



UNIVERSAL DESTINATIONS & EXPERIENCES UK PROJECT

Former Kempston Hardwick Brickworks
and adjoining land, Bedford

Environmental Statement Volume 3

Appendix 6.11 - Otter and Water Vole Survey Report

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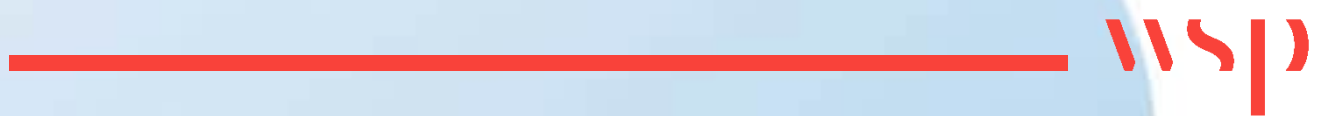
1 INTRODUCTION

1.1 Background

- 1.1.1. The following water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) survey report has been prepared on behalf of WSP UK Ltd (WSP). by Ecus Ltd in support of the planning proposal for the Proposed Development as described in **Chapter 2: Description of the Proposed Development (Volume 1)** of the Environmental Statement.
- 1.1.2. The report has been prepared to support the Ecological Impact Assessment; **Chapter 6: Ecology and Nature Conservation (Volume 1)** of the Environmental Statement. The report presents baseline survey information only; the assessment of effects upon water vole and otter is outlined in **Chapter 6: Ecology and Nature Conservation (Volume 1)**.
- 1.1.3. Surveys were conducted in accordance with the required technical standards and methodologies as detailed in Section 3 of **Annex A**. The report has been subject to technical assurance by Ecus Ltd and has been reviewed by WSP.
- 1.1.4. WSP has provided this report solely for the use of the recipient and accepts no liability to any third parties or any other party using or reviewing the report or any part thereof. WSP makes no warranties or guarantees, actual or implied, in relation to this report, or the ultimate commercial, technical, economic, or financial effect on the project to which it relates, and bears no responsibility or liability related to its use other than as set out within the scope of the contract under which it was supplied.

Annex 1

ECUS REPORT



Universal Destinations & Experiences UK Project

Otter & Water Vole Survey Report

WSP Ltd.

June 2025

Ecus Ltd

Report to: WSP Ltd.

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Otter and Water Vole Survey Report

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Ecus accepts no responsibility for the accuracy of third party data used in this report.

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1. Introduction

- 1.1.1 Ecus Ltd (Ecus) was commissioned by WSP Ltd. to undertake water vole *Arvicola amphibius* and otter *Lutra lutra* surveys in support of a planning proposal for the Proposed Development as described in **Chapter 2: Description of the Proposed Development (Volume 1)** of the Environmental Statement. The land located south of Bedford, Bedfordshire, centred on National Grid Reference (NGR): TL 02902 44729, hereafter referred to as “the Site”. The “Survey Areas” included all lakes, ponds, ditches and other watercourses within the Site and a 250 m buffer of the Site, as depicted on **Figure 1: Survey Areas**.
- 1.1.2 The purpose of the surveys was to establish the current status of water vole and otter within the Site and identify if these species pose a potential constraint to the Proposed Development. Habitat suitable to support these species was identified by the completion of the Preliminary Ecological Appraisal as outlined in **Appendix 6.1: Preliminary Ecological Appraisal (Volume 3)**.
- 1.1.3 This report will provide a summary of the methods used and results of the survey. Detailed findings are presented in **Annex 1** and associated maps in **Figures 2a-f: Otter and Water Vole Survey Results Map**.

2. Legislation

2.1 Water vole

- 2.1.1 Water vole are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) (“the WCA 1981”).
- 2.1.2 It is an offence to intentionally kill, take or injure a water vole or intentionally or recklessly damage or destroy a water vole’s place of shelter or protection.
- 2.1.3 Water vole are additionally listed as a Species of Principal Importance under the Natural Environment and Rural Communities Act 2006 (“the NERC Act”).

2.2 Otter

- 2.2.1 Otter are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) (“the WCA 1981”) and the Conservation of Habitats and Species Regulations 2017 (as amended) (“the Habitats Regulations”), which makes them a European Protected Species (EPS).
- 2.2.2 It is an offence to destroy, damage or obstruct access to any structure an otter uses for shelter or protection. It is also an offence to kill, injure, or offer for sale an otter or any part thereof.
- 2.2.3 Otter are additionally listed as a Species of Principal Importance under the Natural Environment and Rural Communities Act 2006 (“the NERC Act”).

3. Methodology

3.1 Water Vole & Otter Survey

3.1.1 In order to capture field evidence and data from across the season during 2024, the water vole and otter surveys were undertaken on the following dates:

Survey 1

- 11 June 2024 – 14 June 2024
- &
- 24 June 2024 – 28 June 2024

Survey 2

- 12 August 2024 – 16 August 2024
- &
- 23 September – 25 September 2024

3.1.2 The surveys were undertaken by the following Ecus ecologists:

Survey Leads

- Senior Ecologist Alex Hellyar BSc (Hons)
- Consultant Ecologist Alex Matthams BSc (Hons)

Assistants

- Consultant Ecologist Isabel Soane MSc
- Assistant Ecologist Nicole Bell MSc
- Seasonal Ecologist Jess Sams

Water vole

3.1.3 The watercourse/body and banks were examined for evidence of water vole in accordance with current best practice guidance (Dean *et al*, 2016 & Strachan *et al*, 2011). Evidence searched for included burrows, footprints, runs in vegetation, grazed 'lawns', feeding remains and actual sightings (Dean *et. al.*, 2016).

Otter

3.1.4 The watercourse and banks were examined for evidence of otter in accordance with current best

practice guidance (Chanin, 2003). Evidence searched for included holts / places of rest, footprints, spraint, feeding remains, otter slides and actual sightings.

3.1.5 The Survey Areas were subject to the following survey methods:

- an assessment of all waterbodies and watercourses within the Survey Areas to determine the suitability for water vole and otter;
- a walked check within and adjacent to all waterbodies / watercourses using waders and a search pole to inspect vegetation and potential features for recognised signs of either water vole or otter;
- a visual inspection using binoculars from suitable vantage points, where access was restricted or unsafe; and
- installation and inspection of artificial latrines sites known as “rafts”. Carrots were also attached to the rafts using large, blunted nails to attract water vole (if present).

3.1.6 A summary of the survey results are provided in **Section 4**.

3.1.7 The Survey Areas and recorded evidence are depicted on **Figures 2a-f: Otter and Water Vole Survey Results Map**. Detailed results are provided in **Annex 1**.

3.2 Limitations

3.2.1 Although every effort was made to fully inspect the banks of all watercourses and waterbodies within the Survey Areas, some lengths of ditch and shoreline of the lakes were impossible to access or difficult to inspect thoroughly. The primary survey constraints were associated with dense and impassible vegetation, deep water or unsafe terrain (such as steep banks or unstable footing – primarily associated with the hardcore material and loose gravel that formed the substrate in some areas). In such locations, vantage point surveys were undertaken using binoculars and ‘rafts’ were installed to aid the identification of field signs. Furthermore, access was achieved to reasonable degree, even in challenging areas by forcing through vegetation in feasible locations, where consideration of surveyor health and safety permitted. Areas where access was restricted are shown on **Figure 3a and 3b: Restricted Access Areas Map**.

3.2.2 These limitations of the survey are not considered to be significant as, overall, the majority of optimal habitat was inspected thoroughly, with only sub-optimal or negligible suitability areas being more restrictive. Nevertheless, a precautionary approach will be adopted whereby an Ecological

Clerk of Works (ECoW) will supervise vegetation clearance or ground works within areas that were not possible to thoroughly inspect. Sensitive vegetation clearance measures within these areas, and which also align to the mitigation commitments made for reptiles and breeding birds, are embedded within the ecological impact assessment (see **Chapter 6: Ecology and Nature Conservation (Volume 1)**).

3.3 Survey Validity

- 3.3.1 Ideally the first round of surveys in a season should capture the early spring season and the second during late summer/autumn. However, due to the time constraints of the project, this was not achievable. The two survey visits in June and August/September 2024 do provide a good spread of survey data across the season and are deemed to be acceptable for this project.
- 3.3.2 Ecological survey data is typically valid for 18 months to three years (CIEEM, 2019), unless otherwise specified, for example if conditions are likely to change more quickly due to ecological processes or anticipated changes in management.
- 3.3.3 The information contained within this report is valid for a period of a minimum of 18 months from the date of the latest survey. Where further time elapses prior to the commencement of construction works and/or there is a change in habitat suitability (whichever is sooner), pre-construction surveys on suitable watercourse/waterbodies should be undertaken to re-affirm the status of water vole or otter in the Site and inform mitigation approaches. Further details are outlined in **Chapter 6: Ecology and Nature Conservation (Volume 1)**.

4. Results

4.1 Habitat Suitability Assessment

- 4.1.1 A range of habitats for otter and water vole were present across this large site with old gravel extraction lakes. The watercourses and water bodies present were extensive and provided optimal through to poor quality habitat for both otter and water vole. The results of the habitat suitability assessment for each watercourse and waterbody can be found in the **Annex 1** and associated maps in **Figures 2a – f: Otter and Water Vole Survey Results Map**.

4.2 Key Survey Findings

- 4.2.1 The following section provides the results from key areas around the whole Site. Refer to **Annex 1** and associated maps in **Figures 2a – f: Otter and Water Vole Survey Results Map** for the location of each watercourse / waterbody reference and recorded field signs.

Lake Zone

- 4.2.2 No evidence of water vole was recorded in the Lake Zone.

Elstow Brook-4

- 4.2.3 Two examples of otter feeding remains were found within the ditch in the form of signal crayfish *Pacifastacus leniusculus* remains, both of which showed evidence that is typical of otter predation.
- 4.2.4 Several signal crayfish burrows were found along the length of the ditch, with the greatest number nearer the northernmost extent.
- 4.2.5 Incidental evidence of brown rat *Rattus norvegicus* footprints, muntjac *Muntiacus reevesi* droppings and mammal paths were observed along the length of the ditch.

Lake 1

- 4.2.6 An otter spraint was identified on an area of rubble / concrete adjacent to the lake. The spraint was old, contained fish scales and had characteristics more commonly associated with otter (slimy and dark greenish).
- 4.2.7 Two American mink *Neovison vison* spraints were identified:
- one spraint was deposited within very close proximity of the otter spraint (above). This spraint contained feathers as well as fish scales, was dark in colour and had a more potent odour; and

- another fresh spraint was found on a raised mound of earth surrounded by water that had burst from the adjacent lake during flooding. This spraint had characteristics like those described above, with the addition of fur and what appeared to be remains of reptile skin.

4.2.8 Other incidental evidence of rat droppings, muntjac deer droppings and prints, plus roe deer *Capreolus capreolus* droppings and prints were also identified around the perimeter of the lake.

Lake 2

4.2.9 Five water vole rafts with carrot lures were installed here. The findings were:

- 1x carrot entirely missing with claw marks present on the raft surface, likely caused by a brown rat;
- 1x raft showed signs of being gnawed, likely by a brown rat;
- 3x rafts showed minimal signs of use, with evidence of minor interest in the carrots used to attract water vole (or other wildlife); and
- no evidence of water vole.

Lake 3a

4.2.10 Five water vole rafts with carrot lures were installed. The findings were:

- 1x cluster of rat droppings;
- 4x rafts showed minimal signs of use, with evidence of minor interest in the carrots used to attract water vole (or other wildlife); and
- no evidence of water vole.

Lake 3b

4.2.11 Fourteen water vole rafts with carrot lures were installed. The findings were:

- 2x rafts had a cluster of rat droppings;
- 12x rafts showed minimal signs of use, with evidence of minor interest in the carrots used to attract water vole (or other wildlife); and
- no evidence of water vole.

Core Zone

4.2.12 No evidence of water vole or otter were recorded within the Core Zone Watercourse (CZW).

4.2.13 Mammal paths and deer droppings were found in several locations adjacent to / leading into the ditch. Other incidental records identified were:

CZW)-3

4.2.14 An adult grass snake *Natrix helvetica* was spotted adjacent to the ditch.

CZW-5

4.2.15 Two adult grass snakes spotted within and adjacent to the ditch.

4.2.16 Two juvenile great crested newt *Triturus cristatus* (GCN) found beneath reptile mats at NGR: TL 02724 43396 and TL 02563 43244.

D18

4.2.17 A live bank vole *Myodes glareolus* and droppings was found within the ditch.

West Gateway Zone

4.2.18 No evidence of water vole was recorded in the West Gateway Zone.

Elstow Brook-1

4.2.19 Two otter spraints were identified within the southernmost extent of Elstow Brook-1. These spraints could not be closely inspected as they were located along the eastern bank where access was not possible due to thick vegetation. They were however, easily visible from the western bank using binoculars and it was possible to see they had characteristics typical of otter, in both colour and texture.

4.2.20 One American mink spraint was identified along the western extent of Elstow Brook-1. This spraint contained fur and feathers, with other characteristics typical of American mink.

4.2.21 Several cracked bivalve shells (believed to be swan mussels *Anodonta cygnea*) were found along the length of Elstow Brook-1. These shells were often found in clusters, with damage typical of predation by otter and/or American mink. Some of the shells were found within proximity of the American mink spraints.

4.2.22 Two signal crayfish burrows were identified in close proximity to each other along the brook, located adjacent to the northernmost boundary of the Site.

Other Survey Areas (outside the Site)

4.2.23 No evidence of water vole was recorded within Other Survey Areas situated within a 250 m buffer of the Site boundary.

Elstowbrook-2 (outside of the Site)

4.2.24 An additional potential American mink spraint was identified within a section of Elstow Brook-2, located north of the Site boundary. This spraint was very old, partially destroyed/degraded, and indistinct, however, it still appeared to contain feathers which differentiated it from otter.

4.2.25 Additional clusters of cracked bivalve shells were found adjacent to Elstow Brook-2, north of the Site boundary.

Kempston Hardwick Pit

4.2.26 An otter spraint was identified adjacent to the shoreline within the northernmost extent of Kempston Hardwick Pit.

4.2.27 **Anecdotal evidence:** Per comms with fisherman on lake indicated that sightings of American mink had been made on at least two occasions. Although this is only anecdotal, the accounts of informed individuals who spend significant time around the lake are worth considering.

Coronation Pit / Lake 4

4.2.28 A live otter was observed hunting (through binoculars) within the northernmost extent of Coronation Pit / Lake 4. Although this is defined as 'Lake 4', it is likely that this waterbody connects to the Coronation Pit when water levels are higher.

Pond 9

4.2.29 A live bank vole was observed moving through the marginal vegetation of the pond.

4.3 Results Summary

4.3.1 No evidence of water vole was identified within or adjacent to the Lake Zone. However, there was evidence of otter and American mink.

4.3.2 No evidence of water vole or otter was identified within or adjacent to the Core Zone. However, evidence of other protected/notable species was recorded, including GCN and grass snake.

4.3.3 No evidence of water vole was identified within or adjacent to the West Gateway Zone. However, there was evidence of otter and American mink.

4.3.4 No evidence of water vole was identified across the other Survey Areas. However, evidence of otter was identified within Kempston Hardwick Pit and a live sighting was observed within Coronation Pit / Lake 4. Anecdotal evidence of American mink sightings was received from a local fisherman at Kempston Hardwick Pit.

5. Findings and Evaluation

5.1 Assessment

Water vole

- 5.1.1 No evidence of water vole was recorded within any of the Survey Areas.
- 5.1.2 It is deemed likely that water vole are absent from the Survey Areas and will not require further consideration. However, as discussed in the limitations (**Section 3.2**), due to the restricted access in some locations, if it is deemed necessary, a precautionary approach may be used during any vegetation clearance or ground works within areas that were not possible to thoroughly inspect. These areas are shown on **Figure 3a and 3b: Restricted Access Areas Map**.

Otter

- 5.1.3 Evidence of otter was recorded across the Site. It is considered that otter likely use the Site for foraging and commuting purposes as part of a larger territory within the local landscape. Whilst permanent resting features/living quarters, such as holts or couches were not identified, broad mitigation measures to address the potential of use of the Site by otter are outlined within **Chapter 6: Ecology and Nature Conservation (Volume 1)**.

American mink

- 5.1.4 It is likely that a population of American mink is present across the Site, which may be the reason why water vole are likely absent. Alternatively, water vole may not have been historically (recently) present and the connectivity to populations in the wider landscape are not suitable to allow the species to populate the area.

5.1.5 Other species

- 5.1.6 GCN and grass snake are confirmed to be present within the southernmost extent of the Lake Zone and Core Zone, however population estimates cannot be derived from the incidental findings. Further consideration for these species has been made, and are reported within **Appendix 6.7: Great Crested Newt Survey Report (Volume 3)** and **Appendix 6.12: Reptile Survey Report (Volume 3)**.

6. References

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

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Mike Dean, Rob Strachan, Derek Gow & Richard Andrews (2016) The Water Vole Mitigation Handbook (The Mammal Society Guidance Series). Eds. Fiona Mathews and Paul Chanin. The Mammal Society, London.

Rob Strachan, *et al.* (2011) Water Vole Conservation Handbook 3rd Ed. WildCru, Oxford.

Annex 1. Survey Results Table

Lake Zone	Core Zone	West Gateway Zone
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Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
D1	Ditch	Earth / Reinforced (man-made)	Urban/industrial	Grass/herbs	Shallow	N/A (dry)	N/A (dry)	N/A (dry)	None.	None.	Negligible
D2-1	Ditch	Earth	Urban/industrial/grassland	Herbs/reeds/sedges/bushes	Steep	0.5-1m	1-2m	Sluggish	None.	Very overgrown - restricted visibility & access.	Sub-optimal
D2-2	Ditch	Earth	Urban/industrial/grassland	Herbs/reeds/sedges/bushes	Steep	<0.5m	1-2m	Sluggish	None.	Good burrowing potential and food plant availability.	Optimal
D3	Ditch	Earth	Urban/industrial/grassland	Herbs/reeds/sedges/bushes	Steep	<0.5m	1-2m	Static	None.	Minimal quantity of water held.	Sub-optimal
Elstow Brook-4	Ditch	Earth	Arable	Reeds	Steep	0.5-1m	2-5m	Slow	Otter feeding remains, rat footprints, signal crayfish burrows, deer droppings and fox faeces.	Dominated by reeds with limited diversity of other food plants. Very good burrowing habitat.	Optimal
TN1	-	-	-	-	-	-	-	-	Otter feeding remains.	Signal crayfish claws.	-
TN2	-	-	-	-	-	-	-	-	Otter feeding remains.	Signal crayfish claws.	-
TN3	-	-	-	-	-	-	-	-	Signal crayfish burrow.	Several within vicinity.	-
TN4	-	-	-	-	-	-	-	-	Rat footprints.	Several locations within length of ditch.	-
TN5	-	-	-	-	-	-	-	-	Muntjac droppings and mammal paths connecting the ditch and adjacent arable field.	Several locations within length of ditch.	-
D5	Ditch	Earth	Arable	Herbs/reeds/sedges/bushes/trees	Steep	0.5-1m	2-5m	Static/dry	None.	Very overgrown - restricted visibility & access. Small quantities of water held - mostly within western extent. Minimal quantities of water held towards eastern extent.	Sub-optimal
D6	Ditch	Earth	Arable	Bushes/trees	Steep	0.5-1m	1-2m	Static/dry	None.	Very overgrown - restricted visibility & access. Mostly dry with minimal quantities of water held in some sections.	Sub-optimal

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
D7	Ditch	Earth	Urban/industrial/woodland	Herbs/bushes/trees	Shallow	0.5-1m	1-2m	Static/dry	None.	Mostly dry with small quantities of water held in some sections. Water showed signs of pollution with items of refuse frequently found within the ditch.	Negligible
D8	Ditch	Earth	Grassland	Grass/herbs	Shallow	N/A (dry)	N/A (dry)	N/A (dry)	None.	None.	Negligible
D9	Ditch	Earth	Woodland/scrub	Shrubs/trees	Shallow	0.5-1m	2-5m	Static/dry	None.	Very little water held with some lengths entirely dry. The sections that held the most water had a covering of duckweed and algae. Minimal riparian vegetation present and heavily shaded. Water/soil discolouration and smell implied pollutants were present.	Sub-optimal
D10	Ditch	Earth	Woodland/scrub	Shrubs/trees	Steep-shallow	<0.5m	1-2m	Sluggish	None.	Very overgrown and shaded with no riparian vegetation besides a minimal amount near the opening to the lake. Minimal water held that passes beneath a track through a culvert.	Sub-optimal
D11-1	Ditch	Earth	Grassland	Herbs/grass/shrubs	Steep-shallow	<0.5m	1-2m	Static	None.	Very overgrown - restricted visibility & access. Banks appeared to have limited burrowing potential due to overgrowth.	Sub-optimal
D11-2	Ditch	Earth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Ditch no longer appeared to be present in this area.	Negligible
Lake 1	Lake	Earth/hard core/rubble	Grassland/greenspace/urban/industrial	Shrubs/trees/reeds/herbs	Shallow-steep	>2m	>40m	Static	Otter spraint, potential (old) American mink spraint, relatively recent mink spraint. Rat footprints, deer droppings, rabbit droppings and mammal paths frequently found around the perimeter.	Banks ranged from shallow to steep in some locations, providing potential burrowing habitat. Riparian vegetation was dense and fairly diverse - providing good food plant resources. Access to all areas was not possible due to thick bank vegetation.	Optimal
TN11	-	-	-	-	-	-	-	-	Otter spraint	Located on concrete /rubble adjacent to waterbody.	-
TN12	-	-	-	-	-	-	-	-	Potential (old) American mink spraint.	Located very close to the otter spraint - except contained feathers as well as fish scales - which is more typical of American mink compared to otter. The spraint was very old and dry and did not give off a strong smell as typically expected.	-
TN23	-	-	-	-	-	-	-	-	American mink spraint.	Contained feather, scales & what appeared to be reptile skin (potentially slow worm)	-

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
Lake 2	Lake	Earth/hard core/rubble	Grassland/greenspace	Shrubs/trees/reeds/herbs	Shallow	>2m	>40m	Static	None.	Banks mostly shallow with large quantities of hard core / rubble and fine gravel, which provided poor burrowing opportunities. The riparian vegetation was mostly dominated by reed with relatively little diversity of other food plants.	Sub-optimal
Water vole rafts	-	-	-	-	-	-	-	-	5x rafts total > 1x carrot entirely missing with claw marks present (likely rat) > 1x raft showed signs of being gnawed (likely rat) > Remainder showed minimal signs of use, with evidence of minor interest in the carrots > No evidence of water vole	-	-
Lake 3a	Lake	Earth/hard core/rubble	Grassland/greenspace	Shrubs/trees/reeds/herbs	Shallow	>2m	>40m	Static	None.	Banks mostly shallow with large quantities of hard core / rubble and fine gravel, which provided poor burrowing opportunities. The riparian vegetation was mostly dominated by reed with relatively little diversity of other food plants.	Sub-optimal
Water vole rafts	-	-	-	-	-	-	-	-	5x rafts total > 1x with rat droppings and claw marks (likely rat) > Remainder showed minimal signs of use - most of the carrots were untouched > No evidence of water vole	-	-

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
Lake 3b	Lake	Earth/hard core/rubble	Grassland/greenspace	Shrubs/trees/reeds/herbs	Shallow	>2m	>40m	Static	Deer droppings, rabbit droppings and fox faeces present in numerous locations adjacent to the perimeter.	<p>Banks mostly shallow with large quantities of hard core / rubble. Some areas were formed into mounds that may provide suitable burrowing habitat. The riparian vegetation was mostly dominated by large areas of reed that may also be used for nest construction. Although more limited, there was also moderate quantities of other food plants available. Overall the waterbody was on the lower-end of what could be considered 'optimal'.</p> <p>Access to all of the perimeter was not possible due to thick reedbeds. Efforts were made to follow the shoreline where possible, but had to be observed from vantage points only in some locations.</p>	Optimal
Water vole rafts	-	-	-	-	-	-	-	-	<p>14x rafts total</p> <p>> 2x with rat droppings and claw marks</p> <p>> Remainder showed minimal signs of use - most of the carrots were untouched</p> <p>> No evidence of water vole.</p>	-	-
Core Zone Watercourse (CZW)-1	Ditch	Earth	Arable	Herbs/reeds/sedges/bushes/trees	Steep	0.5-1m	2-5m	Static/dry	Muntjac droppings and mammal paths connecting the ditch and adjacent arable field in several locations.	<p>Overgrown with open/less vegetated sections. Vegetation primarily comprised overhanging / encroaching scrub with limited availability of food plants. Dry within the northern extent with minimal quantities of water held in sections to the south. It was possible to enter the ditch to fully inspect most of the extent, but blocked by dense overgrowth in some areas.</p> <p>Second survey: contained significantly more water due to recent rainfall. Other conditions the same.</p>	Sub-optimal
Core Zone Watercourse (CZW)-2	Ditch	Earth	Arable	Herbs/reeds/sedges/bushes/trees	Steep	0.5-1m	2-5m	Static	Rat footprints in several locations.	Mixture of open ditch and dense overgrowth. Good burrowing habitat with good availability of food plants.	Optimal
Core Zone Watercourse (CZW)-3	Ditch	Earth	Arable	Herbs/reeds/sedges/bushes/trees	Steep	0.5-1m	2-5m	Static	Grass snake.	Very good quality habitat with burrowing opportunities, sections of open water and good food plant availability/diversity.	Optimal

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
TN6	-	-	-	-	-	-	-	-	Grass snake .	Spotted adjacent to ditch.	-
Core Zone Watercourse (CZW)-4	Ditch	Earth	Woodland/scrub	Bushes/trees	Steep	0.5-1m	2-5m	Static/dry	None.	Very shaded (within dense woodland/scrub vegetation) with low quantities of riparian vegetation. Low quantities of water held that often became dry.	Sub-optimal
Core Zone Watercourse (CZW)-5	Ditch	Earth	Arable	Herbs/reeds/sedges/bushes/trees	Steep	0.5-1m	2-5m	Static	Grass snake x2.	Very good quality habitat with burrowing opportunities, sections of open water and good food plant availability/diversity.	Optimal
TN7	-	-	-	-	-	-	-	-	Grass snake .	Spotted adjacent to ditch.	-
TN8	-	-	-	-	-	-	-	-	Grass snake .	Spotted adjacent to ditch.	-
TN25	-	-	-	-	-	-	-	-	GCN – juvenile.	Under reptile mat.	-
TN26	-	-	-	-	-	-	-	-	GCN – juvenile.	Under reptile mat.	-
Core Zone Watercourse (CZW)-6	Ditch	Earth	Scrub/grassland	Herbs/grass/shrubs	Shallow	0.5-1m	2-5m	Static/dry	None.	Very overgrown with vegetation - restricted visibility & access.	Sub-optimal
Core Zone Watercourse (CZW)-7	Ditch	Earth	Scrub/grassland	Herbs/grass/shrubs	Shallow	0.5-1m	2-5m	Static/dry	None.	Extent of ditch not fully visible/present.	Negligible
Pond 1	Pond	Earth	Arable	Reeds/herbs/shrubs/trees	Shallow	0.5-1m	5-10m	Static	None.	Dense reed growth with limited open water. Good availability of food plants but limited burrowing potential. Some potential for nesting within the dense reeds. Overall the pond is on the upper-end of what could be considered 'sub-optimal'.	Sub-optimal
Pond 2	Pond	Earth	Arable	Reeds/herbs/shrubs/trees	Shallow	0.5-1m	5-10m	Static	None.	Heavily shaded pond with very limited riparian vegetation. The water quality was poor with evidence of pollution.	Negligible
Pond 3	Pond	Earth	Arable	Reeds/herbs/shrubs/trees	Shallow	0.5-1m	5-10m	Static	None.	Dense riparian vegetation around perimeter but with a good quantity of open water. Good availability of food plants but limited burrowing or nesting potential. Overall the pond is on the lower-end of what could be considered 'optimal'.	Optimal

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
D14	Ditch	Earth	Arable	Grass	Shallow	N/A (dry)	N/A (dry)	N/A (dry)	None.	Not mapped - very minor ditch with no water held.	Negligible
D15-1	Ditch	Earth	Arable/shrub	Shrubs/trees	Steep	<0.5m	1-2m	Static/dry	None.	Within dense hedgerow. Very overgrown and shaded - limited visibility/access. Small quantities of water held in some sections. Limited availability of food plants. Second survey: more water held but otherwise the same.	Sub-optimal
D15-2	Ditch	Earth	Arable/shrub	Shrubs/trees	Steep	<0.5m	1-2m	Static/dry	None.	Overgrown with some open/less vegetated sections. Low quantities of water held with some dry areas. Some food plant availability and burrowing potential. Better than connecting sections (D15-1 & D15-3) but still not 'optimal'. Second survey: more water held but otherwise the same.	Sub-optimal
D15-3	Ditch	Earth	Arable/shrub	Grass/shrubs/trees	Shallow	<0.5m	1-2m	Dry	None.	Very overgrown with no open areas and limited quantities of water held. Second survey: more water held but otherwise the same.	Sub-optimal
D16-1	Ditch	Earth	Arable/shrub	Shrubs/trees	Steep	<0.5m	1-2m	Static/dry	None.	Within dense hedgerow. Very overgrown and shaded - limited visibility/access. Small quantities of water held in some sections. Limited availability of food plants. Second survey: more water held but otherwise the same.	Sub-optimal
D16-2	Ditch	Earth	Arable/shrub	Shrubs/trees	Steep	<0.5m	1-2m	Static/dry	None.	Overgrown with some open/less vegetated sections. Low quantities of water held with some dry areas. Some food plant availability and burrowing potential. Better than connecting section (D16-1) but still not 'optimal'. Second survey: more water held but otherwise the same.	Sub-optimal

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
D17	Ditch	Earth	Arable/shrub	Shrubs/trees	Steep	<0.5m	1-2m	Static	None.	Overgrown with some open/less vegetated sections. Low quantities of water held with some dry areas. Some food plant availability. Overall did not provide enough burrowing potential or open water to qualify as 'optimal'. Second survey: banks had burst due to recent water, which had spilled far into the adjacent arable field. Flooding events further reduced suitability for water vole due to potential burrows being fully submerged.	Sub-optimal
D18	Ditch	Earth	Arable/shrub	Reeds/herbs/shrubs/trees	Steep	0.5-1m	2-5m	Static	Bank vole.	Very overgrown within the northern extent - restricted visibility & access. Less overgrown within southern extent with open areas of water, limited burrowing potential and good food source availability.	Optimal
TN9	-	-	-	-	-	-	-	-	Bank vole + latrine.	Bank vole latrine found + bank vole observed fleeing within adjacent riparian vegetation	-
Elstow Brook-1	Brook	Earth	Arable	Reeds/herbs/shrubs/trees	Steep	2-5m	2-5m	Slow	Otter spraint, feeding remains, American mink spraint & signal crayfish burrow.	Very good quality habitat with burrowing opportunities, open water and food plant availability/diversity - though a monoculture of reed dominated large areas. Access / visibility was poor during the first survey due to significant reed growth. Large-scale vegetation clearance was undertaken by the farmer prior to the second survey, which opened up the banks to allow for easy inspection. No signs of water vole were identified, however 2x otter spraints, feeding remains (broken freshwater bivalve shells believed to be swan mussels) and 2x American mink spraints were found along the brook's banks. The (likely) frequent / annual vegetation clearance along the banks further reduces the likelihood of water vole being present due to the disturbance caused.	Optimal
TN10	-	-	-	-	-	-	-	-	Signal crayfish burrow.	2x burrows within close proximity.	-
TN14	-	-	-	-	-	-	-	-	Otter spraint.	Close inspection not possible due to being on the far side of the brook where access was not possible.	-

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
										Appearance more closely resembled otter rather than mink.	
TN15	-	-	-	-	-	-	-	-	Otter spraint.	Close inspection not possible due to being on the far side of the brook where access was not possible. Appearance more closely resembled otter rather than mink.	
TN16	-	-	-	-	-	-	-	-	American mink spraint.	Mostly contained fur and feathers. Within close proximity of feeding remains (cracked bivalve shells).	
TN17	-	-	-	-	-	-	-	-	Feeding remains - cracked bivalve shells (likely swan mussels).	Cracks in shell consistent with what is typical of otter/mink predation.	
TN18	-	-	-	-	-	-	-	-	Feeding remains - cracked bivalve shells (likely swan mussels).	Cracks in shell consistent with what is typical of otter/mink predation.	
Elstow Brook-2	Brook	Earth	Arable	Reeds/herbs/shrubs/trees	Steep	2-5m	2-5m	Slow	Feeding remains (mink), American mink spraint	<p>Very good quality habitat with burrowing opportunities, open water and food plant availability/diversity - though a monoculture of reed dominated large areas. Small adjacent woodland blocks provide good sheltering opportunities (holts/couches).</p> <p>Access / visibility was poor during the first survey due to significant reed growth. Large-scale vegetation clearance was undertaken by the farmer prior to the second survey, which opened up the banks to allow for easy inspection. No signs of water vole were identified, however 2x otter spraints, feeding remains (broken freshwater bivalve shells believed to be swan mussels) and 2x American mink spraints were found along the brook's banks.</p> <p>The (likely) frequent / annual vegetation clearance along the banks further reduces the likelihood of water vole being present due to the disturbance caused.</p>	
TN19	-	-	-	-	-	-	-	-	American mink spraint.	Mostly contained fur and feathers. Within close proximity of feeding remains (cracked bivalve shells).	

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
TN20	-	-	-	-	-	-	-	-	Feeding remains - cracked bivalve shells (likely swan mussels).	Cracks in shell consistent with what is typical of otter/mink predation.	
TN21	-	-	-	-	-	-	-	-	Feeding remains - cracked bivalve shells (likely swan mussels).	Cracks in shell consistent with what is typical of otter/mink predation.	
TN22	-	-	-	-	-	-	-	-	Feeding remains - cracked bivalve shells (likely swan mussels).	Cracks in shell consistent with what is typical of otter/mink predation.	
Elstow Brook-3	Ditch	Earth	Grassland/greenspace	Reeds/herbs/shrubs/t rees	Steep	1-2m	2-5m	Sluggish	None.	Good quality habitat with burrowing opportunities, open water and food plant availability/diversity - though in some locations it was a monoculture of reed. Very thick vegetation ran adjacent to the ditch which restricted visibility. Observations were made from a number of vantage points along the length.	Optimal
D12	Ditch	Earth	Arable/shrub	Grass/herbs/shrubs	Steep	N/A (dry)	N/A (dry)	N/A (dry)	None.	Very overgrown with no water held.	Negligible
D13	Ditch	Earth	Arable/shrub	Grass/herbs/shrubs	Steep	N/A (dry)	N/A (dry)	N/A (dry)	None.	Not visible / possible to inspect fully but appeared to be very over grown with no water present.	Negligible
D19	Ditch	Earth	Arable/urban/industrial	Herb/grass/shrubs	Steep	0.5-1m	2-5m	Static	None.	Very overgrown - limited access & visibility with some open areas. Moderate food plant availability but minimal burrowing potential due to overgrowth of vegetation.	Sub-optimal
D20	Ditch	Earth	Woodland/urban/industrial	Herb/grass/shrubs	Steep	0.5-1m	2-5m	Static	None.	Very overgrown - limited access & visibility with no open areas. Minimal food plant availability and no burrowing potential due to dense overgrowth of vegetation.	Negligible
D21	-	-	-	-	-	-	-	-	-	-	No access to land parcel and unsafe to access / view from road

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
D22	Ditch	Earth	Arable	Grass/herbs/shrubs/trees	Steep	<0.5m	1-2m	Static	None.	Very overgrown with minimal open space and food plants. Only small quantities of water held in some locations. Second survey: contained more water, but was otherwise the same.	Sub-optimal
D23	-	-	-	-	-	-	-	-	-	-	No access due to being within land with no access permission / within traveller compound - unsafe to drive into
D24	-	-	-	-	-	-	-	-	-	-	No access due to being within a construction site
D25-1	-	-	-	-	-	-	-	-	-	-	No access due to being within a construction site
D25-2	Ditch	Earth	Grassland/urban/industrial	Grass/herbs	Shallow	<0.5m	1-2m	Static	None.	Ditch was partly destroyed and rutted from vehicle movements. Only small quantities of water held with minimal riparian vegetation. Location of ditch corrected from shapefiles sent by WSP.	Negligible
D26	Ditch	Earth	Grassland/urban/industrial/arable	Herbs/grass/shrubs/reeds	Shallow-steep	<0.5m	1-2m	Static/dry	None.	Mostly overgrown with some open/less vegetated sections. Low quantities of water held with some dry areas. Some food plant availability and burrowing potential. Could not fully access due to no access. Location / extent of ditch corrected from shapefiles sent by WSP.	Sub-optimal
D28	Ditch	-	-	-	-	-	-	-	-	-	No access

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
D29	Ditch	Earth	Urban/industrial	Grass/herbs/shrubs/trees	Steep-shallow	N/A (dry)	N/A (dry)	Dry	None.	Only observed via drive-by. Poor connectivity to other watercourses due to roads. No water visible, poor burrowing opportunities and overall lack of food plants.	Negligible
D30	Ditch	Earth	Urban/industrial	Grass/herbs/shrubs/trees	Steep-shallow	N/A (dry)	N/A (dry)	Dry	None.	Only observed via drive-by. Poor connectivity to other watercourses due to roads. No water visible, poor burrowing opportunities and overall lack of food plants.	Negligible
D31	-	-	-	-	-	-	-	-	-	-	No access
D32	-	-	-	-	-	-	-	-	-	-	No access to land parcel. Likely negligible due to poor connectivity to other watercourses due to roads, no/minimal water held, poor burrowing opportunities and overall lack of food plants.
D33	-	-	-	-	-	-	-	-	-	-	No access to land parcel. Likely negligible due to poor connectivity to other watercourses due to roads, no/minimal water held, poor burrowing opportunities and overall lack of food plants.
D34	-	-	-	-	-	-	-	-	-	-	No access to land parcel. Likely negligible due to poor connectivity to other watercourses due to roads, no/minimal water

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
											held, poor burrowing opportunities and overall lack of food plants.
Kempston Hardwick Pit	Lake	Earth/hard core/rubble	Grassland/greenspace	Shrubs/trees/reeds/herbs	Shallow	>2m	>40m	Static	Deer droppings, rabbit droppings and fox faeces present in numerous locations adjacent to the perimeter.	<p>Banks mostly shallow with large quantities of hard core / rubble. Some areas were formed into mounds / bunds that may provide suitable burrowing habitat. The riparian vegetation was mostly dominated by large areas of reed that may also be used for nest construction. Although more limited, there was also moderate quantities of other food plants available.</p> <p>Overall the waterbody was on the lower-end of what could be considered 'optimal'.</p> <p>Access to all of the perimeter was not possible due to thick reedbeds. Efforts were made to follow the shoreline where possible, but had to be observed from vantage points only in some locations.</p> <p>ANECDOTAL EVIDENCE Per comms with fisherman on lake indicated that sightings of American mink had been made on at least two occasions.</p>	Optimal
TN24	-	-	-	-	-	-	-	-	Otter spraint.	Contains fish scales	
Coronation Pit	Lake	Earth/hard core/rubble	Grassland/greenspace	Shrubs/trees/reeds/herbs	Shallow	>2m	>40m	Static	Deer droppings, rabbit droppings and fox faeces present in numerous locations adjacent to the perimeter.	<p>Banks ranged from shallow to steep, but contained large quantities of hard core / rubble that limited burrowing potential. Large areas of reedbed dominated sections of the shoreline which may be used for nest construction. Although more limited, there was also moderate quantities of other food plants available.</p> <p>Overall the waterbody was on the upper-end of what could be considered 'sub-optimal'.</p> <p>Access to all of the perimeter was not possible due to thick reedbeds, very steep embankments and dense areas of tree / shrub overgrowth. Efforts were</p>	Optimal

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
										made to follow the shoreline where possible, but had to be observed from vantage points only in some locations.	
Lake 4	Lake	Earth	Grassland/greenspace	Shrubs/trees/reeds/herbs	Shallow	>2m	>40m	Static	Otter sighting, deer droppings, rabbit droppings and fox faeces present in numerous locations adjacent to the perimeter.	<p>Banks ranged from shallow to steep with some (but seemingly less) hard core / rubble. The steeper sections and earth islands provided good potential burrowing habitat. There were some areas of dense reedbed, but overall the riparian vegetation was less dense / expansive. The overall availability of food plants was moderate.</p> <p>Overall the waterbody was on the lower-end of what could be considered 'optimal'.</p> <p>Access to all of the perimeter was not possible due to thick reedbeds, very steep embankments and dense areas of tree / shrub overgrowth. Efforts were made to follow the shoreline where possible, but had to be observed from vantage points only in some locations.</p>	Optimal
TN13	-	-	-	-	-	-	-	-	Otter.	A single otter was spotted foraging adjacent to one of the islands. It appeared to have caught a fish and moved into a secluded area out of view.	-
Lake 5	-	-	-	-	-	-	-	-	-	-	No access due to impassable vegetation. Not possible to sufficient view using binoculars to make an assessment

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
Lake 6	-	-	-	-	-	-	-	-	-	-	No access
Lake 7	-	-	-	-	-	-	-	-	-	-	No access
Lake 8	-	-	-	-	-	-	-	-	-	-	No access
Pond 4	Pond	Earth	Woodland/greenspace	Shrubs/trees/reeds/herbs/	Shallow-steep	>2m	5-10m	Static	None.	Banks were mostly sparsely covered by vegetation besides a few dense areas of reeds to the north and west. The water was largely covered by duckweed and algae. Access around the full perimeter of the pond was not possible due to weak bridges (as depicted by a sign) and dense vegetation.	Sub-optimal
Pond 5	Pond	Earth	Urban/industrial	Reeds/herbs/shrubs/trees	Shallow	0.5-1m	5-10m	Static	None.	Mostly overgrown with reeds with limited availability of other food plants. Poor burrowing potential and connectivity to other suitable waterbodies with high levels of disturbance from adjacent yard.	Sub-optimal
Pond 6	Pond	Earth	Arable	Reeds/herbs/shrubs/trees	Shallow	0.5-1m	5-10m	Static	None.	No access to land parcel - was assessed with binoculars only. Appeared to be heavily overgrown with scrub.	Sub-optimal
Pond 7	Pond	Earth	Urban/industrial	Reeds/herbs/shrubs/trees	Shallow	<0.5m	20-40m	Static	None.	SuDS pond - contained significant reed growth with small quantities of other food plants (e.g. water mint & sedges). Some burrowing potential within banks. Suitability reduced by poor connectivity to other water bodies in the surrounding area that was severed by industrial areas and the A421.	Sub-optimal
Pon 8	Pond	Earth	Greenspace	Reeds/herbs/shrubs/trees	Shallow-steep	>2m	>40m	Static	None.	A range of shallow to steep banks provided some burrowing potential. Banks and riparian vegetation was dense and dominated by reeds, but a good diversity of other food plants was present.	Optimal
Pond 9	Pond	Earth	Woodland/scrub/residential	Reeds/shrubs/trees	Shallow-steep	1-2m	2-5m	Static	None.	Ornamental pond within the grounds/garden of a residential property along Manor Road. Dense riparian vegetation around perimeter but with a good quantity of open water. Good availability of food plants with some burrowing and nesting potential. Bank vole spotted.	Optimal

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
TN27	-	-	-	-	-	-	-	-	Bank vole.	Live bank vole spotted among pond marginal vegetation	-
Pond 10	Pond	Earth	Grassland/urban/industrial	Reeds/grass	Shallow-steep	1-2m	5-10m	Static	None.	Shallow banks within western extent that became steep to the north. Scattered and dense areas of reeds were present. Signs of vehicle encroachment were present and water showed signs of minor pollution. Pond not present on shapefiles sent by WSP.	Sub-optimal
Pond 11	Pond	Earth	Urban/grassland	Reeds/grass	Shallow	1-2m	5-10m	Static	None.	SuDS pond - contained significant reed growth with small quantities of other food plants (e.g. water mint & sedges). Some burrowing potential within banks. Suitability reduced by poor connectivity to other water bodies in the surrounding area that was severed by industrial areas and the A421.	Sub-optimal
Pond 12	Pond	Earth	Urban/grassland	Reeds/grass	Shallow	1-2m	5-10m	Static	None.	SuDS pond - contained significant reed growth with small quantities of other food plants (e.g. water mint & sedges). Some burrowing potential within banks. Suitability reduced by poor connectivity to other water bodies in the surrounding area that was severed by industrial areas and the A421.	Sub-optimal
Pond 13	Pond	Earth	Urban/grassland	Reeds/grass	Shallow	1-2m	5-10m	Static	None.	SuDS pond - contained significant reed growth with small quantities of other food plants (e.g. water mint & sedges). Some burrowing potential within banks. Suitability reduced by poor connectivity to other water bodies in the surrounding area that was severed by industrial areas and the A421.	Sub-optimal
Pond 14	Pond	Earth	Urban/grassland	Reeds/grass	Shallow	1-2m	5-10m	Static	None.	SuDS pond - contained significant reed growth with small quantities of other food plants (e.g. water mint & sedges). Some burrowing potential within banks. Suitability reduced by poor connectivity to other water bodies in the surrounding area that was severed by industrial areas and the A421.	Sub-optimal
Pond 15	Pond	Earth	Urban/grassland	Reeds/grass	Shallow	1-2m	5-10m	Static	None.	SuDS pond - contained significant reed growth with small quantities of other food plants (e.g. water mint & sedges). Some burrowing potential within banks. Suitability reduced by poor connectivity to other water bodies in the surrounding area that was severed by industrial areas and the A421.	Sub-optimal

Reference	Habitat	Shore/bank	Bordering land use	Vegetation	Profile	Depth	Width	Current	Wildlife info	Other info	Overall suitability
Pond 16	Pond	Earth	Urban/grassland	Reeds/grass	Shallow	1-2m	2-5m	Static	None.	SuDS pond - contained significant reed growth with small quantities of other food plants (e.g. water mint & sedges). Some burrowing potential within banks. Suitability reduced by poor connectivity to other water bodies in the surrounding area that was severed by industrial areas and the A421.	Sub-optimal
Pond 17	-	-	-	-	-	-	-	-	-	-	No access to land parcel
Pond 18	-	-	-	-	-	-	-	-	-	-	No access to land parcel
Pond 19	-	-	-	-	-	-	-	-	-	-	No access to land parcel
Pond 20	-	-	-	-	-	-	-	-	-	-	No access to land parcel
Pond 21	-	-	-	-	-	-	-	-	-	-	No access to land parcel

Figure 1. Survey Areas

Legend

- Site boundary
- 250m buffer
- Core Zone
- East Gateway Zone
- Lake Zone
- West Gateway Zone

0 500 1,000 m

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Figure 1
Survey Areas

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Figure 2. Otter and Water Vole Survey Results Map

Legend

- Site boundary
- 250m buffer
- East Gateway Zone
- Lake Zone
- ◆ Water vole raft
- Target Notes

Waterbodies

- Sub-optimal
- Optimal
- No access

Watercourses

- Negligible
- Sub-Optimal
- Optimal
- No access

0 250 500 m

UDX

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Figure 2a
Otter and water vole survey
results map

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Legend

- Site boundary
- 250m buffer
- Core Zone
- East Gateway Zone
- Lake Zone
- West Gateway Zone
- ◆ Water vole raft
- Target Notes

Waterbodies

- Negligible
- Sub-optimal
- Optimal
- No access

Watercourses

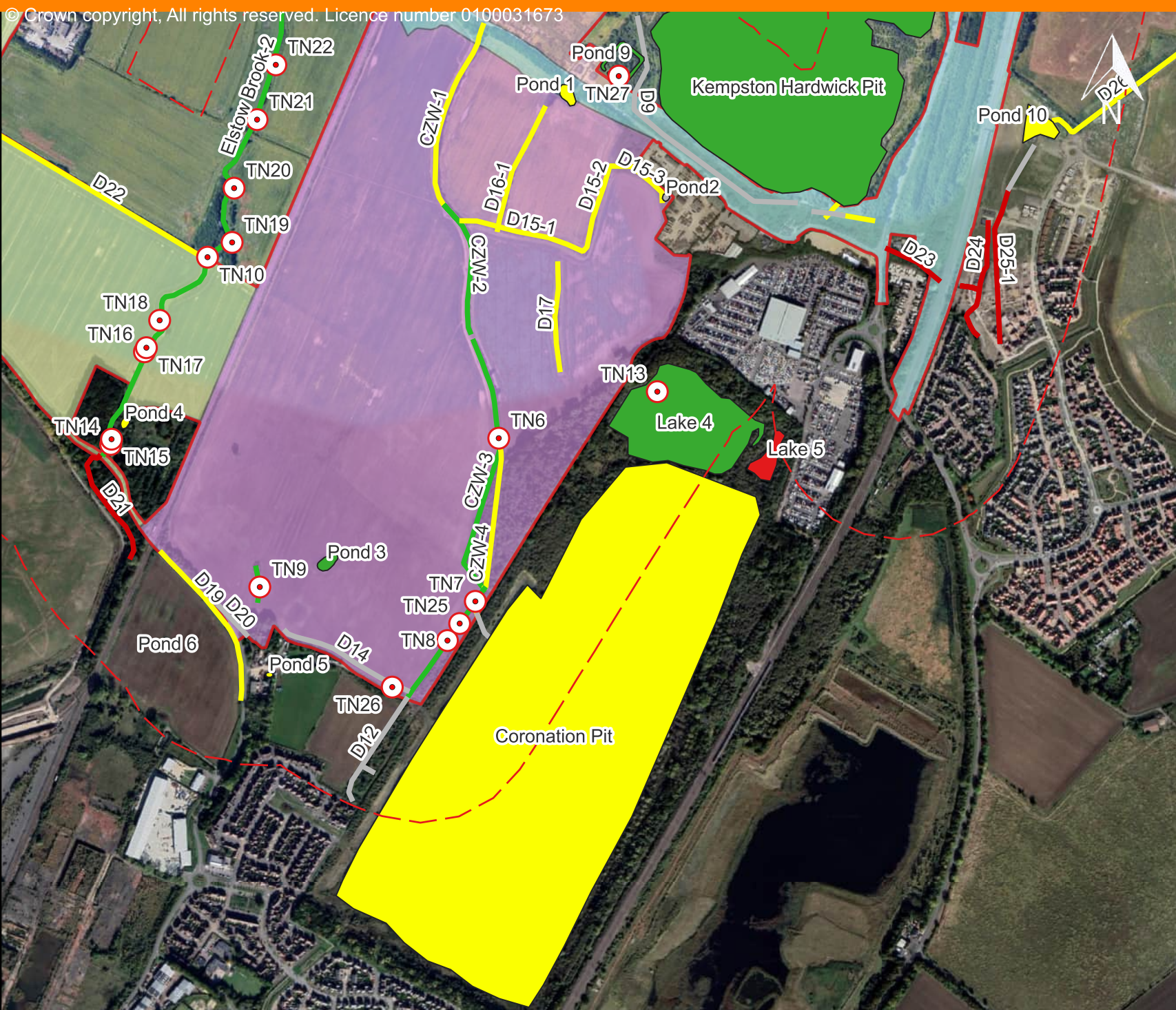
- Negligible
- Sub-Optimal
- Optimal
- No access

0 250 500 m

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Figure 2b
Otter and water vole survey results map

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Legend

- Site boundary
- 250m buffer
- Core Zone
- East Gateway Zone
- Lake Zone
- West Gateway Zone
- Target Notes

Waterbodies

- Negligible
- Sub-optimal
- Optimal
- No access

Watercourses

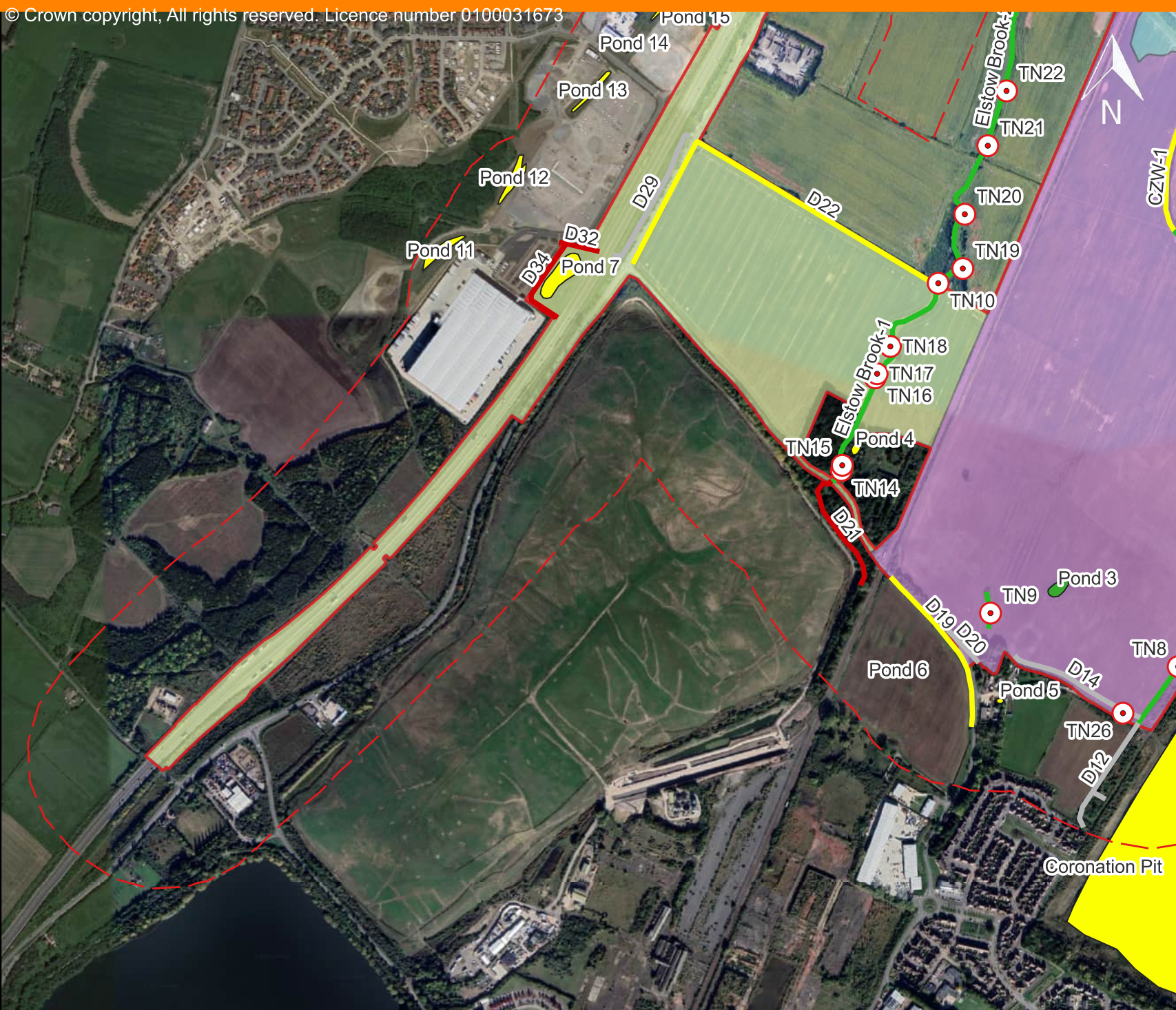
- Negligible
- Sub-Optimal
- Optimal
- No access

0 250 500 m

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Figure 2c
Otter and water vole survey
results map

• Building 350 • The Crescent • Bristol Business Park •
Bristol • BS16 1EJ •
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Legend

- Site boundary
- 250m buffer
- Core Zone
- East Gateway Zone
- Lake Zone
- West Gateway Zone
- Target Notes

Waterbodies

- Sub-optimal
- Optimal

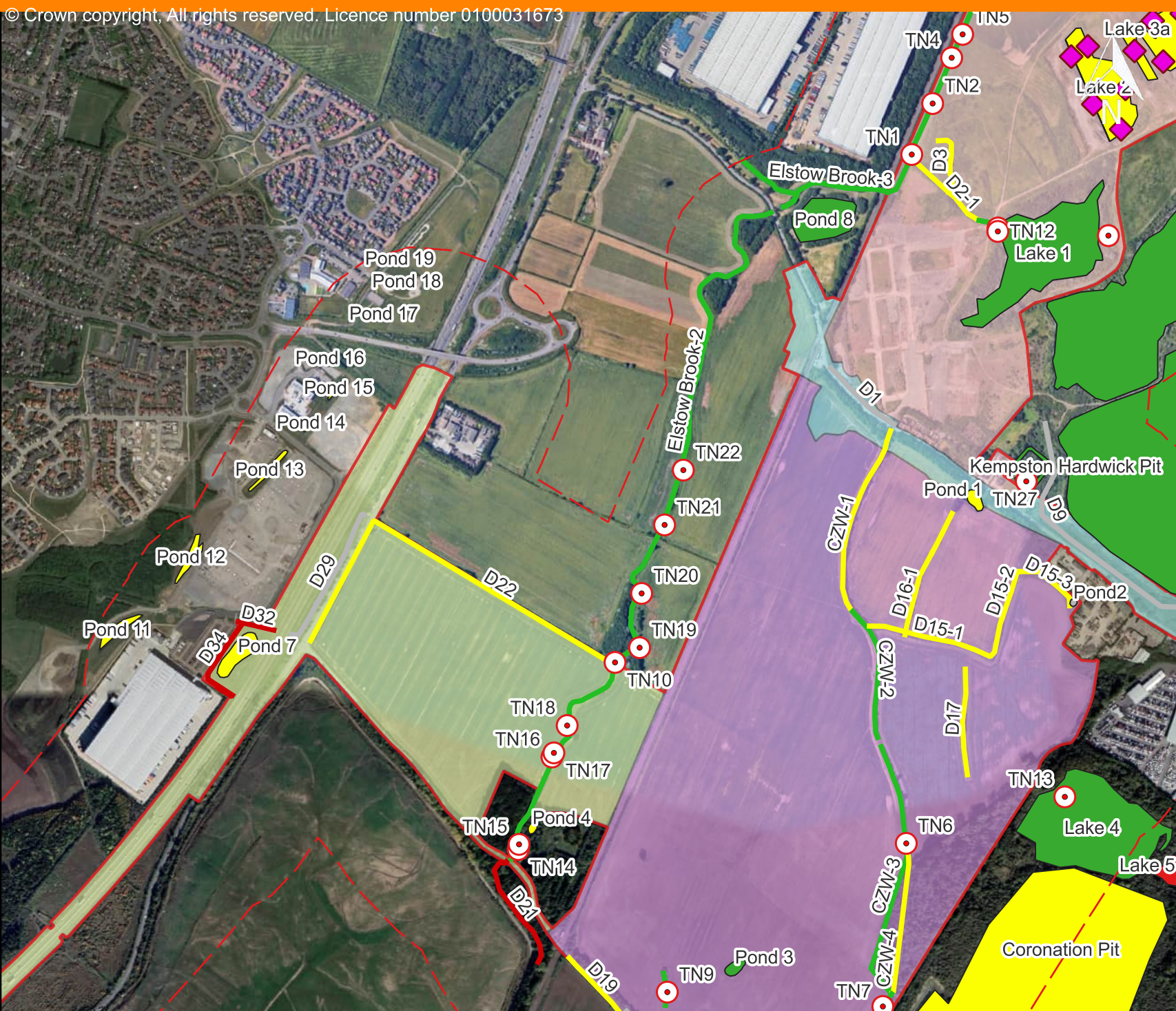
Watercourses

- Negligible
- Sub-Optimal
- Optimal
- No access

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Figure 2d
Otter and water vole survey
results map

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Bristol • BS16 1EJ •
• tel: 0117 4039050 • www.ecusltd.co.uk •



Legend

- Site boundary
- 250m buffer
- Core Zone
- East Gateway Zone
- Lake Zone
- West Gateway Zone
- ◆ Water vole raft
- Target Notes

Waterbodies

- Negligible
- Sub-optimal
- Optimal
- No access

Watercourses

- Negligible
- Sub-Optimal
- Optimal
- No access

0 250 500 m



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Figure 2e
Otter and water vole survey
results map

• Building 350 • The Crescent • Bristol Business Park •
Bristol • BS16 1EJ •
• tel: 0117 4039050 • www.ecusltd.co.uk •

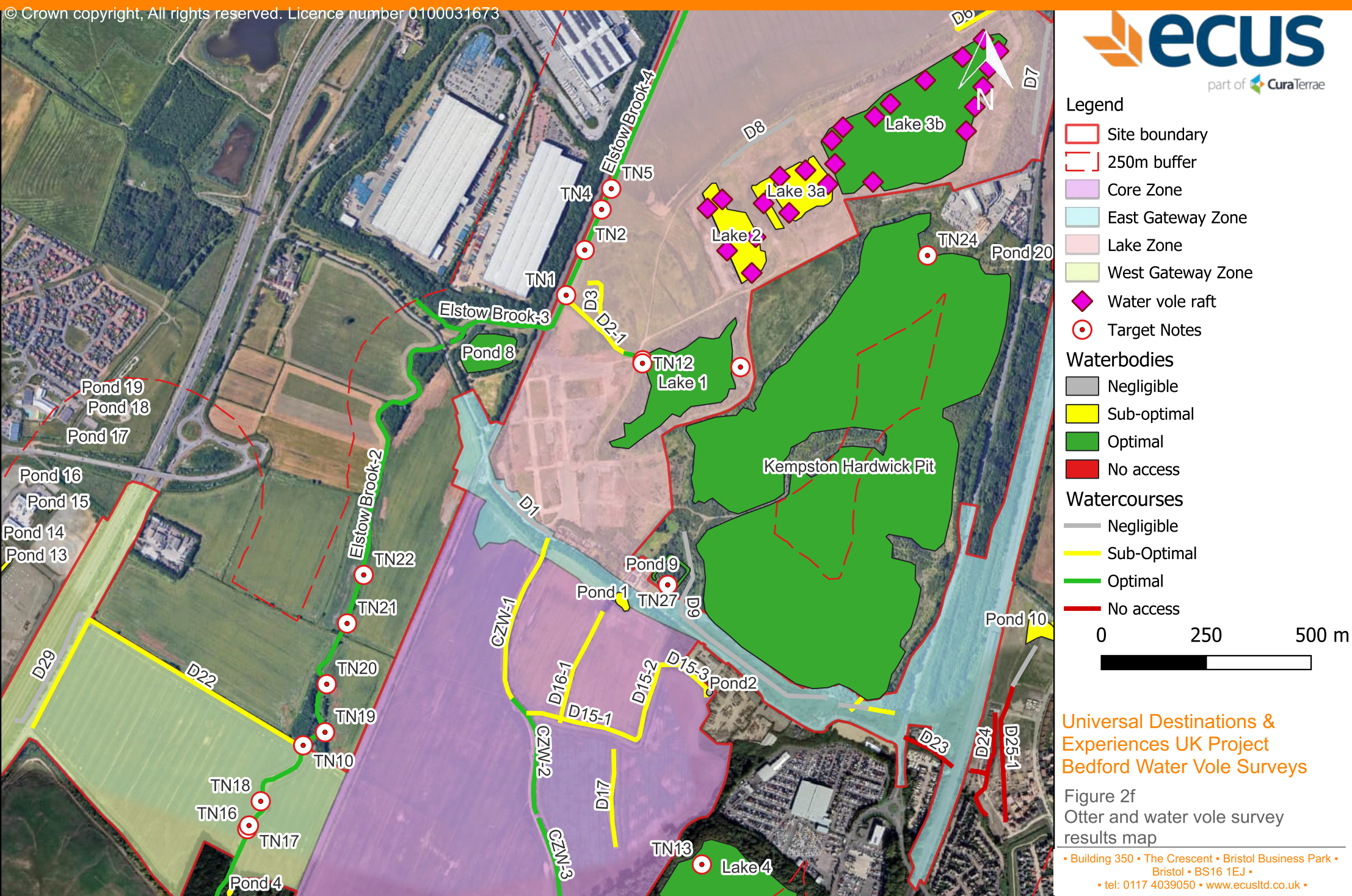






Figure 3. Restricted Access Areas Map


Legend

-  Site boundary
-  250 m buffer
-  Restricted access

 Lake Zone


 Target Notes

Waterbodies

 Sub-optimal

 Optimal

Watercourses

 Sub-optimal

 Optimal

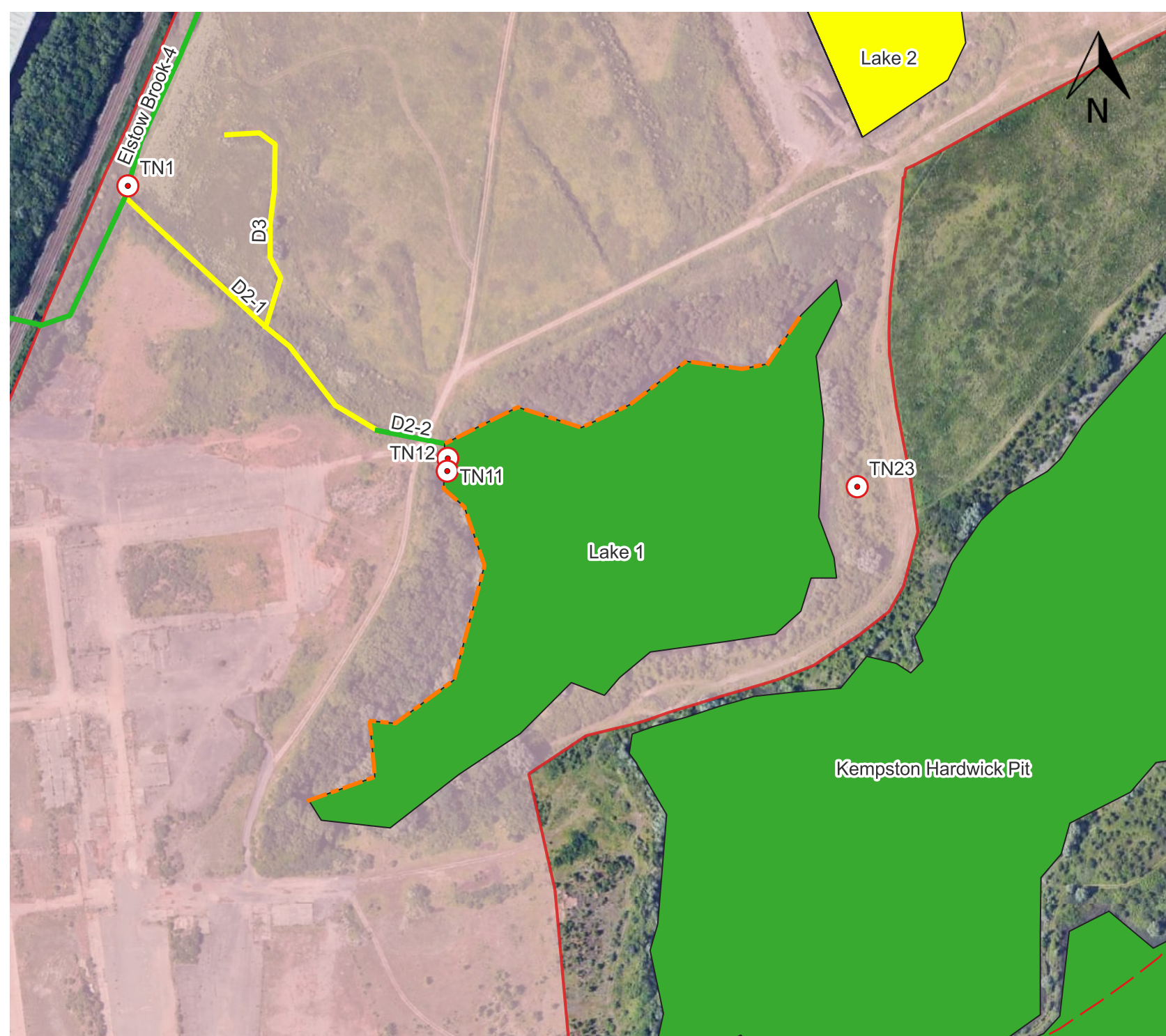
0 50 100 m









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Figure 3a
Restricted access areas map

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Legend

-  Site boundary
-  250 m buffer
-  Restricted access
-  Core Zone
-  East Gateway Zone
-  Lake Zone
-  West Gateway Zone
-  Target Notes

Waterbodies

-  Negligible
-  Sub-optimal
-  Optimal
-  No access

Watercourses

-  Negligible
-  Sub-optimal
-  Optimal
-  No access

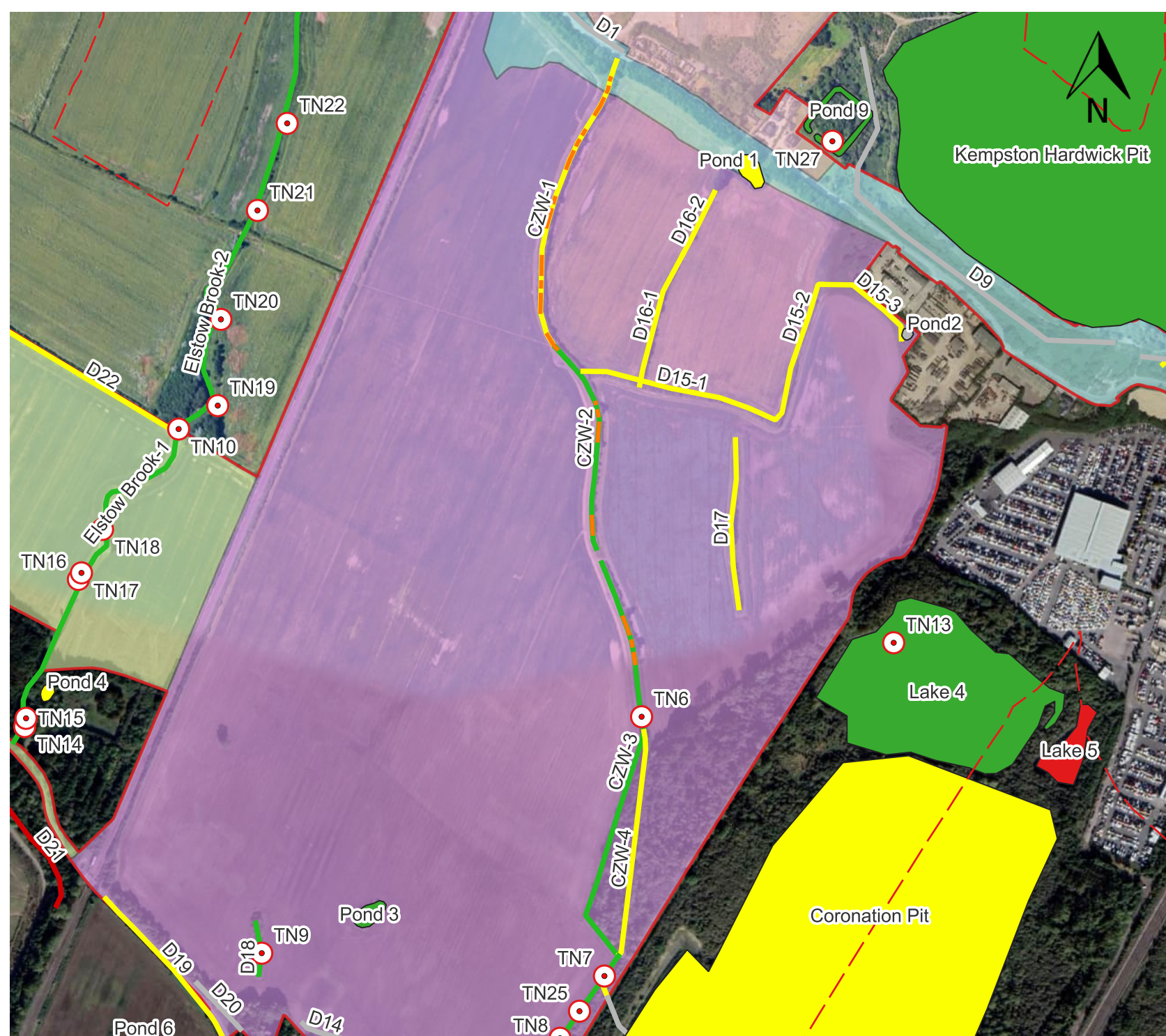
0 150 300 m



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Figure 3b
Restricted access areas map

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