAGIC website) were used to identify suitable dormouse habitat, such as boundary features (i.e. hedgerows and treelines), woodland and scrub, that would be intersected by the project.



- 2.2.7 The Ancient Woodland Inventory (all Ancient Semi-Natural Woodland (ASNW) over 2ha) and historical Ordnance Survey maps dating from 1884 were used to identify ancient woodland as these can have a bearing on dormouse presence (Harris and Yalden, 2008).
- 2.2.8 Potentially suitable habitat such as woodland, scrub and boundary features were subject to further assessment. Factors considered comprised:
- the habitat type, size, connectivity and placement within the wider landscape;
 - age, structure and management of the area (well attended hedgerows generally have less potential to support dormice than those less regularly managed);
 - the likelihood and nature of the potential impact of the project (e.g. if habitats would be avoided through the use of trenchless installation techniques or if the anticipated impacts would be very minor (e.g. where existing gaps within boundary features would be utilised meaning that there is little vegetation clearance required)); and
 - recent dormouse records within the study area or connected habitat.
- 2.2.9 It is well documented that dormice are common in Hampshire and Surrey and they are considered likely to be present in most suitable habitat (e.g. PTES, undated). Therefore, in cases where recent records confirmed dormouse presence within habitats that are linked to the project area by well-established and connected woodland or boundary features, dormouse presence within the project area was assumed and no further surveys were carried out. In these instances, the recent records used to assume dormouse presence within a site are still relevant to the Order Limits.
- 2.2.10 Sites were 'scoped in' for nest tube surveys if they supported, or were well-connected to, suitable dormouse habitat but where there was an absence of records that would allow an assumption of presence to be made.

Identification of Survey Areas

- 2.2.11 Due to the long length of the project, the project area was divided into 16 separate 'Sites' which were each treated as individual survey areas.
- 2.2.12 Sites were positioned based on desk study information and focused on areas where suitable dormouse habitat was present but where there were no historical records that could be used to confirm dormouse presence.
- 2.2.13 Sites were also allocated at locations where dormouse presence in the wider landscape had been confirmed through the desk study but where there was an absence of well-connected habitat linking the project area to those locations.
- 2.2.14 The presence of barriers to local dispersal, such as major roads, was also taken into account when designing each survey area, i.e. a site would not straddle a major road.

Within each site, areas of suitable habitat were identified, and where landowner permission was granted, dormouse tubes were deployed in these areas. To assist



with dormouse tube locations within a site, each area where tubes were proposed were numbered sequentially (tube location areas 1 to 43). Table 2.1 and Figure 7.9.1 show the locations of each site.

Table 2.1: Dormouse Survey Site Locations

Site	Section of Route	Start Location	End Location
1	A	Railway line south of Boorley Green, SO30 2HA. OS Grid Reference SU 51135 13966.	Winchester Road, SO32 2AJ. OS Grid Reference SU 53764 18373.
2		Winchester Road, SO32 2AJ. OS Grid Reference SU 53764 18373.	Boundary feature running north off Stake's Lane, SO32 1HQ. OS Grid Reference SU 56335 21745.
3	A/B	Lower Preshaw Lane, SO32 1HP. OS Grid Reference SU 56530 21732.	Boundary feature to east of Stapley Lane, SO24 0EL. OS Grid Reference SU 65310 29994.
4	B	Boundary feature to east of Stapley Lane, SO24 0EL. OS Grid Reference SU 65310 29994.	Lyeway Lane, SO24 0DD. OS Grid Reference SU 66348 31842.
5		Lyeway Lane, SO24 0DD. OS Grid Reference SU 66348 31842.	Brightstone Lane, GU34 3EU. OS Grid Reference SU 68737 34620.
6		Brightstone Lane, GU34 3EU. OS Grid Reference SU 68737 34620.	A32, GU34 1SH. OS Grid Reference SU 70386 35869.
7		A32, GU34 1SH. OS Grid Reference SU 70386 35869.	Selborne Road, GU34 3HL. OS Grid Reference SU 72155 37632.
8	C	Selborne Road, GU34 3HL. OS Grid Reference SU 72155 37632.	Caker Lane, GU34 3BF. OS Grid Reference SU 73985 38375.
9		Caker Lane, GU34 3BF. OS Grid Reference SU 73985 38375.	A31, GU34 4JG. OS Grid Reference SU 74670 41683.
10		A31, GU34 4JG. OS Grid Reference SU 74670 41683.	Dippenhall Street, GU10 5PE. OS Grid Reference SU 80026 48252.
11	D	Dippenhall Street, GU10 5PE. OS Grid Reference SU 80026 48252.	Ewshot Hill, GU10 5BA. OS Grid Reference SU 80662 49963.
12		Ewshot Hill, GU10 5BA. OS Grid Reference SU 80662 49963.	Sandy Lane, Beacon Hill Road, GU52 8BF. OS Grid Reference SU 82016 51514.
13	D/E	Sandy Lane, Beacon Hill Road, GU52 8BF. OS Grid Reference SU 82016 51514.	A327, GU14 0RS. OS Grid Reference SU 85260 54834.
14	E/F	Frith Hill Road, GU16 6SH. OS Grid Reference SU 89983 58260.	The Maultway, GU15 1QB. OS Grid Reference SU 91030 59015.
15	F	Lightwater By-pass, GU18 5SP. OS Grid Reference SU 93852 61686.	Windsor Road, GU24 8QY. OS Grid Reference SU 96908 63533.
16		Runnymede, KT16 0DT. OS Grid Reference SU 98957 64605.	Silverland Stone, KT16 0AG. OS Grid Reference TQ 02239 65758.

2.3 Field Surveys

2.3.1 Field surveys were carried out following best practice guidance as set out in Bright *et al.* (2006).



- 2.3.2 Where landowner permission was granted, the field surveys were conducted in the following stages:
- each site selected for further survey effort was subjected to a ground-truthing habitat suitability assessment to examine the quality and type of habitat present;
 - where the habitat was deemed suitable to support dormice, survey tubes were deployed (tubes were even deployed in 'sub-optimal' habitat, such as woodland with limited understorey or intensively managed boundary features, if these habitats were connected to adjacent habitats of optimal quality); and
 - monthly surveys were conducted to confirm the presence or likely absence of dormice.

Field-Based Habitat Suitability Assessment

- 2.3.3 Guidance in Bright *et al.* (2006) and professional judgement was used to categorise habitats as 'unsuitable', 'poor', 'sub-optimal' or 'optimal' based on the following criteria:
- the size of each site, including connectivity to habitat of suitable quality;
 - diversity of plant species (including the presence of favourable species such as hazel (*Corylus avellana*) and honeysuckle (*Lonicera* sp.)) for food provision throughout the year;
 - the presence of important features for nesting, such as species-rich edge strips or ride sides in woodland or blackthorn in hedgerows (Wolton, 2009); and
 - structural diversity and density of the woodland and/or boundary feature with a wide age range of trees and scrub.
- 2.3.4 Each site was described and photographed. The decision to scope out unsuitable habitat areas within a site (i.e. Site 16) was clearly justified and recorded. See Annex A.
- 2.3.5 Dormouse tubes were deployed in June or early July 2018. Tubes were installed at chest height (approximately 1.5m high), and at 15m to 20m intervals, where space allowed.
- 2.3.6 The location of each tube was mapped using Geographic Information Systems (GIS), allowing ecologists to accurately locate each tube during future surveys and record tube-specific results. Tube locations are shown in Figure 7.9.1.

Presence/Likely Absence Surveys

- 2.3.7 The surveys were designed to achieve a minimum of 20 points based on the index of probability provided in good practice guidelines (Bright *et al.*, 2006). Each site had a minimum of 100 tubes installed across suitable areas of habitat. This is double the minimum number of tubes recommended by good practice guidelines (Bright *et al.*, 2006) and so the index value for each site can be doubled (Natural England, 2015). Each tube was spaced at approximately 20m intervals and secured tightly to the underside of a suitable branch.



- 2.3.8 Following deployment, dormouse tubes were checked each month for four months between August and November 2018, in accordance with good practice guidelines (Bright *et al.*, 2006). All surveys were undertaken by an ecologist with a Natural England Class Survey Licence.
- 2.3.9 The number of tubes deployed at each site and the relevant survey dates can be found in Annex A.
- 2.3.10 Field surveys were carried out in suitable weather conditions and, where necessary, were postponed during periods of heavy rainfall.
- 2.3.11 During surveys, each tube was carefully and quietly approached whilst being viewed for signs of nesting material from the outside. Either a long-handled mirror was used to examine the inside of the tube or a 'stuffer' inserted into the front and the tray carefully slid out to inspect the contents. If nesting material was observed, the tube was removed from the tree and opened within a large, clear plastic bag to be fully inspected.
- 2.3.12 If an active dormouse was present, its weight, age and sex were recorded. Individuals were then returned to their nest within the tube before carefully securing the tube back onto the tree in its original position.
- 2.3.13 Any wood mice (*Apodemus sylvaticus*), yellow-necked mice (*Apodemus flavicollis*), shrew (*Sorex* sp.), bank vole (*Myodes glareolus*) or field vole (*Microtus agrestis*) nests or individuals encountered were removed from the tubes, unless a litter of young was present. Bird nests were not disturbed until surveyors were sure any chicks had fledged, at which point the nest was removed.

Nut Searches

- 2.3.14 No specific nut searches were carried out as these are not a reliable indicator of dormouse absence and not all Sites supported sufficient quantities of hazel. As such, any such records were restricted to incidental findings only.
- 2.3.15 Any nuts recognised as being opened by dormice were recorded and mapped.

2.4 Survey Constraints

- 2.4.1 Suitable areas of habitat were identified at each site during the desk-based assessment. In some cases, tubes were not able to be deployed in some of these predetermined areas, as access was not obtained at that time. Where this occurred, suitable alternative areas were identified to ensure at least 100 tubes were deployed across each site. This is not considered to be a particular constraint as the habitats surveyed in each site were all appropriate due to their suitability for dormice.
- 2.4.2 To further reduce land access constraints, pre-construction surveys would be completed if existing baseline survey data need to be updated or supplemented (G33). This would be secured through the project's Register of Environmental Actions and Commitments (REAC) in Chapter 16 Schedule of Environmental Commitments of the Environmental Statement.



- 2.4.3 Tubes were not deployed until June/July 2018 due to the large number of landowners that needed to be contacted and permissions obtained. As such, the surveys were undertaken during the second half of the survey season only. The surveys also missed May, a high-scoring month on the index of probability (Bright *et al*, 2006). To account for this, a minimum of 100 tubes were deployed at each site to increase the index of probability of finding dormice, as per best practice guidance (Bright *et al*, 2006; Natural England, 2015). The survey encompassed August and September, the two highest scoring months on the index. Furthermore, professional experience from dormouse surveys undertaken in the southeast of England indicate that October and November are highly profitable months for recording dormice in tubes, despite the low scores allocated to these months by the index. As such, the timing and duration of the survey is not considered to be a particular constraint, and the results obtained are considered reliable to indicate the likely absence of dormice from any given site.
- 2.4.4 Landowner access to check some of the tube location areas within certain sites following deployment was constrained by timing restrictions. However, excluding Site 9 (where all land access permission was refused), adequate coverage of suitable and representative habitats within each of the sites was achieved, and all sites had a minimum of 100 tubes left in situ for the duration of the survey season. This is therefore not considered to be a particular constraint and did not alter the robustness of the results obtained.
- 2.4.5 At Site 9, access was not obtained for tube deployment for the duration of the survey season. For the purpose of this baseline assessment, dormouse presence has been assumed. This allows a worst-case assessment to be undertaken in Chapter 7 Biodiversity of the Environmental Statement and the draft European Protected Species (EPS) licence for dormouse (Appendix 7.14).
- 2.4.6 Some areas within specific sites were unable to have tubes checked every month due to health and safety constraints (such as the presence of livestock). These sites are identified in Annex A. However, dormouse presence was confirmed at each of these sites, so health and safety issues did not constrain the results.
- 2.4.7 It was not possible to gain landowner permission for some of the survey visits (e.g. landowners where uncontactable), so some areas within a wider site were only subjected to two or three visits. This is not considered to be a constraint, as each of these sites had tubes installed for the duration of the survey season so the index of probability score would be unaffected. The number of tubes checked at each site during each month is provided in Annex A.
- 2.4.8 Where torpid dormice were found, no measurement of weight or record of sex was taken to minimise disturbance. Similarly, where active dormice escaped and/or were deemed to be 'stressed', no measurements were taken. These are not constraints as dormouse presence was confirmed.
- 2.4.9 Occasionally, dormouse tubes were unable to be located or were found in poor condition (such as the inner tray or wire missing). On several occasions, boundary features had been flailed and tubes in these locations had been damaged or destroyed. Where possible, damaged tubes were replaced immediately. Sites at which such activities occurred have been identified in Annex A. However, this is not



considered to be a constraint given the high number of tubes deployed at each site and the low number of tubes affected by damage (i.e. there were no more than seven tubes affected by such activities at any given site).

- 2.4.10 Historic records were requested from SBIC in January 2018. At the time of writing, no protected species records from SBIC have been received. Results of the field surveys in 2018 have therefore been used to confirm the presence or likely absence of dormice within Surrey.

3 Results

3.1 Desk Study

Data Search

- 3.1.1 The data searches returned records for dormice within 1km of the Order Limits at several locations. GiGL returned no records, HBIC returned five recent records and the NBN returned 51 recent records. SBIC have not provided any results following a data request in January 2018. The available desk study results are summarised in Table 3.1 and HBIC results are shown in Figure 7.9.1.
- 3.1.2 NBN records cannot be reproduced for commercial use and as such the locations of records are not shown in Figure 7.9.1. Internet links to the recent dormouse records used to confirm 'presence' of dormice at Sites 3, 5 and 12 are provided in Table 3.2.

Table 3.1: Summary of Dormouse Desk Study Results within 1km of the Order Limits

Record Centre	Number of Records	Relevant Section of Order Limits
HBIC	5	Sections A, B, C, D and E (Boorley Green to Bisley and Pirbright Ranges).
NBN	51	Sections A to G (Boorley Green to M3).

Table 3.2: Links to the NBN Recent Records Used to Confirm Dormouse Presence at Sites 3, 5 and 12

Site	NBN Link to Dormouse Records
3	Site 3 https://records.nbnatlas.org/occurrences/search?q=taxon_name:%22Muscardinus%20avellanarius%22&lat=51.048641&lon=-1.1250350000000253&radius=10#tab_mapView
5	Site 5 https://records.nbnatlas.org/occurrences/search?q=taxon_name:%22Muscardinus%20avellanarius%22&lat=51.109383&lon=-1.0437580000000252&radius=10#tab_mapView
12	Site 12 https://records.nbnatlas.org/occurrences/search?q=taxon_name:%22Muscardinus%20avellanarius%22&lat=51.2412027&lon=-0.83248520000000646&radius=5#tab_mapView

- 3.1.3 MAGIC returned six records of dormouse EPS licences within 2km of the Order Limits. These are summarised in Table 3.3.



Table 3.3: Summary of Dormouse EPS Licence Results from MAGIC

EPS Mitigation Licence Number	OS Grid Reference	Date Granted	Period Covered
2014-6322-EPS-MIT-1	SU50891489	2014	03/03/2016 – 31/01/2021
EPSM2012-5055	SU67792929	2012	12/02/2013 – 30/09/2013
EPSA2013-6068	SU66393441	2013	15/10/2013 – 31/10/2018
2016-26921-EPS-MIT	SU66393441	2016	06/01/2017 – 06/01/2017
2016-24463-EPS-MIT-1	SU71894009	2016	11/10/2016 – 31/12/2026
2015-18580-EPS-MIT	SU80794980	2015	29/01/2016 – 30/04/2017

Desk-Based Habitat Suitability Assessment

- 3.1.4 Based on a review of high-resolution aerial imagery and habitat maps, areas of unsuitable or poor dormouse habitat such as heathland, grassland, scattered and isolated trees and scattered scrub were ‘scoped out’ of the assessment and removed from the survey.
- 3.1.5 Dormice are unlikely to be present in Section H between the M25 and the West London Terminal storage facility in Hounslow. This area is heavily urbanised, and dormouse presence is very unlikely due to fragmentation from suitable habitats by conurbations and major road and railway infrastructure. No surveys were conducted in this section of the route.
- 3.1.6 Habitats at each of the logistics hubs offer no potential for dormice and, as such, were eliminated from further survey.
- 3.1.7 As the design phase evolved, the southern section of Site 1 was discounted from further survey as the woodland within this Site would be crossed by trenchless installation techniques (TC001) (e.g. horizontal directional drilling (HDD)). Potential dormouse habitat would therefore not be impacted by pipeline installation activity at this location.
- 3.1.8 The data searches confirmed likely dormouse presence at three Sites (3, 5 and 12) based on the proximity of the record and the presence of suitable habitat connecting this record to the Order Limits. These sites were scoped out from the need for further survey as dormouse presence is assumed at these sites. These sites are shown in Figure 7.9.1.
- 3.1.9 The remaining 13 sites were scoped in for further survey.

3.2 Field Study

- 3.2.1 Site 9 could not be surveyed due to access not be obtained throughout the duration of the survey season. As a precaution, dormouse presence has been assumed at this location.
- 3.2.2 A total of 1,550 tubes were set up across the remaining 12 sites (43 tube location areas) and monthly visits were undertaken between August and November 2018.



- 3.2.3 All survey Sites accumulated the required minimum of 20 points based on the index of probability (Bright *et al*, 2006). Sites 1, 2, 6, 7, 10 and 13 scored a total of 40 points as over 100 tubes were deployed at each site in June 2018 (and so the score is doubled). Sites 4, 8, 11, 14, 15 and 16 scored a total of 36 points as over 100 tubes were deployed at each site in July 2018.
- 3.2.4 During the surveys, eight dormice and 24 dormouse nests were recorded within the Order Limits.
- 3.2.5 Incidental recordings of nuts opened by dormice were recorded in Site 2 and Site 3.
- 3.2.6 A summary of results can be found in Table 3.4. The complete suite of results of field surveys are shown in Annex A. The locations of all sites and survey results are shown in Figure 7.9.1.

Table 3.4: Summary of Dormouse Findings 2018

Site	Summary of Findings	Dormouse Presence/Likely Absence
1	Three dormouse nests	Presence
2	Nine dormouse nests; one dormouse; dormouse nibbled nuts	Presence
3	Dormouse nuts (incidental) and historic records	Presence
4	Two dormouse nests	Presence
5	Historic records	Presence
6	Seven dormouse nests; five dormice	Presence
7	Two dormouse nests; one dormouse	Presence
8	None	Likely absence
9	N/A – could not survey	Presence assumed
10	None	Likely absence
11	None	Likely absence
12	Historic records	Presence
13	One dormouse nest; one dormouse	Presence
14	None (based on field surveys and NBN desk study)	Likely absence
15	None (based on field surveys and NBN desk study)	Likely absence
16	None (based on field surveys and NBN desk study)	Likely absence

4 Discussion

- 4.1.1 Hampshire and Surrey are strongholds for dormice, however the species is nationally rare and vulnerable to extinction. Dormouse populations continue to decline in number and range, with the threat to their survival mainly due to the loss and degradation of suitable habitat.
- 4.1.2 The results from the desk study data search and field surveys have confirmed the presence of dormice within the Order Limits at nine of the 16 survey sites (Sites 1, 2, 3, 4, 5, 6, 7, 12 and 13). Site 9 could not be accessed throughout 2018, and so dormice are assumed present at this Site due to the presence of suitable habitat. Likely dormouse absence has been confirmed at Sites 8, 10, 11, 14, 15 and 16.



- 4.1.3 Without mitigation, pipeline installation activities have the potential to kill or injure dormice and/or temporarily damage or destroy their places of rest and breeding sites. Vegetation removal also has the potential to temporarily fragment dormouse habitat and sever landscape connectivity. As such, installation works affecting suitable dormouse habitat at sites with confirmed dormouse presence would be subject to mitigation that is secured and delivered under an EPS licence granted by Natural England. Further information with respect to this mitigation is provided in a draft dormouse EPS licence application in Appendix 7.14.
- 4.1.4 Sites with assumed dormouse absence would not be subject to an EPS licence. However, good practice measures would be implemented to avoid or reduce ecological impacts within these locations. Good practice are set out in the Register of Environmental Commitments and Actions (REAC) in Chapter 16 Schedule of Environmental Management and Mitigation, and secured through Development Consent Order requirements such as the Code of Construction Practice. Examples of good practice mitigation of relevance to dormice comprise (reference numbers are as per those in the REAC):
- Commitment to only utilise a 10m width when crossing through boundaries between fields where these include hedgerows, trees or watercourses (O1).
 - A suitably experienced Environmental Manager would be appointed for the duration of the construction phase. A qualified and experienced Environmental Clerk of Works (ECoW) would be available during the construction phase to advise, supervise and report on the delivery of the mitigation methods and controls outlined in the Construction Environmental Management Plan (CEMP). The ECoW would be supported as necessary by appropriate specialists (G3).
 - Pre-construction surveys would be completed if existing baseline survey data need to be updated or supplemented (G33).
 - The ECoW would monitor that the works proceed in accordance with relevant environmental Development Consent Order requirements and adhere to the required mitigation measures. The ECoW would also be involved with any targeted additional mitigation strategies that may be required (G41).
 - The contractor would comply with relevant protected species legislation with regards to dormice. Appropriate licences would be obtained where necessary from Natural England for all works affecting protected species as identified by the Environmental Statement and through pre-construction surveys. All applicable works would be undertaken in accordance with the relevant mitigation requirements and conditions set out in those licences (G43).
 - Working widths would be reduced in specific locations where trees or hedges are present. Where notable trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures (G65).
 - Where possible, reinstatement of vegetation would generally be using the same or similar species to that removed (subject to restrictions for planting over and around pipeline easements) (G88).



- Ecological considerations would be included in the induction talks for all relevant site personnel. Species-specific or location-specific toolbox talks would also be provided, as required (G172).

4.1.5 The design of the Order Limits has been iterative and has evolved over several months. The results of the dormouse surveys have helped to influence the alignment of the Order Limits, with impacts to dormouse habitat being avoided or reduced at several locations. A full description of the route's evolution is provided in Chapter 4 Design Evolution.

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Annex A – Results Summary of Dormouse Surveys Conducted in 2018

Table A1: Results Summary of Dormouse Surveys Conducted in 2018. Positive Dormouse Results are Highlighted in Yellow.

Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
1	The Order Limits within Site 1 run through arable and grazing fields of varying sizes, lined with a network of 29 boundary features. Tubes were deployed in six tube location areas (1-6), including a block of potential Ancient Semi- Natural Woodland (ASNW) (under 2ha) which would be crossed by trenchless installation technology (TC001). In the wider landscape, these woody features are well connected to larger blocks of broad-leaved woodland, some of which is designated ASNW. The boundary features within the Order Limits are considered to provide optimal habitat to dormice.	June 2018	178	06.08.2018	89	None	N/A	Five tubes could not be checked due to health and safety constraints (horses in field); 84 tubes could not be checked due to access constraints.
				17.09.2018	109	None	N/A	69 tubes could not be checked due to access constraints.
				08.10.2018	122	None	N/A	56 tubes could not be checked due to access constraints.
				05.11.2018	135	1 dormouse nest	3	Three tubes destroyed; 40 tubes could not be checked due to access constraints.
				03.12.2018 (tubes collected)	175	2 dormouse nests	2	Three tubes destroyed.
2	Entirely contained within the South Downs National Park, the Order Limits within Site 2 predominantly pass through	June 2018	102	06.08.2018	102	None	N/A	N/A
				17.09.2018	102	4 dormouse nests and 1 juvenile female weighing 9g	7 and 8	N/A



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
	large arable and grazing fields, alongside a network of 10 boundary features. Tubes were deployed in three tube location areas (7-9), one of which is a block of potential ASNW (under 2ha), outside of the Order Limits but connected to boundary features within. Overall, the Site is closely connected to pockets of woodland within the wider landscape, some of which are designated ASNW. These boundary and woodland features within the Order Limits were identified as providing optimal habitat to dormice.			08.10.2018	102	1 dormouse nest	9	N/A
				05.11.2018	95	3 dormouse nests	7, 8 and 9	Seven tubes flailed.
				03.12.2018 (tubes collected)	95	1 dormouse nest	9	Seven tubes flailed.
3	The Order Limits within Site 3 are entirely contained within the South Downs National Park, running through a mixture of arable and grazing land, 45 boundary features. Many interconnected blocks of woodland exist in the wider landscape, several of which are designated ASNW. Site 3 is considered to provide optimal habitat for dormice.	N/A	N/A	N/A		Presence of dormouse assumed due to presence of historic desktop records.	N/A	N/A



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
4	The Order Limits within Site 4 exist outside of the South Downs National Park and run through mixed agricultural land and eight boundary features. The small fields are lined with boundary features which are robustly connected to blocks of broad-leaved woodland throughout the wider landscape, two of which are designated ASNW. Tubes were deployed in three tube location areas (10-12). Overall, Site 4 is considered to provide optimal habitat to dormice.	July 2018	106	06.08.2018	91	None	N/A	15 tubes could not be checked due to access constraints.
				17.09.2018	18	None	N/A	11 tubes could not be checked due to health and safety constraints (along a busy road); 77 tubes could not be checked due to access constraints.
				08.10.2018	28	2 dormouse nests.	12	Three tubes could not be checked due to the presence of a bull in one of the fields; 75 tubes could not be checked due to access constraints.
				05.11.2018	84	None	N/A	11 tubes could not be checked due to health and safety constraints (along a busy road); 11 tubes could not be checked due to access constraints.
				03.12.2018 (tubes collected)	103	None	N/A	Three tubes destroyed.
5	The Order Limits within Site 5 run through mixed agricultural land and pass through 13		N/A	N/A		Presence of dormouse assumed due to	N/A	N/A



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
	boundary features, although there are fewer of these features as the route travels southwards. The boundary features being intersected are generally well connected to large blocks of woodland within the local landscape, some of which is designated ASNW. Overall, Site 5 is considered to provide optimal habitat to dormice.					presence of historic desktop records.		
6	The Order Limits within Site 6 predominantly run through large arable and grazing fields, crossing seven boundary features and one block of potential ASNW (under 2ha). These are robustly connected to blocks of broad-leaved woodland, some of which is designated ASNW in the wider landscape. Tubes were deployed in five tube location areas (13-17). Overall, Site 6 is considered to provide optimal habitat to dormice.	June 2018	124	06.08.2018	124	None	N/A	N/A
				17.09.2018	24	2 dormouse nests.	14	100 tubes could not be checked due to access constraints.
				08.10.2018	123	5 dormouse nests; 1 adult male (18g); 1 juvenile male (17.5g); and 1 juvenile female (unweighted).	15, 16 and 17	One tube missing.
				05.11.2018	115	1 adult male (24g) and 1 torpid dormouse (unsexed and unweighted)	15 and 17	Eight tubes flailed; one tube missing.
				03.12.2018 (tubes collected)	115	None	N/A	Eight tubes flailed; one tube missing.



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
7	The Order Limits within Site 7 run through large agricultural fields with four well connected boundary features. Within the wider landscape, the Order Limits run adjacent to a large block of woodland, parts of which are designated ASNW. The Site is also well connected to additional blocks of ASNW and a large swathe of broad-leaved woodland. Tubes were deployed in four tube location areas (18-21). Overall, Site 7 is considered to provide optimal habitat to dormice.	June 2018	178	06.08.2018	0	None	N/A	No tubes were checked due to access constraints across the Site.
				17.09.2018	22	None	N/A	156 tubes could not be checked due to access constraints.
				08.10.2018	123	None	N/A	Seven tubes flailed; 48 tubes could not be checked due to access constraints.
				05.11.2018	171	2 dormouse nests; and 1 adult female (unweighted)	18 and 19	Seven tubes flailed.
				03.12.2018 (tubes collected)	171	None	N/A	Seven tubes flailed.
8	The Order Limits within Site 8 run through large agricultural fields, crossing 10 boundary features. Few woodland blocks exist within the wider landscape, and connections between the boundary features are limited. Tubes were deployed in two tube location areas (22-23). Overall, Site 8 is considered	July 2018	111	06.08.2018	41	None	N/A	70 tubes could not be checked due to access constraints.
				17.09.2018	111			N/A
				08.10.2018	107			Two tubes destroyed by chainsaw; two tubes missing.
				05.11.2018	107			Two tubes destroyed by chainsaw; two tubes missing.



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
	to provide sub-optimal habitat to dormice.			03.12.2018 (tubes collected)	107			Two tubes destroyed by chainsaw; two tubes missing.
9	The Order Limits within Site 9 predominately run through large arable fields lined with 11 boundary features. In the wider landscape, these boundary features are closely connected to various sized blocks of broad-leaved woodland, some of which have been identified as designated ASNW. Overall, Site 9 is considered to provide sub-optimal habitat to dormice.	N/A	0	N/A		No evidence of dormouse was recorded but presence is assumed as a precaution, as land access permission could not be obtained to undertake surveys.	N/A	N/A
10	The Order Limits within Site 10 predominately run through large arable and grazing fields, as well as 18 boundary features, and one block of woodland. Tubes were deployed in four tube location areas (24-27). The boundary features and woodland blocks are connected both to each other and to woodland within the wider landscape, some of which is designated ASNW. The woody habitats within the	June 2018	126	06.08.2018	126	None	N/A	N/A
				17.09.2018	126			N/A
				08.10.2018	0			No tubes were checked due to access constraints across the Site.
				05.11.2018 (22 tubes collected in at same time)	126			N/A
				03.12.2018	104			22 tubes could not be checked due to access constraints.



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
	Order Limits are considered to provide optimal habitat to dormice.							
11	The Order Limits within Site 11 pass through 10 boundary features, three areas of woodland (on an active golf course) and one area of scattered trees. These features are well connected to blocks of broad-leaved woodland in the wider landscape, many of which are designated ASNW. Tubes were deployed in three tube location areas (28-30). Overall, Site 11 is considered to provide optimal habitat to dormice.	June & July 2018	104	06.08.2018	39	None	N/A	65 tubes could not be checked due to access constraints.
				17.09.2018	83			21 tubes could not be checked due to access constraints.
				08.10.2018	104			N/A
				05.11.2018	104			N/A
				03.12.2018 (tubes collected)	104			N/A
12	The Order Limits within Site 12 pass through nine boundary features and five blocks of woodland, closely connected to ASNW in the wider landscape. The habitats within the Order Limits are considered to provide optimal habitat to dormice.	N/A	N/A	N/A		Presence of dormouse assumed due to presence of historic desktop records.	N/A	N/A
13	The Order Limits within Site 13 run through Bourley and	June 2018	103	06.08.2018	103	None	N/A	N/A
				17.09.2018	103	1 dormouse nest	32	N/A



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
	<p>Long Valley SSSI. The Site supports a diverse mosaic of heathland, woodland, mire scrub and grassland habitats. Travelling north, the Order Limits then pass through Cody Technology Park before heading through Southwood Woodland. The former Southwood Golf Course is located at the very northern end of the Site. Habitats comprise large areas of heath, broad-leaved and pine plantation woodland (although with limited understorey), interspersed between open grassland and areas of urbanisation. The Order Limits intersect six boundary features and five blocks of woodlands, some of which is potential ASNW (under 2ha). Tubes were deployed in three tube location areas (31-33). Connectivity to the wider landscape is limited. Overall, Site 13 is considered to provide sub-optimal habitat to dormice.</p>			08.10.2018	103	1 adult male (17g)	32	N/A
				05.11.2018	103	None	N/A	N/A
				03.12.2018 (tubes collected)	103	None	N/A	N/A



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
14	The Order Limits within Site 14 pass through one continuous block of woodland, crossing the active Pine Ridge Golf Course to the east, and no boundary features. Site 14 is dominated by conifer plantation woodland and forestry with limited understorey, and only some limited connectivity to the wider landscape to the east. Tubes were deployed in one tube location area (34). Overall, Site 14 is considered sub-optimal for dormice.	June and July 2018	104	06.08.2018	104	None	N/A	N/A
				17.09.2018	104			N/A
				08.10.2018	104			N/A
				05.11.2018	104			N/A
				17.12.2018	104			N/A
15	The Order Limits within Site 15 pass through 17 boundary features and eight blocks of woodland, one of which is potential ASNW (under 2ha). These are connected to broad-leaved woodland and blocks of designated ASNW in the wider landscape. A disused golf course is present within the Order Limits to the southern end of the Site, comprising broad-leaved woodland and improved grassland. Tubes were	July 2018	191	06.08.2018	165	None	N/A	26 tubes could not be checked due to access constraints.
				17.09.2018	107			84 tubes could not be checked due to access constraints.
				08.10.2018	174			17 tubes could not be checked due to access constraints.
				05.11.2018	191			N/A
				17.12.2018 (tubes collected)	191			N/A



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
	deployed in six tube location areas (35-40). Overall, Site 15 is considered optimal for dormice.							
16	The Order Limits within Site 16 run through 17 boundary features and four blocks of woodland. However, three of these woodland blocks would be avoided through the use of trenchless installation techniques (TC027 (one block) and TC028 (two blocks)), and the fourth, at the western end of the Site, was scoped out due to unsuitable habitat and a lack of understorey. Habitats comprise a mosaic of heathland, amenity grassland and grazing fields of varying sizes, and an active golf course (Foxhills Golf Course) to the east. Tubes were deployed in three tube location areas (41-43). Boundary habitats consist of optimal broad-leaved, semi-natural woodland, however, overall the habitats within the Order Limits are considered to	July 2018	123	06.08.2018	113	None	N/A	10 tubes could not be checked due to access constraints.
				17.09.2018	113			10 tubes could not be checked due to access constraints.
				08.10.2018	123			N/A
				05.11.2018	123			N/A
				17.12.2018 (tubes collected)	123			N/A



Site Number	Site Description	Date Tubes Deployed (Month)	Total Tubes Deployed	Date of Survey Visits (Week Commencing)	Number of Tubes Checked	Evidence of Dormice Recorded	Location of Findings (Tube Location Area)	Constraints
	provide sub-optimal habitat to dormice.							

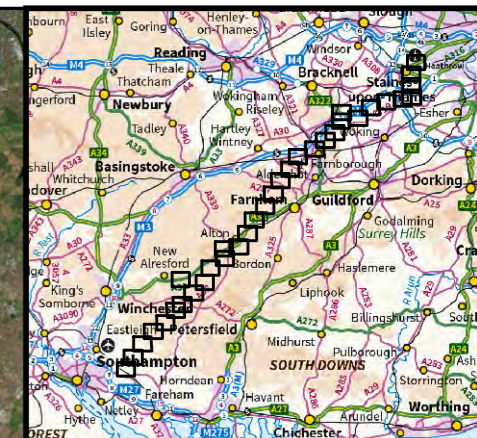
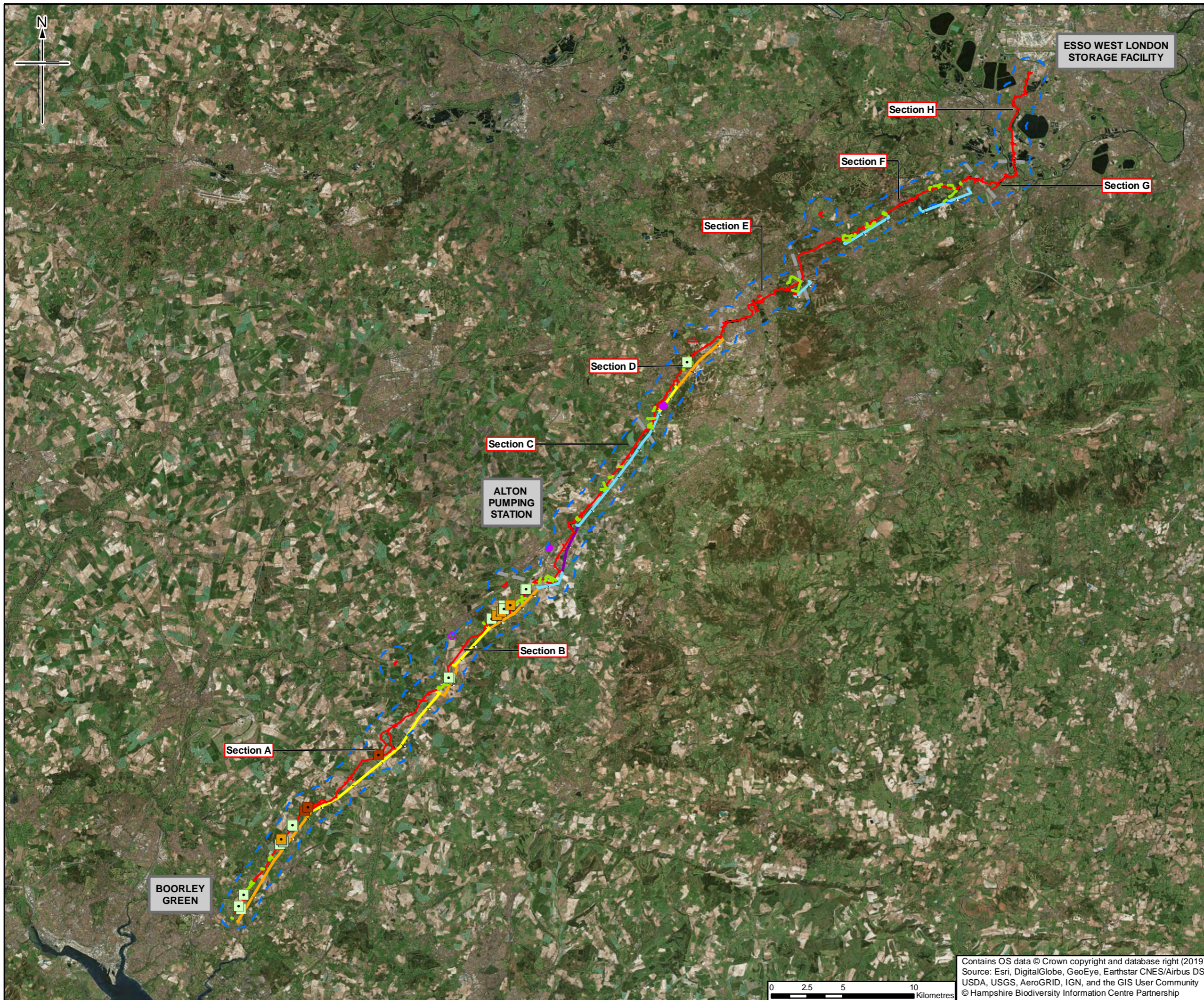


Figures

Figure A7.9.1 Dormouse desk study and field survey results



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- Legend**
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 - Order Limits 1km buffer
 - Logistics hubs
 - Trenchless crossing
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 - Section break
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 - No land access - dormouse presence assumed
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 - Dormouse nest
 - Hazel nut chewed by dormouse
- Desktop records**
- HBIC dormouse
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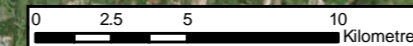
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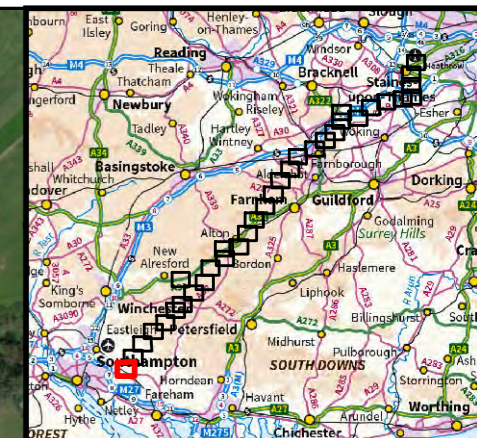
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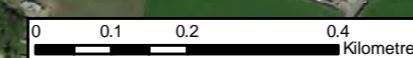
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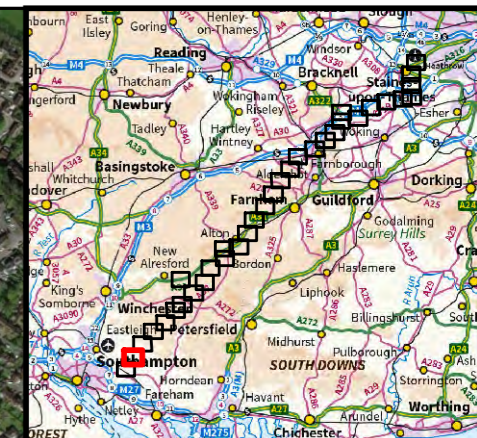
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Survey site

- Site surveyed - dormice presence confirmed
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- Site not surveyed - dormice presence assumed
- No land access - dormouse presence assumed

Direct evidence of dormice recorded

- Dormouse
- Dormouse nest
- Hazel nut chewed by dormouse

Desktop records

- HBIC dormouse

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1180 Eskdale Road, Weymouth, Dorset, Dorset, BH21 3TU, UK.
Tel: +44(0)119 946 7000 Fax: +44(0)119 946 7001
www.jacobs.com

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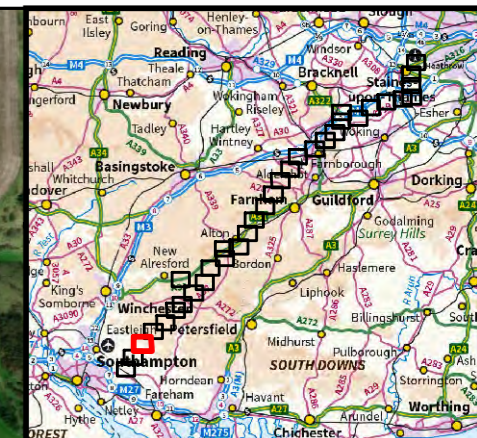
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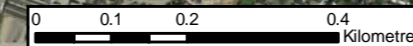
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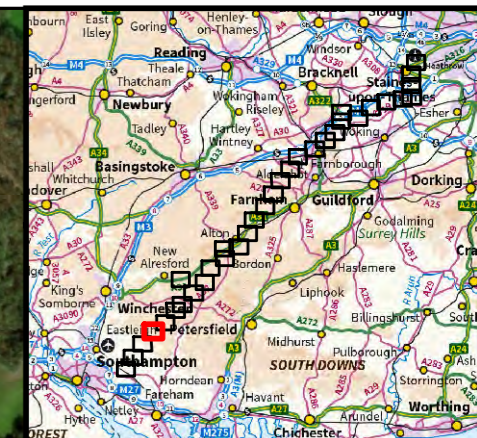
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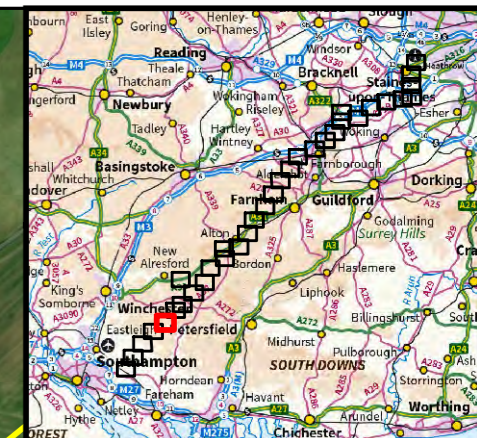
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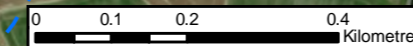
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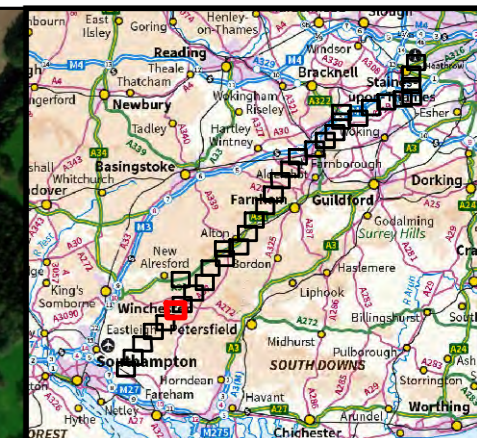
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DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue
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Drawing number	Figure A7.9.1 Sheet 5 of 34
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- Legend**
- Order Limits
 - Order Limits 1km buffer
 - Logistics hubs
 - Trenchless crossing
 - Section break
 - Section break
 - Dormouse tube area locations
- Survey site**
- Site surveyed - dormice presence confirmed
 - Site surveyed - dormice not recorded
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- Dormouse
 - Dormouse nest
 - Hazel nut chewed by dormouse
- Desktop records**
- HBIC dormouse
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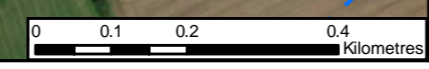
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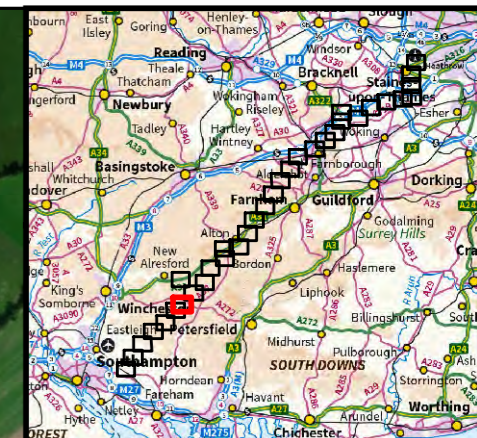
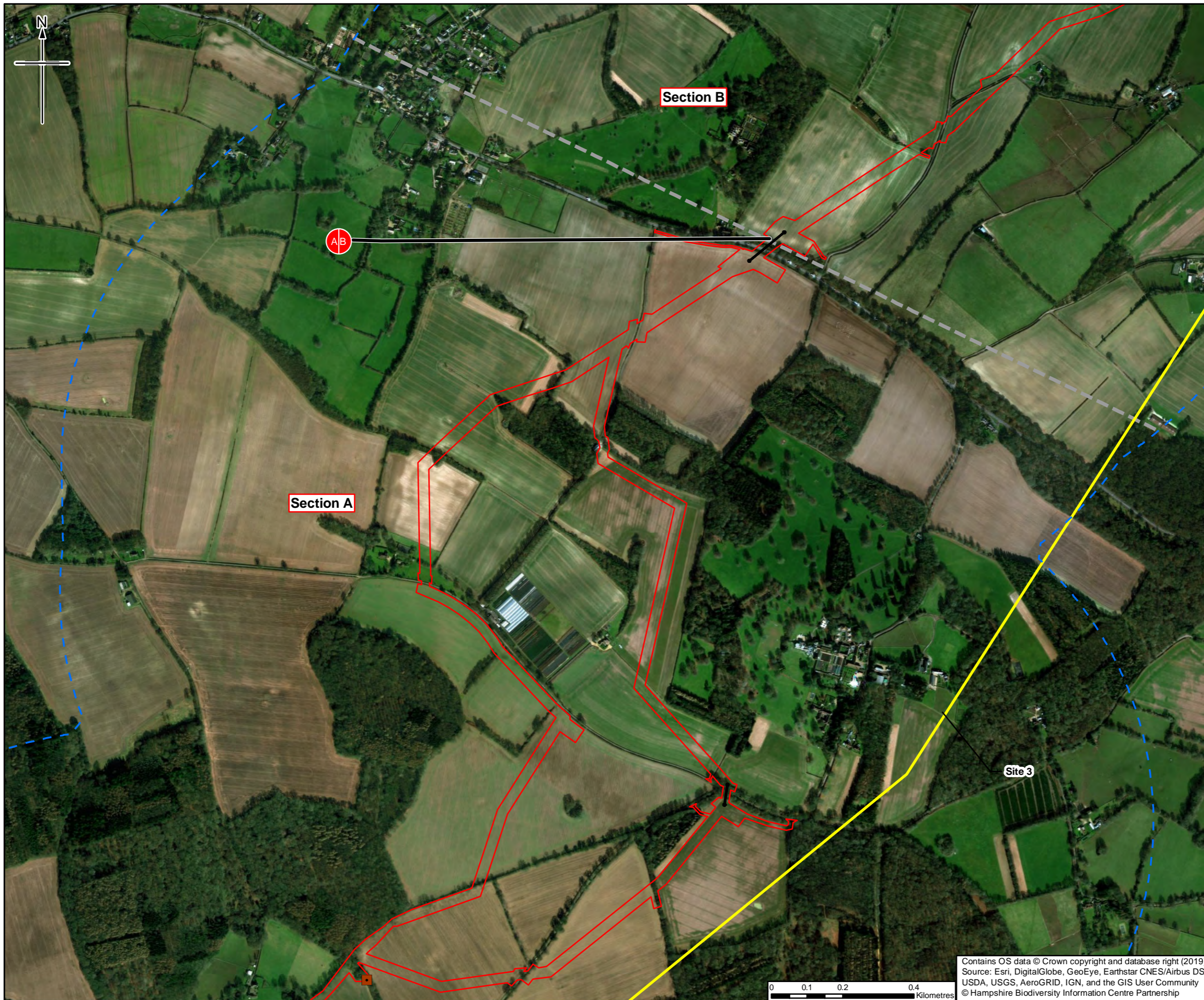
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**ENVIRONMENTAL STATEMENT
DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

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- Legend**
- Order Limits
 - Order Limits 1km buffer
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 - Trenchless crossing
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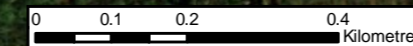
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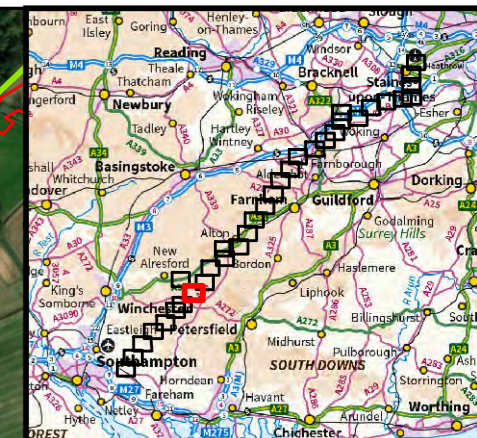
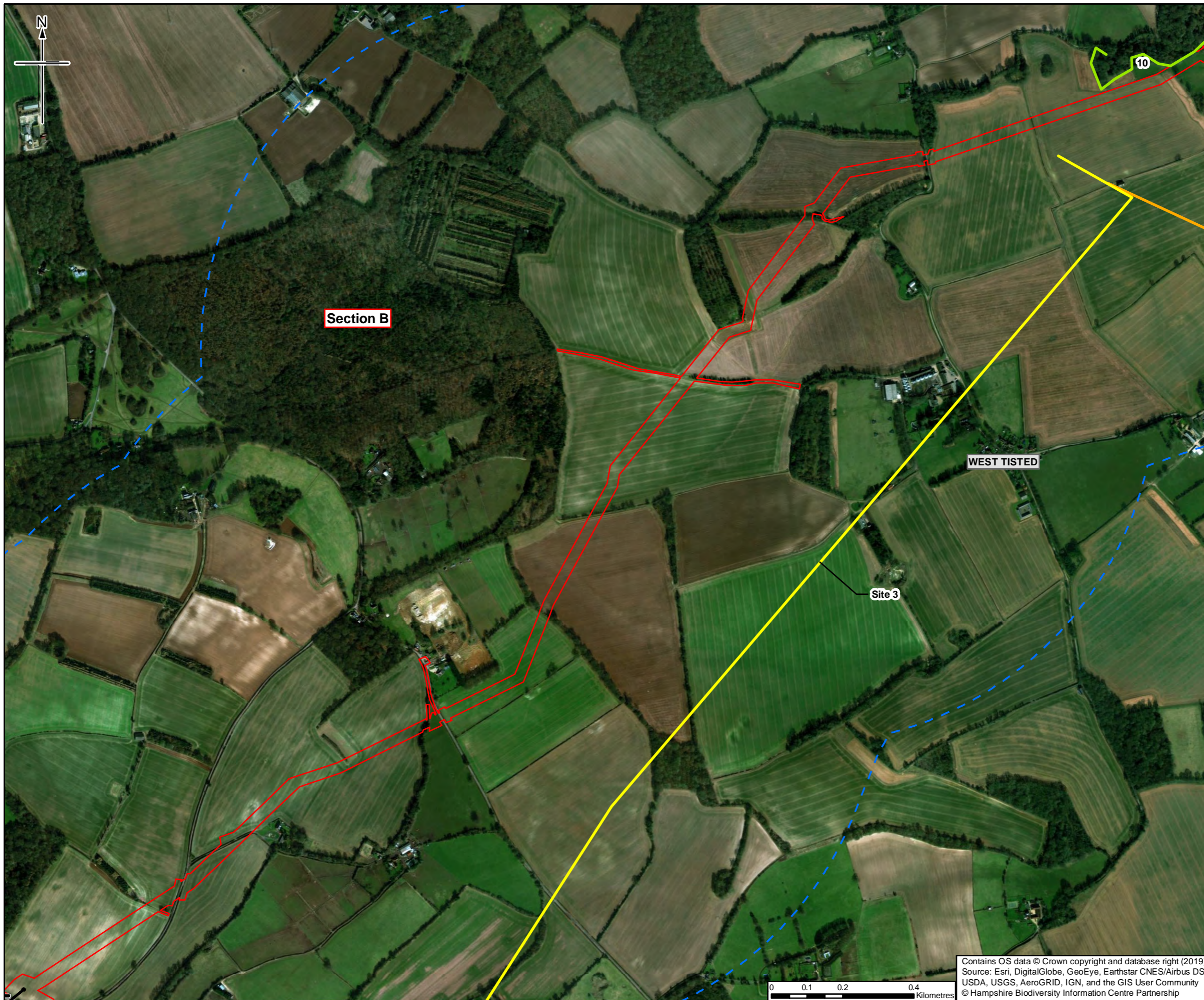
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 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)

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Legend

- Order Limits
- Order Limits 1km buffer
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Survey site

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Desktop records

- HBIC dormouse

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Author

JACOBS
1180 Epsom Road, Weybridge, Wokingham, RG41 1TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

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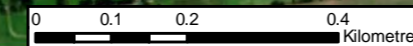
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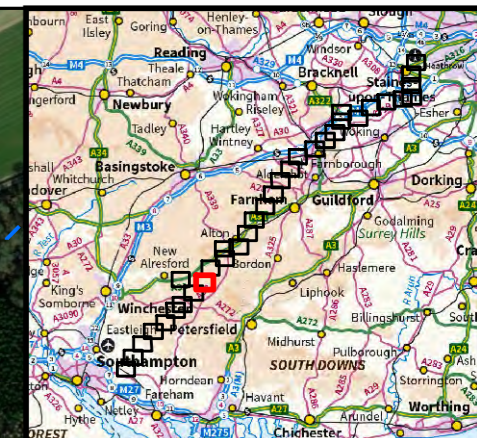
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DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

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- Legend**
- Order Limits
 - Order Limits 1km buffer
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- Desktop records**
- HBIC dormouse

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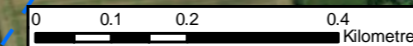
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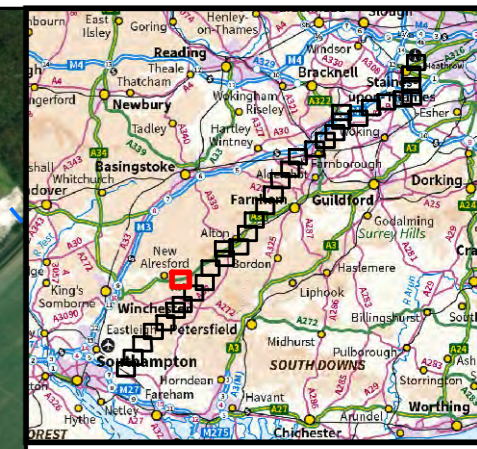
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**ENVIRONMENTAL STATEMENT
 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue
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Legend

- Order Limits
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Survey site

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Desktop records

- HBIC dormouse

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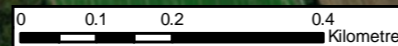
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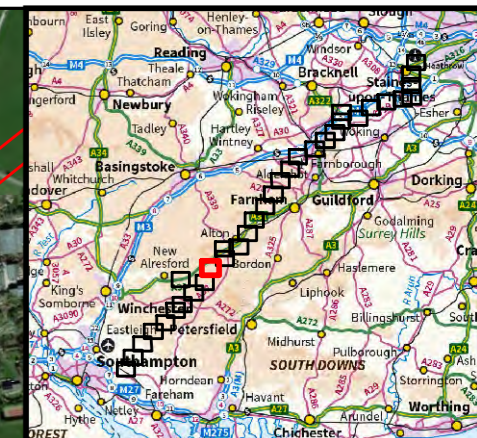
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**ENVIRONMENTAL STATEMENT
 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)**

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Legend

- Order Limits
- Order Limits 1km buffer
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Desktop records

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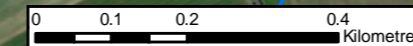
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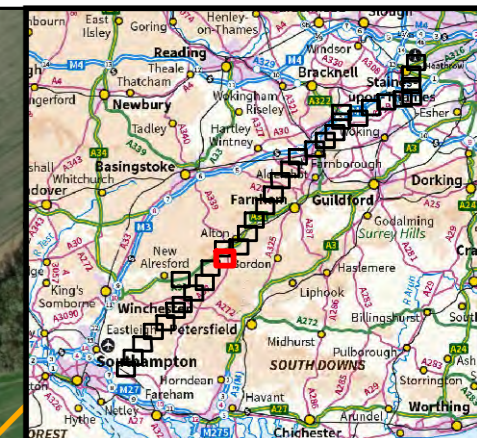


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**ENVIRONMENTAL STATEMENT
 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)**

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 ProjectWise No. B2325300-JAC-000-ENV-DRG-001071
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- Legend**
- Order Limits
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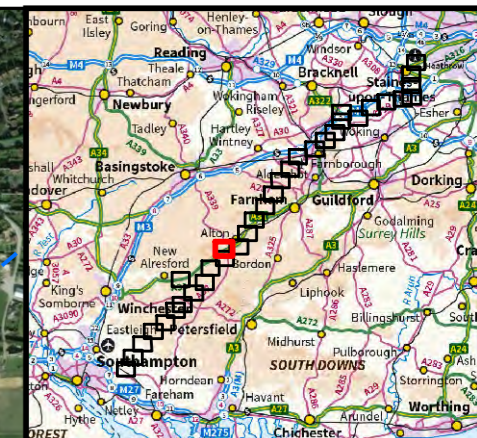
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Drawing title
**ENVIRONMENTAL STATEMENT
DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue	
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Legend

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Desktop records

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1180 Eskdale Road, Weymouth, Wokingham, RG41 1TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
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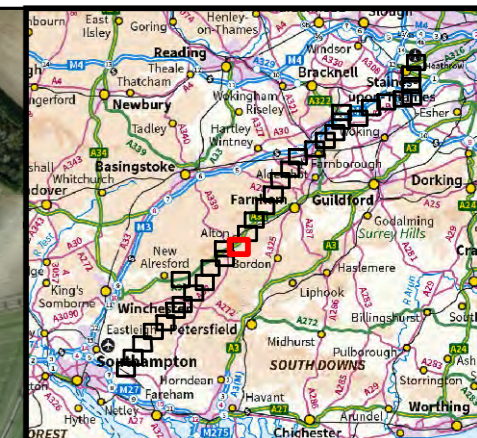
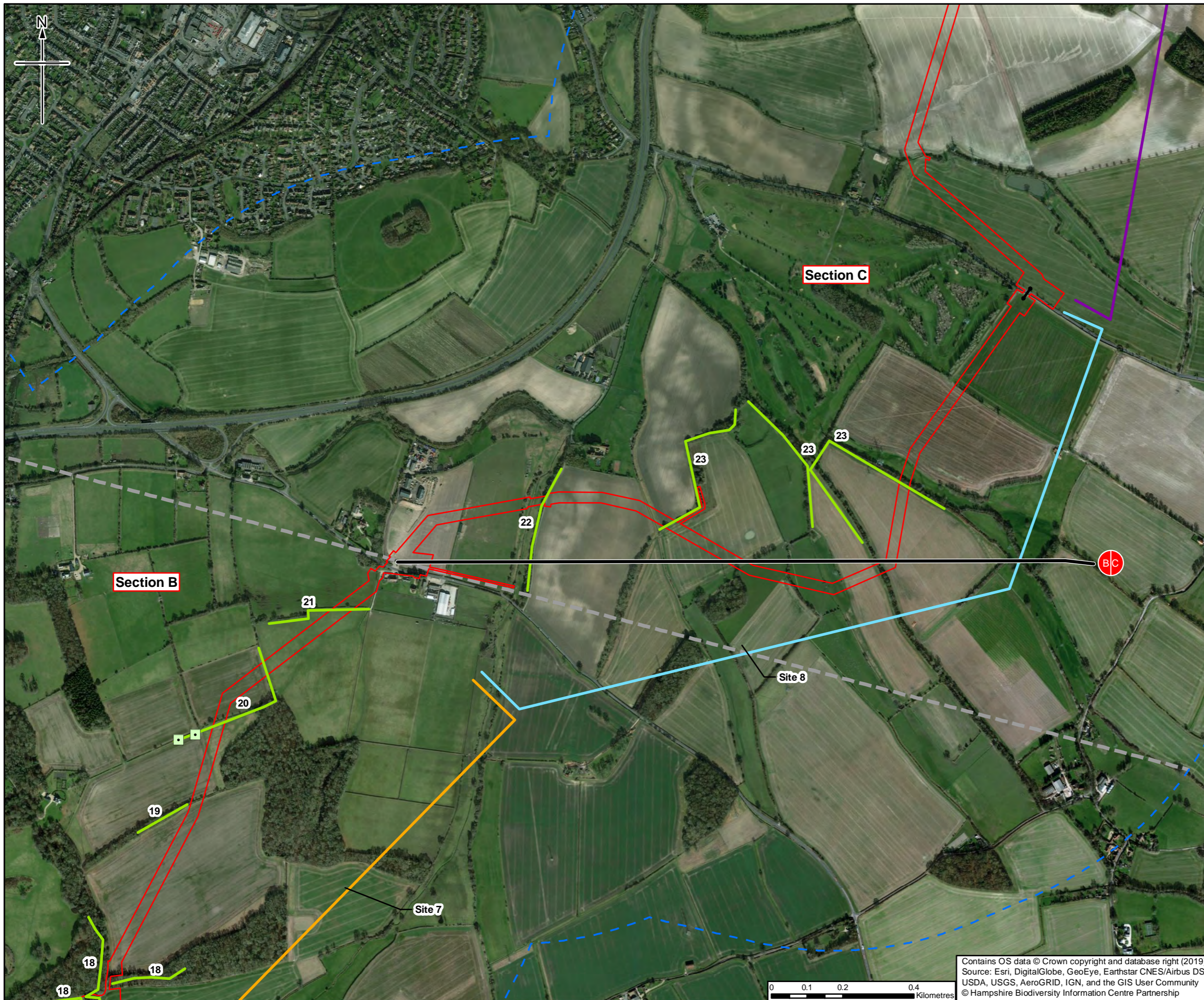
Project
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**ENVIRONMENTAL STATEMENT
DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue
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Project/Work No.	B2325300-JAC-000-ENV-DRG-001071
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- Legend**
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- Desktop records**
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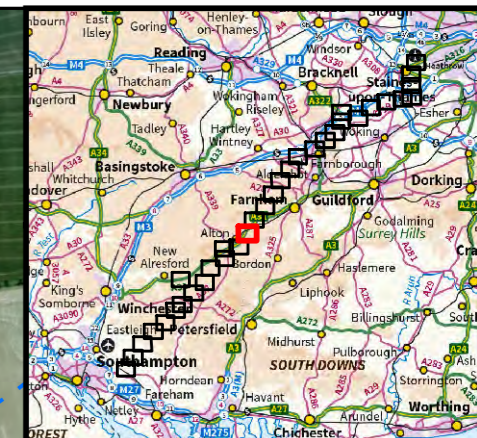
Project
Southampton to London Pipeline Project

Drawing title
**ENVIRONMENTAL STATEMENT
 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue
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Jacobs No.	B2325300
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- Legend**
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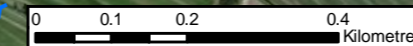
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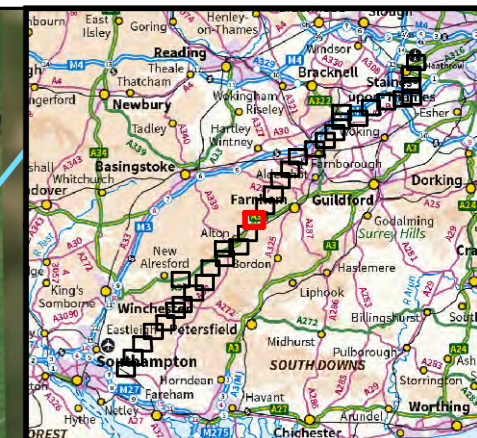
Project
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Drawing title
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DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue
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- Legend**
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 Surrey,
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Project

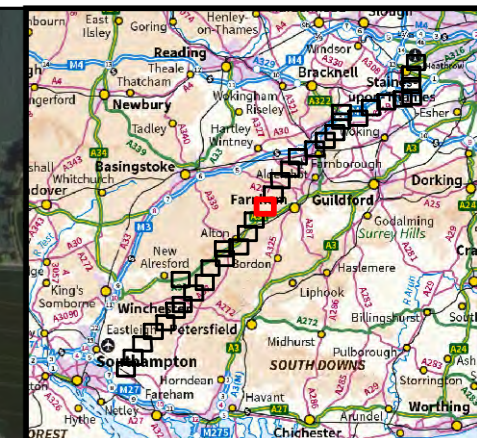
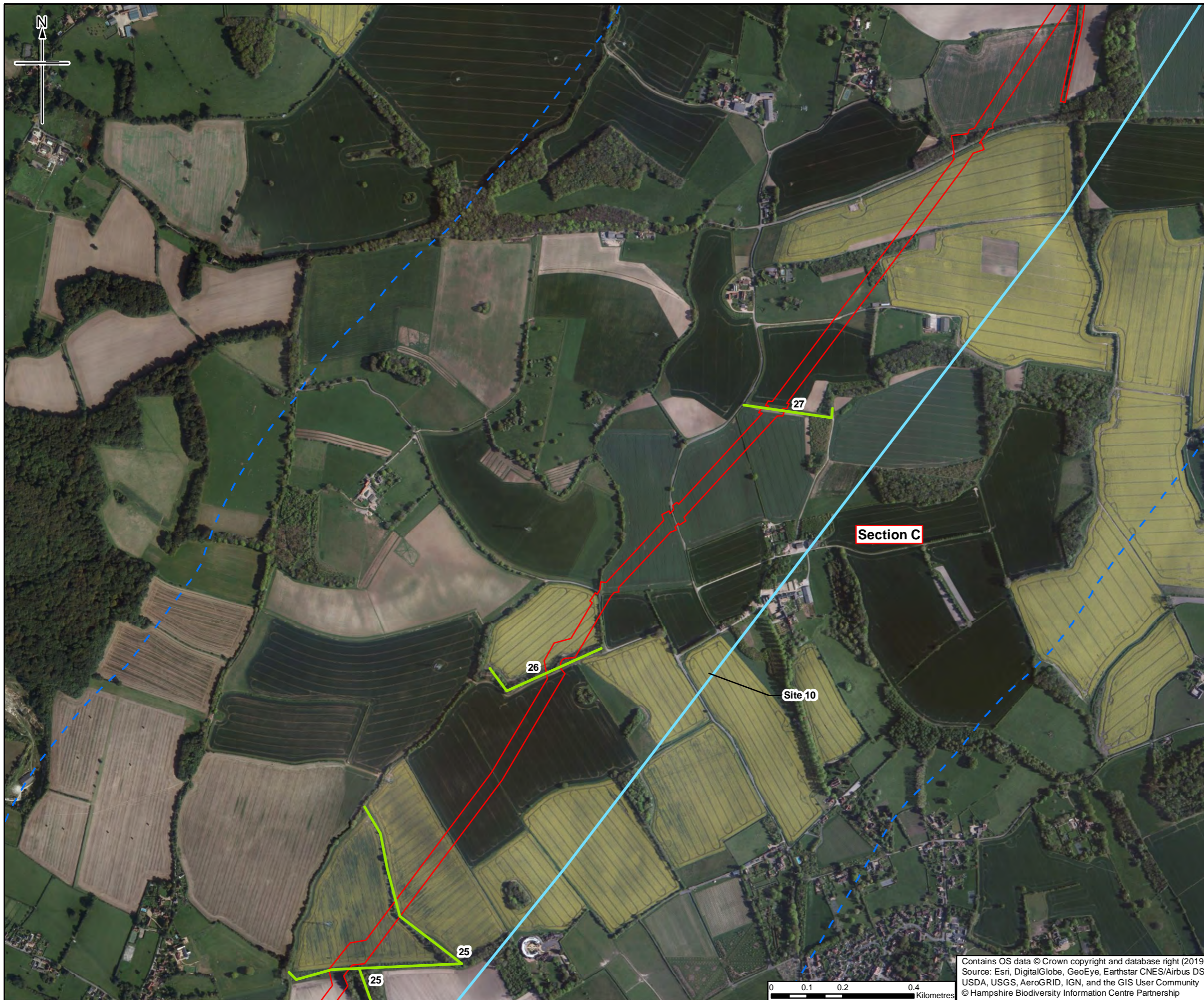
Southampton to London Pipeline Project

Drawing title
 ENVIRONMENTAL STATEMENT
 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue
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Jacobs No.	B2325300
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001071
Drawing number	Figure A7.9.1 Sheet 16 of 34
Rev	0

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- Legend**
- Order Limits
 - Order Limits 1km buffer
 - Logistics hubs
 - Trenchless crossing
 - Section break
 - Section break
 - Dormouse tube area locations
- Survey site**
- Site surveyed - dormice presence confirmed
 - Site surveyed - dormice not recorded
 - Site not surveyed - dormice presence assumed
 - No land access - dormouse presence assumed
- Direct evidence of dormice recorded**
- Dormouse
 - Dormouse nest
 - Hazel nut chewed by dormouse
- Desktop records**
- HBIC dormouse
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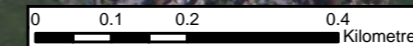
Client
Esso Petroleum Company, Limited
Ermyn House,
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Leatherhead,
Surrey,
KT22 8UX

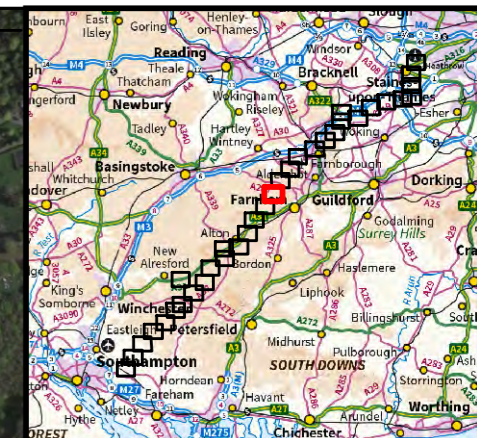
Project
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Drawing title
**ENVIRONMENTAL STATEMENT
DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue	
Scale	1:10,000 @ A3	DO NOT SCALE
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- Legend**
- Order Limits
 - Order Limits 1km buffer
 - Logistics hubs
 - Trenchless crossing
 - Section break
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 - Dormouse tube area locations
- Survey site**
- Site surveyed - dormice presence confirmed
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 - No land access - dormouse presence assumed
- Direct evidence of dormice recorded**
- Dormouse
 - Dormouse nest
 - Hazel nut chewed by dormouse
- Desktop records**
- HBIC dormouse

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 Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

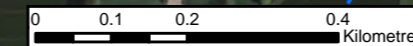
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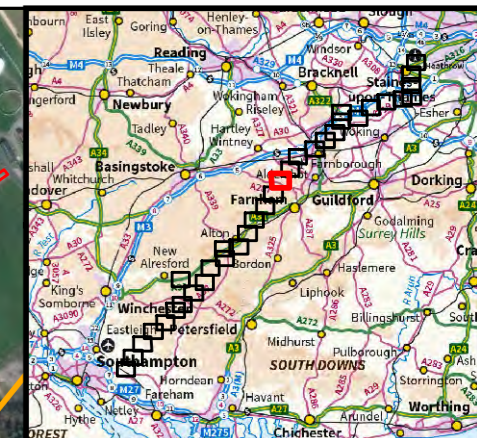
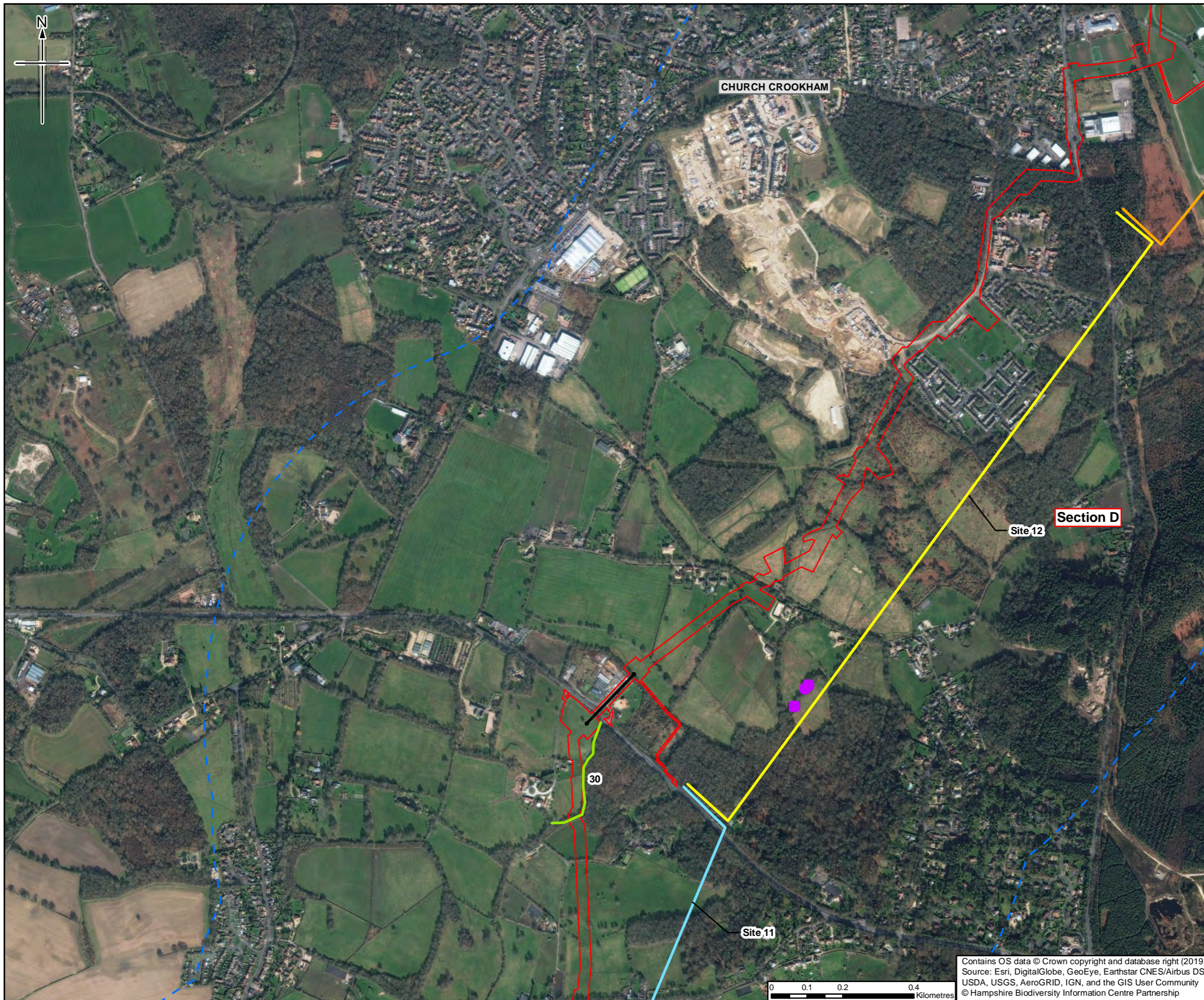
Project:
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Drawing title:
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 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue
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Drawing number	Figure A7.9.1 Sheet 18 of 34
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Legend

- Order Limits
- Order Limits 1km buffer
- Logistics hubs
- Trenchless crossing
- Section break
- Section break
- Dormouse tube area locations

Survey site

- Site surveyed - dormice presence confirmed
- Site surveyed - dormice not recorded
- Site not surveyed - dormice presence assumed
- No land access - dormouse presence assumed

Direct evidence of dormice recorded

- Dormouse
- Dormouse nest
- Hazel nut chewed by dormouse

Desktop records

- HBIC dormouse

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1180 Eskdale Road, Weymouth, Wokingham, RG41 3TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
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Leatherhead,
Surrey,
KT22 8UX

Project: **Esso** Southampton to London Pipeline Project

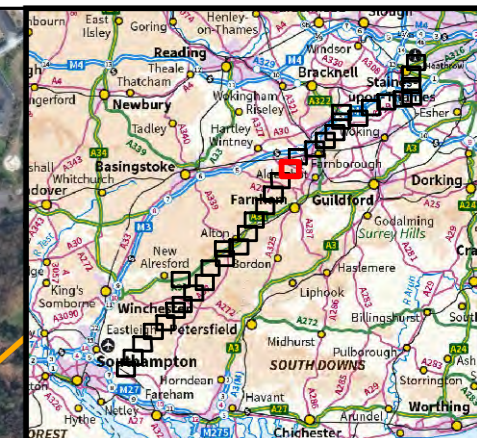
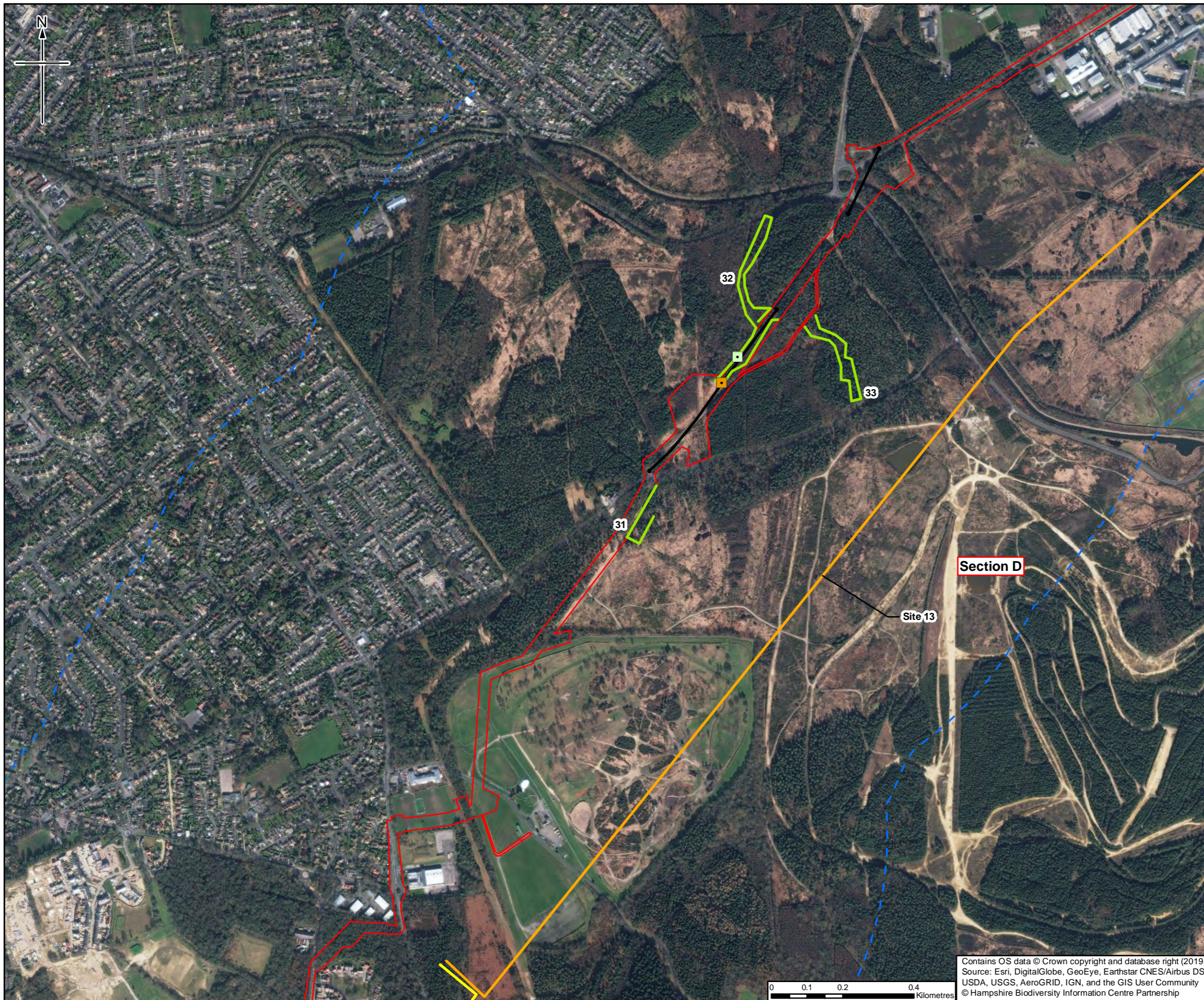
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Drawing Status	For Issue
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Drawing number: Figure A7.9.1 Sheet 19 of 34 Rev 0

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- Legend**
- Order Limits
 - Order Limits 1km buffer
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 - No land access - dormouse presence assumed
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- Dormouse
 - Dormouse nest
 - Hazel nut chewed by dormouse
- Desktop records**
- HBIC dormouse
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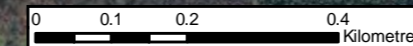
Project
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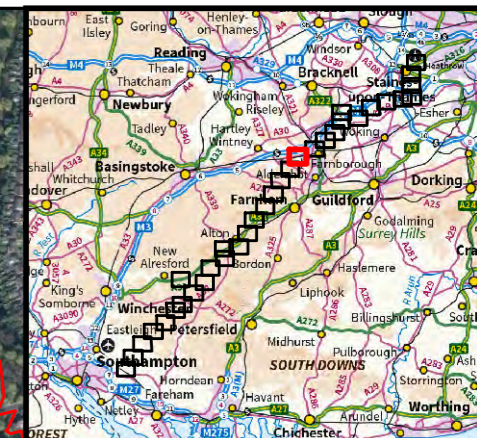
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DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

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- Legend**
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- Desktop records**
- HBIC dormouse

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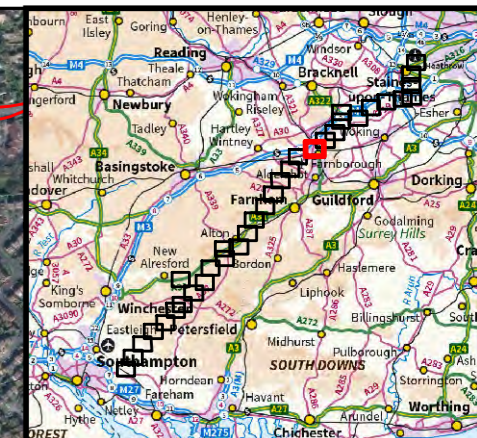
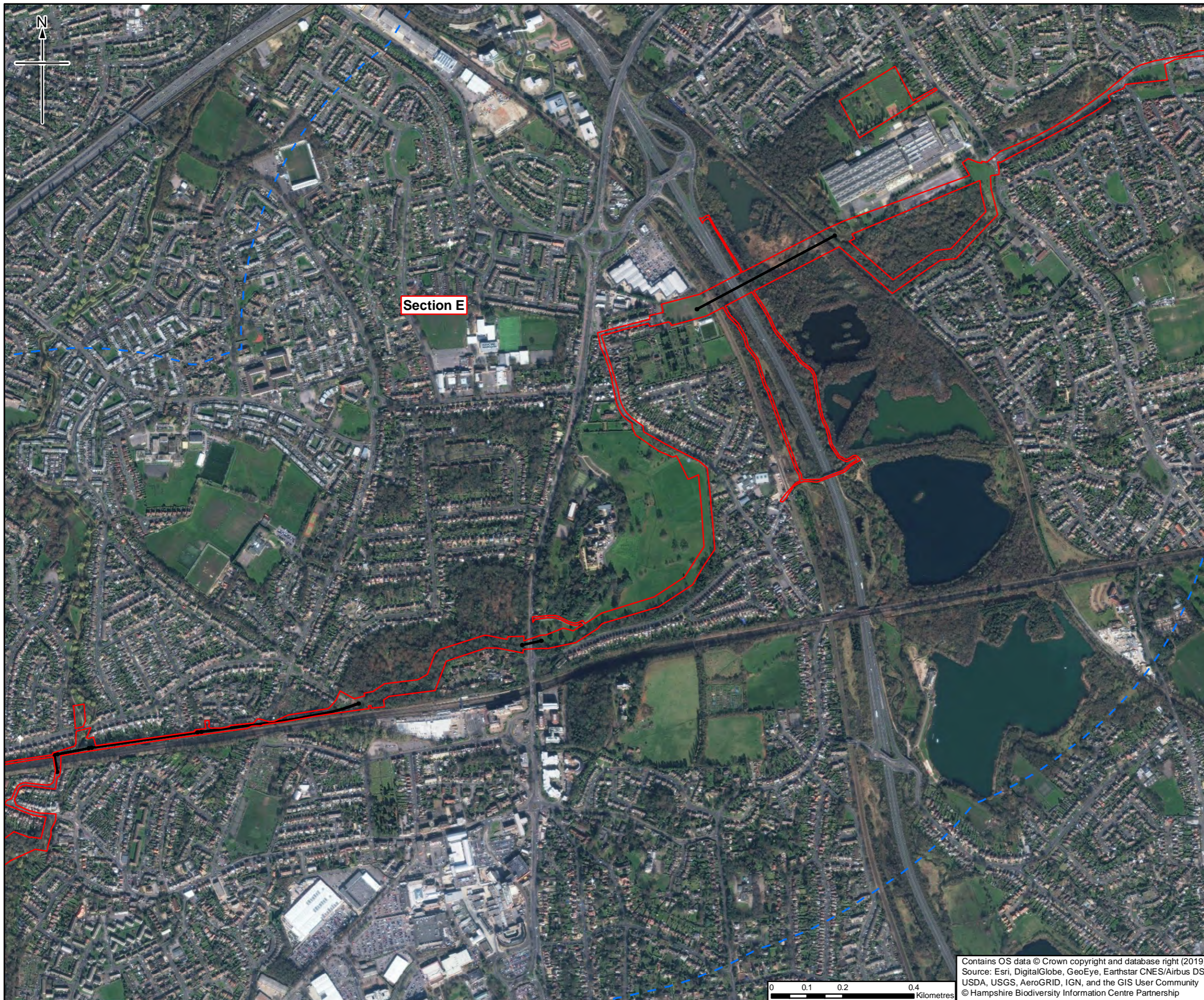
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 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)

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Figure A7.9.1 Sheet 21 of 34	0

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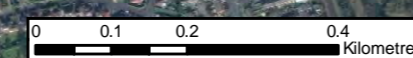
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Surrey,
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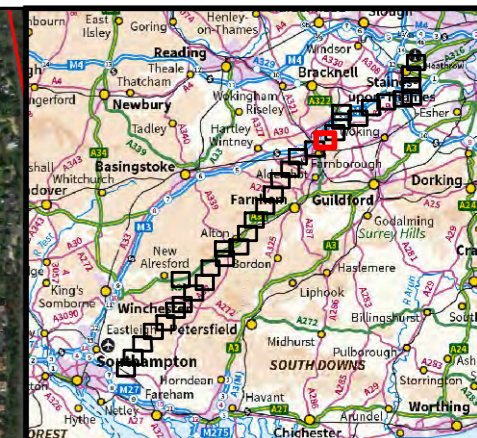
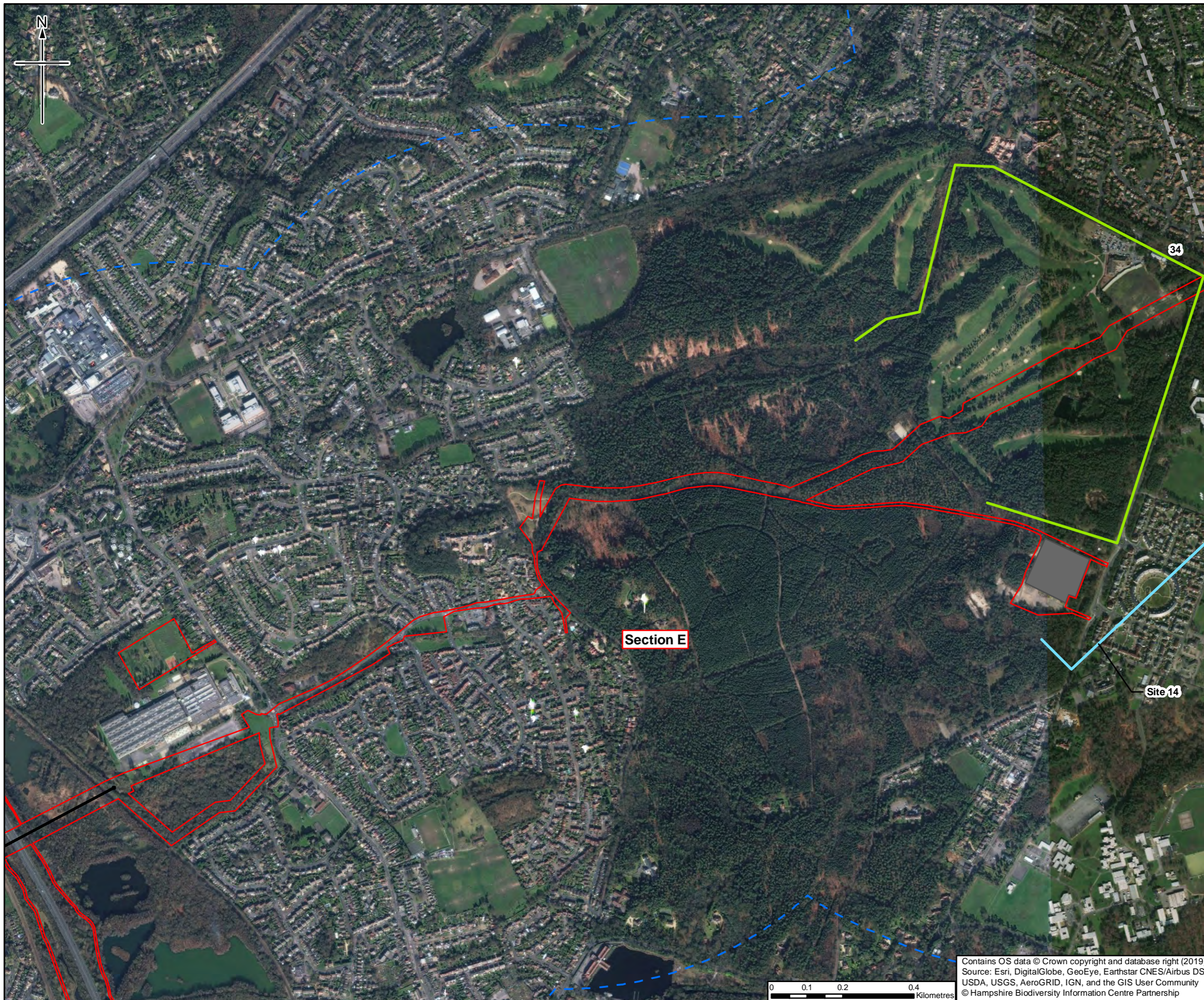
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**ENVIRONMENTAL STATEMENT
DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue
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Drawing number	Figure A7.9.1 Sheet 22 of 34
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- Desktop records**
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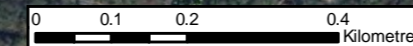
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Surrey,
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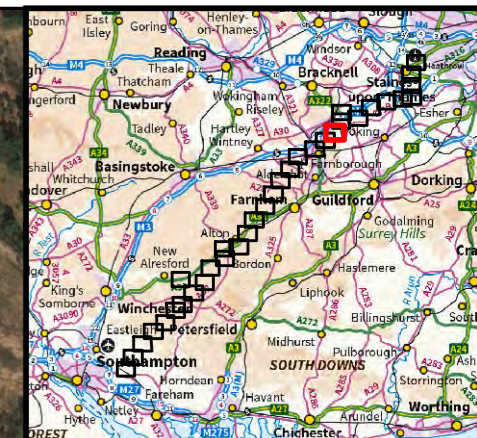
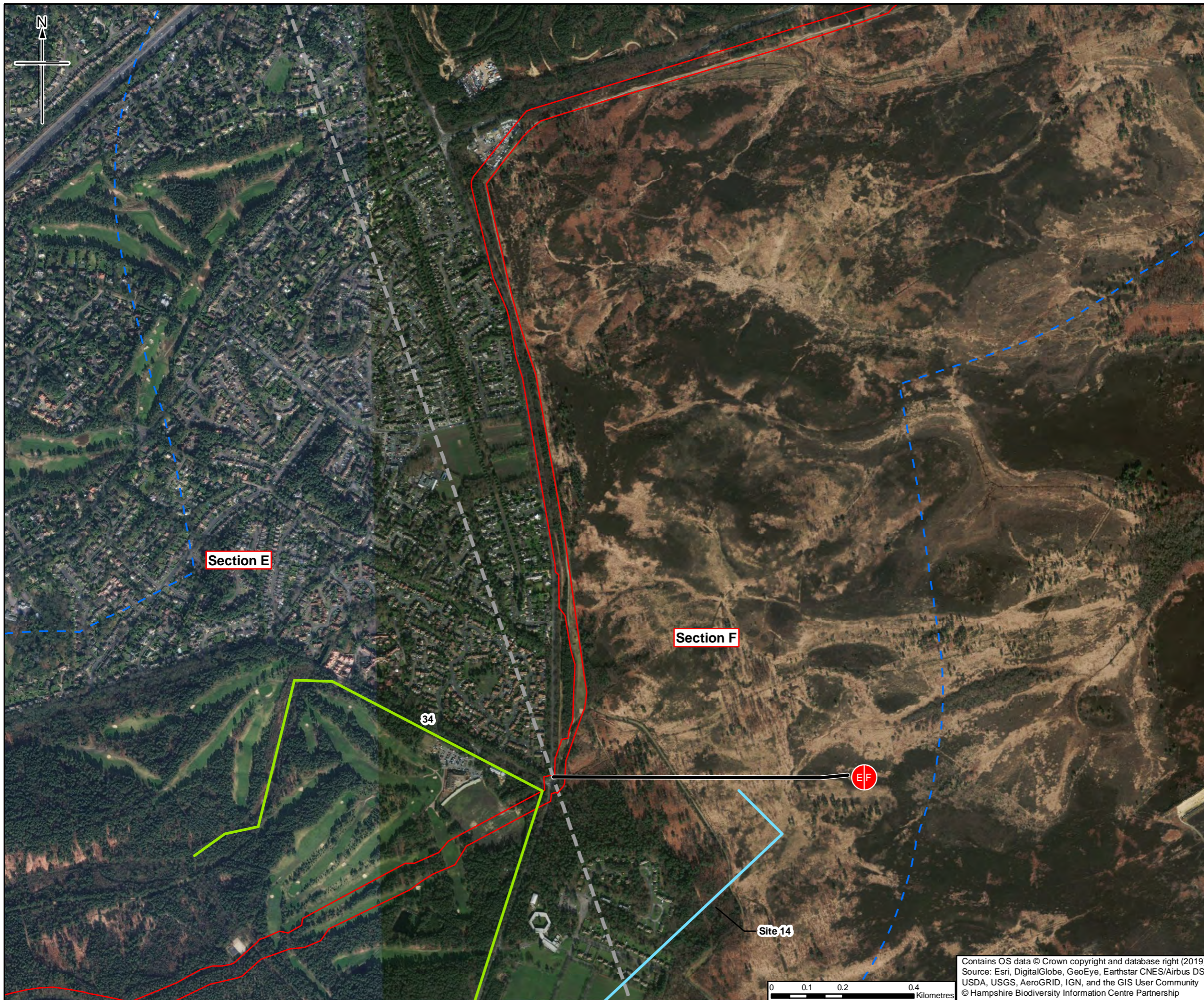
Project
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Drawing title
**ENVIRONMENTAL STATEMENT
DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue	DO NOT SCALE
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Legend

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- Order Limits 1km buffer
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Survey site

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Direct evidence of dormice recorded

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- Hazel nut chewed by dormouse

Desktop records

- HBIC dormouse

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JACOBS
1180 Esplanade Road, Weybridge, Wokingham, RG41 1TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
www.jacobs.com

Client
Esso Petroleum Company, Limited
Ermyn House,
Ermyn Way,
Leatherhead,
Surrey,
KT22 8UX

Project
Esso Southampton to London Pipeline Project

Drawing title
**ENVIRONMENTAL STATEMENT
DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

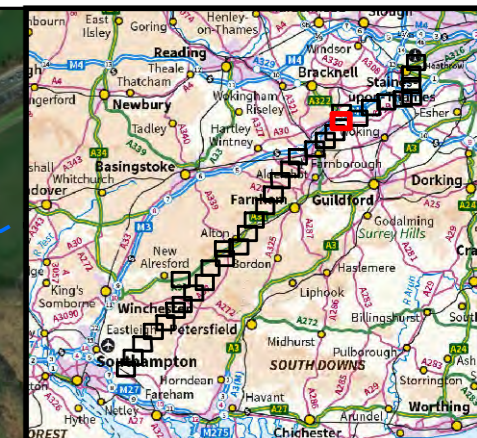
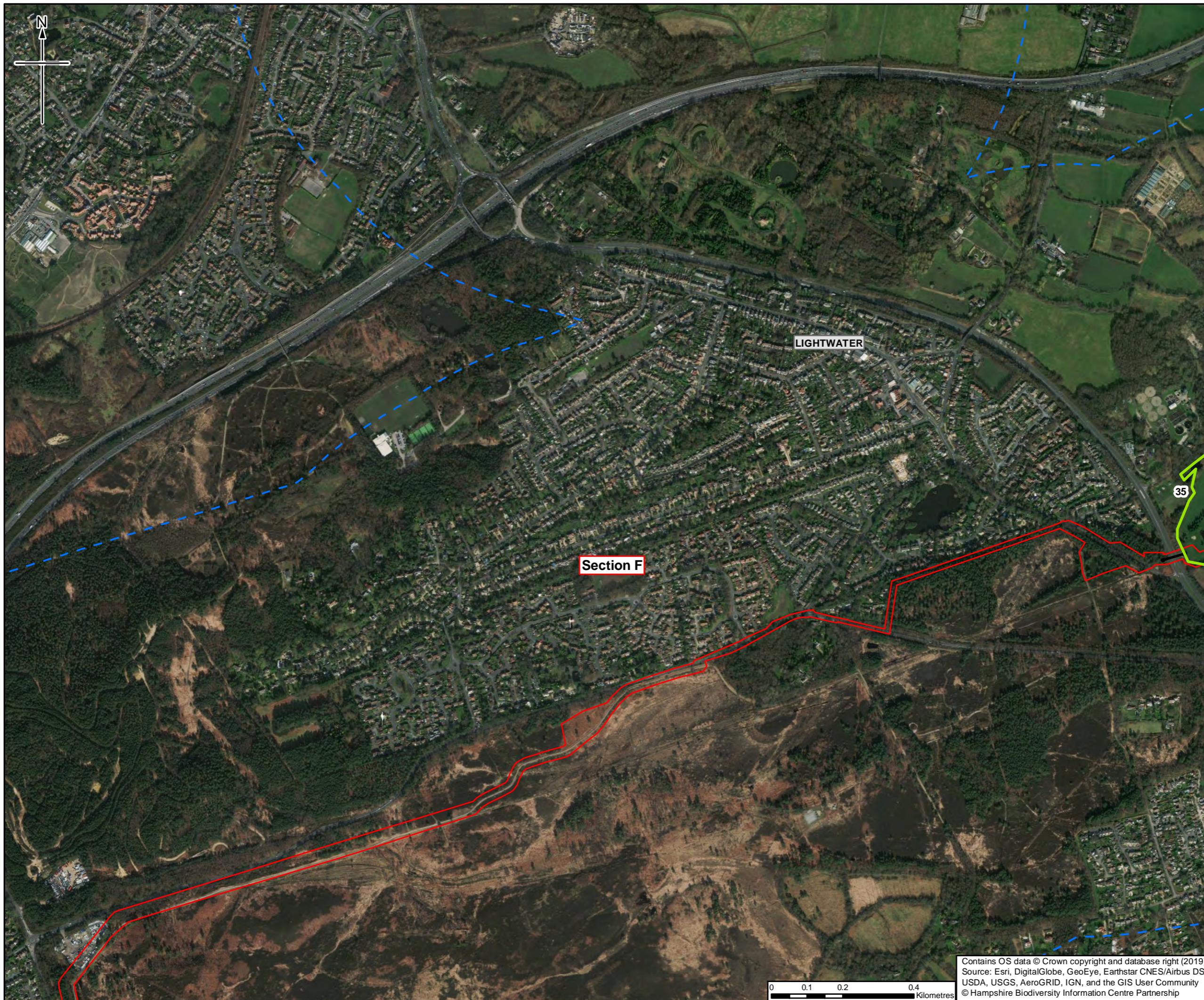
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- Legend**
- Order Limits
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- Desktop records**
- HBIC dormouse

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 1180 Eskdale Road, Weymouth, Wokingham, RG41 3TU, UK.
 Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
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 Surrey,
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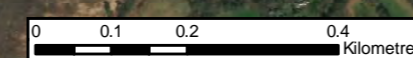
Project:
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Drawing title:
**ENVIRONMENTAL STATEMENT
 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)**

Drawing Status: For Issue
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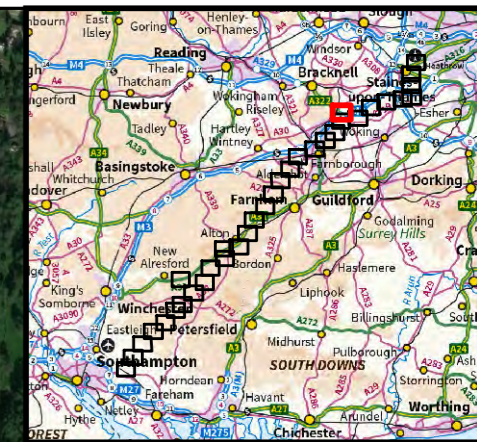
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- Legend**
- Order Limits
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JACOBS
 1180 Eskdale Road, Waverley, Wokingham, RG41 3TU, UK.
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 www.jacobs.com

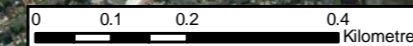
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 Ermyn Way,
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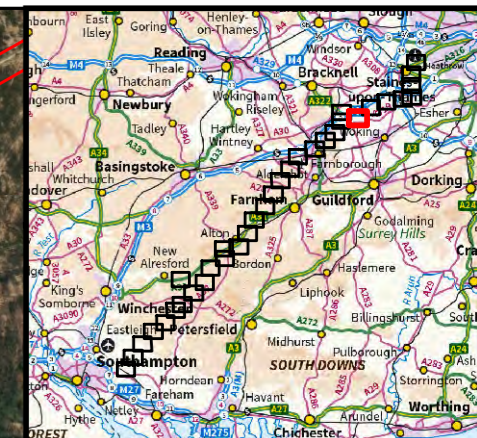
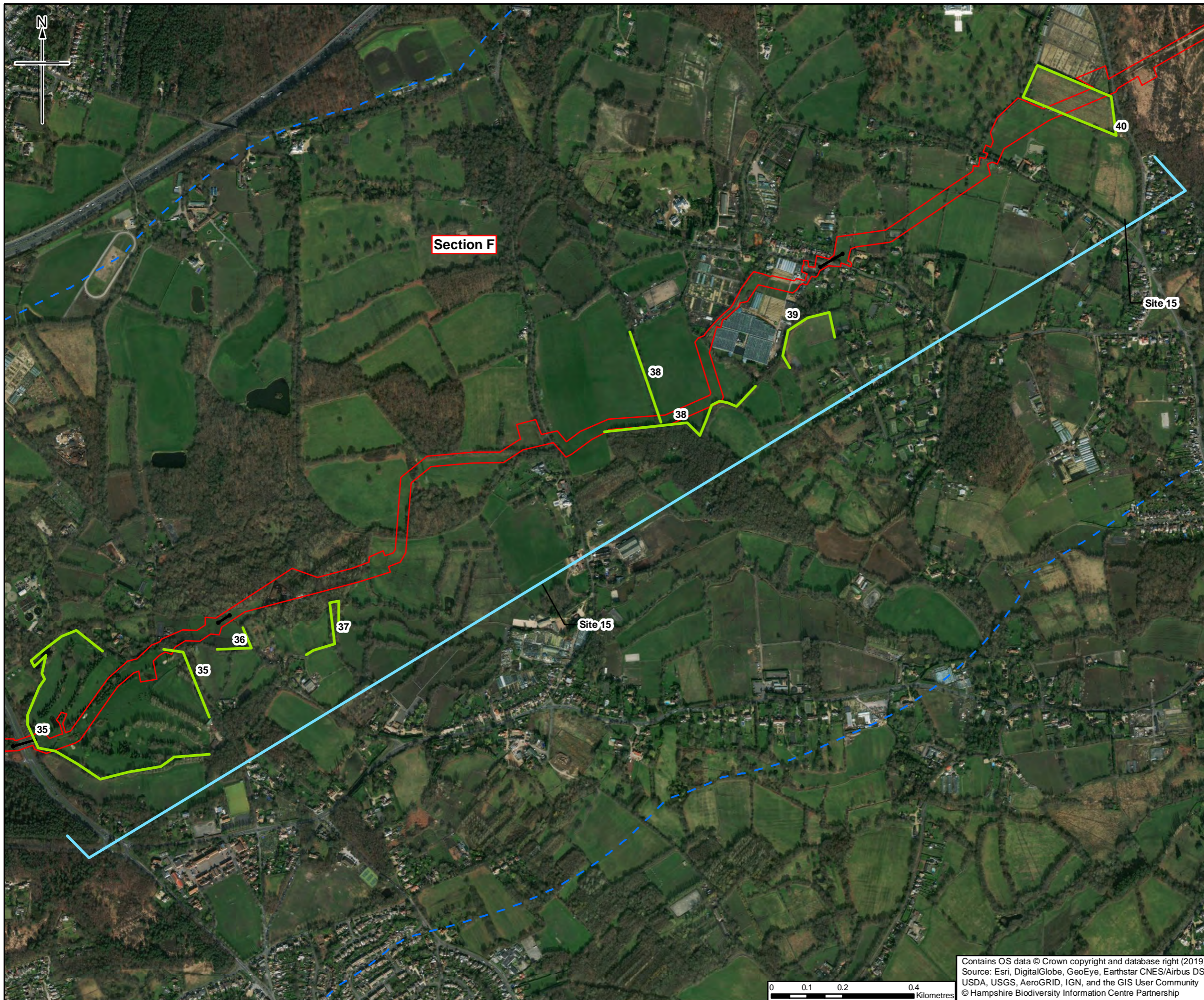
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 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue
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- Legend**
- Order Limits
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- Direct evidence of dormice recorded**
- Dormouse
 - Dormouse nest
 - Hazel nut chewed by dormouse
- Desktop records**
- HBIC dormouse
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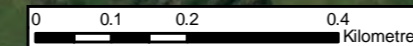
Project
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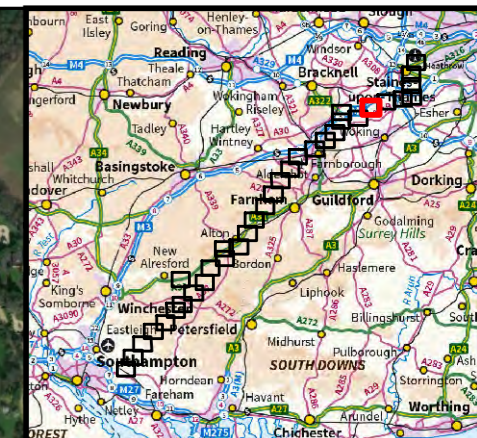
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ENVIRONMENTAL STATEMENT
DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)

Drawing Status	For Issue
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Jacobs No.	B2325300
ProjectWise No.	B2325300-JAC-000-ENV-DRG-001071

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- Legend**
- Order Limits
 - Order Limits 1km buffer
 - Logistics hubs
 - Trenchless crossing
 - Section break
 - Section break
 - Dormouse tube area locations
- Survey site**
- Site surveyed - dormice presence confirmed
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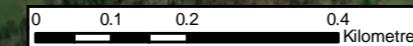
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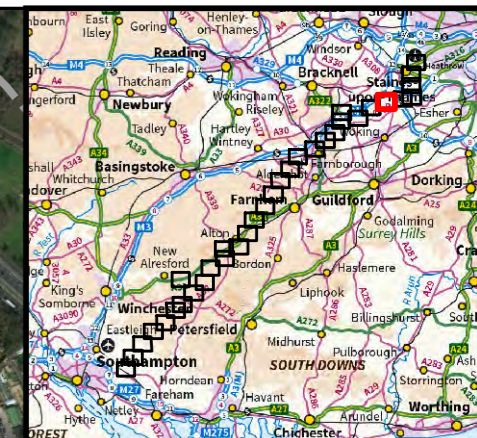
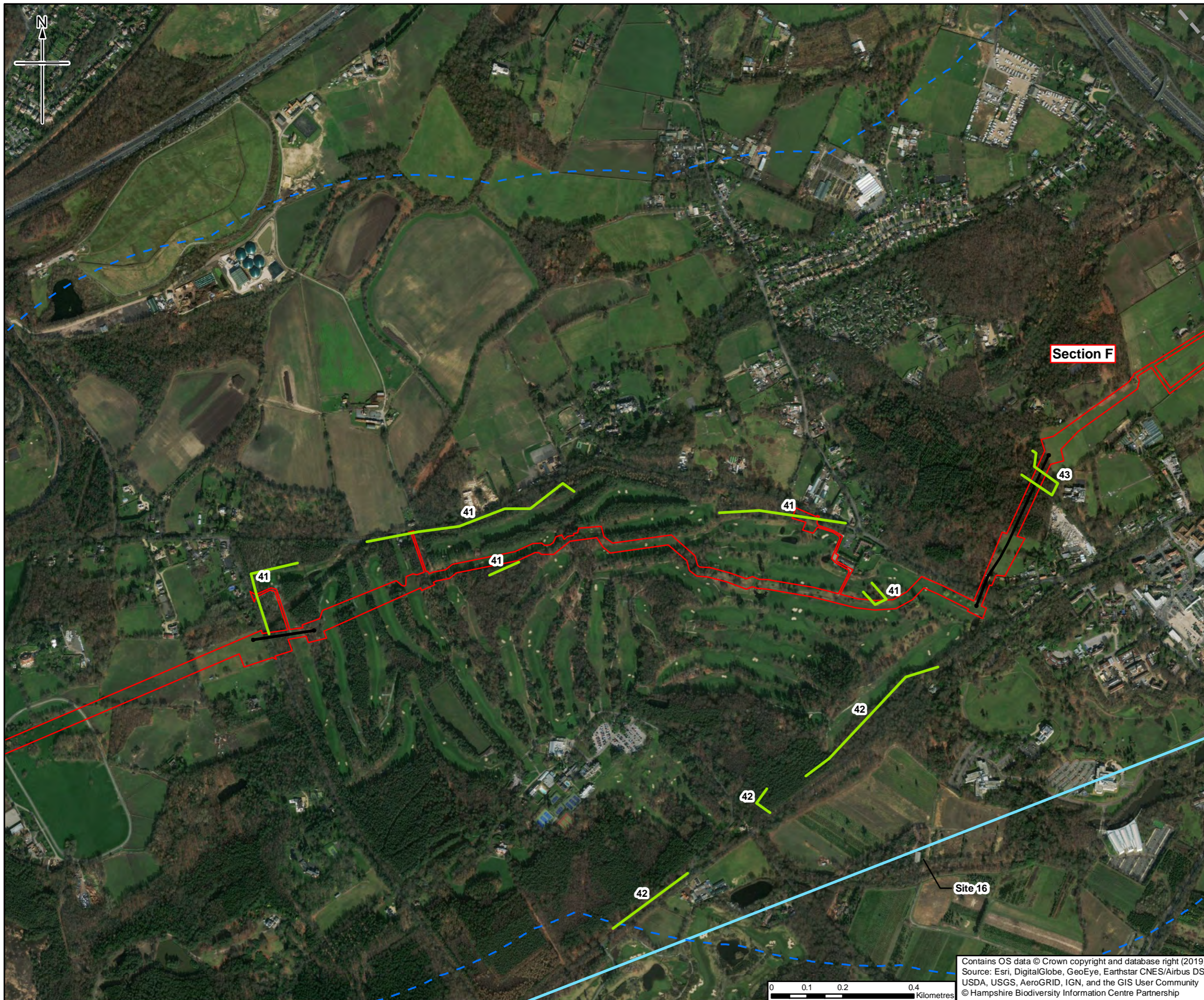
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DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

Drawing Status	For Issue
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- Legend**
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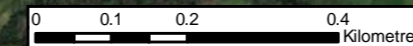
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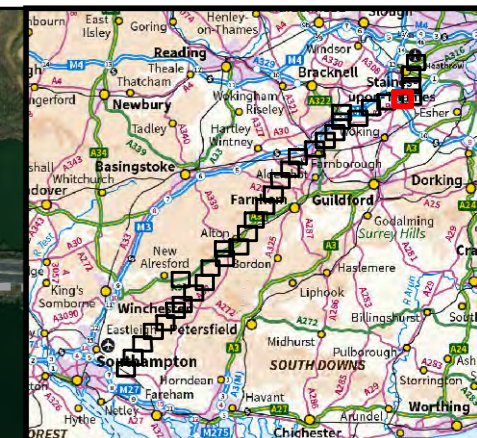
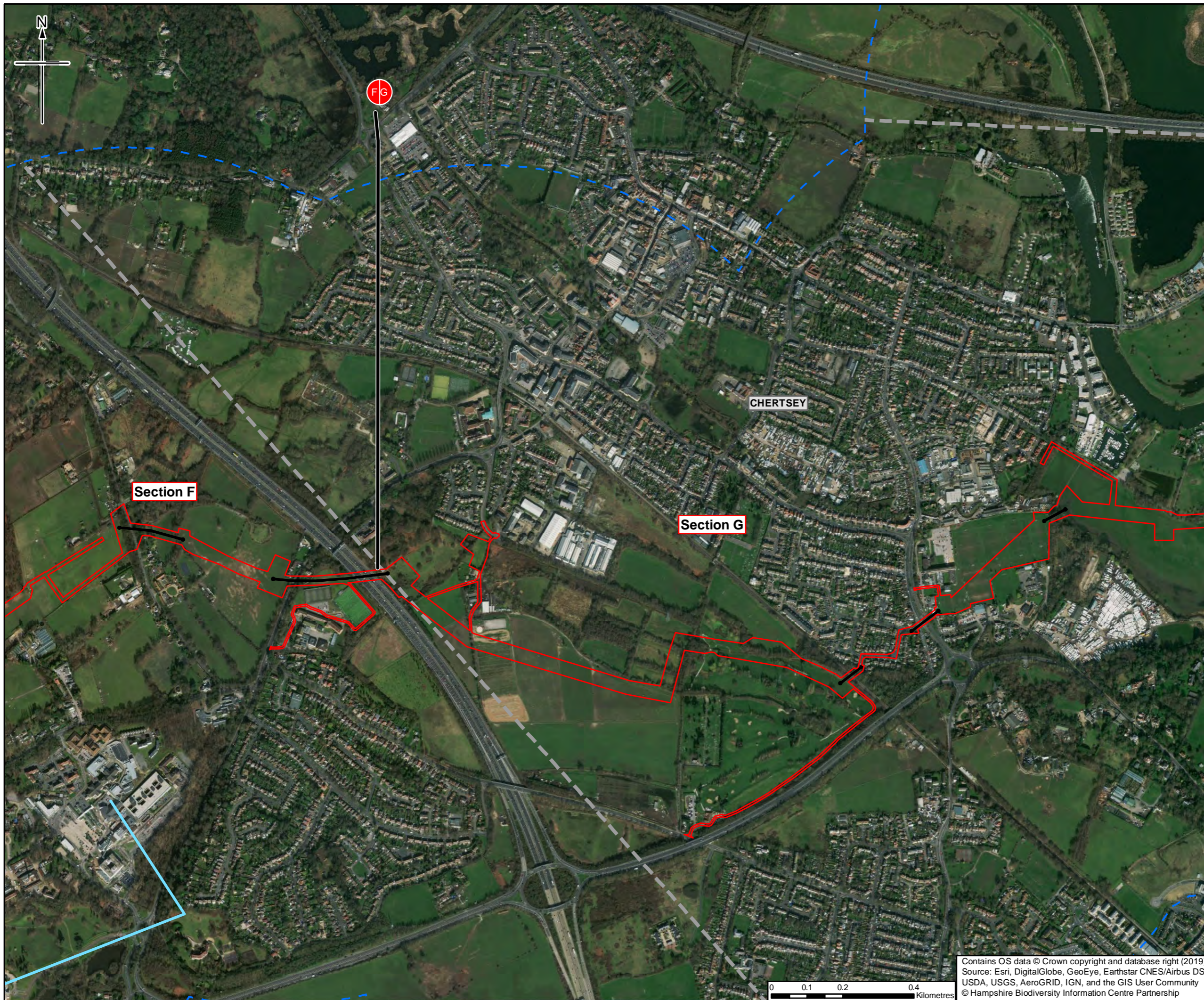
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 DORMOUSE
 SURVEY RESULTS
 APFP Reg. (2009) 5(2)(l)**

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Jacobs No.	B2325300	
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- Legend**
- Order Limits
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 - Logistics hubs
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- Survey site**
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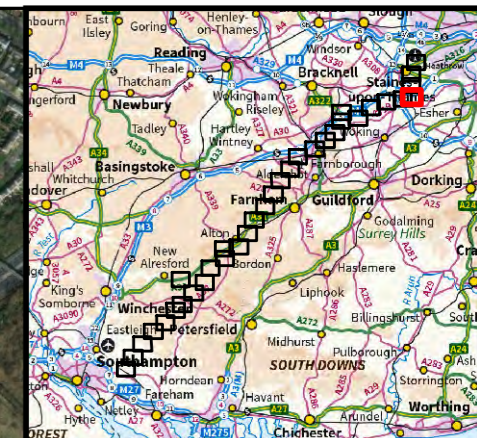
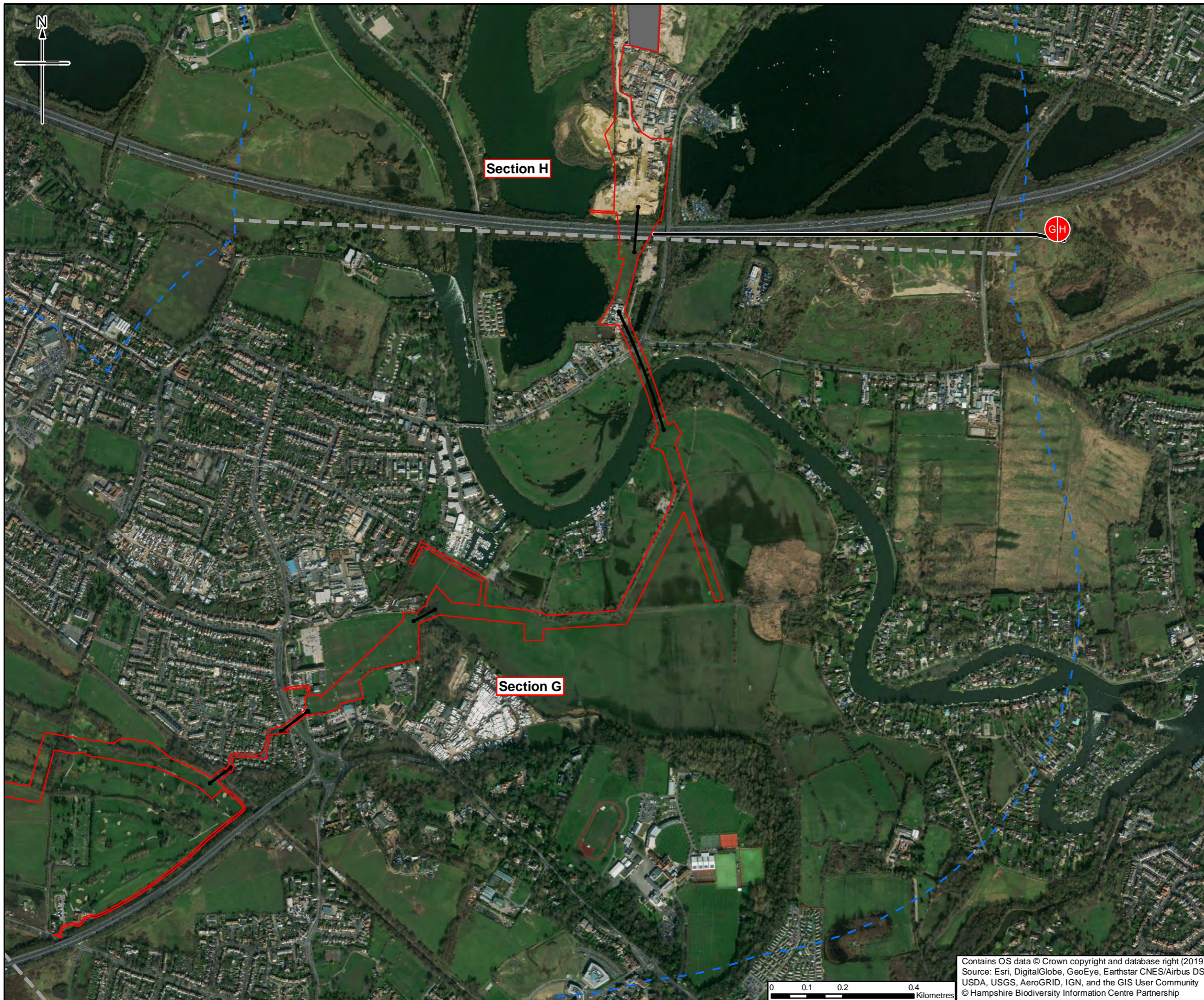
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**ENVIRONMENTAL STATEMENT
DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

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- Legend**
- Order Limits
 - Order Limits 1km buffer
 - Logistics hubs
 - Trenchless crossing
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 - Dormouse tube area locations
- Survey site**
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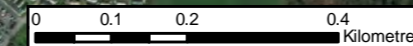
Project
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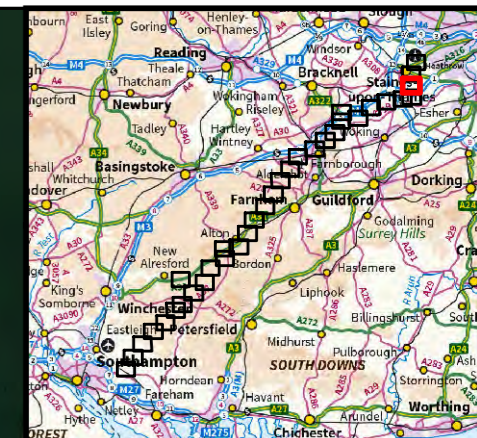
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DORMOUSE
SURVEY RESULTS
APFP Reg. (2009) 5(2)(l)**

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Legend

- Order Limits
- Order Limits 1km buffer
- Logistics hubs
- Trenchless crossing
- Section break
- Section break
- Dormouse tube area locations

Survey site

- Site surveyed - dormice presence confirmed
- Site surveyed - dormice not recorded
- Site not surveyed - dormice presence assumed
- No land access - dormouse presence assumed

Direct evidence of dormice recorded

- Dormouse
- Dormouse nest
- Hazel nut chewed by dormouse

Desktop records

- HBIC dormouse

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JACOBS
1180 Epsom Road, Weybridge, Wokingham, RG41 1TU, UK.
Tel: +44(0)118 946 7000 Fax: +44(0)118 946 7001
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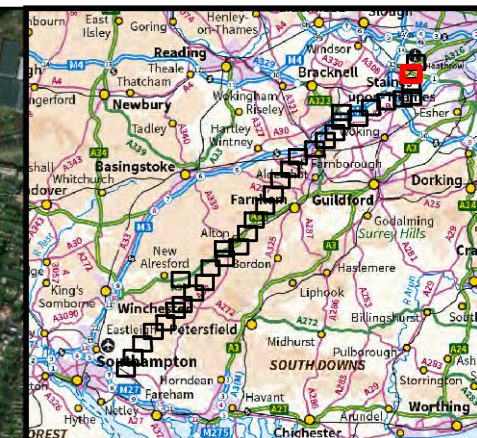
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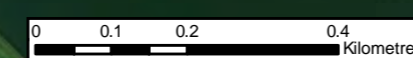
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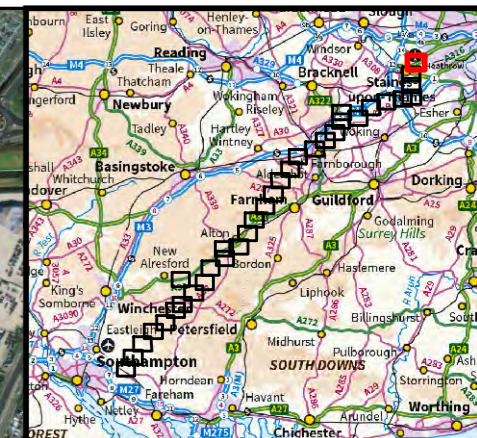
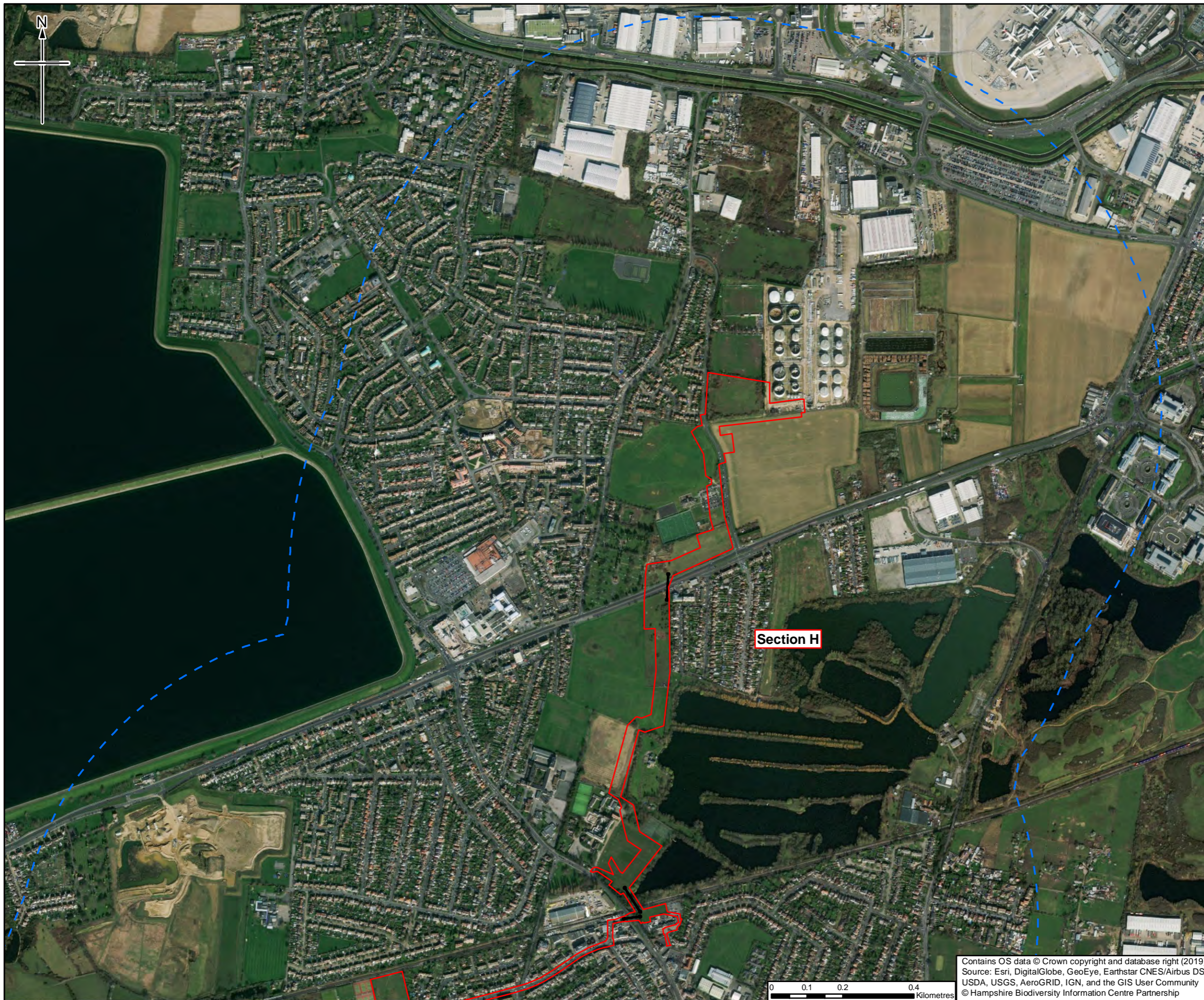
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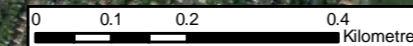
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