OXFORDSHIRE
STRATEGIC RAIL FREIGHT INTERCHANGE

Environmental Statement

Chapter 6: Ecology & Arboriculture
Appendix 6.4: GCN Report

Document 6.6D

On behalf of
Oxfordshire Railfreight Limited

Prepared by FPCR Ltd.
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FPCR | environment & design

ES6.4: Great Crested Newt Survey Report

Client

Oxfordshire Railfreight Limited

Project

Ardley, Oxfordshire Strategic Rail Freight Interchange (OxSRFI)

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CONTENTS

1.0 INTRODUCTION 1

2.0 LEGISLATION 3

3.0 METHODOLOGY 4

4.0 RESULTS 11

5.0 POTENTIAL IMPACTS OF DEVELOPMENT 14

6.0 MITIGATION STATEGY 16

TABLES

Table 1: GCN Metapopulation Peak Counts and Size-Class from FPCR 2021 and 2022 Field Data

Table 2: HSI Score and Suitability for Supporting Breeding GCN

Table 3: eDNA Sampling and Analysis

Table 4: 2025 GCN Metapopulation Peak Counts

Table 5: Possible results of eDNA analysis

Table 6: GCN Metapopulation Peak Counts and Size-Class for 2025

APPENDICES

Appendix A: GCN Letter of no Impediment (LONI)

Appendix B: Habitat Suitability Index Assessment

Appendix C: Pond Photos

Appendix D: Results of eDNA Survey

Appendix E: GCN Aquatic Survey Raw Data

FIGURES

Figure 1: GCN Survey Results and Metapopulation Plan

Figure 2 to 6: Waterbody Location Plans

Figure 7 to 12: Habitat Mitigation and Creation plans

Figure 13 to 18: Trapping and Translocation Plans

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1.0 INTRODUCTION

1.1 Oxfordshire Railfreight Ltd. commissioned FPCR Environment and Design Ltd. (FPCR) to undertake an assessment of the status and distribution of great crested newt (GCN) *Triturus cristatus* on an area of land near Ardley, Bicester (central OS grid reference SP 533 263).

1.2 This report provides the results of aquatic surveys undertaken by FPCR and outlines a mitigation strategy for the species that is informed by the field data and is compatible with the Proposed Development and with Natural England licencing requirements. The mitigation strategy was developed with input from the Natural England Protected Species Team under the terms of their Discretionary Advice Service (DAS) to ensure the favourable conservation status (FCS) of local GCN metapopulations will be maintained post-development.

1.3 The Proposed Development comprises a Strategic Rail Freight Interchange with associated infrastructure and industrial units (referenced to herein as the 'Main Site') and associated Highway Works (referred to collectively herein as the 'Highway Works'). Full details of the Proposed Development are provided separately within the Environment Strategy (ES) Chapter 2: Proposed Development.

Aims and Objectives

1.4 The aim of survey work undertaken was to determine the presence or likely absence, distribution, and conservation status of GCN within the Application Site and wider survey area. The objectives of the assessment were to: identify potential impacts to GCN arising from the Proposed Development; determine appropriate mechanisms for avoidance, mitigation, compensation, and enhancement to ensure legal compliance and support the long-term conservation of the species, and to provide evidence of appropriate quality and detail to inform a Natural England mitigation licence application.

Site Context

1.5 The Application Site, as defined by the 'Order Limits' (Figure 1), is located to the south and south-east of Ardley village. The 'Main Site' is located between the B430 to the east and the disused Heyford Park former military base and airfield situated to the west. It lies immediately south of the Chiltern Railway line and west of Ardley Energy Recovery Facility (ERF) and adjacent capped landfill. Agricultural fields extend south and east from the Application Site and form much of the surrounding landscape.

1.6 The Main Site is dominated by arable land and semi-improved grassland used for grazing, with associated habitats including hedgerows, trees and scrub, with semi-improved grassland alongside some field margins. Built structures comprise farm buildings and residences associated with Ashgrove Farm located towards the B430, and an In-Vessel Composting (IVC) facility operated by Biffa further south, also access off the B430. Other habitats present within the Main Site comprise small plantation woodland copses, minor watercourses, four small ponds/waterbodies, and areas of hardstanding and amenity /ornamental habitats associated with the farm buildings.

1.7 The adjoining Highways Works Area to the northeast of the Main Site and Chiltern Railway is centred around Junction 10 of the M40 and largely comprises arable land with field boundary hedgerows and with areas of linear tree planting associated with the screening of existing highway infrastructure. The proposed route of the 'Ardley Bypass' extends from the north-east of the Main Site and crosses the Chiltern Railway line. Associated existing habitat is characterised

by arable fields bound by native hedgerows and by the vegetated railway cutting that supports a mix of neutral and calcareous grassland and encroaching shrub and tree cover. Other habitats present within and adjacent the proposed northeastern highway works area include managed grassland road verges, scrub, balancing ponds and wildlife ponds.

1.8 The proposed route of the 'Middleton Stoney Relief Road' to the southeast of the Main Site runs through land characterised by arable fields, native hedgerows, the B4030 and associated grass verges, in addition to a section of Gagle Brook and associated riverine woodland.

1.9 The Application Site additionally encompasses a series of smaller highway sections including roadside habitat associated with Junction 9 of the M40, and areas located along Middleton Road and the B4030.

Background Information

1.10 FPCR undertook initial GCN aquatic surveys in spring/summer 2018. Survey work followed best practice guidance[1] and was led by surveyors who held current Natural England great crested newt survey licences. Updating surveys were subsequently undertaken during the 2021 and 2022 survey seasons. The extent of the survey area on each occasion reflected the anticipated zone of influence of the development proposals at the time of survey.

1.11 The surveys completed in 2021 and 2022 encompassed a total of 68 local waterbodies, including the seven located within the Application Site (SP1, P1, P2, P3, P4, P20, and P50) and 43 additional waterbodies within 500m of the Application Site. The presence of GCN was confirmed within 44 of these waterbodies, including P50 located within the Application Site (peak count of 2 GCN during the initial survey, with no further GCN recorded during the subsequent five survey visits).

1.12 Consideration of the distribution of GCN records obtained via field surveys in 2021/2022 indicated the presence of multiple metapopulations partly coincident with the survey area. Following discussion with the Natural England Protected Species Team these were classified as Metapopulations 1-4 (Table 1). Whilst Metapopulations 2 and 3 are closely adjacent it was agreed to consider these as separate entities given that, with the exception of the northern tip of pond P24, the respective waterbodies of each are separated by a distance of over 500m.

Table 1: GCN Metapopulation Peak Counts and Size-Class from FPCR 2021 and 2022 Field Data

Metapopulation	Location	Waterbodies	Waterbodies where GCN recorded	Metapopulation Peak GCN Count	Size-Class Assessment*
1	West of site boundary – **Main Site**	P56, T1, T2, T3, T4, T5, T6, T8, T9, T10, T11, T12, T13.	All except T13	**106** (recorded 27/05/21)	Large
2	East of site boundary – **Main Site and Ardley Bypass**	P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18	All	**53** (recorded 13/05/21)	Medium
3	Further East, spanning **Ardley Bypass and eastern rail track connection**	P19a, P25, P26, P27, P28, P29, P30, P31, P32, P33, P34, P35, P36, P37, P38a, P38b, P40a, P40b, P41, P58.	All except P37 and P39	**161** (recorded 27/05/21)	Large
4	North spanning the **highway works M40 J 10**	P46, P47, P48, P50, P51, P52, P53	P47, P48, P50 and P51	**18** (recorded 11/05/2022)	Medium

*Small population size-class: ≤10, Medium population size-class: 11-100, Large population size-class: >100.

[1] English Nature, 2001. *Great Crested Newt Mitigation Guidelines*, English Nature, Peterborough.

1.13 Further updating surveys were undertaken in March-May 2025 that incorporated additional waterbodies subsequently brought into the survey area following expansion of the Order Limits. It is the results from these most recent surveys that primarily inform this assessment, however reference is made to the earlier field data (2018-2022) where appropriate.

Letter of No Impediment Agreement (LONI)

1.14 A GCN licence method statement and supporting documents were submitted to Natural England for consideration as part of the DAS consultation process. The consultation resulted in a LONI being issued on 01/02/23 based on the development proposals current at the time (Appendix A).

1.15 Natural England have subsequently confirmed[2] that the LONI has no expiration date providing the GCN survey data is maintained up to date and that any such updates align with the results previously submitted to Natural England during their initial assessment and granting of the LONI (i.e. the 2021-2022 dataset).

1.16 The final details of the mitigation provision will be subject to agreement with Natural England via the Protected Species licencing process. An updated licence method statement and supporting documents inclusive of the full 2025 data has been submitted to Natural England to enable the re-assessment of the development proposals and an update to the existing LONI if Natural England see fit.

2.0 LEGISLATION

2.1 Great crested newts are afforded full protection as a species listed under Schedule 5 of the Wildlife & Countryside Act 1981 (*as amended*) and under the Conservation of Habitats and Species Regulations 2017 (*as amended*). Under Regulation 41 of the above it is illegal to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species (EPS),
- Deliberately disturb wild animals of an EPS (affecting ability to survive, breed or rear young) – disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young,
- Deliberately disturb wild animals of an EPS (impairing ability to migrate or hibernate) – disturbance of animals includes in particular any disturbance which is likely to impair their ability in the case of hibernating or migratory species to hibernate or migrate,
- Deliberately disturb wild animals of an EPS (affecting local distribution and abundance) – disturbance of animals includes in particular any disturbance which is likely to affect significantly the local distribution or abundance of the species to which they belong,
- Deliberately disturb wild animals of an EPS (whilst occupying a structure of place used for shelter or protection) – intentionally or recklessly disturb any wild animal while it is occupying a structure or place which it uses for shelter or protection,
- Damage or destroy a breeding site or resting place of a wild animal an EPS.

2.2 Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to:

- Recklessly or intentionally kill, injures or take any wild animals included in Schedule 5.
- Recklessly or intentionally damage or destroy, or obstruct access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection,
- Recklessly or intentionally disturb any such animal while it is occupying a structure or place which it uses for shelter or protection.

[2] Via email received 30.01.25.

2.3 GCN are also included on the list of species identified as being of Principal Importance for the Conservation of Biodiversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. The S41 list is used to guide decision makers in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

2.4 A Natural England development licence will be required prior to any works that could adversely impact local GCN metapopulations, as required by the above legislation and as stipulated within the LONI.

3.0 METHODOLOGY

Desk Study

3.1 To enable the compilation of existing baseline information, relevant ecological records were requested from both statutory and non-statutory nature conservation organisations including:

- The Multi Agency Geographic Information for the Countryside (MAGIC[3]) for nationally designated sites within 2km of the Application Site, extending to 5km for international sites designated for GCN.
- Thames Valley Environmental Records Centre (TVERC) for GCN records from within 2km of the Application Site.

Habitat Suitability Index (HSI) Assessment

3.2 A GCN HSI assessment was undertaken by FPCR in March and April 2025 of the seven on-site waterbodies (SP1, P1, P2, P3, P4, P20 and P50) and of accessible waterbodies within 500m of the Application Site boundary. Waterbodies present within the neighbouring Heyford Park former military base and associated land were not assessed by FPCR but were subject to survey by 4 Acre Ecology as part of ongoing surveys in support of a neighbouring planning application.

3.3 HSI assessments provide a measure of the likely suitability that a waterbody has for supporting breeding GCN. Whilst not a direct indication of whether a waterbody will support GCN, generally those with a higher HSI score are more likely to support GCN than those with a lower score, and there is a positive correlation between HSI scores and waterbodies in which GCN are recorded.

3.4 Ten separate attributes are assessed for each waterbody to calculate suitability to support breeding GCN:

- Geographic location
- Pond area
- Pond drying
- Water quality
- Shade
- Presence of waterfowl
- Presence of fish
- Number of linked ponds
- Terrestrial habitat
- Macrophytic coverage

3.5 A score is assigned for each attribute, and a total score is calculated between 0 and 1. Pond suitability is then determined according to the scale summarised in Table 2.

[3] Defra Multi Agency Government Information Centre website, available at: https://magic.defra.gov.uk [accessed 29.05.25].

Table 2: HSI Score and Suitability for Supporting Breeding GCN

HSI Score	Pond Suitability
<0.5	Poor
0.5-0.59	Below average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

Presence/Absence Survey

3.6 Presence/absence GCN surveys were undertaken in 2025 across the seven on-site waterbodies and of waterbodies located within 500m of the Application Site boundary where landowner permission for access was forthcoming and where waterbodies could be accessed safely. Exceptions included a single pond that could not be adequately accessed in a safe manner for presence/absence surveys that was instead subject to eDNA sampling (see eDNA section below), and waterbodies within Heyford Park former and associated land, that were instead subject to survey by 4 Acre Ecology as above. Waterbodies P68 and P69 were excluded from survey on the basis of all proposed works within 1km of their location being restricted to within-highways works and provision of associated highways signage.

3.7 GCN presence/absence surveys were conducted between late March and May 2025 by appropriately trained and experienced FPCR surveyors and led by holders of current Natural England GCN survey licences following best practice guidance[4]. This guidance states that aquatic GCN presence/absence surveys should be carried out between mid-March to mid-June, with half of all survey visits undertaken during the peak season from mid-April to mid-May.

3.8 Where possible, a combination of three of the following survey methods was used each survey visit, with bottle trapping, egg searching and torchlight surveys being the favoured methods (N.B. if the presence of GCN is confirmed in a waterbody only two methods need to be used subsequently for that waterbody (bottle trapping and torchlight surveys where possible)).

- Egg searching: Newts lay eggs singly on leaves of aquatic plants or other suitable pliable material, after which the material is folded over the egg to protect it. GCN eggs can be distinguished from those of the other newts by their size, shape and colour. Submerged and floating vegetation and leaf litter is examined for folded leaves containing newt eggs. Once a GCN egg is identified within a waterbody, no further egg searching takes place, in order to minimise further disturbance.
- Torchlight surveys: These are carried out after dark using 1,000,000 candlepower torches. Surveyors slowly walk around the perimeter of each waterbody and search by torchlight for amphibians in the shallows and the deeper areas used by GCN for courtship display.
- Bottle trapping: This involves the placement of traps, comprising inverted two-litre plastic bottles fixed in place with bamboo canes, at an average of one every 2m around the margins of the pond. The traps are partially submerged with an air bubble trapped inside. The traps are then checked for the presence of amphibians early the next morning, with any captive animals released back into the pond and the traps removed.

[4] English Nature, 2001. *Great Crested Newt Mitigation Guidelines*, English Nature, Peterborough.

- Netting: using a long-handled dip-net the pond edges are swept for approximately 15 minutes per 50m of shoreline. This technique is one of the least effective for capturing adult newts, and cannot be used to estimate a population size, although can be very effective for detecting newt larvae, especially later in the season.

3.9 Surveys are to be undertaken under suitable weather conditions when the ambient air temperature exceeds 5°C, and if bottle traps are used these must be removed from waterbodies sufficiently early in the morning before temperatures rise to a point where overheating and reduced oxygen levels can occur inside the traps. Strong winds and heavy rain can make torchlight survey difficult, and preceding wet weather can result in high sediment levels that can hinder thorough survey by torchlight. The most appropriate combination of survey methods is therefore determined on a survey-by-survey basis for each waterbody.

3.10 Waterbodies were initially surveyed on four separate visits. Where GCN were confirmed present this number was increased to a total of six visits to inform a population size-class estimate in accordance with the Mitigation Guidelines. Size-classes are based on the highest maximum count of adult GCN recorded during a single survey occasion across connected waterbodies.

3.11 The population size-classes are as follows:

- **Small** for maximum counts up to 10
- **Medium** for maximum counts between 11 and 100
- **Large** for maximum counts over 100

3.12 The dates and the weather conditions of each survey visit are provided in Table 3. The waterbody locations and reference numbers are shown in Figure 1.

Table 3: Survey Visit Schedule and Conditions

Survey Dates	Air Temps	Weather Conditions During Torchlight Survey
25/03/2025	11-14°C (eve), 7-11°C (morning)	Very light breeze, dry
02/04/2025	10-14°C (eve), 5-11°C (morning)	Moderate breeze, dry
08/04/2025	14-15°C (eve), 7-10°C (morning)	Light breeze, dry
22/04/2025	14-16°C (eve), 7-12°C (morning)	Very light breeze, dry
29/04/2025	15-24°C (eve), 9-12°C (morning)	Very light breeze, dry
13/05/2025	17-25°C (eve), 11-12°C (morning)	Very light breeze, dry

3.13 The location and corresponding reference numbers of the waterbodies surveyed by 4 Acre Ecology Ltd. are shown on Figure 1. The survey conditions during the 4 Acre Ecology surveys are summarised in Table 4.

Table 4: Survey Visit Schedule and Conditions

Survey Dates	Air Temps	Weather Conditions During Torchlight Survey
23/03/2025	6°C (eve), 5-8°C (morning)	Very light breeze, dry
31/03/2025	5-7°C (eve), 5-8°C (morning)	Light breeze, dry
20/04/2025	6-8°C (eve), 5-11°C (morning)	Light breeze, dry
27/04/2025	6-8°C (eve), 5-11°C (morning)	Moderate breeze, dry
05/05/2025	5-7°C (eve), 7-10°C (morning)	No breeze, dry
11/05/2025	14-16°C (eve), 7-12°C (morning)	Light breeze, dry

Survey Dates	Air Temps	Weather Conditions During Torchlight Survey
18/05/2025	6-8°C (eve), 5-11°C (morning)	Very light breeze, dry
20/05/2025	11-13°C (eve), 9-12°C (morning)	Light breeze, dry
27/05/2025	6-8°C (eve), 12-15°C (morning)	Light breeze, dry
10/06/2025	16-20°C (eve), 18-22°C (morning)	No breeze, dry

eDNA Survey

3.14 eDNA sampling was undertaken in April 2025 of a single waterbody (P46) that had restricted access for survey, in accordance with the protocol recommended by Natural England[5]. This comprised taking samples of agitated water from 20 locations around the waterbody edge and mixing these thoroughly. 15ml of this water was then placed into each of six sterile sample tubes containing preservative, precipitates and a DNA sequence that was used for degradation control. Samples were then transported under suitable conditions to ADAS[6] for analysis, the results of which could have one of three outcomes, as described in Table 5.

Table 5: Possible results of eDNA analysis

Result	Description
Positive	A positive result confirms that GCN eDNA was detected and that the species has been present within the water during the 20 days preceding sampling. An eDNA score would be provided, indicating the number of positive replicates from a series of twelve.
Negative	eDNA from GCN was not detected. In the case of negative eDNA results the water sample is further tested for PCR inhibitors and degradation of the sample.
Inconclusive	Controls indicate degradation or inhibition of the sample, therefore the lack of detection of GCN eDNA is not conclusive evidence for determining the absence of the species in the sample provided. Degradation can occur through poor storage of the samples or kits, and inhibition can occur through unexpected chemicals in the sample, for example due to pollution.

Surveyor information

3.15 With the exception of presence/absence surveys undertaken by a third party as outlined previously, surveys were undertaken by appropriately licenced/ experienced ecologists from FPCR and were overseen by an experienced surveyor and current Natural England Survey Licence holder (2025-83347-SCI-CL08).

Limitations

3.16 No access was permitted to survey third party waterbodies P45, P53 and P70. Access was also declined to pond P55 in 2025 on health and safety grounds, due to active quarry works being carried out in the vicinity of this pond. P55 had however previously been recorded as a dry feature during the pond surveys undertaken by FPCR ecologists in 2022.

3.17 4 Acre Ecology were refused permission to survey waterbodies P6, P7, P22 and P23 at Letchmere Farm in 2025, however had regularly surveyed these ponds up until 2021[7]. GCN numbers within these ponds had showed a steady decline in numbers during this time, correlated with a growing

[5] Biggs J, et al. 2014. Analytical and Methodological Development for Improved Surveillance of the Great Crested Newt. Appendix 5: Technical advice note for field and laboratory sampling of great crested newt (*Triturus cristatus*) environmental DNA, Freshwater Habitats Trust, Oxford.

[6] ADAS (n.d.) ADAS: Experts in Agricultural and Environmental Consultancy. Available from: https://adas.co.uk/

[7] https://planningregister.cherwell.gov.uk/Planning/Display/25/02190/HYBRID#undefined

fish population within each. It is therefore considered these most likely support no more than a small number of GCN, potentially with no recruitment of juveniles into the local metapopulation due to the presence of predatory fish.

3.18 The presence of roadworks at the M40 Junction 10 at the time of the third presence/absence survey undertaken by FPCR in 2025 (08-09/04/25) limited the timing of survey visits hence it was not possible to undertake the torching method of survey of the balancing ponds P50 and P51 on this occasion. The presence of livestock prevented the use of bottle traps during the sixth presence/absence survey (13-14/05/25) of waterbodies P39 and P40. On both occasions all other appropriate survey methods were employed therefore there was no significant impact to the resulting dataset.

3.19 Spring 2025 was unusually dry, with less than a third of the normal rainfall recorded across Oxfordshire[8]. As a result, it is possible some waterbodies were less suitable to support breeding GCN than during a more typical breeding season due to reduced water levels, associated reduced water quality and/or increased risk of drying out entirely before any resulting offspring matured sufficiently to transition from aquatic to terrestrial habitats.

4.0 RESULTS

HSI Assessment

4.1 Appendix B lists the HSI assessment results for each waterbody surveyed. Where ponds were surveyed on multiple occasions, the average score from the most recent available field season is provided. HSI scores quoted for waterbodies within Heyford Park were obtained from 4 Acre Ecology. For waterbodies not accessible in 2025, earlier HSI data is presented where available. Pond photos are provided in Appendix C.

4.2 Mean HSI scores ranged from 0.36 (poor suitability to support breeding GCN) to 0.84 (excellent suitability). Of the seven waterbodies with HSI scores indicating excellent suitability (i.e. $\geq$0.8), four were located within land owned by Virador encompassing the Ardley ERF and Landfill Site in addition to several existing GCN mitigation ponds. These comprised P19, P19A and P40 to the northeast of the rail tracks and P35 located among the GCN mitigation ponds within the same local area but to the south of the rail tracks. The other three were an attenuation basin at the entrance to the Ardley ERF (P24A, a large pond within an area of open greenspace within Ardley village (P48), a balancing pond beyond, but immediately adjacent and surrounded by the proposed highways works (P51), and a recently created mitigation pond within the southern Bomb Store area of the Heyford Park land (P56).

4.3 Of the waterbodies present within the Application Site, the HSI scores indicated that P3 had poor suitability to support breeding GCN (HSI 0.49), P1 and P4 had below average suitability (0.58 and 0.55), P2 and P20 each had good suitability (0.70, 0.77), and P50 had excellent suitability (0.80). SP1 was a disused swimming pool and was dry throughout the survey period therefore was not categorised via HSI but was subject to a thorough visual search for evidence of trapped newts.

[8] https://weather.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/interesting/2025/2025_03_spring_2025_v2.pdf

eDNA Survey

4.4 Laboratory analysis of the water samples taken from pond P46 did not identify the presence of GCN (all 12 laboratory samples negative for GCN eDNA, see Appendix D).

GCN Population Size Class Assessment Surveys

4.5 The results from the 2025 GCN presence/absence surveys and population size class assessments are provided in Appendix E and are summarised in Figure 1 and Table 4. Survey data relating to Metapopulation 1 centred within the Heyford Park former military base and associated land was largely provided by 4 Acre Ecology Ltd.

4.6 Waterbodies P49, P52 and P63 and the disused swimming pool SP1 were dry throughout the surveys in 2025, and the owner of P21 confirmed this pond was also permanently dry. Pond P55 was presumed to remain dry (as recorded in previous seasons). Waterbodies S62 and S67 were recorded as almost dry at the time of the initial presence/absence survey in late March 2025, and as dry at the time of the second and third survey visit respectively, however P67 held some water during the fourth survey on 22.04.25.

4.7 Waterbodies P43, P44, P59 and P63 also dried out between the second and third survey visit, P1, P24A, P38 and P60 dried between the third and fourth survey dates, and P5 and P25 dried out between the fifth and final survey. P73 was dry during initial surveys but held shallow water at the time of the fourth and fifth survey visits. As a consequence, these waterbodies were not subject to the full suite of four survey visits (or six visits where GCN confirmed present).

4.8 No evidence of GCN was recorded within waterbodies P1, P2, P3, P5, P9, P10, P20, P37, P42, P43, P44, P45, P46, P50, P53, P54, P61, P62, P63, P66, P67, P72 or P73.

Table 6: GCN Metapopulation Peak Counts and Size-Class for 2025

Metapopulation	Location	Waterbodies	Waterbodies where GCN recorded	Metapopulation Peak GCN Count	Metapopulation Size-Class Assessment*
1	Heyford Park and Main Site	P1, P4(Main Site) P22, P23, P56, P57, T1, T2, T3, T4, T5, T6, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19 (Heyford Park)	P56, P57, T1, T2, T4, T5, T6, T9, T12, T15, T16, T17	**337** (recorded by 4 Acre Ecology via torching 23/03/2025)	Large
2	East of Main Site	P8, P9, P10, P11, P12, P13, P14, P15, P16, P17 and P18	P8, P11, P12, P13, P14, P15, P16, P17, P18	**50** (recorded via torching 22/04/25 survey 4)	Medium
3	Ardley Bypass and eastern rail track connection	P19, P19a, P20, P24, P24a, P25, P26, P27, P28, P29, P30, P31, P32, P33, P34, P35, P36, P37, P38, P39, P40, P41 and P58.	P19, P19a, P24, P24a, P25, P26, P27, P28, P29, P30, P31, P32, P33, P34, P35, P36, P38, P40, P41 and P58.	**207** (recorded via torching 25/03/25 survey 1)	Large
4	M40 J10 and associated northern highway works	P46, P47, P48, P50, P51, P53	P48 and P51	**69** (recorded via bottle traps 22/04/2025 survey 4)	Medium

4.9 The four metapopulations surrounding the Application Site are described individually below.

Metapopulation 1 – Main Site

4.10 The HSI scores calculated for each of the ponds and water tanks within the Heyford Park former military base and associated land indicated between 'below average' to 'excellent' suitability to support breeding GCN (Appendix B).

4.11 Presence/absence surveys of these waterbodies undertaken by FPCR in 2021 recorded GCN present within several of the small ponds and water tanks, with a peak count of 106 GCN recorded on 27th May 2021, indicating a large-sized GCN population (100+ individuals).

4.12 Aquatic surveys undertaken out by 4 Acre Ecology in 2025 confirmed that several of the ponds and water storage tanks present across the Heyford Park site continued to support GCN, with evidence of GCN breeding (presence of eggs and/or efts) within 12 of the 23 water bodies surveyed. A peak count of 337 GCN was recorded on the initial survey in 2025, of which 99 were present within pond T17.

4.13 Two ponds within the Application Site (P1 and P4, both within the 'Main Site') are also encompassed by the Metapopulation 1 area. No GCN were recorded within P1 (and none were recorded during preceding surveys in 2018-2022), however a single adult female GCN was recorded within P4 on 2nd April 2025. This was the only GCN to be recorded present within the Main Site across all surveys undertaken 2018-2025.

4.14 Metapopulation 1 is collectively considered to remain a large population size-class in 2025.

Metapopulation 2 – East of Main Site

4.15 The HSI assessment indicated all waterbodies within Metapopulation 2 had 'good' to 'excellent' suitability to support breeding GCN.

4.16 The presence/absence surveys completed in 2025 recorded GCN present within ponds P8, P11-P18, P24 and P24a, but not within P9, P10, P72 or P73, or within the on-site ponds P2 or P3 or the defunct swimming pool SP1. Whilst P24 is located c.450m from the nearest occupied GCN pond associated with Metapopulation 3, as per the classification strategy agreed with Natural England, this pond is considered more likely to be associated with the much closer GCN Metapopulation 2.

4.17 The FPCR surveys in 2025 recorded a peak count of 50 GCN within Metapopulation 2 on 22nd April 2025. Previously a peak count of 53 GCN had been recorded by FPCR on 13th May 2021.

4.18 Metapopulation 2 is categorised as a medium population size-class.

Metapopulation 3 - Railway works and Ardley Bypass

4.19 HSI scores calculated for waterbodies associated with Metapopulation 3 indicated between 'below average' and 'excellent' suitability to support breeding GCN. With the possible exception of P39 that potentially dries out each year during the breeding season, all therefore appear capable of supporting breeding GCN.

4.20 Presence/absence surveys undertaken in 2021 had confirmed the presence of GCN within all ponds within the Metapopulation 3 area except P25, P29, P37 and P39. These recorded a peak count of 161 GCN on 27th May 2021. The updating surveys undertaken in 2025 recorded the

species present within all ponds surveyed except P37 and recorded a peak count of 207 GCN on 26th March 2025 indicating that this metapopulation remains a large population.

Metapopulation 4 - Highway works M40 Junction 10

4.21 The HSI scores of waterbodies within the Metapopulation 4 area varied between 'below average' and 'excellent' suitability to support breeding GCN.

4.22 Surveys undertaken in 2022 recorded a peak count of 18 GCN on 11th May 2022 within waterbodies P47, P48, P50 and P51. Updating surveys completed in 2025 confirmed the species only within P48 and P51, but with an increased peak count of 69 GCN recorded on 22nd April 2025. Ponds P48 and P51 are located outside of the Application Site, but within 250m of the proposed improvement works along the B430 and the J10 highway works area respectively.

4.23 Metapopulation 4 remains a medium size population.

4.24 Outside of the metapopulation areas described above a small GCN population was also recorded present within ponds P59 and P60 adjacent to Lodge Farmhouse close to the proposed route of the Middleton Stoney Relief Road.

5.0 POTENTIAL IMPACTS OF DEVELOPMENT

5.1 The impacts listed below are assessed in relation to the proposed construction of a new strategic rail freight interchange with associated access, green infrastructure, attenuation facilities and highway improvements, and the anticipated associated impacts to the GCN Metapopulations 1 to 4.

Impact Assessment

5.2 GCN Metapopulation 1 is centred on ponds and water tanks located within the Heyford Park former military base, though this metapopulation also encompasses ponds P1 and P4 within the Application Site (Figure 2). The Heyford Park waterbodies will not be directly impacted by the proposals, neither will site operations result in any fragmentation of intervening habitats or increased isolation of individual waterbodies within the former airfield. Pond P1 has no suitable habitat connectivity to the Heyford Park waterbodies, however P4 is located alongside hedgerow H6 that provides a habitat connection.

5.3 Most of the existing on-site habitats within the Main Site will be removed to facilitate the construction of the SRFI and associated warehouses. Site preparation works will include the permanent removal of hedgerow H6 and associated limited suitable terrestrial habitat that currently connects pond P4 to the remainder of GCN Metapopulation 1, and the removal of other hedgerows and linear habitats that provide potential commuting routes for GCN between foraging habitats. Given only a single GCN was recorded within P4, and none were recorded within P1, it is considered such works would result in a negligible impact to the status of Metapopulation 1.

5.4 The Metapopulation 2 area is largely located offsite to the east of the B430 and the Main Site (Figures 3-5). On-site waterbodies SP1, P2 and P3 are feasibly within commuting distance for GCN from the eastern ponds and are hence considered part of the Metapopulation 2 area. No evidence of GCN was recorded within these ponds however, therefore they are not considered to have a role in supporting this metapopulation. The proposed development will not result in any fragmentation of habitats surrounding the confirmed GCN ponds nor impact existing habitat connectivity between these. The small non-GCN ponds and arable land within the Application

Site and encompassed within the Metapopulation 2 area are considered to have negligible functional value to the species and the loss of these habitats and the partial removal of associated field boundary hedgerows will have a negligible impact on Metapopulation 2.

5.5 No evidence of GCN was recorded within the single pond to be removed from the Metapopulation 3 area (P20, Figure 4). The proposals will however result in the loss of most terrestrial habitats considered suitable for GCN from within the Metapopulations 3 area where these coincide with the Application Site and will reduce the overall connectivity of retained suitable GCN habitats within these areas. The existing rail tracks likely represents a partial barrier to the movement of GCN between the ponds located to the north and south of the tracks. This barrier effect will be further increased via the construction of the eastern rail track connection linking to the Main Site. Whilst the proposals would not result in the loss of any GCN ponds from within the Metapopulation 3 range, potential developmental impacts on GCN associated with on-site waterbodies and those within 500m of works include potential disturbance, killing and injury of individual GCN during site clearance, the loss of a potential breeding pond, albeit one used by very low numbers of GCN (peak count 1 individual within P4), and loss of suitable terrestrial habitat. Offsite mitigation has been undertaken locally in accordance with the now expired GCN licence 2014-3509-EPS-MIT-2 which has created suitable terrestrial habitat offsite around the GCN ponds associated with the Metapopulation 3. These habitats are located outside of the site boundary will not be affected by the proposed works.

5.6 In the absence of mitigation an impact of high magnitude is therefore anticipated within the Metapopulation 3 area. Suitable mitigation in the form of hibernacula creation and GCN management of proposed grassland will be required following the completion of the proposed works.

5.7 Surveys undertaken in 2022 recorded GCN present within both P50 (on-site balancing pond associated with J10 of the M40) and adjacent off-site balancing pond P51, however completed in 2025 only recorded the species present within P51 and not P50. eDNA survey of P46 located nearby within an off-site water treatment works detected no evidence of GCN. The only other waterbody within the Metapopulation 4 area confirmed to support GCN is P48, located over 300m from the closest point of the proposed junction works, and c.115m from proposed minor road improvement works along Somerton Road within Ardley village.

5.8 The proposed J10 improvement works will directly impact P50 due to the new road infrastructure required to support a new filter road being sited partially within the basin, and the associated removal of habitat from the basin perimeter, reducing the availability of suitable terrestrial and aquatic habitats for GCN within this area. Works would not result in the loss of any GCN ponds from within the Metapopulation 4 area but would result in an impact of high magnitude on terrestrial habitats within the vicinity of J10 of the M40.

5.9 A small GCN population was recorded present in 2025 within ponds P59 and P60. These ponds are surrounded by an area of tree/shrub cover and are adjacent to Lodge Farmhouse and associated garden habitats. Beyond these habitats the landscape is characterised by managed arable land with poor permeability for GCN. The only other ponds present within 500m are P43 and P44, both of which were dry at the time of survey. Given the intervening distance to the Application Site, it is considered the proposed development will have a negligible effect on this GCN population.

6.0 MITIGATION STATEGY

6.1 The proposals aim to maintain and enhance areas of green open space through the Application Site, and include the creation of a substantial area of green open space to the south of the Main Site, and a near continuous habitat corridor around the perimeter of the Main Site. Extensive landscaping will provide continued connectivity to off-site habitats and create enhanced foraging and shelter opportunities for GCN beyond those currently present.

6.2 Given the scale of the proposals, the associated habitat losses and reduction of habitat connectivity nevertheless have potential to result in long-term impacts to local GCN metapopulations. Appropriate mitigation measures are therefore proposed to ensure all local GCN metapopulations will have access to suitable quality terrestrial habitats within the Application Site.

Potential Impacts

6.3 Licencing and appropriate mitigation will be administered through the standard European Protected Species Licencing (EPSL) route via Natural England, as outlined in the attached LONI (Appendix A). The mitigation outlined within the EPSL documentation will describe how impacts to GCN metapopulations will be minimised by retaining suitable habitats where possible and by providing additional habitat connectivity for GCN around and within the site. The provision of terrestrial and aquatic compensatory ponds managed for GCN within the Main Site as well as proposed habitat creation and re-instatement within the Highway Works areas will further contribute towards avoiding adverse impacts to GCN locally.

6.4 The mitigation outlined in the following section demonstrates how the Favourable Conservation Status of GCN will not only be maintained but enhanced as a result of the proposals. The precise details will be agreed through the licencing process and are therefore subject to change, dependent on feedback from Natural England and the final wording of the agreed licence.

Construction Working Methods

6.5 It is recommended that a suitable person, such as the Site Manager is appointed to be the main point of contact with the supervising ecologist/ecological clerk of works (ECoW) to enable full co-operation throughout the development process and therefore ensure that mitigation and development proceed in a coordinated manner and as smoothly as possible.

6.6 Prior to the commencement of works the location of site compounds, contractor access and working routes etc. will be agreed with the ecologist and will be appropriately located in order to minimise disturbance to suitable GCN habitats. Such facilities will avoid all identified receptor/mitigation areas and any other retained habitats considered suitable to support GCN.

6.7 Retained habitats will be protected from damage and soil compaction throughout site clearance and construction by maintaining fenced Root Protection Areas (RPAs) in accordance with BS 5837:2012.

6.8 All standard precautionary and best practice measures, such as the installation of protective fencing and on-site pollution prevention training for site personnel will be implemented prior to works commencing, with best practice working procedures adhered to throughout the construction phase. A suitable person, such as the Site Manager will have responsibility to ensure such procedures are followed in order to minimise the risk of pollution events and to

respond appropriately in the event these still occur. 'Clean-up' operations will be enforced as soon as possible to minimise the significance and any detrimental effect of such an event.

6.9 Toolbox talks to be provided on-site by the ecologist/ECoW to ensure relevant contractors are informed of the presence of protected species and understand the actions to be taken in the event that GCN are identified on-site. Information sheets will be provided to form part of any site induction and will be made available for reference at all times on the site information notice boards. Toolbox talks will be provided throughout site preparation and the construction process as and when the Site Manager requires.

6.10 In order to avoid creation of additional refuge areas for GCN any stock material will where possible only be stored on hardstanding areas. If additional areas of refuge are created, these will be hand searched by the Ecologist/ECoW prior to their removal.

Trapping and Translocation

6.11 To minimise the risk of killing or injury of GCN during site clearance it will be necessary to undertake a programme of trapping and translocation to remove GCN from the working areas to pre-prepared receptor areas (see Habitat Mitigation Section below).

6.12 It is anticipated that GCN will be excluded from the working areas using temporary amphibian fencing (TAF). TAF will surround (or largely surround, dependent on location) the mitigation/ receptor areas. The purpose of any gaps left linking to suitable off-site terrestrial habitat is to ensure that translocated animals are able to disperse into the wider landscape and do not venture back onto the site. In areas where amphibian fencing is proposed to be in situ for a number of years, such as around the receptor/mitigation areas, semi-permanent fencing will be used.

6.13 Given the range of metapopulation size classes, and of habitat suitability within different sections of the Application Site, the proposed duration of the trapping and translocation exercise in different sections varies as outlined below. Commencement times will also necessarily be influenced by the phased nature of the Proposed Development.

<u>GCN Metapopulation 1</u>

6.14 A large GCN metapopulation was recorded centred within the Heyford Park former airfield (>100 individuals). Neighbouring terrestrial habitats within the Application Site are of limited value to GCN, predominantly comprising arable and grazing pasture, and multiple series of surveys conducted across 2021-2025 recorded only a single GCN within the Main Site (in P4). Given the very limited habitat connectivity between P4 and the otherwise off-site Metapopulation 1 and the sub optimal nature of the area being trapped out, a 60-day trapping exercise will be carried out with an increased trapping density of pitfall traps of 80 traps per hectare within 0-250m of associated GCN ponds. The trapping will be preceded by the establishment of a suitable receptor site such that this is ready to receive relocated individuals in advance of trapping commencing (see Figure 15 and 17).

6.15 GCN boundary fencing will be provided alongside the western boundary of the Main Site and will remain in situ until the completion of development works within the Main Site. Heras fencing will be positioned within 1m of the GCN fencing on the construction side to protect it from works vehicles and other incursions. The remaining GCN fencing highlighted as 'drift fencing' will be removed following the completing of the 60-day trapping exercise.

GCN Metapopulation 2

6.16 The B430 represents a partial barrier to the dispersal of GCN onto the proposed works area from the medium-sized metapopulation recorded within ponds P8 to P18. Neighbouring on-site habitats are dominated by managed arable land and are considered of negligible value to the species. A 45-day trapping exercise is therefore proposed with an increased trapping density of pitfall traps of 100 traps per hectare within 50-250m of the off-site GCN metapopulation, as outlined in Figure 16 and Figure 18, with any captured GCN transferred to a receptor area located east of the B430 and closely adjacent to ponds P8-P18.

6.17 GCN boundary fencing will be provided along the eastern boundary of the Main Site and will remain in situ until the completion of the development works. Additional protective Heras fencing will be positioned within 1m of the GCN fencing to protect it from the proposed works as above. The remaining GCN fencing highlighted as 'drift fencing' will be removed following the completing of the 45-day trapping exercise.

GCN Metapopulation 3

6.18 Metapopulation 3 is centred on mitigation ponds established under the now expired GCN licence 2014-3509-EPS-MIT-2. Given the suitability of adjacent terrestrial habitats for the species and the large size of the metapopulation a 90-day trapping exercise is proposed within 0-250m of the confirmed GCN ponds in line with the Great Crested Newt Mitigation Guidelines[4] and as outlined in Figure 16.

6.19 Offsite mitigation provided by management prescriptions set out within the GCN licence 2014-3509-EPS-MIT-2 surrounding the GCN ponds provides suitable terrestrial GCN habitat and mitigation that will be unaffected by the proposed development works.

6.20 GCN boundary fencing will be appropriately installed north of the railway line to prevent GCN from entering the working area from this direction, with a receptor area established to the non-works side of this fencing. Boundary fencing will remain in situ until the completion of this phase of the development and associated habitat enhancement works. The remaining GCN fencing highlighted as 'drift fencing' will be removed following the completion of the 90-day trapping exercise.

GCN Metapopulation 4

6.21 This medium sized metapopulation will be trapped out over a 60-day period in accordance with the Great Crested Newt Mitigation Guidelines (see Figure 14).

6.22 GCN boundary fencing will be appropriately installed south of the onsite pond P50 and will run along the eastern extent of the adjacent GCN pond P51 and will function as the boundary fencing to the receptor site established to the immediate east of P51, allowing any captured GCN to migrate to P51 and suitable terrestrial habitats. This fencing will remain in-situ until the completion of the junction construction works and enhancement of associated habitats.

6.23 Pond P50 will be temporarily drained down during the GCN dormant phase (November to February) and following the completion of the trapping and translocation exercise. Draining will be undertaken using a pump fitted with a fine (<1.5mm) mesh, with the mesh periodically checked by the supervising ecologist. Following the completion of the junction improvement works within the immediate vicinity of the pond the waterbody will be re-instated following agreement with Natural England under the mitigation licence.

Habitat Mitigation

6.24 The information provided within this section details the proposed habitat mitigation for GCN as agreed in principle with Natural England as part of the LONI and as outlined in Figures 7 to 12. The final details will be provided within the formal licence application to Natural England.

6.25 The development will result in the loss of areas of suitable foraging and commuting habitats for GCN from within the Application Site. The majority of existing habitat on site (arable land and grazed grassland) is however considered to provide sub-optimal resources for the species.

6.26 As agreed in principle with Natural England, additional habitat creation in the form of "receptor sites" will be undertaken ahead of any translocation and trapping exercise. These will be created at appropriate locations for each metapopulation where they will provide habitat connectivity to off-site breeding ponds (Figures 14 to 18). A tall sward native grassland with a tussocky structure will be established within each and a total of 20 hibernacula and 30 log piles will be created throughout these areas and the wider green infrastructure to provide suitable refugia for GCN and other amphibians (Figures 7 to 12). Receptor sites will be created prior to other mitigation works and will be protected from neighbouring working areas by appropriate amphibian-proof fencing and with Heras fencing and signage as appropriate.

6.27 Following completion of the trapping and translocation exercise, the onsite ponds P4 and P20 will be drained down in accordance with the terms of the Natural England licence, and habitat enhancement works will commence on completion of construction within individual sections. The green infrastructure will encompass terrestrial and aquatic habitats suitable to enhance overall connectivity throughout the Application Site and facilitate colonisation of newly created habitats and the movement of GCN between metapopulations.

6.28 The site-wide green infrastructure will incorporate new species-rich wildflower grassland and native woodland and scrub planting around and through the Main Site and along new and improved highways. A series of basins and swales will also be created as part of the SuDS, each of which will be designed to hold water year-round within an over-deepened central ditch suitable to provide 'stepping stone' habitat for GCN and other wildlife linking to the east and west of the Main Site (Figure 11). Three wildlife ponds are also proposed to be created within grassland areas to the west of the industrial units and in the vicinity of Metapopulation 1 to further enhance and expand the local network of potential breeding ponds for GCN.

6.29 The proposed green infrastructure will therefore provide enhanced foraging and commuting habitat through and around the Application Site, and more extensive shelter and hibernation opportunities than are currently present, including creation of new potential breeding ponds in close proximity to high quality terrestrial habitat. It is hence considered that the proposed mitigation strategy will ensure compliance with the relevant legislation and will maintain the Favourable Conservation Status of GCN post development. Furthermore, with implementation of the enhancement and mitigation measures outlined above the proposals are considered suitable to enhance the natural range of GCN locally and to result in a long-term beneficial impact on the species at the local level.

Connectivity

6.30 Natural England have been consulted regarding the design of further mitigation provision including the incorporation of 'dry' box culverts underneath the extended road infrastructure to enable GCN to move across the site and access suitable habitat.

6.31 Five box culverts are proposed to be installed underneath the extended road system to provide connectivity for GCN and other fauna across the site (see Figures 7-12). With the exception of the culvert under the Middleton Stoney Relief Road at the location where this will cross the Gagle Brook, the size of each culvert will be dependent on the width of the associated road, in accordance with recommendations received from Natural England[9] as summarised in Table 7. The culvert under the Relief Road will be oversized (6m width, 3.8m high) in order to encourage its use as an underpass by bats and other fauna. The brook at this location frequently dries up during dry months, therefore represents a seasonal barrier to the movement of GCN. Construction of the road will retain the watercourse with minimal alteration, therefore the brook will continue to act as a seasonal barrier to the movement of GCN during times of substantial flow.

Table 7: Box Culvert Minimum Size Requirements

Culvert Size	Width of Road			
	<20m	20-30m	30-40m	40-50m
Minimum clear width; clear height	1.0m; 0.75m	1.5m; 1.0m	1.75m; 1.25m	2.0m; 1.5m

6.32 In order to minimise the potential for GCN mortality across the operational site, dropped kerbs will be provided within the main development area and standard gully pots will be installed offset by c.125mm from roadside kerbs to retain habitat connectivity for the species, specifically metapopulations 1 and 2.

6.33 The final locations of the off-set gully pots and dropped kerbs will be confirmed with Natural England during the formal licencing process, however Natural England have agreed they consider the provision of such features to be appropriate within the Main Site and within 250m of confirmed GCN ponds.

Monitoring

6.34 The GCN licence documents will likely specify a requirement for GCN population monitoring to be undertaken as outlined below, and for appropriate habitat management to be implemented for a period of no less than 30 years post planting. The licence documentation will also stipulate regular fence checks are to be undertaken, and fence maintenance repairs where required, which will be the responsibility of on-site contractors. A requirement is also anticipated for regular checks to be undertaken by the Ecologist to ensure fencing remains fit-for-purpose.

6.35 GCN size-class population monitoring is proposed for a six-year period, with surveys to be undertaken every other year, commencing in 2033, though this timeframe may be modified throughout the life of the licence and will be directed by Natural England. Monitoring surveys will comprise a series of six aquatic surveys during the period of mid-March to mid-June, under suitable weather conditions, with at least three surveys timed between the peak period of mid-April to mid-May. The results of the monitoring surveys will be reported to Natural England following each survey season if requested, such as part of any interim or licence amendments.

6.36 Reporting of all findings will be submitted to the Local Environmental Records Centre as best practice and to inform the design of other translocation schemes within the local area.

[9] Pers comm. Email received from Natural England Protected Species Team 03.09.24.

Date: 31 January 2023
Our ref: 2022-61925-EPS-AD1
(NATIONALLY SIGNIFICANT INFRASTRUCTURE PROJECT)

[redacted]
17 Thorpe House,
Dormer Place,
Leamington Spa,
Warwickshire,
CV32 5AA
Sent by e-mail only

[redacted]

DRAFT MITIGATION LICENCE APPLICATION STATUS: INITIAL DRAFT APPLICATION
LEGISLATION: THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2010 (as amended)
NSIP: Oxfordshire Strategic Rail Freight Interchange
SPECIES: Great Crested Newt (*Triturus cristatus)*

Thank you for your subsequent draft great crested newt mitigation licence application in association with the above NSIP site, as received in this office on the 13/07/2022. As stated in our published guidance, once Natural England is content that the draft licence application is of the required standard, we will issue a 'letter of no impediment'. This is designed to provide the Planning Inspectorate and the Secretary of State with confidence that the competent licensing authority sees no impediment to issuing a licence in future, based on information assessed to date in respect of these proposals.

Assessment

Following our assessment of the resubmitted draft application documents, I can now confirm that, on the basis of the information and proposals provided, Natural England sees no impediment to a licence being issued, should the DCO be granted.

However, please note the following issues have been identified within the current draft of the method statement that will need to be addressed before the licence application is formally submitted. Our wildlife adviser, Ian Hayes discussed this matter with your ecology team via telephone*)* where it was confirmed that the necessary amendments would be made. Please do ensure that the Method Statement is revised to include these changes prior to formal submission. For clarity these include:

- Please ensure the survey data identifies which ponds were surveyed and when. The current survey data is confusing and most appears to be missing from the Method Statement. The HSI results also need to be presented accurately; discrepancies exist between the Method Statement and those in the submitted appendices.

- Please provide figures which show the intended impacts, in terms of specific habitat types to either permanently lost, damaged, or retained. Figures soley showing impact zones without reference to the habitat types concerned are not required and cannot be licensed. Please also ensure the key accurately describes all features on the figure. It is

unclear what specific habitats to be 'lost', identified as a black line and a purple line respectively, represent.

- Please be aware that terrestrially caught great crested newts (GCN) near meta-population D cannot be relocated to an aquatic habitat as described in Fig.E4a(i). An alternative terrestrial receptor site must be considered, given receptor sites should account for the life stage which GCN are in at the point of capture.

- Please provide further justification for ring-fencing ponds P50 and P51 throughout the construction period. It is possible that GCN leaving the pond may not have sufficient foraging opportunities if fencing remains for an extended period.

- The proposed provision of 15 waterbodies, identified as water attenuation features, acknowledged that GCN may use these features but cannot be licensed as GCN compensation ponds. Please consider alternative aquatic habitats purely for GCN.

- The figures provided under "grassland reseeding" and "grassland management for GCN" in Section E3.2 of the Method Statement are identical. Please confirm if these are separate from each other, rather than a combined management prescription.

- There is a discrepancy between monitoring dates on the work schedule and the Method Statement. Please confirm that there will be six years of monitoring for the presence/absence of GCN post development- given this is standard practice for the population size class on site and level of impact proposed.

- Please clearly state which ponds will be monitored post-development; it is unclear whether existing off-site ponds linked to an existing licence will be included in monitoring for this licence also.

- Figures E3.1(i-iv) will need to be revised to reference which habitats will be created, enhanced, or restored. Please ensure a licence boundary is shown on all of the figures. Also, please confirm which habitats are included in the total hectarage for creation, enhancement, or restoration; it is unclear if the calculations provided involve the whole site or only those within the licence boundary.

Next Steps

Should the DCO be granted then the mitigation licence application must be formally submitted to Natural England. At this stage any modifications to the timings of the proposed works, e.g. due to ecological requirements of the species concerned, must be made and agreed with Natural England before a licence is granted. Please note that there will be no charge for the formal licence application determination, should the DCO be granted, or the granting of any licence.

If other minor changes to the application are subsequently necessary, e.g. amendments to the work schedule/s then these should be outlined in a covering letter and must be reflected in the formal submission of the licence application. These changes must be agreed by Natural England before a licence can be granted. If changes are made to proposals or timings which do not enable us to meet reach a 'satisfied' decision, we will issue correspondence outlining why the proposals are not acceptable and what further information is required. These issues will need to be addressed before any licence can be granted.

Full details of Natural England's licensing process with regards to NSIP's can be found at the following link:

http://webarchive.nationalarchives.gov.uk/20140605090108/http:/www.naturalengland.org.uk/Images/wml-g36_tcm6-28566.pdf

As stated in the above guidance note, I should also be grateful if an open dialogue can be maintained with yourselves regarding the progression of the DCO application so that, should the Order be granted, we will be in a position to assess the final submission of the application in a timely fashion and avoid any unnecessary delay in issuing the licence.

I hope the above has been helpful. However, should you have any queries then please do not hesitate to contact me.

Yours sincerely

[redacted]
Tel: 0208 720 2766
E-mail [redacted]

Annex - Guidance for providing further information or formally submitting the licence application.

Important note: when submitting your formal application please mark all correspondence 'FOR THE ATTENTION OF Ian Hayes.

Submitting Documents.

Documents must be sent to the Customer Services Wildlife Licensing (postal and email address at the top of this letter).

Changes to Documents –Reasoned Statement/Method Statement.

Changes must be identified using one or more of the following methods:

- underline new text/strikeout deleted text;
- use different font colour;
- block-coloured text, or all the above.

Method Statement

When submitting a revised Method Statement please send us one copy on CD, or by e-mail if less than 5MB in size, or alternatively three paper copies. The method statement should be submitted in its entirety including all figures, appendices, supporting documents. Sections of this document form part of the licence; please do not send the amended sections in isolation.

Advice Note relating to Natural England Letter of No Impediment (LONI) for Great Crested Newts (GCN)

Issued on 31st January 2023 Natural England Reference: 2022-61952-EPS-AD1

Introduction

The following advice note addresses the caveats listed within appendix A of the provided GCN report by FPCR, 2026. The below caveats are listed below with FPCR responses in blue italics.

Natural England see no impediment to a licence being issued based on the current mitigation proposed within the draft licence application and subsequent updated Badger report (FPCR, GCN Report, 2025).

The existing LONI remains valid for the DCO determination and will only need to be reassessed if the designs and mitigation measures have substantially changed since the previous submission. The current level of mitigation remains the same since the previous assessment and has not significantly changed; the design of the site remains largely the same and has not significantly changed since the previous licence application.

Licence Caveats as detailed within 2022-61952-EPS-AD1

Assessment

Please do ensure that the Method Statement is revised to include these changes prior to formal submission. For clarity these include:

- Please ensure the survey data identifies which ponds were surveyed and when. The current survey data is confusing and most appears to be missing from the Method Statement. The HSI results also need to be presented accurately; discrepancies exist between the Method Statement and those in the submitted appendices. *Table 6 within the updated GCN report, 2025 clearly shows which ponds have been surveyed. The method statement pond data has been updated within the licence application. Please also refer to Appendix B and C for further details relating to the pond photos and HSI data.*

- Please provide figures which show the intended impacts, in terms of specific habitat types to either permanently lost, damaged, or retained. Figures soley showing impact zones without reference to the habitat types concerned are not required and cannot be licensed. Please also ensure the key accurately describes all features on the figure. It is unclear what specific habitats to be 'lost', identified as a black line and a purple line respectively, represent. *Figures D have been updated in accordance with Natural England request, these will be reviewed during Natural England determination following the formal licence submission.*

- Please be aware that terrestrially caught great crested newts (GCN) near meta population D cannot be relocated to an aquatic habitat as described in Fig.E4a(i). An alternative terrestrial receptor site must be considered, given receptor sites should account for the life stage which GCN are in at the point of capture. *An alternative receptor site has been proposed adjacent to the off-site pond which also contains suitable terrestrial habitat, this will allow for any GCN caught during the trapping and translocation to be able to find rest and shelter. Please refer to para 6.20 – 6.22 within the GCN report, 2025.*

- Please provide further justification for ring-fencing ponds P50 and P51 throughout the construction period. It is possible that GCN leaving the pond may not have sufficient foraging

opportunities if fencing remains for an extended period. *This caveat is no longer needed as ring fencing is no longer proposed within the licence application.*

- The proposed provision of 15 waterbodies, identified as water attenuation features, acknowledged that GCN may use these features but cannot be licensed as GCN compensation ponds. Please consider alternative aquatic habitats purely for GCN. *Four additional ponds will be managed purely for GCN, the management and design of these ponds will be discussed with Natural England during the formal licence submission. Please note that these ponds are shown on the Illustrative Surface water Drainage Plan OxSRFI-BWB-ZZ-XX-SK-DR-SK1.*

- The figures provided under "grassland reseeding" and "grassland management for GCN" in Section E3.2 of the Method Statement are identical. Please confirm if these are separate from each other, rather than a combined management prescription. *The GCN method statement has been updated for the formal submission and the grassland re-seeding and grassland management will be discussed with Natural England during determination of the licence.*

- There is a discrepancy between monitoring dates on the work schedule and the Method Statement. Please confirm that there will be six years of monitoring for the presence/absence of GCN post development- given this is standard practice for the population size class on site and level of impact proposed. *The method statement within the licence application has been updated to include six years of post-monitoring as requested by Natural England.*

- Please clearly state which ponds will be monitored post-development; it is unclear whether existing off-site ponds linked to an existing licence will be included in monitoring for this licence also. *The post monitoring plan has been updated and will be discussed with Natural England during the determination period.*

- Figures E3.1(i-iv) will need to be revised to reference which habitats will be created, enhanced, or restored. Please ensure a licence boundary is shown on all of the figures. Also, please confirm which habitats are included in the total hectarage for creation, enhancement, or restoration; it is unclear if the calculations provided involve the whole site or only those within the licence boundary. *The licence application method statement has been updated in line with the updated habitat creation and enhancements. Figure E3.1 have been updated as well as Figure 7 to 12 within the GCN report, 2025.*

Next Steps

Should the DCO be granted then the mitigation licence application must be formally submitted to Natural England. At this stage any modifications to the timings of the proposed works, e.g. due to ecological requirements of the species concerned, must be made and agreed with Natural England before a licence is granted. Please note that there will be no charge for the formal licence application determination, should the DCO be granted, or the granting of any licence. *The formal licence application will be submitted once DCO approval has been granted, the existing GCN LONI is still valid and will only need to be revised if the proposed mitigation has significantly changed. The proposed mitigation is still in line with what was issued to Natural England during the initial review of the LONI.*

If other minor changes to the application are subsequently necessary, e.g. amendments to the work schedule/s then these should be outlined in a covering letter and must be reflected in the formal submission of the licence application. These changes must be agreed by Natural England before a licence can be granted. If changes are made to proposals or timings which do not enable us to meet reach a 'satisfied' decision, we will issue correspondence outlining why the proposals are not acceptable and what further information is required. These issues will need to be addressed before any licence can be granted. *A covering letter will be provided prior to issuing the formal licence application, this letter will outline the changes made to the licence documents.*

APPENDIX B – HABITAT SUITABILITY ASSESSMENT

Pond	SI -1		SI - 2		SI -3		SI -4		SI -5		SI -6		SI -7		SI -8		SI -9		SI -10		HSI score	Pond suitability
	Geographical Location		Pond Area		Pond Drying		Water Quality		Shade (Perimeter)		Fowl		Fish		Ponds		Terrestrial Habitat		Macrophytes			
	Field result (A,B,C)	SI score	Field result (m2)	SI score	Field result	SI score	Field result	SI score	Field result (% cover)	SI score	Field result	SI score	Field result	SI score	Field result	SI score	Field result	SI score	Field result	SI score		
SP1	A	1	Dry		Annually																	
1	A	1	110	0.2	Annually	0.1	Moderate	0.67	10	1	Absent	1	Absent	1	12+	1	Poor	0.33	90	0.9	0.58	Below Average
2	A	1	90	0.2	Sometimes	0.5	Moderate	0.67	15	1	Absent	1	Possible	0.67	12+	1	Moderate	0.67	70	1	0.70	Good
3	A	1	300	0.6	Rarely	1	Moderate	0.67	70	0.8	Absent	1	Major	0.01	12+	1	Moderate	0.67	10	0.4	0.49	Poor
4	A	1	30	0.1	Never	0.9	Poor	0.33	90	0.4	Absent	1	Absent	1	12+	1	Moderate	0.67	0	0.3	0.55	Below Average
5	A	1	10	0.1	Annually	0.1	Moderate	0.67	90	0.4	Absent	1	Absent	1	12+	1	Good	1	10	0.4	0.50	Below Average
6	A	1	200	0.4	Never	0.9	Moderate	0.67	10	1	Absent	1	Major	0.01	12+	1	Good	1	30	0.8	0.54	Below Average
7	A	1	200	0.4	Never	0.9	Moderate	0.67	20	1	Absent	1	Minor	0.33	12+	1	Good	1	50	0.8	0.76	Good
8	A	1	50	0.1	Rarely	1	Moderate	0.67	10	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	20	0.5	0.66	Average
9	A	1	50	0.1	Rarely	1	Poor	1	5	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	5	0.35	0.66	Average
10	A	1	50	0.1	Rarely	1	Poor	1	5	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	5	0.35	0.66	Average
11	A	1	50	0.1	Rarely	1	Moderate	0.67	10	1	Minor	0.67	Absent	1	12+	1	Good	1	20	0.5	0.68	Average
12	A	1	50	0.1	Rarely	1	Moderate	0.67	30	1	Minor	0.67	Absent	1	12+	1	Good	1	30	0.6	0.70	Average
13	A	1	65	0.1	Rarely	1	Moderate	0.67	30	1	Minor	0.67	Absent	1	12+	1	Good	1	30	0.6	0.70	Average
14	A	1	100	0.2	Rarely	1	Moderate	0.67	60	1	Minor	0.67	Absent	1	12+	1	Good	1	50	0.8	0.77	Good
15	A	1	70	0.1	Rarely	1	Moderate	0.67	30	1	Minor	0.67	Absent	1	12+	1	Good	1	20	0.5	0.68	Average
16	A	1	65	0.1	Rarely	1	Moderate	0.67	10	1	Minor	0.67	Absent	1	12+	1	Good	1	20	0.6	0.70	Good
17	A	1	70	0.1	Rarely	1	Moderate	0.67	40	1	Minor	0.67	Possible	0.67	12+	1	Good	1	30	0.6	0.67	Average
18	A	1	130	0.2	Rarely	1	Moderate	0.67	50	1	Minor	0.67	Possible	0.67	12+	1	Good	1	60	0.9	0.75	Good
19	A	1	1250	0.92	Rarely	1	Moderate	0.67	40	1	Minor	0.67	Possible	0.67	12+	1	Good	1	20	0.5	0.82	Excellent
19a	A	1	800	0.95	Rarely	1	Moderate	0.67	20	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	10	0.4	0.81	Excellent
20	A	1	300	0.6	Rarely	1	Moderate	0.67	30	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	10	0.4	0.77	Good
21	A	1	200	0.4	Annually	0.1	Moderate	0.67	0	1	Absent	1	Absent	1	12+	1	Moderate	0.67	5	0.35	0.60	Average
22	A	1	400	0.8	Never	0.9	Moderate	0.67	15	1	Minor	0.67	Major	0.01	12+	1	Good	1	20	0.5	0.53	Below Average
23	A	1	100	0.2	Never	0.9	Moderate	0.67	10	1	Minor	0.67	Major	0.01	12+	1	Good	1	10	0.4	0.45	Poor
24	A	1	1500	0.88	Rarely	1	Poor	0.33	0	1	Minor	0.67	Absent	1	12+	1	Poor	0.33	20	0.5	0.71	Good
24A	A	1	1750	0.84	Annually	1	Moderate	0.67	0	1	Absent	1	Absent	1	12+	1	Moderate	0.67	60	0.9	0.76	Good
25	A	1	10	0.05	Sometimes	0.5	Good	1	60	1	Absent	1	Absent	1	12+	1	Good	1	60	0.9	0.68	Average

Pond	SI -1		SI - 2		SI -3		SI -4		SI -5		SI -6		SI -7		SI -8		SI -9		SI -10		HSI score	Pond suitability
	Geographical Location		Pond Area		Pond Drying		Water Quality		Shade (Perimeter)		Fowl		Fish		Ponds		Terrestrial Habitat		Macrophytes			
	Field result (A,B,C)	SI score	Field result (m2)	SI score	Field result	SI score	Field result	SI score	Field result (% cover)	SI score	Field result	SI score	Field result	SI score	Field result	SI score	Field result	SI score	Field result	SI score		
26	A	1	25	0.05	Rarely	1	Good	1	50	1	Absent	1	Absent	1	12+	1	Good	1	55	0.85	0.73	Good
27	A	1	15	0.05	Rarely	1	Good	1	10	1	Absent	1	Absent	1	12+	1	Good	1	10	0.4	0.68	Average
28	A	1	20	0.05	Rarely	1	Good	1	30	1	Absent	1	Absent	1	12+	1	Good	1	50	0.8	0.72	Good
29	A	1	15	0.05	Rarely	1	Good	1	40	1	Absent	1	Absent	1	12+	1	Good	1	55	0.85	0.73	Good
30	A	1	20	0.05	Rarely	1	Good	1	30	1	Absent	1	Absent	1	12+	1	Good	1	10	0.4	0.68	Average
31	A	1	40	0.1	Rarely	1	Good	1	50	1	Absent	1	Absent	1	12+	1	Good	1	10	0.4	0.72	Good
32	A	1	50	0.1	Rarely	1	Good	1	40	1	Absent	1	Absent	1	12+	1	Good	1	20	0.5	0.74	Good
33	A	1	50	0.1	Rarely	1	Moderate	0.67	20	1	Absent	1	Absent	1	12+	1	Good	1	10	0.4	0.70	Good
34	A	1	50	0.1	Rarely	1	Moderate	0.67	20	1	Absent	1	Absent	1	12+	1	Good	1	30	0.6	0.73	Good
35	A	1	120	0.2	Rarely	1	Moderate	0.67	40	1	Absent	1	Absent	1	12+	1	Good	1	50	0.8	0.80	Excellent
36	A	1	50	0.1	Rarely	1	Good	1	60	1	Absent	1	Absent	1	12+	1	Good	1	50	0.8	0.78	Good
37	A	1	125	0.2	Rarely	1	Moderate	0.67	50	1	Minor	0.67	Minor	0.33	12+	1	Moderate	0.67	0	0.3	0.60	Average
38	A	1	170	0.3	Annually	0.1	Moderate	0.67	10	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	40	0.7	0.60	Average
39	A	1	600	1	Sometimes	0.5	Moderate	0.67	0	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	30	0.6	0.79	Good
40	A	1	2000	0.7	Rarely	1	Moderate	0.67	30	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	30	0.6	0.81	Excellent
41	A	1	2000	0.7	Sometimes	0.5	Moderate	0.67	50	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	10	0.4	0.73	Good
42	A	1	200	0.4	Never	0.9	Moderate	0.67	50	1	Minor	0.67	Minor	0.33	12+	1	Good	1	5	0.35	0.67	Average
43	A	1	10	0.05	Annually	0.1	Poor	0.33	95	0.3	Absent	1	Absent	1	12+	1	Moderate	0.67	5	0.35	0.40	Poor
44	A	1	10	0.05	Annually	0.1	Poor	0.33	80	0.6	Absent	1	Absent	1	12+	1	Moderate	0.67	5	0.35	0.43	Poor
45	A	1	70	1	Never	0.9	Moderate	0.67	50	1	Absent	1	Minor	0.33	12+	1	Poor	0.33	10	0.4	0.69	Average
46	A	1	150	0.3	Never	0.9	Moderate	0.67	50	1	Major	0.33	Absent	1	12+	1	Poor	0.33	20	0.5	0.63	Average
47	A	1	250	0.5	Rarely	1	Moderate	0.67	10	1	Minor	0.67	Possible	0.67	12+	1	Good	1	20	0.5	0.77	Good
48	A	1	400	0.8	Sometimes	0.5	Moderate	0.67	60	1	Minor	0.67	Possible	0.67	12+	1	Good	1	70	1	0.81	Excellent
49	A	1	No Access																			
50	A	1	2000	0.8	Rarely	1	Moderate	0.67	25	1	Minor	0.67	Possible	0.67	12+	1	Moderate	0.67	40	0.7	0.80	Excellent
51	A	1	1400	0.9	Rarely	1	Moderate	0.67	10	1	Minor	0.67	Possible	0.67	12+	1	Moderate	0.67	80	1	0.84	Excellent
52	A	1	Dry		Annually	0.1																
53	A	1	10	0.05	Sometimes	0.5	Poor	0.33	90	0.4	Absent	1	Absent	1	12+	1	Moderate	0.67	40	0.7	0.52	Below Average
54	A	1	400	0.8	Never	0.9	Good	1	30	1	Minor	0.67	Possible	0.67	12+	1	Moderate	0.67	10	0.4	0.78	Good
55	A	1	Dry		Annually	0.1																
56	A	1	100	0.2	Sometimes	0.5	Moderate	0.67	10	1	Absent	1	Absent	1	12+	1	Moderate	0.67	10	0.4	0.67	Average

Pond	SI -1		SI - 2		SI -3		SI -4		SI -5		SI -6		SI -7		SI -8		SI -9		SI -10		HSI score	Pond suitability
	Geographical Location		Pond Area		Pond Drying		Water Quality		Shade (Perimeter)		Fowl		Fish		Ponds		Terrestrial Habitat		Macrophytes			
	Field result (A,B,C)	SI score	Field result (m2)	SI score	Field result	SI score	Field result	SI score	Field result (% cover)	SI score	Field result	SI score	Field result	SI score	Field result	SI score	Field result	SI score	Field result	SI score		
57	A	1	100	0.2	Rarely	1	Poor	0.33	20	1	Absent	1	Absent	1	12+	1	Poor	0.33	0	0.3	0.60	Average
58	A	1	50	0.1	Rarely	1	Good	1	20	1	Absent	1	Absent	1	12+	1	Good	1	55	0.85	0.78	Good
59	A	1	10	0.05	Sometimes	0.5	Moderate	0.67	90	0.4	Absent	1	Absent	1	12+	1	Moderate	0.67	55	0.85	0.57	Below Average
60	A	1	35	0.1	Sometimes	0.5	Poor	0.33	95	0.3	Absent	1	Absent	1	12+	1	Moderate	0.67	5	0.35	0.51	Below Average
61	A	1	10	0.05	Rarely	1	Moderate	0.67	5	1	Absent	1	Possible	0.67	12+	1	Good	1	20	0.5	0.64	Average
62	A	1	No Access in 2025	0.05	Annually	0.1	Moderate	0.67	50	1	Absent	1	Absent	1	12+	1	Good	1	20	0.5	0.53	Below Average
63	A	1	No Access		Annually	0.1																
64	A	1	150	0.3	Sometimes	0.5	Poor	0.33	50	1	Absent	1	Absent	1	12+	1	Poor	0.33	30	0.6	0.63	Average
65	A	1	20	0.05	Annually	0.1	Moderate	0.67	50	1	Absent	1	Absent	1	12+	1	Moderate	0.67	5	0.35	0.49	Poor
66	A	1	40	0.1	Rarely	1	Moderate	0.67	90	0.4	Minor	0.67	Major	0.33	12+	1	Good	1	0	0.3	0.53	Below Average
67	A	1	10	0.05	Annually	0.1	Poor	0.33	20	1	Minor	0.67	Absent	1	12+	1	Moderate	0.67	50	0.7	0.47	Poor
68	A	1	No Access	0.05																		
69	A	1	No Access																			
70	A	1	No Access																			
71	A	1	20	0.05	Rarely	1	Moderate	0.67	90	0.4	Absent	1	Major	0.33	12+	1	Good	1	40	0.7	0.56	Below Average
72	A	1	Dry		Annually																	
73	A	1	150	0.3	Sometimes	0.5	Poor	0.33	90	0.4	Absent	1	Absent	1	12+	1	Poor	0.33	0	0.3	0.54	Below Average
T1	A	1	225	0.4	Never	1	Moderate	0.67	0	1	Absent	1	Absent	1	12+	1	Poor	0.33	0	0.3	0.70	Good
T2	A	1	100	0.2	Never	1	Moderate	0.67	0	1	Absent	1	Absent	1	12+	1	Poor	0.33	5	0.35	0.66	Average
T3	A	1	100	0.2	Annually	0.1	Poor	0.33	0	1	Absent	1	Absent	1	12+	1	Poor	0.33	0	0.3	0.48	Poor
T4	A	1	100	0.2	Never	1	Moderate	0.67	0	1	Absent	1	Absent	1	12+	1	Poor	0.33	0	0.3	0.65	Average
T5	A	1	100	0.2	Never	1	Moderate	0.67	0	1	Absent	1	Absent	1	12+	1	Poor	0.33	2	0.3	0.65	Average
T6	A	1	225	0.4	Never	1	Moderate	0.67	5	1	Absent	1	Absent	1	12+	1	Poor	0.33	2	0.3	0.70	Good
T8	A	1	225	0.4	Never	1	Moderate	0.67	15	1	Absent	1	Absent	1	12+	1	Moderate	0.67	20	0.5	0.79	Good
T9	A	1	100	0.2	Never	1	Moderate	0.67	0	1	Absent	1	Absent	1	12+	1	Poor	0.33	0	0.3	0.65	Average
T10	A	1	225	0.4	Sometimes	0.5	Moderate	0.67	5	1	Absent	1	Absent	1	12+	1	Moderate	0.67	50	0.8	0.77	Good
T11	A	1	225	0.4	Never	1	Moderate	0.67	40	1	Absent	1	Absent	1	12+	1	Moderate	0.67	2	0.3	0.75	Good
T12	A	1	300	0.4	Never	1	Moderate	0.67	30	1	Absent	1	Absent	1	12+	1	Moderate	0.67	50	0.8	0.82	Excellent
T13	A	1	250	0.4	Sometimes	0.5	Moderate	0.67	10	1	Absent	1	Absent	1	12+	1	Moderate	0.67	50	0.8	0.77	Good

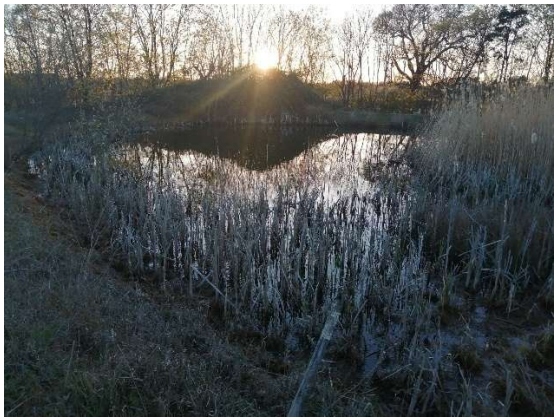
APPENDIX C – POND PHOTOS

Pond Ref.	Photo	Pond Ref	Photo
P1		P2	
P3		P4	

Pond Ref.	Photo	Pond Ref	Photo
P5		P6	
P7		P8	

Pond Ref.	Photo	Pond Ref	Photo
P9		P10	
P11		P12	

Pond Ref.	Photo	Pond Ref	Photo
P13		P14	
P15		P16	

Pond Ref.	Photo	Pond Ref	Photo
P17		P18	
P19		P20	

Pond Ref.	Photo	Pond Ref	Photo
P21		P22	
P23		P24	

Pond Ref.	Photo	Pond Ref	Photo
P24a		P25	
P26		P27	

Pond Ref.	Photo	Pond Ref	Photo
P28		P29	
P30		P31	

Pond Ref.	Photo	Pond Ref	Photo
P32		P33	
P34		P35	

Pond Ref.	Photo	Pond Ref	Photo
P36		P37	
P38		P39	

Pond Ref.	Photo	Pond Ref	Photo
P40		P41	
P42		P43	

Pond Ref.	Photo	Pond Ref	Photo
P44		P45	
P46		P47	

Pond Ref.	Photo	Pond Ref	Photo
P48		P49	
P50		P51	

Pond Ref.	Photo	Pond Ref	Photo
P52		P53	
P54		P55	No Image (not accessed)
P56	No Image (Heyford park)	P57	No Image (Hayford Park)

Pond Ref.	Photo	Pond Ref	Photo
P58		P59	
P60		P61	No Image

Pond Ref.	Photo	Pond Ref	Photo
P62		P63	
P64		P65	

Pond Ref.	Photo	Pond Ref	Photo
P66		P67	
P68	No Image (not accessed)	P69	No Image (not accessed)

Pond Ref.	Photo	Pond Ref	Photo
P70	No Image (not accessed)	**P71**	
P72		**P73**	No Image

Client:
8308, Katie Pegram, FPCR Environment and Design
1040079-KP-FPCR, 8303, version 1

RSK ADAS Ltd
Spring Lodge
172 Chester Road
Helsby
WA6 0AR

Tel: 01159 229249
Email: [redacted]

Sample ID: ADAS-7952			
Client Identifier: P46		Grid references/coordinates: Not Supplied	
Description: pond water samples in preservative		Condition on Receipt: Good	
Date of Receipt : 23/04/2025		Volume: Passed	

Determinant	**Result**	**Method**	**Date of Analysis**
Inhibition Control[†]	2 of 2	Real Time PCR	30/04/2025
Degradation Control[§]	Within limits	Real Time PCR	30/04/2025
Great Crested Newt*	0 of 12 (negative)	Real Time PCR	30/04/2025
Negative PCR Control (Nuclease Free Water)	0 of 4	Real Time PCR	As above for GCN
Positive PCR Control (GCN DNA 10^{-4} ng/µL)[#]	4 of 4	Real Time PCR	As above for GCN

Report Prepared by:	[redacted]	Report Issued by:	[redacted]
Signed:	[redacted]		
Position:	Director: Biotechnology	Position:	MD: Biotechnology
Date of preparation:	30/04/2025	Date of issue:	30/04/2025

eDNA analysis was carried out in accordance with the stipulated methodology found in the Technical Advice Note (WC1067 Appendix 5 Technical Advice Note) published by DEFRA and adopted by Natural England.

** If all PCR controls and extraction blanks give the expected results a sample is considered: negative for GCN if all of the replicates are negative; positive for GCN if one or more of the replicates are positive.*

[†] Recorded as the number of positive replicate reactions at expected C_t value. If the expected C_t value is not

[§] No degradation is expected within time frame of kit preparation, sample collection and analysis.

[#] Additional positive controls (10^{-1}, 10^{-2}, 10^{-3} ng/µL) are also routinely run, results not shown here.

Appendix 1: Interpretation of results

Sample Condition

Upon sample receipt we score your samples according to quality: good, low sediment, medium sediment, high sediment, white precipitate, and presence of algae.

There are three reasons as to why sediment should be avoided:

1. It is possible for DNA to persist within the sediment for longer than it would if it was floating in the water which could lead to a false positive result i.e. in this case GCN not recently present but present a long time ago
2. In some cases sediment can cause inhibition of the PCR analysis used to detect GCN eDNA within samples which could lead to an indeterminate result.
3. In some cases sediment can interfere with the DNA extraction procedure resulting in poor recovery of the eDNA which in turn can lead to an indeterminate result.

Algae can make the DNA extraction more difficult to perform so if it can be avoided then this is helpful.

Sometimes samples contain a white precipitate which we have found makes the recovery of eDNA very difficult. This precipitate can be present in such high amounts that it interferes with the eDNA extraction process meaning that we cannot recover the degradation control (nor most likely the eDNA itself) at sufficient levels for the control to be within the acceptable limits for the assay, therefore we have to classify these type of samples as indeterminate.

What do my results mean?

A positive result means that great crested newts are present in the water or have been present in the water in the recent past (eDNA degrades over around 7-21 days).

A negative result means that DNA from the great crested newt has not been detected in your sample.

On occasion an inconclusive result will be issued. This occurs where the DNA from the great crested newt has not been detected but the controls have indicated that either: the sample has been degraded and/or the eDNA was not fully extracted (poor recovery); or the PCR inhibited in some way. This may be due to the water chemistry or may be due to the presence of high levels of sediment in samples which can interfere with the DNA extraction process. A re-test could be performed but a fresh sample would need to be obtained. We have successfully performed re-tests on samples which have had high sediment content on the first collection and low sediment content (through improved sample collection) on the re-test. If water chemistry was the cause of the indeterminate then a re-test would most likely also return an inconclusive result.

The results will be recorded as indeterminate if the GCN result is negative and the degradation result is recorded as:

1. evidence of decay - meaning that the degradation control was outside of accepted limits
2. evidence of degradation or residual inhibition - meaning that the degradation control was outside of accepted limits but that this could have been due to inhibitors not being removed sufficiently by the dilution of inhibited samples (according to the technical advice note)

APPENDIX E – GCN AQUATIC SURVEY RAW DATA

Survey 1:

Date of Survey: 25.03.2025 to 26.03.2025

Surveyors: Mark G (2017-28042-CLS-CLS), James R (2019-43992-CLS-CLS), Susie E (2022-10987-CL08-GCN), Dan L (2023-11006-CL08-GCN), Rob N (Accredited), Roisin M, Jacob B, Ella M, Cameron M, Isobel S.

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
1	5	0	0	No
2	15	Toads x5	1 M Smooth	No
3	20	Toads x3	1 M Smooth	No
4	String 5	0	0	No
5	5	0	0	No
8	String 15	3M GCN / 1 F GCN 9 M Smooth / 8 F Smooth / 1 Toad	1 M Smooth	No
9	String 20	7 Toads / 1 F Smooth	0	No
10	String 15	5 Toads	0	No
11	15	1 M GCN / 1 F GCN 4 M Smooth / 2 F Smooth	1 m Smooth	No
12	20	1 M GCN / 2 F GCN 7 M Smooth / 2 F Smooth	1 F GCN / 1 M Smooth / 1 F Smooth	No
13	20	5 M GCN / 2 F GCN 7 M Smooth / 5 F Smooth / 1 Toad	0	No
14	15	2 M GCN / 2 F GCN /1 Toad	0	No
15	20	1 M GCN / 1 F Smooth / 6 Toads	0	No
16	20	1 F Smooth	0	No
17	20	0	0	No
18	25	2 M GCN / 1 F Smooth	1 F Smooth / 1 M Smooth / 2 F GCN / 1 M GCN	No
19	70	1 Juv GCN / 2 M smooth	6 F smooth / 5 M smooth / 1 M GCN / 1 F GCN	No
19A	20	5 M smooth / 4 F smooth	1 M smooth	No
20	20	0	0	No
21	15	0	0	0
24	Net	0	0	No
24A	40	0	2 F smooth	No
25	10	0	0	No
26	15	3 M GCN / 2 F GCN	1 M GCN / 1 F GCN	No
27	15	26 M GCN / 17 F GCN	1 M GCN / 14 F GCN	No
28	15	4 M GCN / 8 F GCN	2 M GCN / 1 F GCN	No
29	10	5 M GCN / 1 F GCN	1 M GCN / 2 F GCN	No
30	10	30 M GCN / 30 F GCN	2 F / 1 Juv	No
31	15	6 m GCN / 7 F GCN	0	No
32	15	15 M GCN / 1 F GCN	3 F GCN	No

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
33	20	6 M GCN	8 M GCN / 8 F GCN / 1 Juv GCN	No
34	20	3 M GCN	10 M GCN / 19 F GCN	No
35	20	15 M GCN / 16 F GCN / 5 F Smooth	1 M GCN / 2 F GCN	No
36	20	3 M GCN	2 M GCN	No
37	20	0	1 F Smooth	No
38	10	3 M smooth / 4 F smooth / 1 M GCN	0	No
39	30	3 F smooth / 1 M GCN / 1 F GCN	0	No
40	50	1 F smooth / 1 F GCN	0	No
41	60	4 M GCN	1 m Smooth, 1 F GCN	No
42	40	500+ toads / frogs	0 newts / lots of toads/frogs / fish	No
43	3	3 smooth/ newt	0	
44	5	0	0	
47	20	2M Smooth / 6 F Smooth / 1 Juv Smooth	0	No
48	25	2 M Smooth / 6 F Smooth / 1 Juv Smooth	2 M GCN / 1 F GCN 9 M Smooth / 7 F Smooth	No
49	Dry	-		
50	55	1 F Smooth	0	No
51	60	5 M GCN / 1 F GCN 7 M Smooth / 8 F Smooth	0	No
52	Dry			
54	30	100+ frogs / toads / 9 smooth newt	1 M smooth / 2 F smooth	No
58	20	1 F GCN	11 M GCN / 6 F GCN	No
59	20	0	1 F GCN	No
60	20	3 Smooth newt	1 M GCN	No
61	Dry			
62	Almost dry	0	Torch only	No
63	Dry			
66	20	6 signal crayfish / 1 frog / fish	0	No
67	0	0	0	
71	0	0	0	No
72	0	0		No
73	Dry			No

Survey 2:

Date of Survey: 01.04.2025 to 02.04.2025

Surveyors: Susie E (2022-10987-CL08-GCN), Dan L (2023-11006-CL08-GCN), Emily H (2025-12679-CL08-GCN), Rachel M 2025-12620-CL08-GCN, Ben A (2025-82323-SCI-CL08), Callum M (2025-82797-SCI-CL08), Rob N (Accredited), Krystian D, Josh M, Ella M.

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
1	3	0	0	No
2	10	0	0	No
3	20	0	0	No
4	String 5	1 F GCN	0	No
5	5	0	0	No
8	String 15	1 F Smooth / 1 M Smooth / 4 Toads	0	No
9	String 20	0	0	No
10	String 15	0	0	No
11	15	3 F GCN / 1 M Smooth / 4 F Smooth	1 M GCN / 2 F GCN	Yes
12	20	2 F GCN	1 F GCN / 2 F Smooth / 2 M Smooth	Yes
13	20	8 M GCN / 2 F GCN / 1 F smooth	1 M GCN	No
14	15	1 F GCN / 1 M Smooth / 1 F Smooth	0	No
15	20	20 M Smooth / 1 toad	0	No
16	20	0	0	No
17	20	1 M GCN / 1 M Smooth	1 F Smooth	No
18	25	2 M GCN	2 F Smooth	No
19	70	0	0	No
19a	20	5 F Smooth / 6 M Smooth	1 M Smooth	No
20	20	0	0	No
21	15	0	0	No
24	0	Netting – 2 M Smooth / 1 F Smooth / 1 F GCN	0	No
24a	40	2 M Smooth / 1 F Smooth / 13 frogs	2 M Smooth / 1 F Smooth / 1 F GCN	No
25	10	1 F GCN / 1 M Smooth	0	No
26	15	2 M GCN / 3 F GCN	0	No
27	15	5 M GCN / 5 F GCN / 1 F Smooth	11 F GCN / 4 M GCN	No
28	15	2 M GCN / 2 F Smooth / 4 M Smooth	3 F GCN / 1 M GCN / 1 F Smooth	No
29	10	3 M Smooth / 1 F Smooth	1 M Smooth / 3 F Smooth	No
30	15	8 M GCN / 1 F GCN	0	No
31	15	1 M GCN / 2 F GCN	0	No
32	15	9 M GCN / 1 F Smooth / 2 F GCN	2 F GCN / 2 F Smooth	No
33	20	0	0	No
34	20	0	0	No

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
35	20	0	0	No
36	20	1 F GCN	1 M Smooth	No
37	20	0	0	No
38	10	3 F Smooth / 2 M Smooth	3 F Smooth	No
39	30	1 M Smooth	0	No
40	50	-	5 F Smooth	No
41	60	2 M Smooth / 1 F Smooth / 2 Frogs	2 M Smooth / 2 F Smooth	No
42	35	100+ toads	0	No
43	0	0	0	No
44	4	0	0	No
47	20	1 M Smooth / 4 F Smooth	0	No
48	25	4 M GCN	0	No
49	Dry			
50	55	Fish	0	No
51	60	1 F GCN / 1 Juv GCN / 3 M Smooth / 1 F	1 M smooth	No
52	Dry			
54	25	3 toads	1 F Smooth	No
58	20	0	0	No
59	20	0	0	No
60	20	3 M Smooth / 4 F Smooth	0	No
61	Dry			
62	Dry			
63	Dry			
66	20	2 Signal crayfish	0	No
67	0	0	0	No
71	20	0	0	No
72	0	0	0	No
73	Dry			

Survey 3:

Date of Survey: 08.04.2025 to 09.04.2025

Surveyors: James R (2019-43992-CLS-CLS), Emily H (2025-12679-CL08-GCN), Rob N (Accredited), Jacob C (Accredited), Krystian D, James H, Charley B, Harvey C, Adam G.

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
1	5	0	0	No
2	15	0	0	No
3	20	0	0	No
4	String 5	0	0	No
5	5	0	0	No
8	15	1 Toad / 2 M Smooth / 2 F Smooth	0	No
9	20	0	1 F Smooth	No
10	15	0	0	No
11	15	2 F Smooth / 1 M Smooth	0	No
12	20	2 Smooth	2 M Smooth	No
13	20	0	0	No
14	15	0	2 F Smooth / 1 M Smooth	No
15	20	2 Toads	0	No
16	20	0	0	No
17	20	0	3 F Smooth	No
18	25	2 M GCN / 1 F GCN / 2 F Smooth	1 F Smooth	No
19	70	3 F Smooth / 1 M Smooth 1 F GCN / 2 M GCN	6 F GCN / 4 M Smooth / 3 F Smooth	No
19a	20	15 M GCN / 6 F GCN /50+F Smooth 18 M Smooth / 1 Toad	1 M Smooth / 1 F Smooth	No
20	20	0	0	
21	15	0	0	0
24	20	1 M Smooth / 1 F Smooth / 4 Frogs	netted	No
24a	40	0	2 F GCN / 4 F Smooth / 1 M Smooth	No
25	10	2 M Smooth / 1 F Smooth	1 F Smooth	
26	15	3 M Smooth	2 M Smooth / 2 F Smooth	
27	15	5 M GCN / 1 F GCN 2 M Smooth / 3 F Smooth	5 F GCN / 1 M GCN 3 M Smooth / 6 F Smooth	
28	15	1 M Smooth / 5 F Smooth	1 M GCN / 1 M Smooth / 1 F Smooth	
29	10	5 M Smooth	1 F Smooth / 1 M Smooth	
30	10	4 M GCN / 1 M Smooth	2 M Smooth / 1 F Smooth / 1 F GCN	
31	15	2 F GCN/ 3 M GCN / 1 M Smooth	1 F Smooth	
32	15	1 M GCN	1 M GCN / 1 M Smooth / 2 F Smooth	
33	20	1 M GCN	1 F Smooth	
34	20	2 F GCN / 1 M GCN	6 F Smooth / 2 M Smooth / 1 F GCN	

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
35	20	1 F GCN / 1 M Smooth	3 M Smooth	
36	20	4 F Smooth / 1 M smooth	2 M Smooth / 2 F Smooth	
37	20	0	0	No
38	Too dry to bottle	0	Too dry to bottle	No
39	30	1 frog	1 M GCN / 1 F Smooth	No
40	50	1 M Smooth	5 M Smooth / 7 F Smooth	No
41	60	4 M Smooth / 6 F Smooth	1 F Smooth	No
42	40	7 frogs	No newts	No
43	Dry			
44	Dry			
47	20	0	0	No
48	25	0	0	No
49	Dry			
50	55	0	0	No
51	60	0	0	No
52	Dry			
54	5	0	0	No
58	20	0	1 F GCN / 1 M Smooth / 1 F Smooth	
59	Dry			
60	10	1 F Smooth	0	No
61	Dry			
62	Dry			
63	Dry			
66	20	0	0	No
67	Dry			
71	19	Tadpoles, fish	1 M Smooth / tadpoles	No
72	0	1 toad / 2 F Smooth	0	No
73	0	Dry	Dry	No

Survey 4:

Date of Survey: 22.04.2025 to 23.04.2025

Surveyors: James R (2019-43992-CLS-CLS), Susie E (2022-10987-CL08-GCN), Emily H (2025-12679-CL08-GCN), Rob N (Accredited), Reece L (Accredited), Krystian D, Charley B, Michael Baker, Emma K, James G-G.

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
1	Dry			
2	5	2 Toads	0	No
3	20	0	0	No
4	5	0	0	No
5	5	0	0	No
8	15	3 M Smooth / 3 F Smooth	0	No
9	0	2 F Smooth	0	No
10	15	0	0	No
11	15	3 M GCN / 2 M Smooth / 6 F Smooth	0	No
12	20	3 M GCN / 1 M Smooth / 2 F Smooth / 1 toad	2 M GCN / 2 F GCN / 3 M Smooth / 3 F Smooth	No
13	20	5 M GCN / 3 M Smooth / 3 F Smooth	1F GCN / 1 M Smooth	No
14	15	6 M GCN / 1 F GCN / 2 F Smooth	1 M GCN / 3 F GCN	No
15	20	0	1 M GCN / 1 M Smooth	No
16	20	1 M GCN / 2 F GCN / 1 M Smooth / 1 toad	0	No
17	20	1 M GCN / 3 M Smooth / 3 F Smooth / 1 toad	1 M GCN	No
18	25	2 M GCN / 2 F GCN	1 F GCN	No
19	70	10 M Smooth / 4 F Smooth 1 Frog	1 M GCN / 3 F GCN 4 M Smooth / 4 F Smooth	No
19a	20	2 M GCN 4 M Smooth / 1 F Smooth	1 M Smooth	No
20	20	0	0	No
21	15	0	0	
24	0	0	0	No
24a	0	0	0	No
25	10	0	1 F Smooth / 5 M Smooth	No
26	15	2 F GCN / 2 M GCN	16 F GCN / 3 M GCN	Yes
27	15	14 F GCN / 23 M GCN 8 F Smooth / 5 M Smooth	1 F GCN / 7 M GCN 1 M Smooth	No
28	15	5 F Smooth	4 F GCN / 3 M GCN 1 M Smooth	No
29	10	1 F Smooth	4 M GCN 4 M Smooth / 2 F Smooth	No
30	10	1 F GCN / 2 M GCN 2 F Smooth / 3 M Smooth	11 F GCN / 2 M GCN 1 M Smooth	Yes
31	15	1 F GCN / 2 M GCN	1 F GCN / 1 M GCN	No
32	15	7 M GCN 3 F Smooth / 1 M Smooth	3 F GCN / 1 M GCN 1 F Smooth	No
33	20	1 M GCN	6 F GCN / 10 M GCN 4 M Smooth / 3 F Smooth	No

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
34	20	1 F GCN / 1 M GCN	5 F GCN / 8 M GCN 4 M Smooth / 3 F Smooth	No
35	20	0	3 F GCN / 1 M GCN 3 M Smooth / 2 F Smooth	No
36	20	0	5 F GCN / 9 M GCN 3 M Smooth	No
37	20	0	0	No
38	0	Dry	Dry	No
39	30	3 M GCN	3 M GCN / 4 F GCN 1 M Smooth / 3 F Smooth	No
40	50	3 M GCN	3 M GCN / 4 F GCN 1 M Smooth / 3 F Smooth	No
41	60	0	1 F GCN 1 M Smooth / 1 F Smooth	No
42	40	2 Toads	No	No
43	Dry			
44	Dry			
47	20	9 M GCN 22 F Smooth	2 F Smooth	No
48	20	3 M GCN / 3 F GCN 5 Smooth	1 M GCN / 1 F GCN (laying eggs) / 3 M Smooth / 4 F Smooth	Yes
49	Dry			
50	Dry			
51	20	42 M GCN / 25 F GCN 4 M Smooth / 4 F Smooth	42 M GCN / 25 F GCN / 2 Juv F GCN / 4 M Smooth / 4 F Smooth	No
52	0	Dry	Dry	No
54	15	2 M Smooth / 1 F Smooth	No newts	No
58	20	0	3 F GCN / 2 M GCN 2 M Smooth / 1 F Smooth	No
59	Dry			
60	Dry			
61	0	Fish observed	No	No
62	Dry			
63	Dry			
66	10	Fish observed	No newts	No
67	0	0	0	No
71	10	Fish	0	No
72	0	0	0	No
73	0	7 F Smooth	0	No

Survey 5:

Date of Survey: 29.04.2025 to 30.04.2025

Surveyors: Mark G (2017-28042-CLS-CLS), Susie E (2022-10987-CL08-GCN), Dan L (2023-11006-CL08-GCN), Rob N (Accredited), Krystian D, Emma S, Hannah M, Olivia G.

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
4	5	0	0	No
5	5	0	0	No
8	15	4 M GCN / 1 F GCN / 3 F Smooth / 1 M smooth	M smooth / F GCN	No
11	15	1 F smooth / 2 F GCN	1 M GCN	No
12	20	4 M GCN / 1 M smooth / 3 F smooth	3 M GCN / 2 M smooth / 9 F smooth	No
13	20	3 M GNC / 7 F GCN / 3 M smooth / 1 F smooth	2 M smooth / 2 M GCN / 1 F smooth	No
14	15	1 M GCN	0	No
15	20	4 M GCN / 1 M smooth	1 F smooth	No
16	20	5 M GCN / 6 F GCN / 3 M smooth / 1 F smooth	3 M GCN / 1 F GCN / 2 M smooth / 2 F smooth	No
17	20	6 M GCN / 1 F GCN	0	No
18	25	3 F GCN / 3 M GCN / 1 M smooth	3 M smooth	No
19	70	1 M GCN / 1 F GCN / 3 F smooth / 1 M smooth	8 M GCN / 2 F GCN / 12 F smooth / 4 M smooth	No
19a	20	5 M smooth / 1 F smooth	1 F smooth / 2 M smooth	No
24	20	0	0	No
24a	40	0	0	No
25	10	0	1 F GCN	No
26	15	2 M GCN / 1 M smooth	9 F GCN / 2 M GCN	No
27	15	11 M GCN / 3 F GCN / 1 M smooth / 1 F smooth	3 M GCN / 9 F GCN / 1 F smooth	No
28	10	0	1 M GCN / 3 F GCN / 3 F smooth / 1 M smooth	No
29	10	1 F smooth	2 M GCN / 2 F smooth / 1 M smooth	No
30	15	10 M GCN / 3 F GCN / 1 M smooth / 3 F smooth	6 F GCN / 1 M GCN / 1 M smooth / 1 F smooth	No
31	15	1 M GCN	4 F GCN / 2 M smooth / 1 F smooth	No
32	15	6 M GCN / 1 F GCN	10 F GCN	No
33	20	4 M GCN	1 M GCN / 7 F GCN / 4 M smooth / 4 F smooth	No
34	20	0 /	3 M GCN / 5 F GCN / 1 M smooth	No
35	20	5 M GCN / 6 F GCN / 1 M smooth	1 M GCN / 4 F GCN	No
36	20	1 F GCN	3 M GCN / 2 F GCN / 2 M smooth	No
38	Dry			
39	30	0	1 F smooth	-
40	50	6 M GCN / 5 F GCN / 4 F smooth / 1 M smooth	3 M smooth / 4 F smooth / 12 M GCN / 10 F GCN	-
41	60	2 F smooth / 2 M smooth	0	-
43*	5	5 M Smooth	No	No

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
44*	5	No	No	No
48	20	11 M GCN / 2 F GCN	1 F smooth	-
51	50	0	6 M GCN / 8 F GCN / 1 Juv GCN / 1 M Smooth	No
58	20	1 frog	6 F GCN / 1 F smooth	No
59	20	No	1 F GCN	No
60	Dry			
71	10	0	0	No
73	0	4 M Smooth	0	No

*Briefly held water

Survey 6:

Date of Survey: 13.05.2025 to 14.05.2025

Surveyors: Susie E (2022-10987-CL08-GCN), Dan L (2023-11006-CL08-GCN), Emily H (2025-12679-CL08-GCN), Ben A (2025-82323-SCI-CL08), Callum M (2025-82797-SCI-CL08), Sofia H (2023-11149-CL08-GCN), Reece L (Accredited), Krystian D.

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
4	5	0	0	No
8	15	0	0	No
11	15	0	1 F smooth	No
12	20	1 F GCN / 1 F smooth / 1 M GCN / 2 toads	1 M GCN / 1 M smooth / 6 F smooth	No
13	20	2 M GCN / 3 F smooth / 1 F GCN / 1 toad	1 M GCN	No
14	15	1 toad	0	No
15	20	1 M GCN / 1 F smooth	1 F GCN / 1 M GCN	No
16	20	1 F GCN / 1 M smooth / 2 toads	0	No
17	20	3 F smooth / 1 toad	3 F smooth	No
18	25	2 M GCN / 1 F GCN / 9 M smooth / 6 F smooth / 1 toad	4 M GCN / 1 F GCN / 2 M smooth / 1 F smooth	No
19	70	9 M GCN / 3 F GCN / 2 F smooth	4 M GCN / 1 F GCN / 7 M smooth / 7 F smooth	No
19a	20	3 F smooth	10 M smooth / 3 F smooth	No
24	0	0	0	No
24a	Dry			
25	Dry			
26	15	2 F GCN / 1 F Smooth	6 F GCN / 1 F smooth	No
27	15	3 F GCN / 2 F smooth	1 M GCN	No
28	10	0	1 M GCN / 1 F GCN / 1 F smooth	No
29	10	0	0	No
30	10	1 M GCN / 4 M smooth	1 M GCN / 2 M smooth / 1 Juv GCN / 1 F GCN	No
31	15	0	2 M GCN / 4 F GCN / 1 Juv GCN	No

Pond Number	No. of bottles	Torching Results	Bottle/Netting Results	Eggs?
32	15	0	2 M GCN / 1 F smooth / 1 F GCN	No
33	20	2 F GCN	0	No
34	20	0	2 M smooth / 3 F GCN / 1 F smooth	No
35	20	1 M GCN / 1 F smooth	2 M GCN / 3 M smooth / 1 F GCN / 1 F smooth	No
36	20	0	5 M GCN / 5 F GCN / 4 M Smooth / 3 F smooth	No
38	Dry			
39	Unable to use bottles due to cattle	0	0	
40		0	0	
41	10	1 F GCN / 1 M smooth / 8 F smooth	3 F smooth / 3 M smooth / 2 M smooth	No
47	0			
48	10	0	3 F Smooth	No
51	30	1 M Smooth	4 M GCN / 8 F GCN	No
58	20	0	2 M smooth / 6 F GCN / 3 F smooth / 2 M GCN	No
59	20	No	No	No
60	Dry			
73	Dry			

3rd Party Data Received From 4 Acre Ecology Relating to Waterbodies Within Metapopulation 1 - 2025.

Survey 1:

Date of Survey: 23.03.25

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
1	Unable to bottle	0	-	-
7	-	0	0	-
8	-	0	0	-
9	-	80 M, 19 F	0	-
10	0	56 M, 14 F	-	-
11	11-50	18 M, 8 F	-	-
12	11-50	14 M, 14 F	0	-
13	11-50	41 M, 11 F	0	-
14	-	0	0	
15	11-50	1 M, 1 F	0	-
16	1-10	1 M	0	-
25	-	15 M, 6 F, 1 immature	0	-
27	11-50	3 M	1 M, 1 F	-
A	Unable to bottle	15 M, 5 F	-	-
A1	Unable to bottle	0	-	-
B	Unable to bottle	0	-	-
E	-	0	0	-
F	11-50	5 M	3 M	-
G	11-50	10 M	1 F	-
H	-	0	0	-

Survey 2:

Date of Survey: 20.04.2025

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
1	Unable to bottle	0	0	-
7	-	0	0	-
8	-	0	0	-
9	-	40 M, 9 F	0	-
10	0	44 M, 10 F	0	-
11	11-50	5 M, 2 F	7 M, 6 F	-
12	11-50	1 M, 2 F	3 M, 8 F	Yes
13	11-50	6 M, 7 F	6 M, 9 F	-
14	Dry			

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
15	11-50	0	0	-
16	1-10	1 M, 1 F	0	Yes
25	-	5 M, 4 F	0	Yes
27	11-50	5 M, 1 F	0	-
A	Unable to bottle	14 M	0	Yes
A1	Unable to bottle	0	0	-
B	Unable to bottle	0	0	-
E	-	0	0	-
F	11-50	0	0	-
G	11-50	0	0	-
H	-	0	0	-

Survey 3:

Date of Survey: 27.04.2025

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
1	Unable to bottle	0	0	-
7	-	0	0	-
8	-	0	0	-
9	-	11 M, 7 F	0	-
10	0	9 M, 6 F	0	-
11	11-50	9 M, 3 F	6 M, 1 F	Yes
12	11-50	2 M, 3 F	2 M, 5 F	-
13	11-50	2 M, 2 F	3 M, 10 F	-
14	Limited water	0	0	-
15	11-50	0	0	-
16	1-10	3 F	2 M	-
25	-	13 M, 3 F	0	-
27	11-50	1 F	1 M, 2 F	-
A	Unable to bottle	6 M	0	-
A1	Unable to bottle	0	0	-
B	Unable to bottle	0	0	-
E	-	0	0	-
F	11-50	0	0	-
G	11-50	0	1 F	-
H	-	0	0	-

Survey 4:

Date of Survey: 05.05.2025

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
1	Unable to bottle	0	0	-
7	-	0	0	-
8	-	0	0	-
9	-	2 M, 3 F	0	-
10	0	15 M, 8 F	0	-
11	11-50	2 M, 3 F	2 M, 2 F	-
12	11-50	1 M, 3 F	1 M, 3 F	-
13	11-50	3 M	5 M, 3 F	-
14	-	Dried out		
15	11-50	0	0	-
16	1-10	1 F	1 M, 1 F	-
25	-	2 M, 3 F	0	-
27	11-50	0	0	-
A	Unable to bottle	3 M, 1 F	0	-
A1	Unable to bottle	0	0	-
B	Unable to bottle	0	0	-
E	-	0	0	-
F	11-50	0	0	-
G	11-50	0	0	-
H	-	0	0	-

Survey 5:

Date of Survey: 11.05.2025

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
1	-	-	-	-
7	-	-	-	-
8	-	-	-	-
9	-	26 M, 6 F	0	-
10	0	40 M, 13 F	0	-
11	11-50	3 M, 3 F	2 M, 2 F	-
12	11-50	1 M, 1 F	1 M, 3 F	-
13	11-50	3 M, 4 F	1 M, 1 F	-
14	-	-	-	-
15	11-50	0	0	-

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
16	1-10	1 M, 3 F	3 M, 1 F	-
25	-	18 M, 7 F	0	-
27	11-50	4 M	0	-
A	Unable to bottle	5 M, 2 F	0	-
A1	-	-	-	-
B	-	-	-	-
E	-	-	-	-
F	11-50	0	0	-
G	11-50	2 M, 1 F	2 M	-
H	-	-	-	-

Survey 6:

Date of Survey: 20.05.2025

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
1	-	-	-	-
7	-	-	-	-
8	-	-	-	-
9	-	11 M, 13 F	0	-
10	0	19 M, 13 F	0	-
11	11-50	2 M, 3 F	4 M, 1 F	-
12	11-50	1 M, 1 F	3 M, 3 F	-
13	11-50	1 M, 1 F	2 M, 1 F	-
14	-	-	-	-
15	11-50	0	0	-
16	1-10	0	6 M, 5 F	-
25	-	5 M, 4 F,1 Immature	-	
27	11-50	0	0	-
A	Unable to bottle	6 M, 2 F	0	-
A1	-	-	-	-
B	-	-	-	-
E	-	-	-	-
F	11-50	1 F	1 F	-
G	11-50	2 M, 3 F	0	-
H	-	-	-	-

3rd Party Data Received From 4 Acre Ecology Relating to Waterbodies Within Metapopulation 1 - 2021.

Survey 1:

Date of Survey: 23.03.2025

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	1-10	0	0	-
LF2	11-50	0	0	-
LF3*	11-50	0	0	-
LF4*	11-50	0	0	-
LF5**	>50	1 M	0	-

Survey 2:

Date of Survey: 31.03.2021

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	1-10	0	0	-
LF2	11-50	0	0	-
LF3*	11-50	0	0	-
LF4*	11-50	0	0	-
LF5**	>50	1 M	0	-

* LF3 and LF4: eDNA of the pond by another consultancy in 2021 found it positive, on reviewing reports in 2025

**LF5: eDNA results from another consultancy was negative in 2021 when reviewing report in 2025. I F GCN seen on bank when setting traps, another M seen in the water when setting traps on first visit. Many tadpoles on each visit, F GCN observed laying eggs on water mint on last visit.

Survey 3:

Date of Survey: 20.04.2021

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	1-10	0	0	-
LF2	11-50	0	0	-
LF3	11-50	0	0	-
LF4	11-50	0	0	-
LF5	>50	1 M, 1 F	0	-

Survey 4:

Date of Survey: 27.04.2021

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	1-10	0	0	-
LF2	11-50	0	0	-
LF3	11-50	0	0	-
LF4	11-50	0	0	-
LF5	>50	1 M, 1 F	0	-

Survey 5:

Date of Survey: 05.05.2021

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	1-10	0	0	-
LF2	11-50	0	0	-
LF3	11-50	0	0	-
LF4	11-50	0	0	-
LF5	>50	1 M, 1 F	0	-

Survey 6:

Date of Survey: 11.05.2021

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	1-10	0	0	-
LF2	11-50	0	0	-
LF3	11-50	0	0	-
LF4	11-50	0	0	-
LF5	>50	0	2 M	-

Survey 7:

Date of Survey: 18.05.2021

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	1-10	0	0	-
LF2	11-50	0	0	-
LF3	11-50	0	0	-
LF4	11-50	2 M	0	-
LF5	>50	1 M, 2 F	0	-

Survey 8:

Date of Survey: 20.05.2021

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	1-10	0	0	-
LF2	11-50	0	0	-
LF3	11-50	0	0	-
LF4	11-50	2 M	0	-
LF5	>50	1 M, 2 F	0	-

Survey 9:

Date of Survey: 27.05.2021

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	-	-	-	-
LF2	-	-	-	-
LF3	-	-	-	-
LF4	11-50	1 F	1 M	-
LF5	>50	2 M, 3 F	4 M, 1 F	-

Survey 10:

Date of Survey: 10.06.2021

Pond Number	No. of bottles	Torching Results	Bottle Results	Eggs?
LF1	-	-	-	-
LF2	-	-	-	-
LF3	-	-	-	-
LF4	11-50	0	0	-
LF5	>50	1 F	0	-

N

0 0.75 1.5 km

Key:

- Site Boundary
- 500m Site Buffer

GCN Metapopultion Buffers

- GCN Meta Population 1 with 500m buffer
- GCN Meta Population 2 with 500m buffer
- GCN Meta Population 3 with 500m buffer
- GCN Meta Population 4 with 500m buffer

Pond Location and Survey Status (with reference)

- GCN Absent
- GCN Present
- No Access
- Not Surveyed
- Pond Recorded as Dry
- Negative eDNA survey carried out on 23rd April 2025

date 28/01/26 | drwn/chkd MJ /

client
Oxfordshire Railfreight Limited

project
Proposed Oxfordshire Strategic Rail Freight Interchange

title
GCN Survey Results and Metapopulation Plan

scale 1:30,000 @ A3

number
FIGURE 1

rev -

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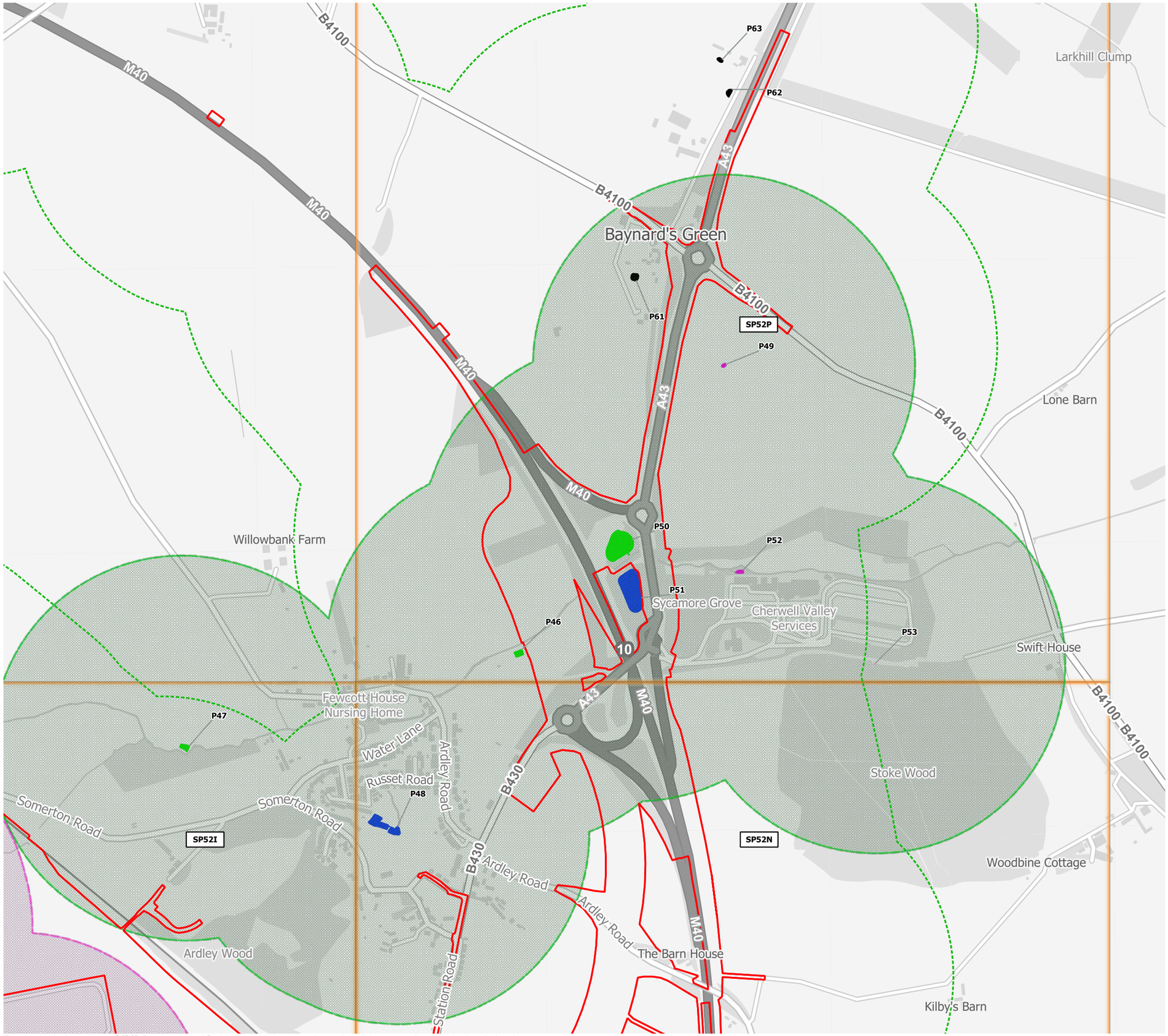

Pond P46 was subject to a eDNA survey which concluded that the pond contained negative GCN presence. The results of this are provided within Appendix E.

date: 28/01/26
drwn/chkd: MJ /

client: **Oxfordshire Railfreight Limited**

project: **Proposed Oxfordshire Strategic Rail Freight Interchange**

title: **Pond Location Plan _ SP52P**
scale: 1:10,000 @ A3

number: **FIGURE 2**
rev: -

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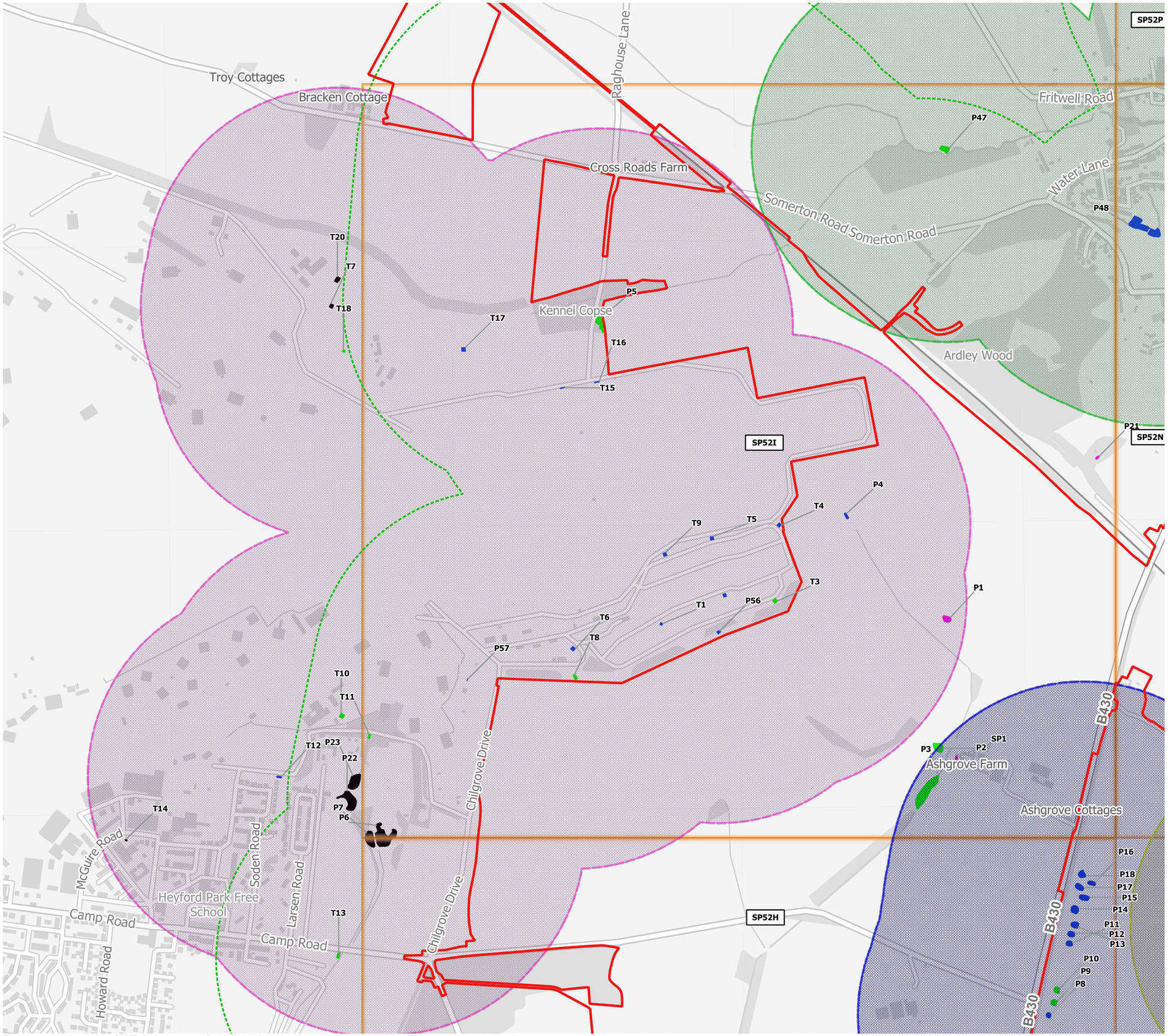

N

0 250 500 m

Key:

- Site Boundary
- 500m Site Buffer

GCN Metapopultion Buffers

- GCN Meta Population 1 with 500m buffer
- GCN Meta Population 2 with 500m buffer
- GCN Meta Population 4 with 500m buffer

Pond Location and Survey Status (with reference)

- GCN Absent
- GCN Present
- No Access
- Not Surveyed
- Pond Recorded as Dry

date 28/01/26

drwn/chkd MJ /

client
Oxfordshire Railfreight Limited

project
Proposed Oxfordshire Strategic Rail Freight Interchange

title
Pond Location Plan - SP52I

scale 1:10,000 @ A3

number
FIGURE 3

rev -

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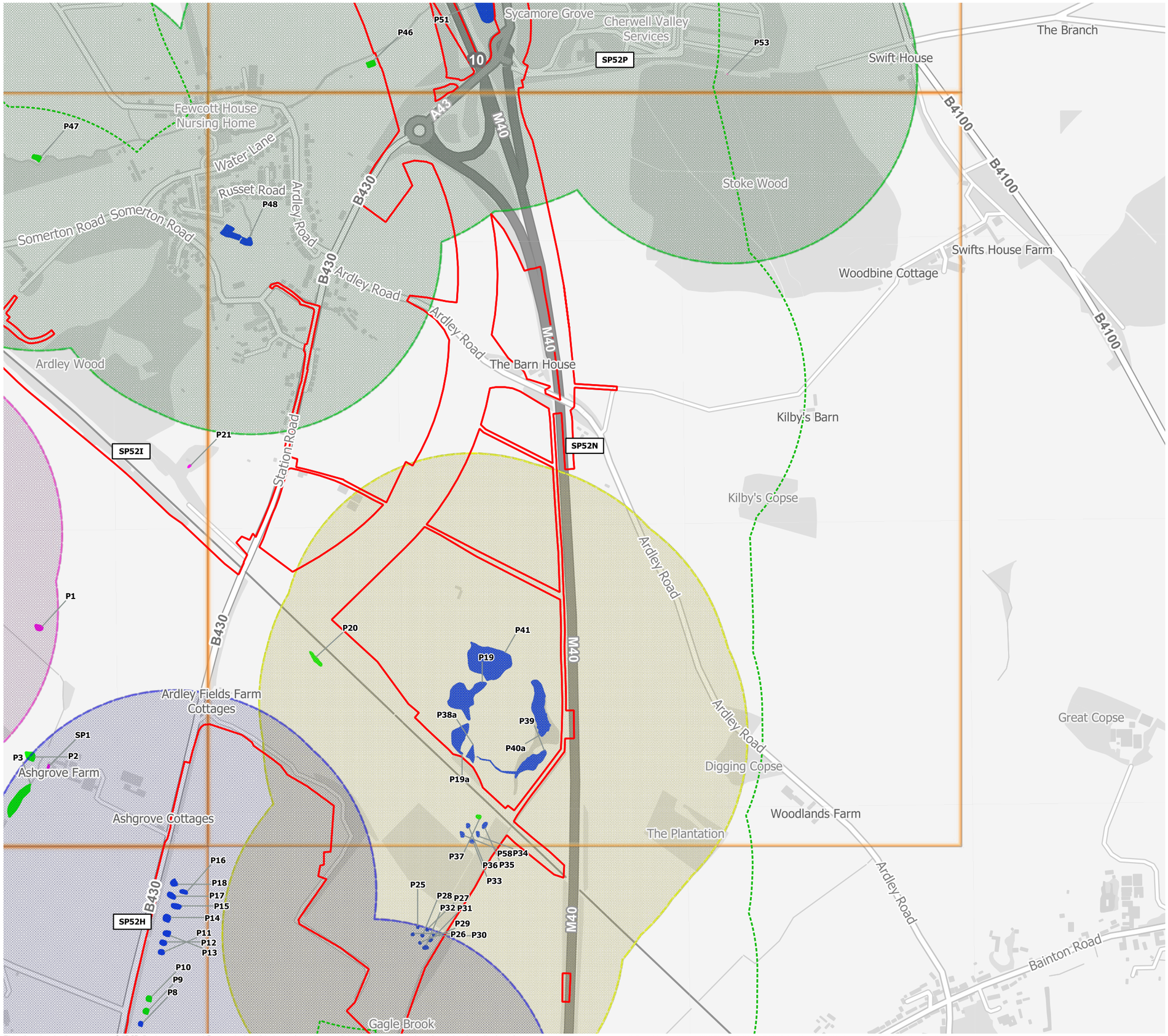

N

0 250 500 m

Key:

- Site Boundary
- 500m Site Buffer

GCN Metapopultion Buffers

- GCN Meta Population 1 with 500m buffer
- GCN Meta Population 2 with 500m buffer
- GCN Meta Population 3 with 500m buffer
- GCN Meta Population 4 with 500m buffer

Pond Location and Survey Status (with reference)

- GCN Absent
- GCN Present
- No Access
- Not Surveyed
- Pond Recorded as Dry

date: 28/01/26

drwn/chkd: MJ /

client: **Oxfordshire Railfreight Limited**

project: **Proposed Oxfordshire Strategic Rail Freight Interchange**

title: **Pond Location Plan - SP52N**

scale: 1:10,000 @ A3

number: **FIGURE 4**

rev: **-**

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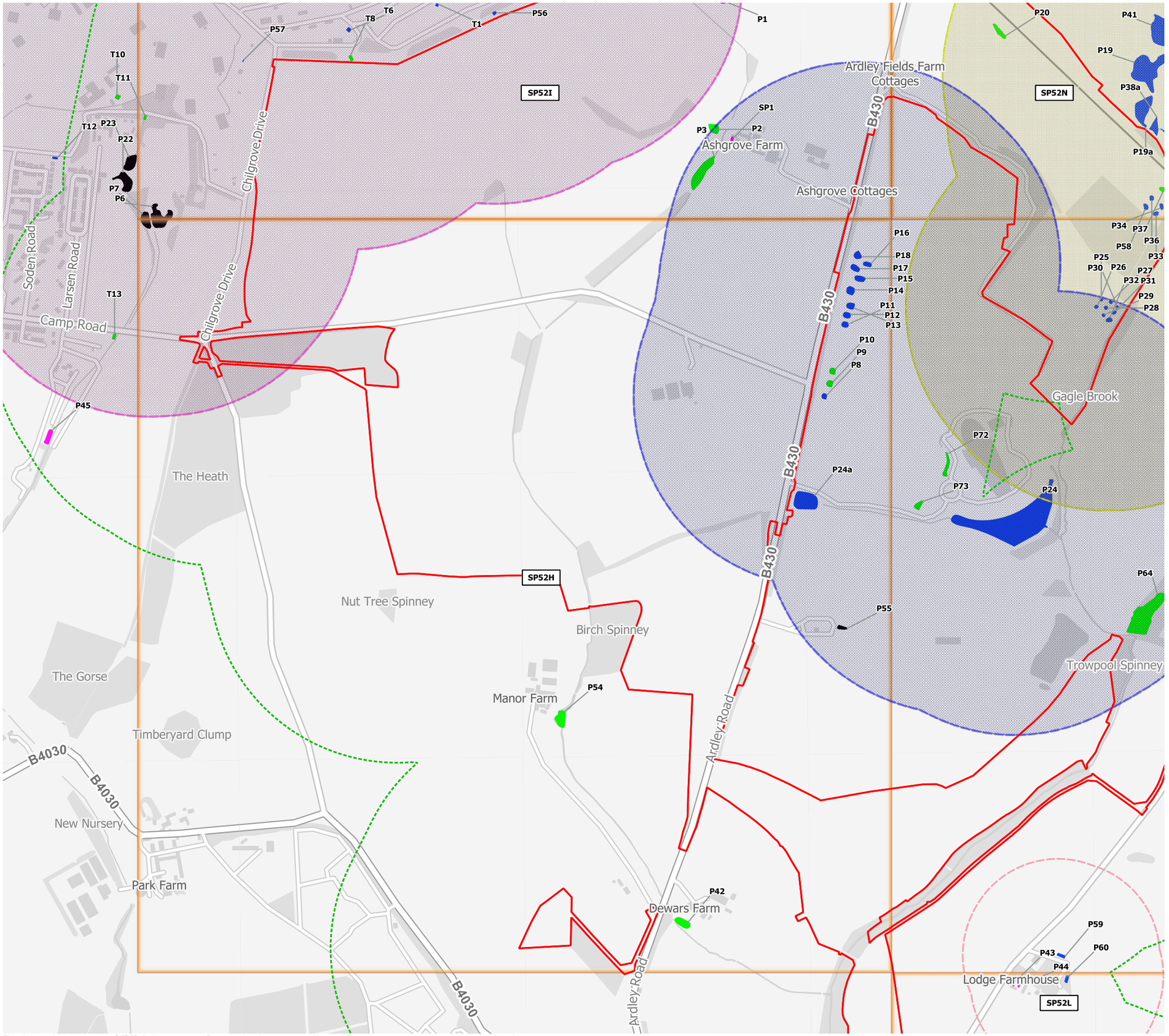

Key:

- Site Boundary
- 500m Site Buffer
- 250m buffer from ponds P59 and P60

GCN Metapopultion Buffers

- GCN Meta Population 1 with 500m buffer
- GCN Meta Population 2 with 500m buffer
- GCN Meta Population 3 with 500m buffer

Pond Location and Survey Status (with reference)

- GCN Absent
- GCN Present
- No Access
- Not Surveyed
- Pond Recorded as Dry

A small population of GCN (peak count 1) were recorded within ponds P59 and P60 during the 1st GCN survey on 25th March 2025. These ponds were subsequently recorded as being dry during the 5th and 6th survey visit.

As these ponds are located within close proximity of optimal GCN habitat and are located +250m from the proposed working area these ponds are not considered a constraint to the proposed works.

date: 28/01/26
drwn/chkd: MJ /

client: **Oxfordshire Railfreight Limited**

project: **Proposed Oxfordshire Strategic Rail Freight Interchange**

title: **Pond Location Plan - SP52H**
scale: 1:10,000 @ A3

number: **FIGURE 5**
rev: -

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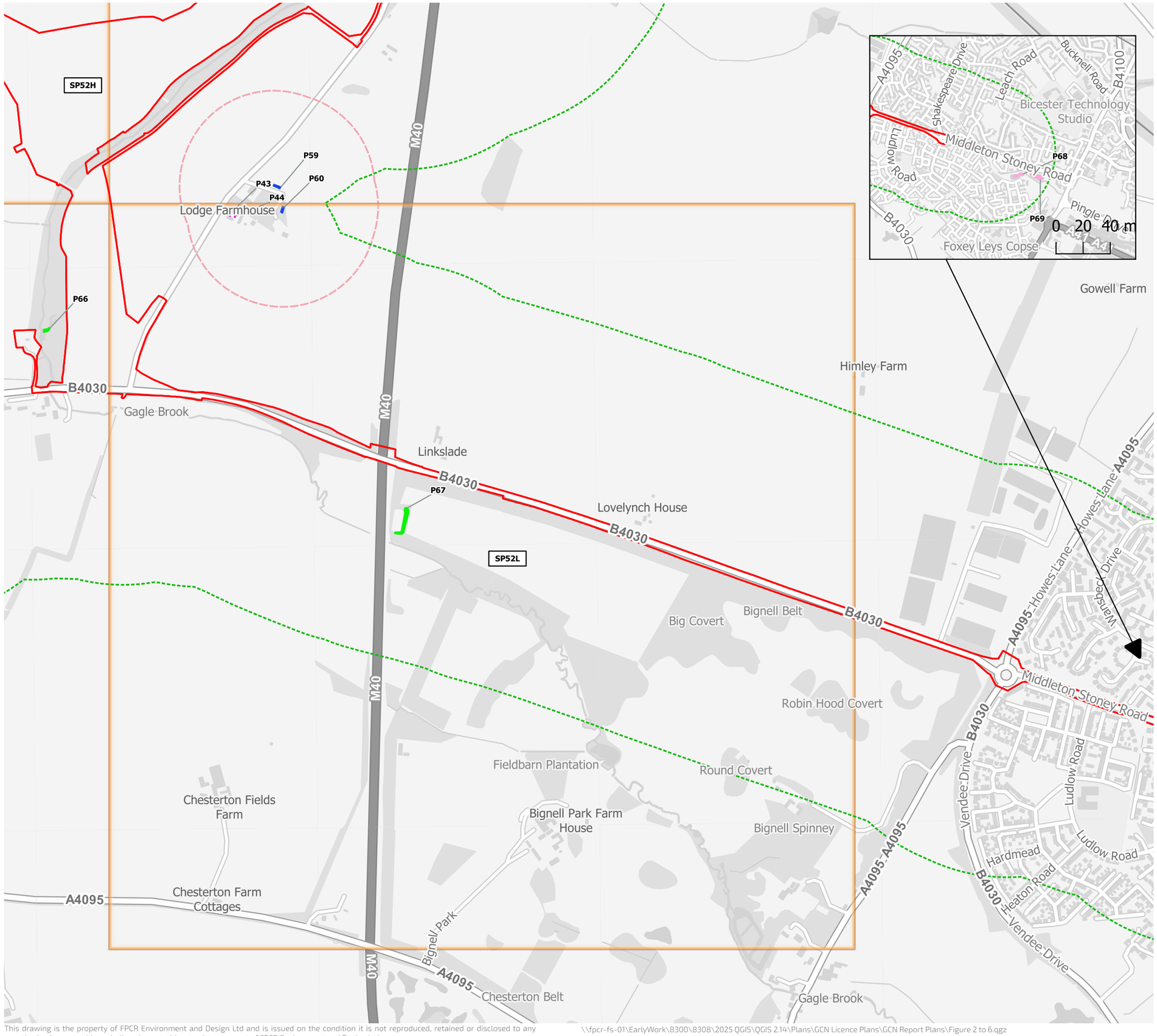

Key:

- Site Boundary
- 500m Site Buffer
- 250m buffer from ponds P59 and P60

waterbodies 2025 GCN surveys (updated 18.12.25)

- GCN Absent
- GCN Present
- No Access
- Not Surveyed
- Pond Recorded Dry

A small population of GCN (peak count 1) were recorded within ponds P59 and P60 during the 1st GCN survey on 25th March 2025. These ponds were subsequently recorded as being dry during the 5th and 6th survey visit.

As these ponds are located within close proximity of optimal GCN habitat and are located +250m from the proposed working area these ponds are not considered a constraint to the proposed works.

date: 28/01/26
drwn/chkd: MJ /

client: **Oxfordshire Railfreight Limited**

project: **Proposed Oxfordshire Strategic Rail Freight Interchange**

title: **Pond Location Plan - SP52L**
scale: 1:10,000 @ A3

number: **FIGURE 6**
rev: -

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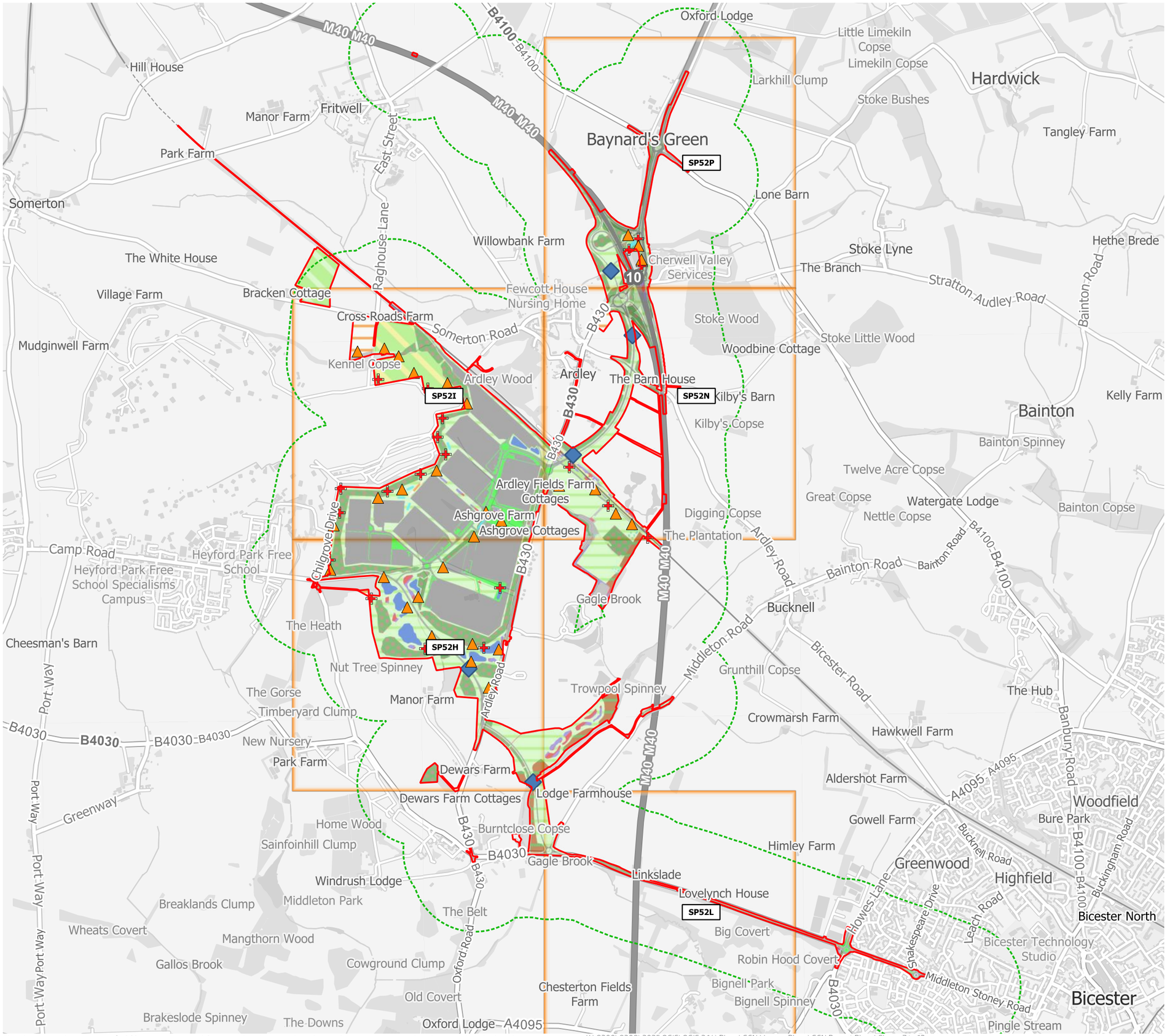

N

0 0.75 1.5 km

Key:

- Site Boundary
- 500m Site Buffer
- Log Piles
- Standard Hibernacula
- Tetrad Area
- Proposed Box Culvert Location

Habitats and Enhancement Areas

- Artificial unvegetated, unsealed surface
- Blackthorn scrub
- Bramble scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Hawthorn scrub
- Introduced shrub
- Lowland calcareous grassland
- Lowland meadows
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Ornamental lake or pond
- Other coniferous woodland
- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ponds (non-priority habitat)
- Ponds (priority habitat)
- Ruderal/Ephemeral
- Sustainable drainage system
- Traditional orchards
- Tall forbs
- Bare ground

date: 09/02/26 drwn/chkd: MJ /

client: **Oxfordshire Railfreight Ltd.**

project: **Oxfordshire Strategic Railfreight Interchange, Oxfordshire**

title: **Habitat Creation Plan**

scale: 1:30,000 @ A3

number: **FIGURE 7**

rev: -

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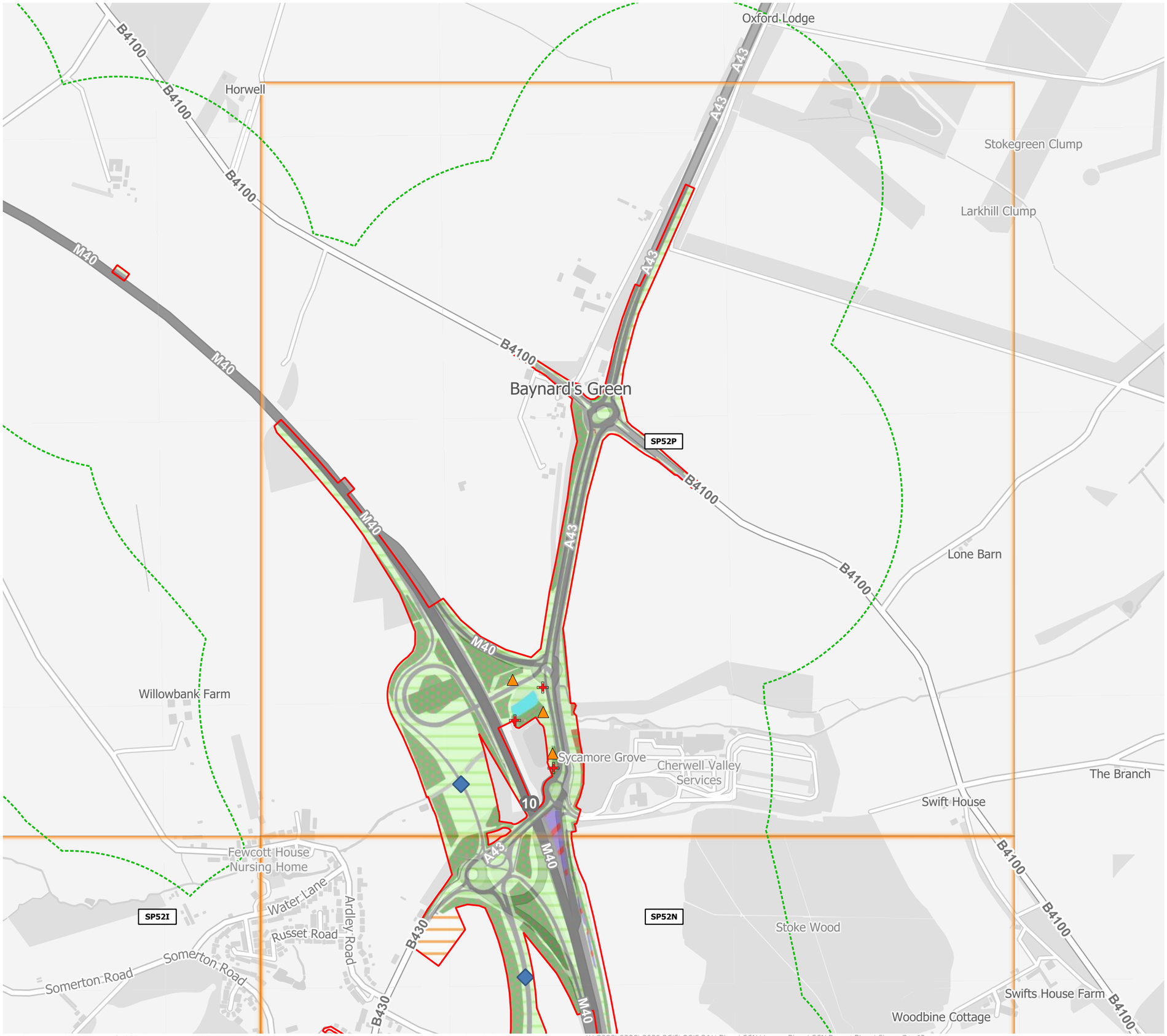

N

0 250 500 m

Key:

- Site Boundary
- 500m Site Buffer
- Log Piles
- Standard Hibernacula
- Tetrad Area
- Proposed Box Culvert Locations

Habitats and Enhancement Areas

- Blackthorn scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Other neutral grassland
- Other woodland; broadleaved
- Ponds (non-priority habitat)
- Ruderal/Ephemeral
- Tall forbs

date: 09/02/26

drwn/chkd: MJ /

client: **Oxfordshire Railfreight Ltd.**

project: **Oxfordshire Strategic Railfreight Interchange, Oxfordshire**

title: **Habitat Creation Plan SP52P**

scale: 1:10,000 @ A3

number: **FIGURE 8**

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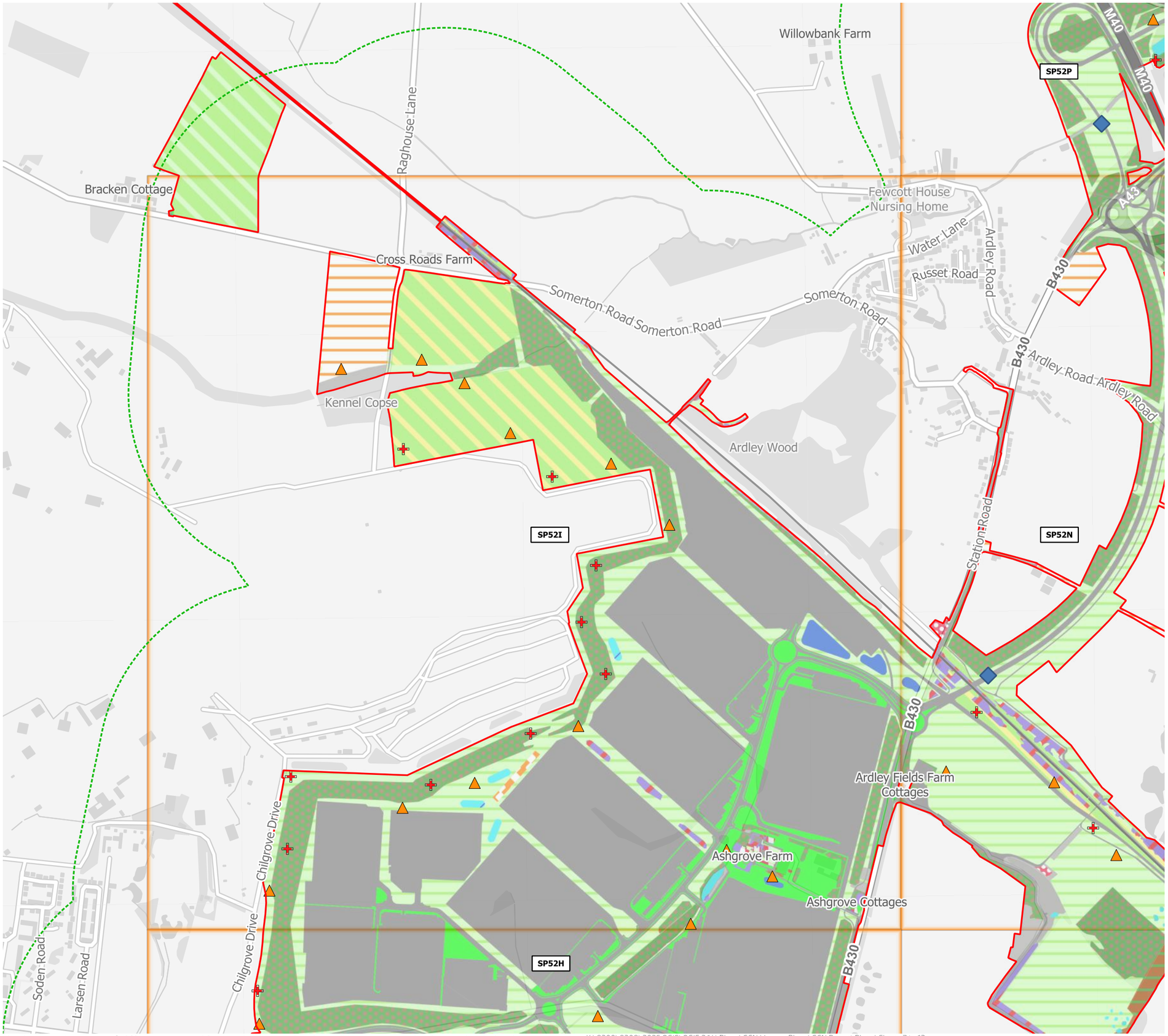

N

0 250 500 m

Key:

- Site Boundary
- 500m Site Buffer
- Log Piles
- Standard Hibernacula
- Tetrad Area
- Proposed Box Culvert Locations

Habitats and Enhancement Areas

- Artificial unvegetated, unsealed surface
- Blackthorn scrub
- Bramble scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Hawthorn scrub
- Introduced shrub
- Lowland calcareous grassland
- Lowland meadows
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Ornamental lake or pond
- Other coniferous woodland
- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ponds (non-priority habitat)
- Ponds (priority habitat)
- Ruderal/Ephemeral
- Sustainable drainage system
- Traditional orchards
- Tall forbs
- Bare ground

date: 09/02/26

drwn/chkd: MJ /

client:
Oxfordshire Railfreight Ltd.

project:
Oxfordshire Strategic Railfreight Interchange, Oxfordshire

title:
Habitat Creation Plan SP52I

scale: 1:10,000 @ A3

number:
FIGURE 9

rev: -

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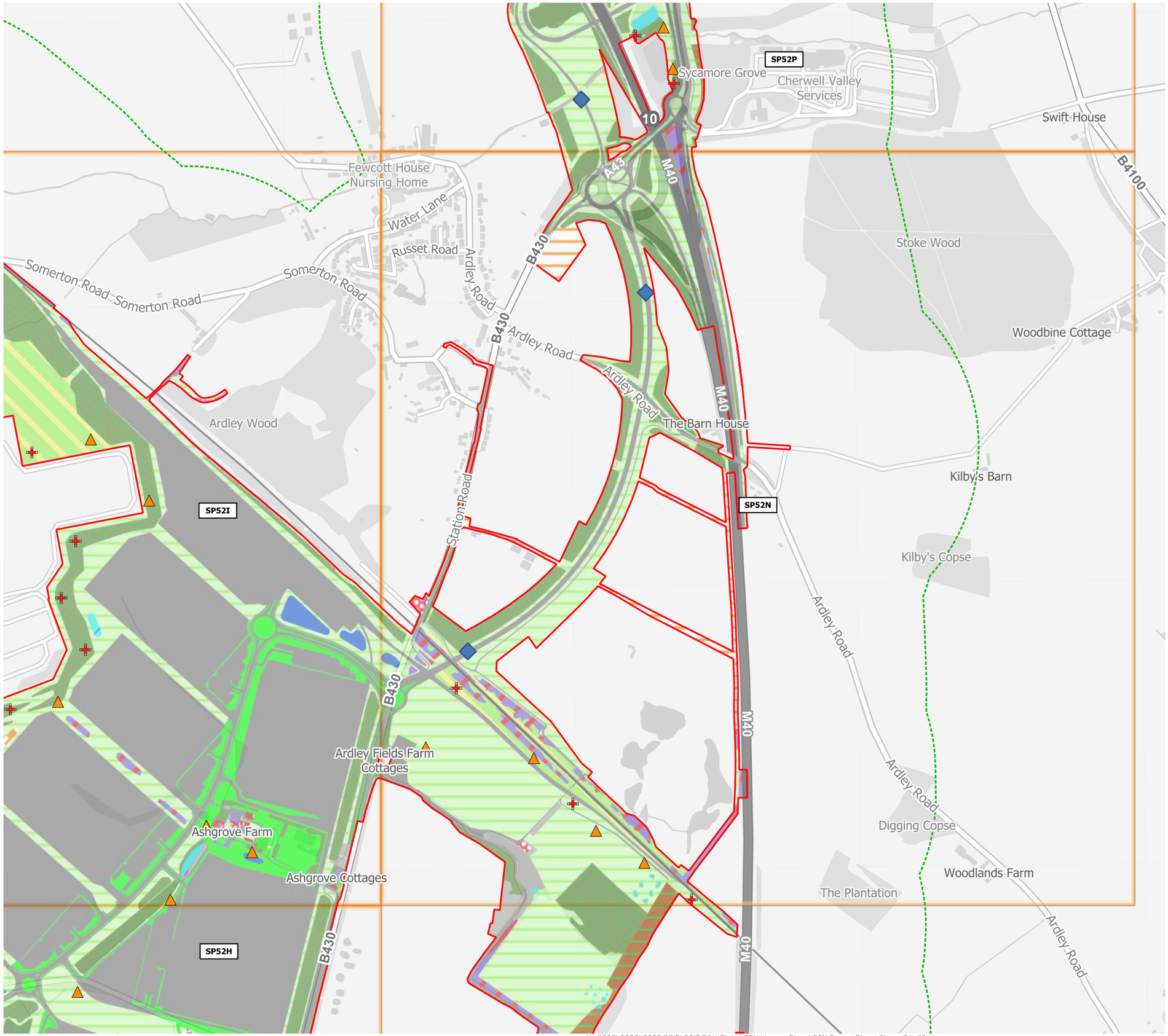

N

0 250 500 m

Key:

- Site Boundary
- 500m Site Buffer
- Log Piles
- Standard Hibernacula
- Tetrad Area
- Proposed Box Culvert Locations

Habitats and Enhancement Areas

- Artificial unvegetated, unsealed surface
- Blackthorn scrub
- Bramble scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Introduced shrub
- Lowland calcareous grassland
- Lowland meadows
- Lowland mixed deciduous woodland
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- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ponds (non-priority habitat)
- Ponds (priority habitat)
- Ruderal/Ephemeral
- Sustainable drainage system
- Traditional orchards
- Tall forbs

date: 09/02/26

drwn/chkd: MJ /

client: **Oxfordshire Railfreight Ltd.**

project: **Oxfordshire Strategic Railfreight Interchange, Oxfordshire**

title: **Habitat Creation Plan SP52N**

scale: 1:10,000 @ A3

number: **FIGURE 10**

rev: **-**

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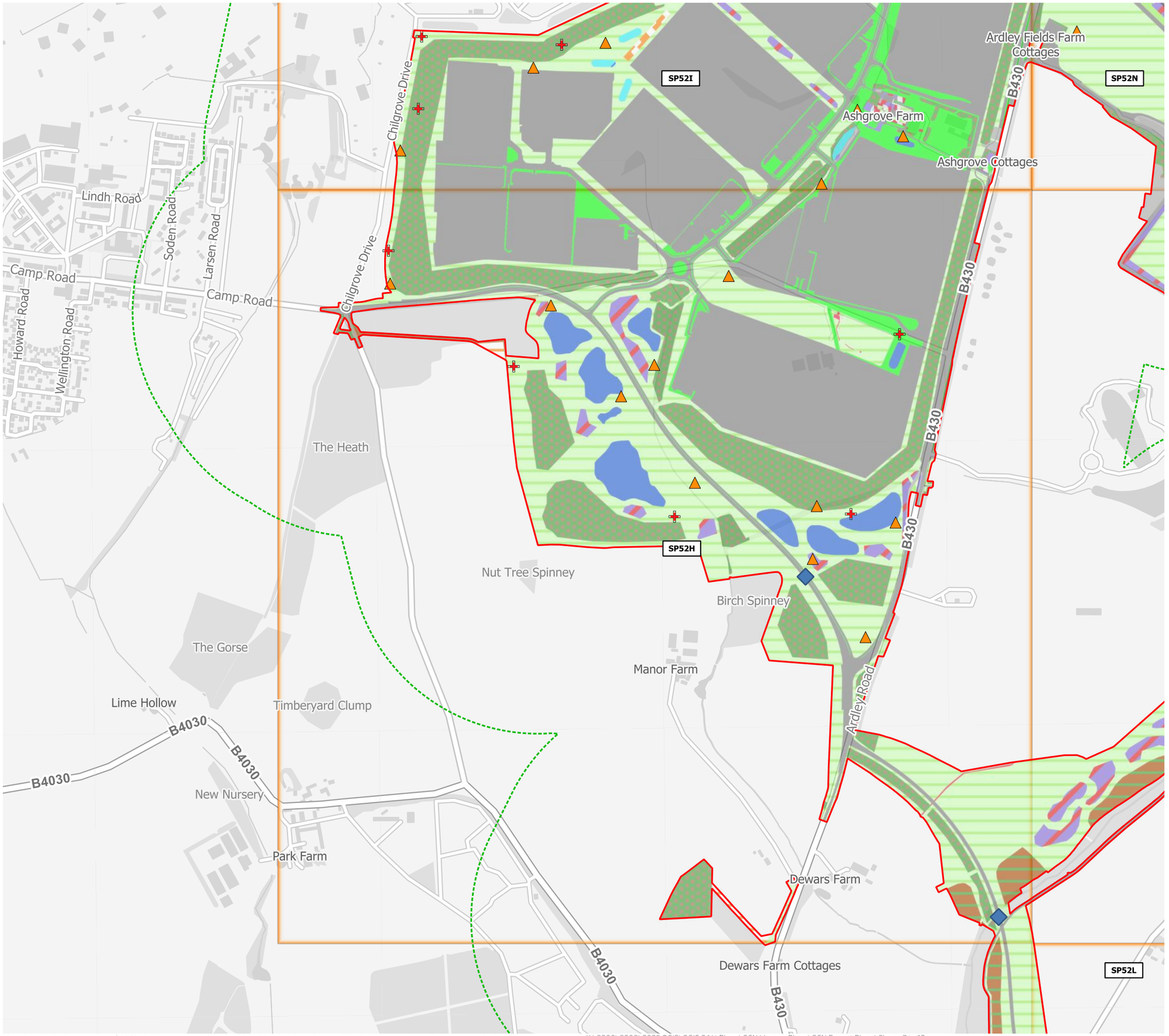

Key:

- Site Boundary
- 500m Site Buffer
- Log Piles
- Standard Hibernacula
- Tetrad Area
- Proposed Box Culvert Locations

Habitats and Enhancement Areas

- Bramble scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Introduced shrub
- Lowland calcareous grassland
- Lowland meadows
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Ornamental lake or pond
- Other coniferous woodland
- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ponds (non-priority habitat)
- Ponds (priority habitat)
- Ruderal/Ephemeral
- Sustainable drainage system
- Traditional orchards
- Tall forbs
- Bare ground

date: 09/02/26

drwn/chkd: MJ /

client: **Oxfordshire Railfreight Ltd.**

project: **Oxfordshire Strategic Railfreight Interchange, Oxfordshire**

title: **Habitat Creation Plan SP52H**

scale: 1:10,000 @ A3

number: **FIGURE 11**

rev: -

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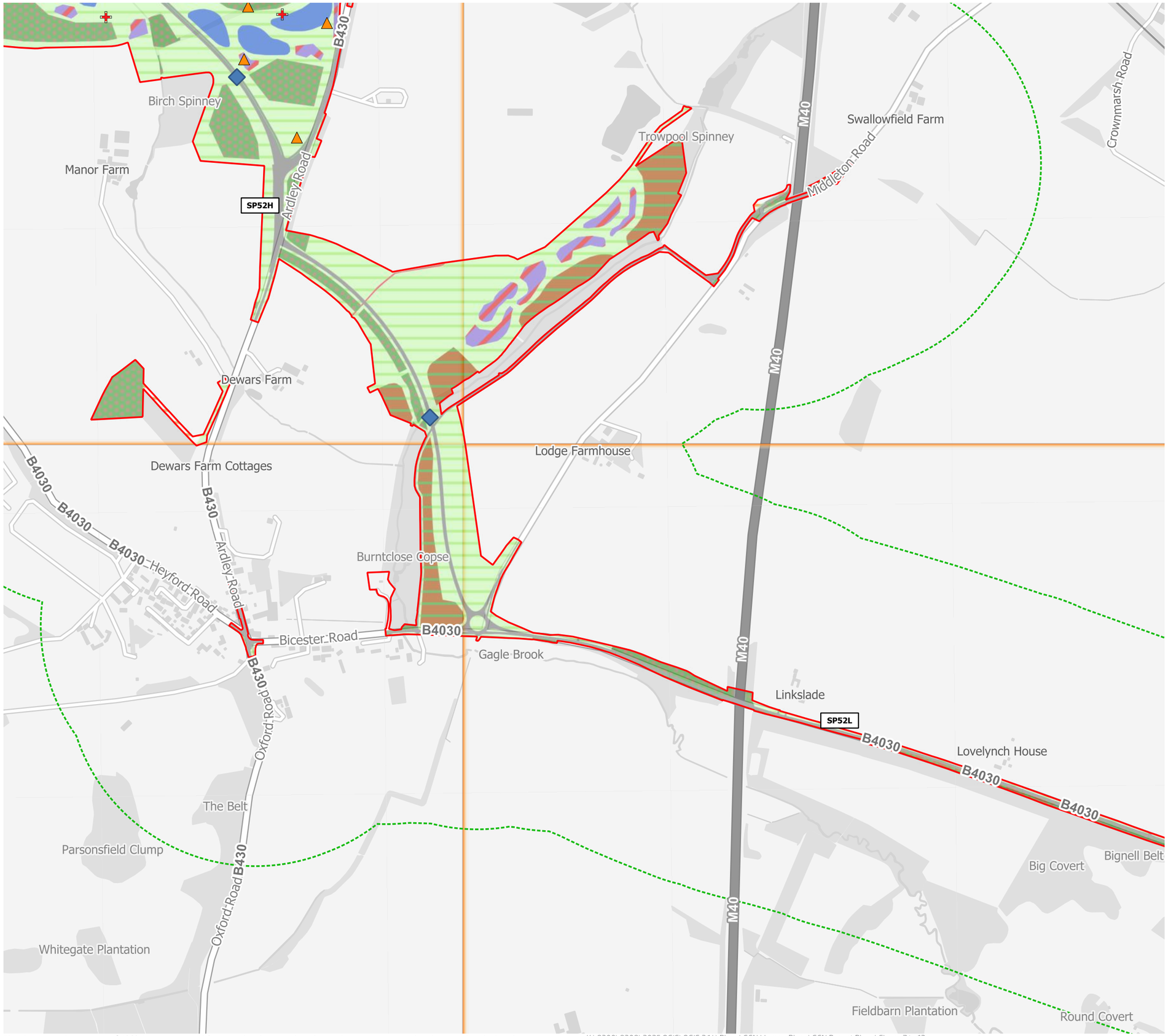

N

0 250 500 m

Key:

- Site Boundary
- 500m Site Buffer
- Log Piles
- Standard Hibernacula
- Tetrad Area
- Proposed Box Culvert Locations

Habitats and Enhancement Areas

- Built linear features
- Cereal crops
- Developed land; sealed surface
- Lowland meadows
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ruderal/Ephemeral
- Sustainable drainage system
- Bare ground

date: 09/02/26 | drwn/chkd: MJ /

client: **Oxfordshire Railfreight Ltd.**

project: **Oxfordshire Strategic Railfreight Interchange, Oxfordshire**

title: **Habitat Creation Plan SP52L** | scale: 1:10,000 @ A3

number: **FIGURE 12** | rev: -

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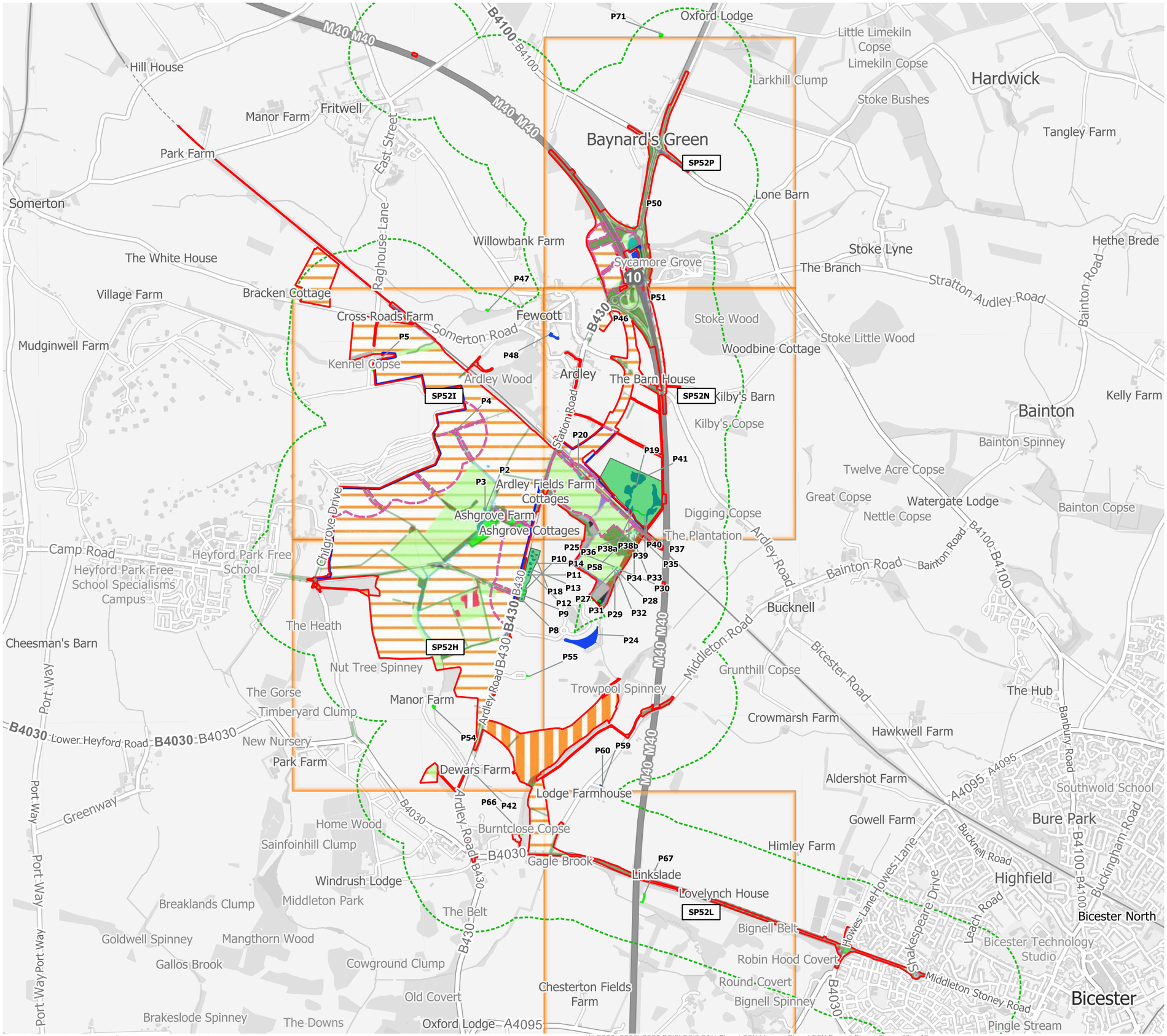

Key:

- Site Boundary
- 500m Site Buffer
- Receptor Site

Pond Location and Survey Status (with reference)

- GCN Absent
- GCN Present

GCN Fencing

- Exclusion Fence
  To remain in-situ until completion of thedevelopment. To be removed outside of the dormant phase
- Ring Fence
  To remain in-situ until completion of highway works. To be removed outside of the dormant phase
- TAF - Drift Fencing
  To be removed upon completion of the trapping exercise outside of dormant phase

Linear Habitats Baseline

- Broadleaved trees
- Standing water
- Running water
- Hedges: Introduced shrub
- Intact hedge - species-poor
- Intact hedge - native species-rich
- Hedge with trees - species-poor
- Hedge with trees - native species-rich
- Dry ditch
- Defunct hedge - species-poor
- Scrub - scattered line

Habitats Baseline

- Artificial unvegetated, unsealed surface
- Blackthorn scrub
- Bramble scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Hawthorn scrub
- Introduced shrub
- Lowland calcareous grassland
- Lowland meadows
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Ornamental lake or pond
- Other coniferous woodland
- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ponds (non-priority habitat)
- Ponds (priority habitat)
- Ruderal/Ephemeral
- Sustainable drainage system
- Temporary grass and clover leys
- Tall forbs
- Bare ground

date: 09/02/26
drwn/chkd: MJ /

client: **Oxfordshire Railfreight Ltd.**

project: **Oxfordshire Strategic Railfreight Interchange, Oxfordshire**

title: **Trapping and Translocation Plan _Overall Site**

scale: 1:30,000 @ A3

number: **FIGURE 13**

rev: -

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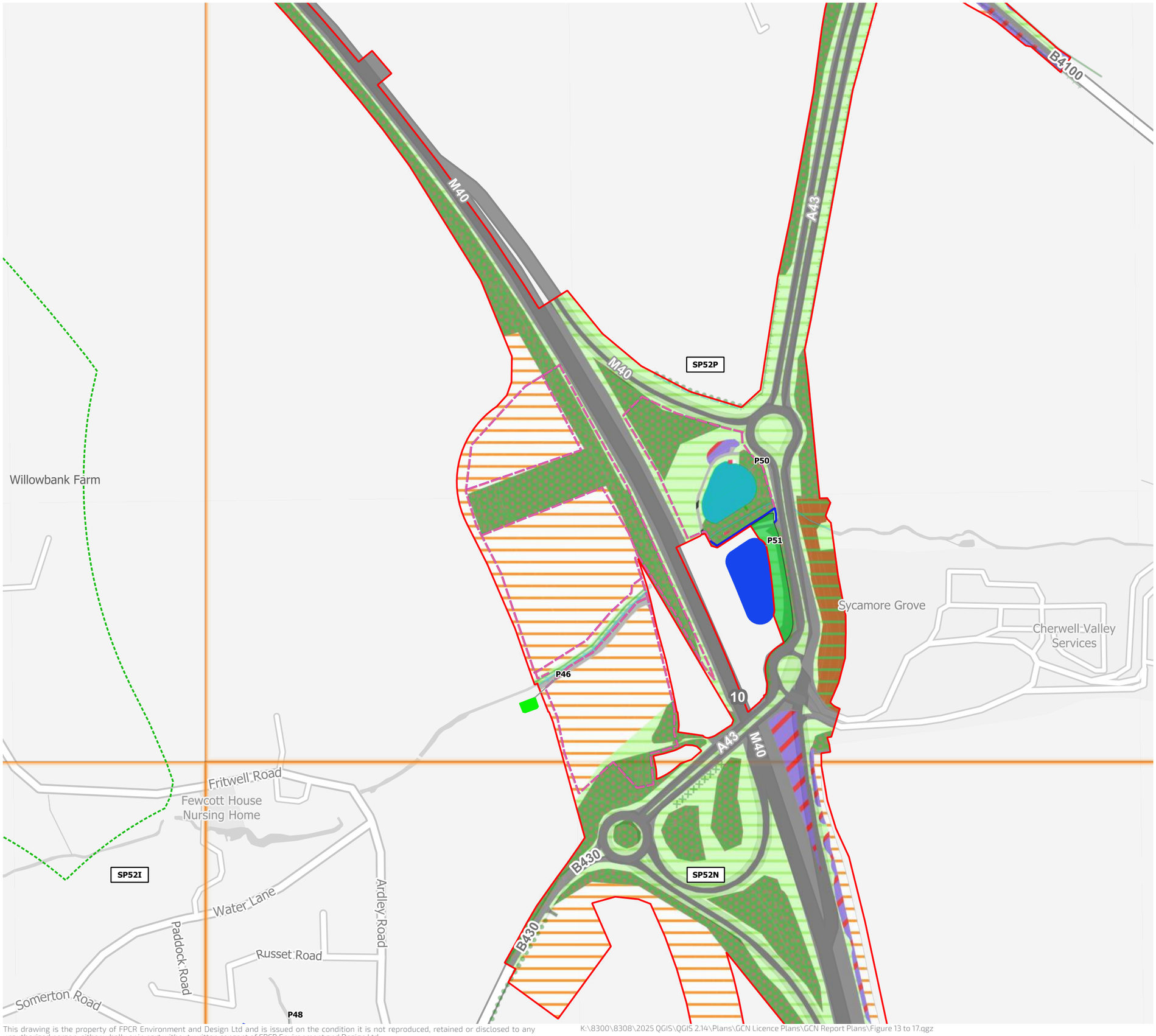

N

0 100 200 m

Key:

- Site Boundary
- 500m Site Buffer

Pond Location and Survey Status (with reference)

- GCN Absent
- GCN Present
- Receptor Site

GCN Fencing

- Exclusion Fence
  To remain in-situ until completion of thedevelopment. To be removed outside of the dormant phase
- Ring Fence
  To remain in-situ until completion of highway works. To be removed outside of the dormant phase
- TAF - Drift Fencing
  To be removed upon completion of the trapping exercise

Linear Habitats Baseline

- Broadleaved trees
- Standing water
- Running water
- Intact hedge - species-poor
- Intact hedge - native species-rich
- Dry ditch
- Scrub - scattered line

Habitats Baseline

- Blackthorn scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Lowland mixed deciduous woodland
- Mixed scrub
- Other neutral grassland
- Other woodland; broadleaved
- Ponds (non-priority habitat)
- Ruderal/Ephemeral
- Tall forbs

date 09/02/26

drwn/chkd MJ /

client
Oxfordshire Railfreight Ltd.

project
Oxfordshire Strategic Railfreight Interchange, Oxfordshire

title
Trapping and Translocation Plan - SP52P

scale 1:5,000 @ A3

number
FIGURE 14

rev
-

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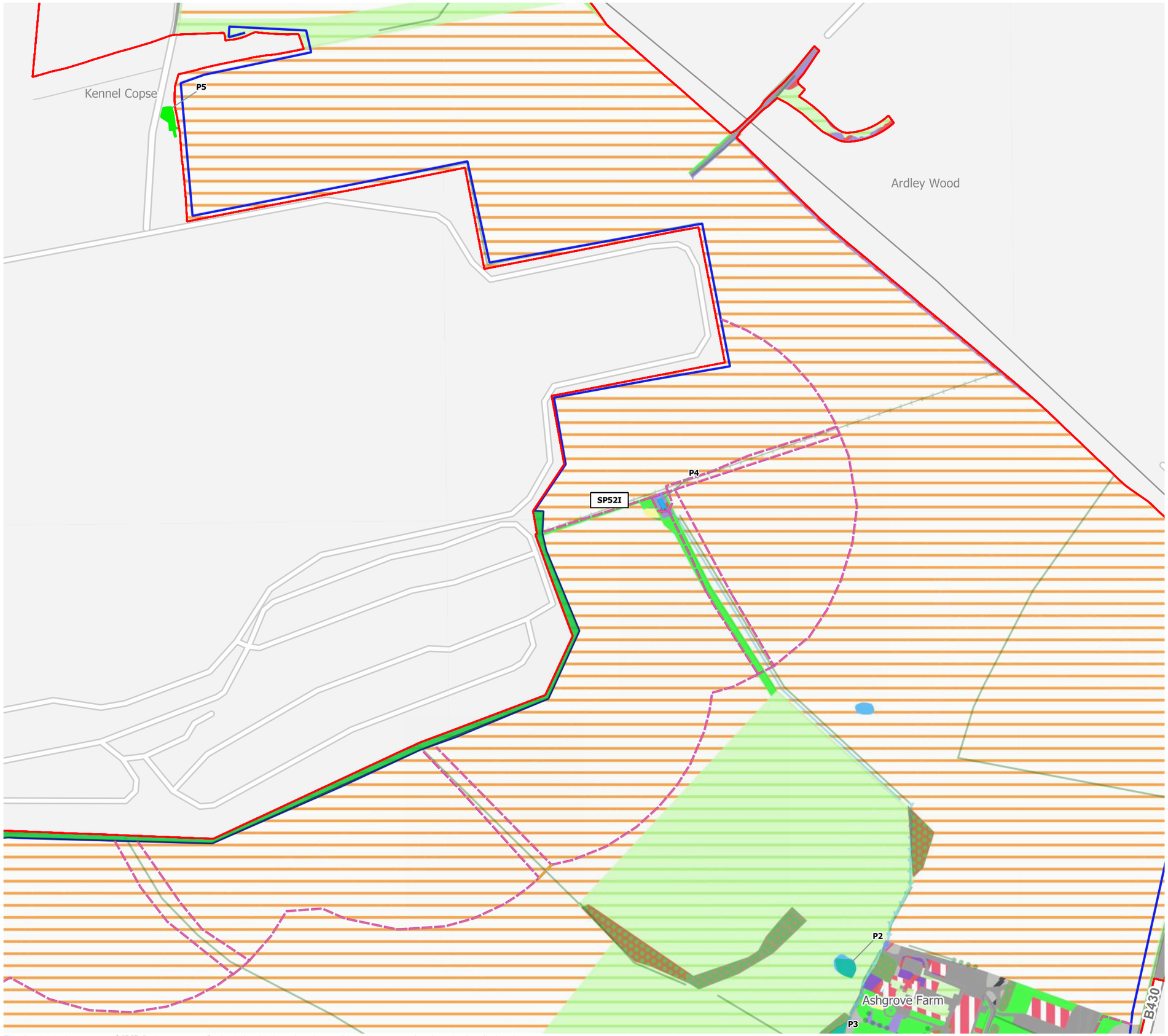

N

0 100 200 m

Key:

Site Boundary

500m Site Buffer

Pond Location and Survey Status (with reference)

GCN Absent

GCN Present

GCN Fencing

Exclusion Fence
To remain in-situ until completion of thedevelopment. To be removed outside of the dormant phase

Ring Fence
To remain in-situ until completion of highway works. To be removed outside of the dormant phase

TAF - Drift Fencing
To be removed upon completion of the trapping exercise outside of dormant phase

Receptor Site

Phase 1 Linear Habitats

- Broadleaved trees
- Standing water
- Running water
- Intact hedge - species-poor
- Hedge with trees - native species-rich

Phase 1 Habitats

- Bramble scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Introduced shrub
- Lowland meadows
- Mixed scrub
- Modified grassland
- Ornamental lake or pond
- Other coniferous woodland
- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ponds (non-priority habitat)
- Ponds (priority habitat)
- Ruderal/Ephemeral
- Tall forbs

date: 28/01/26

drwn/chkd: MJ /

client: **Oxfordshire Railfreight Limited**

project: **Proposed Oxfordshire Strategic Rail Freight Interchange**

title: **Trapping and Translocation Plan - SP52I**

scale: 1:5,000 @ A3

number: **FIGURE 15**

rev: -

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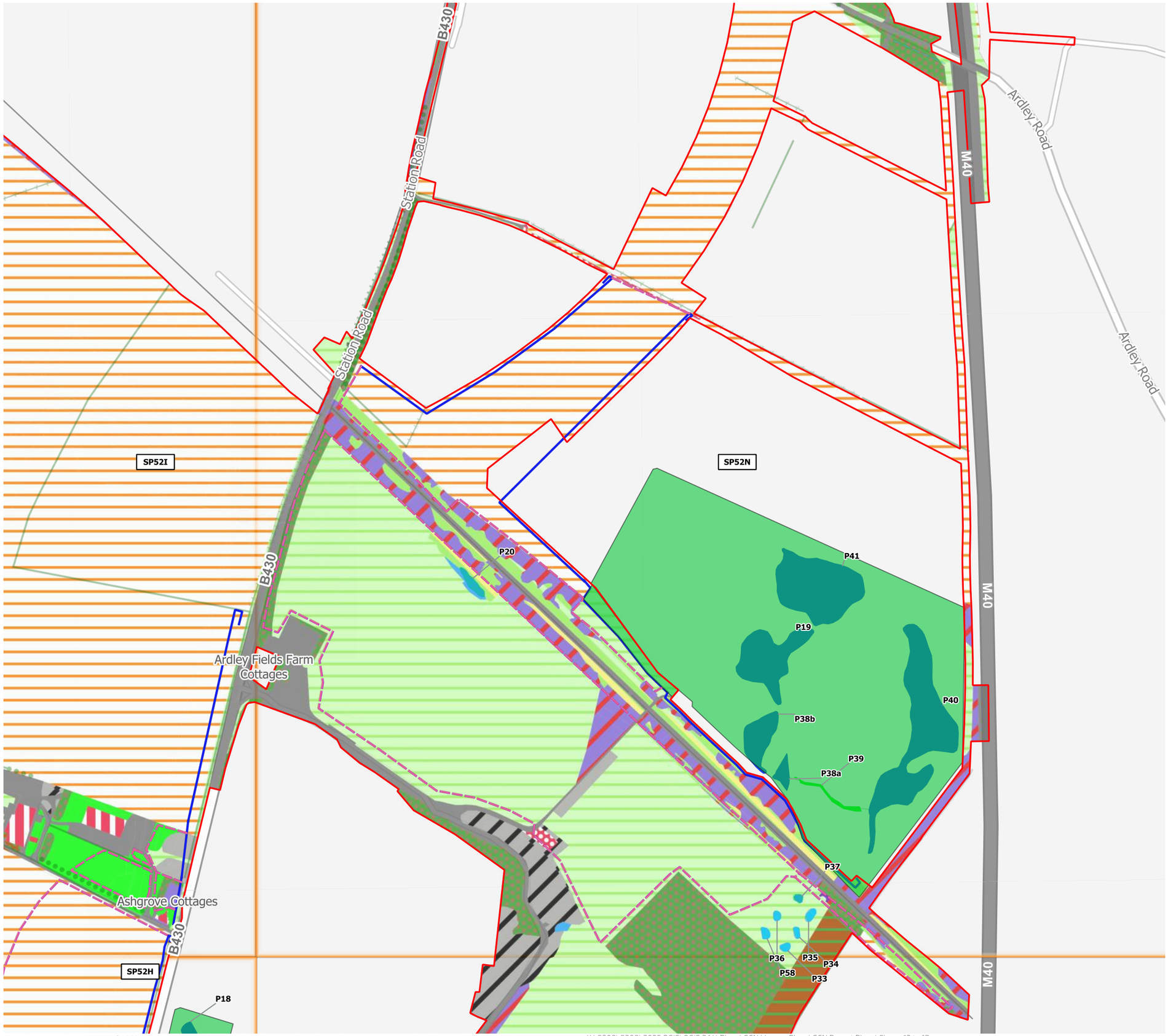

N

0 100 200 m

Key:

- Site Boundary
- 500m Site Buffer
- Receptor Site

Pond Location and Survey Status (with reference)

- GCN Absent
- GCN Present

GCN Fencing

- Exclusion Fence
  To remain in-situ until completion of thedevelopment. To be removed outside of the dormant phase
- TAF - Drift Fencing
  To be removed upon completion of the trapping exercise outside of dormant phase

Linear Habitats Baseline

- Broadleaved trees
- Intact hedge - species-poor
- Intact hedge - native species-rich
- Hedge with trees - species-poor
- Hedge with trees - native species-rich
- Dry ditch

Habitats Baseline

- Artificial unvegetated, unsealed surface
- Blackthorn scrub
- Bramble scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Introduced shrub
- Lowland calcareous grassland
- Lowland meadows
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ponds (non-priority habitat)
- Ponds (priority habitat)
- Ruderal/Ephemeral
- Tall forbs

date: 09/02/26

drwn/chkd: MJ /

client: **Oxfordshire Railfreight Ltd.**

project: **Oxfordshire Strategic Railfreight Interchange, Oxfordshire**

title: **Trapping and Translocation Plan - SP52N**

scale: 1:5,000 @ A3

number: **FIGURE 16**

rev: **-**

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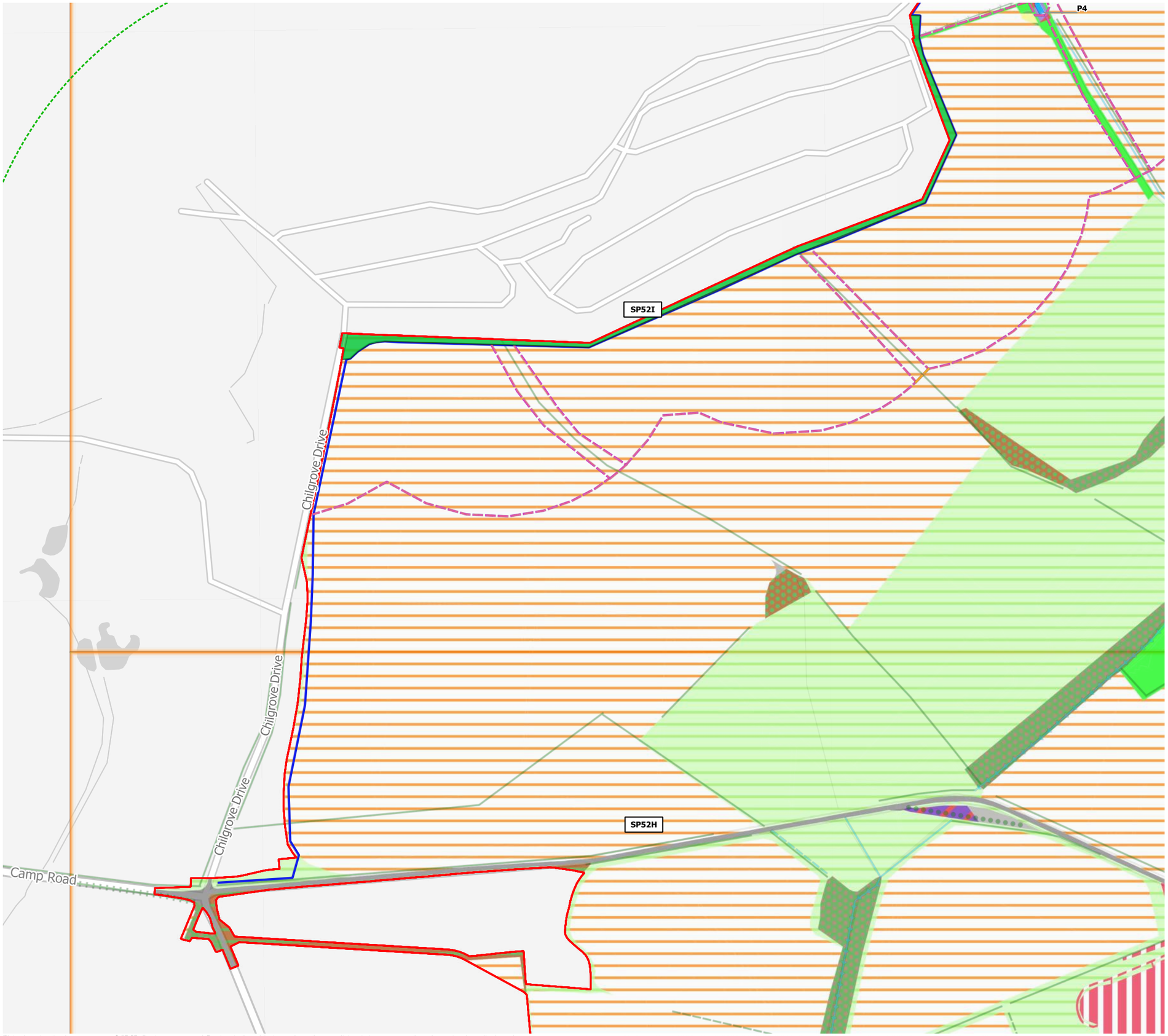

N

0 100 200 m

Key:

Site Boundary

500m Site Buffer

Pond Location and Survey Status (with reference)

GCN Absent

GCN Present

GCN Fencing

Exclusion Fence
To remain in-situ until completion of thedevelopment. To be removed outside of the dormant phase

Ring Fence
To remain in-situ until completion of highway works. To be removed outside of the dormant phase

TAF - Drift Fencing
To be removed upon completion of the trapping exercise outside of dormant phase

Receptor Site

Phase 1 Linear Habitats

- Broadleaved trees
- Standing water
- Running water
- Intact hedge - species-poor
- Hedge with trees - species-poor
- Hedge with trees - native species-rich
- Dry ditch
- Defunct hedge - species-poor

Phase 1 Habitats

- Bramble scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Other coniferous woodland
- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ponds (priority habitat)
- Tall forbs

date 28/01/26

drwn/chkd MJ /

client
Oxfordshire Railfreight Limited

project
Proposed Oxfordshire Strategic Rail Freight Interchange

title
Trapping and Translocation Plan - SP52H

scale 1:5,000 @ A3

number
FIGURE 17

rev
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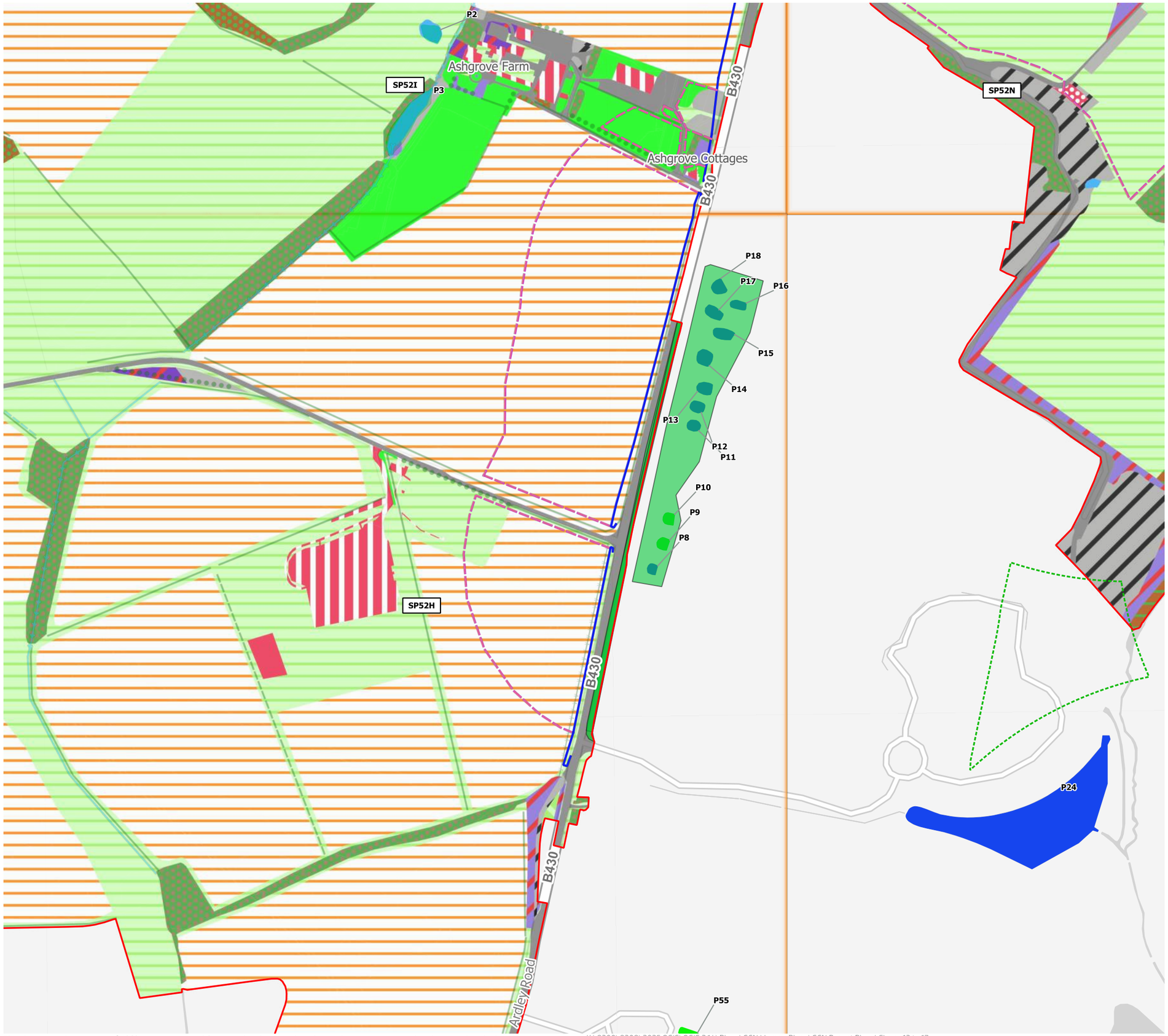

N

0 100 200 m

Key:

- Site Boundary
- 500m Site Buffer
- Receptor Site

Pond Location and Survey Status (with reference)

- GCN Absent
- GCN Present

GCN Fencing

- Exclusion Fence
  To remain in-situ until completion of thedevelopment. To be removed outside of the dormant phase
- Ring Fence
  To remain in-situ until completion of highway works. To be removed outside of the dormant phase
- TAF - Drift Fencing
  To be removed upon completion of the trapping exercise outside of dormant phase

Linear Habitats Baseline

- Broadleaved trees
- Standing water
- Running water
- Intact hedge - species-poor
- Intact hedge - native species-rich
- Dry ditch
- Defunct hedge - species-poor

Habitats Baseline

- Artificial unvegetated, unsealed surface
- Bramble scrub
- Built linear features
- Cereal crops
- Developed land; sealed surface
- Introduced shrub
- Lowland meadows
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Ornamental lake or pond
- Other coniferous woodland
- Other neutral grassland
- Other woodland; broadleaved
- Other woodland; mixed
- Ponds (non-priority habitat)
- Ruderal/Ephemeral
- Tall forbs
- Bare ground

date: 09/02/26

drwn/chkd: MJ /

client: **Oxfordshire Railfreight Ltd.**

project: **Oxfordshire Strategic Railfreight Interchange, Oxfordshire**

title: **Trapping and Translocation Plan - SP52H**

scale: 1:5,000 @ A3

number: **FIGURE 18**

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