

January 22, 2025

Ecology Wales

FAO Rifa Sulthana,
Fourteen Locks Canal Centre

By E-mail only

Dear Rifa,

ECOLOGICAL INSPECTION OF FOURTEEN LOCKS CANAL CENTRE, PROPOSED FOR DEMOLITION AND NEW BUILD

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Ecology Wales were commissioned by Newport Council to inspect and advise on an existing building proposed for demolition and new build at Fourteen Locks Canal Centre, Newport, Grid ref: ST 27913 88619 (See plan in Appendix I below). The inspection was required to allow for the proposed re-development (see Appendix II). The building is constructed from brick with some areas rendered, with a sealed pitched and flat roof. The windows and doors are well fitted to the walls. (See building photos in Appendix I).

In order to inform proposed re-development at the site, Chrispian Snell BSc (Hons) MCIEEM¹ a suitably experienced ecologist and holder of NRW bat licence S092061/1 conducted an ecological appraisal (site walkover) of the site on 13th December 2024. This report was written as per CIEEM Guidelines for Ecological Report Writing². As per section 2.6 of the guidelines, the structure and content of this report is considered proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development.

Methodology

Desk Study

A local biodiversity records centre search (Aderyn LERC Wales' Biodiversity Information & Reporting Database) for protected and priority species, other species of conservation concern, locally important species, invasive & non-native species, designated sites and phase I habitats within a 1km radius of site was undertaken (See results in Appendix III).

¹Admitted as a Full Member of the Chartered Institute of Ecology and Environment Management in May 2014

²CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester

Ecological Appraisal

To assess the types, extents and ecological significance of the existing habitats on-site, a daytime walkover survey was conducted on 13th December 2024 to also assess the trees and building for evidence of bats and nesting birds using a high powered torch, ladder and binoculars³. As well as recording species compositions of different habitats, any evidence of protected and/or invasive species (such as Japanese Knotweed *Fallopia japonica*) was also recorded.

An internal and external inspection of the trees, building and surroundings was undertaken by licensed bat worker and ecologist Chrispian Snell during daylight hours⁴. An internal & external search of the building was undertaken looking for evidence of bats including;

- The chattering noise of bats
- The presence of droppings at entrances/exits or beneath potential perching sites
- Signs of oil staining from bat fur or urine stains around the edge of potential roost entrances/exits
- Feeding remains such as insect wings below potential perching sites
- The presence of live or dead bats.

Survey Constraints

No survey constraints associated with the desk study or site walkover were identified.

Planning Policy

In Wales the biodiversity duty is set out under Section 6 of the Environment (Wales) Act 2016. It requires public authorities to “seek to maintain and enhance biodiversity in the exercise of its functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions”. If the avoidance, mitigation, compensation and enhancement measures detailed below are adhered to, this proposed development should maintain, enhance biodiversity and promote the resilience of ecosystems within the development site.

³CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

⁴Bat Surveys for Professional Ecologists Good Practice Guidelines 4th Edition (Collins, 2023)

Results

Desk Study

The SEWBReC local biodiversity records centre 1km search identified no species records within the proposed development site or any designated sites associated with the proposed site. Records of species identified within 500 metres of the site that could potentially utilise the habitats on or adjacent to site included Swallow *Hirundo rustica*, Teal *Anas crecca*, Coot *Fulica atra*, Grey Wagtail *Motacilla cinerea*, Grey Heron *Ardea cinerea*, Mallard *Anas platyrhynchos*, Marsh Tit *Poecile palustris*, Brambling *Fringilla montifringilla*, Smooth Newt *Lissotriton vulgaris*, Fieldfare *Turdus pilaris*, Kingfisher *Alcedo atthis*, Grass Snake *Natrix helvetica*, Song Thrush *Turdus philomelos*, Starling *Sturnus vulgaris*, Bullfinch *Pyrrhula pyrrhula*, Redwing *Turdus iliacus*, House Sparrow *Passer domesticus*, Dunnock *Prunella modularis*, Noctule *Nyctalus noctula*, Common Pipistrelle *Pipistrellus pipistrellus* Soprano Pipistrelle, *Pipistrellus pygmaeus*, Hedgehog *Erinaceus europaeus*, Green Woodpecker *Picus viridis*, Green Finch *Chloris chloris*, Long-Tailed Tit *Aegithalos caudatus*, Goldcrest *Regulus regulus*, and Mistle Thrush *Turdus viscivorus*.

Monmouthshire & Brecon Canal (Crumlin Arm) Sites of Importance for Nature Conservation (SINC) is less than 20m from site (Citation - Standing open water - Disused linear waterway with a variety of adjacent habitats and associated species including Otters). Fourteen Locks Fields SINC is less than 50m from site (Citation - Neutral Grassland). Other Wildlife/SINC (Adopted) sites were identified within the search area including Ynys-y-fro Reservoir (West) (506m from site), Ynys-y-fro Reservoir (East) (381m), Allt-yr-yn (806m), Cefn Wood (West) (695m), Cefn Wood (East) (462m), and Mescoed Mawr/Mescoed Bach (964m from site).

Due to the small size of the proposed development site, with suitable pollution prevention measures, no adverse effects to the SINC sites are anticipated (See desk study records in Appendix III).

Site Walkover

The results of the site walkover are summarised in the following sections, with further details provided in the enclosed photographs, site plan & habitat map⁵ (see Appendix I, II, & IV).

⁵JNCC, (2010), Handbook for Phase 1 habitat survey – a technique for environmental audit, JNCC, Peterborough

Building Ecological Assessment

External Inspection

During the site walkover on the 13th December 2024, numerous photos were taken (See Appendix I),

The single storey building is constructed from brick, with some areas rendered, with a sealed and pitched roof. The windows and doors are well fitted to the walls. There were gaps under an external vent, between a wall and soffit, into soffit boxes and a gap into shutter housing where bats could potentially roost (See building photos in Appendix I & Phase 1 habitat map in Appendix IV).

No evidence of bats or nesting birds including droppings was identified on the building exterior, although the building had some potential for roosting bats and nesting birds. Nest boxes suitable for small birds including Blue tit *Cyanistes caeruleus* and House sparrow were identified at the rear of the building.

Internal Inspection

During the internal inspection, no evidence of nesting birds or bats including bat droppings was identified within the building, which was very light and airy and currently in use. The loft spaces were identified as areas where bats could potentially roost and birds could potentially nest, but no evidence of bats or birds was identified within these areas. (See photos in Appendix I).

Habitats On Site

Amenity Grass

Small areas of amenity grass were identified on, and adjacent to the proposed development site, one with an Alder *Alnus glutinosa* tree with no bat roost potential.

Hedgerow

An intensively managed Hawthorn *Crataegus monogyna* hedge was also identified at the site.

Trees And Scrub

A line of trees and scrub including Sycamore *Acer pseudoplatanus*, Ash *Fraxinus excelsior*, Blackthorn *Prunus spinosa*, Hazel *Corylus avellana* and Field Maple *Acer campestre* running along the site boundary with Cwm Lane was also identified. A large pond was also identified adjacent to the proposed development site (See photos in Appendix I and habitat map in Appendix IV).

Invasive Species

The survey did not identify any invasive species on site.

Animals

No animals or protected species were identified on the proposed development site during the site walkover, although Mallard and Moorhen *Gallinula chloropus* were identified in the pond adjacent to site.

Potential For Protected Species At The Site

From the desk study and site walkover, the habitats on or adjacent to site have been identified as having potential for use by individual foraging and roosting bats such as Common & Soprano Pipistrelle, Daubenton's *Myotis daubentonii* on the site boundaries, the large pond and also within the visitor centre building.

The adjacent habitats could potentially offer refuge and foraging opportunities for individual Otter *Lutra lutra*, and also Common Toad *Bufo bufo* and Common Frog *Rana temporaria* within the pond, hedgerow, boundary trees and underneath dead wood and leaf litter. The site could potentially offer refuge and foraging opportunities for individual Hedgehog, Grey squirrel *Sciurus carolinensis* and Wood mouse *Apodemus sylvaticus*.

The site or adjacent habitats could offer foraging and refuge opportunities for insects including detritivores. The site could also offer nesting and foraging opportunities for small birds such as Wren *Troglodytes troglodytes*, Blackbird *Turdus merula*, Blue tit *Cyanistes caeruleus*, Dunnock *Prunella modularis* and the other species listed in the desk study results. The Alder tree in the proposed development footprint, was identified as having none bat roost potential. The trees along Cwm Lane have bat roost potential, but these are being retained. (See photos in Appendix 1).

Conclusions

The survey and appraisal undertaken on 13th December 2024 found no evidence of bat or bird use within the building. It is considered taking into account the features found within the building, their location, immediate surroundings and the 2024 Aderyn species data search report, the building has Moderate potential to support roosting bats and nesting birds.

Identification Of All Biodiversity To Be Lost, Including Categorisation Of Habitats According To Importance

- Due to the small proposed building footprint shown on the proposed development plan, a small area of amenity grass and the semi-mature Alder tree will be lost. The line of boundary trees and scrub along Cwm Lane and the Hawthorn hedgerow and large pond will be retained. The hedgerow and pond habitats on site are listed as habitats of principal importance⁶.

Recommendations

Avoidance, Mitigation And Compensation And Enhancement Measures

Nesting Bird Mitigation

- As the building, nest boxes and Alder tree are good habitat for nesting birds, it is advised these are ideally demolished and felled between September and February, otherwise an ecologist will be required to check the building and tree before demolition and felling between March and August.
- If any active bird nests are found⁷, a suitable minimum 5 metre buffer around the nest must be marked by the site ecologist, until the ecologist confirms the chicks have fledged the nest.

Roosting & Foraging Bat Mitigation

- Due to the building identified as having potential for roosting bats, two further emergence surveys of the building as per current Bat Conservation Trust Survey Guidelines is required.
- It is advised that the adjacent pond and line of trees along Cwm Lane, remain as a dark corridor, and are not illuminated by artificial lighting at night. This will also benefit Otter potentially using or commuting through the adjacent pond.

Other Mitigation

- Suitable pollution prevention must be put in place to avoid polluting the large pond and Monmouthshire Brecon Canal adjacent to site.
- No netting, pipes or items that animals could become trapped in are to be left lying around during construction on site. The construction site should ideally be heras fenced to prevent animals entering site.

⁶<https://www.biodiversitywales.org.uk/Section-7>

⁷In Wales - all wild birds, their young, nests and eggs are protected under the Wildlife & Countryside Act 1981. It's an offence to: Damage or destroy the nest of any wild bird while it's in use or being built. Destroy or remove any egg of any wild bird.

- All excavations must have at least one sloped side with a gentle enough gradient to allow animals to escape if they fall into the excavation.

Recommended Compensation & Enhancement For Biodiversity

- Trees including Cherry, Rowan and Holly are to be incorporated into the landscape design and planted at the site to ensure flowering and fruiting of the species will provide continued resources for birds, mammals and insects.
- A suitable management plan incorporated into the landscape design to ensure the planted trees do not perish is to be implemented.
- Existing bird nest boxes are to be retained and installed on new building or trees along Cwm lane.
- Bat boxes such as Beaumaris wood crete bat boxes to be installed on new building.

We trust the methodology, findings and recommendations are clearly described and fulfil the requirements. Should you have any queries, please do not hesitate to contact us.

Yours sincerely



Chrispian Snell BSc (Hons) MCIEEM
Ecologist

Encs	Appendix I	Building ecological inspection photos
	Appendix II	Site plans
	Appendix III	Desk study results
	Appendix IV	Phase 1 habitat map

Appendix I – Ecological appraisal photos

Front of visitor centre building



Side of building



Rear of building



Boundary trees adjacent to Cwm Lane



Intensively managed boundary hedgerow



Proposed development area & Alder



Sealed pitched roof

Large pond adjacent to site



Gap under extractor fan & into soffit



Gap between shutter and barge board

Gap into soffit



Gap in soffit



Gap in soffit



Gap in shutter casing



Bird nest boxes on building



Loft space



Loft space



Loft space



Building interior



Appendix II – Site plans

3.3 Existing Topo

- 3no accessible parking bays
- 2no EV parking bays
- 45no standard parking, including 6no dedicated staff bays
- 4no cycle hoops
- External seating area outside the cafe
- Recently completed new stone wall between the pond and tree/ grass verge, along with pond footpath surface improvements
- External drinking fountain
- Boat ramp for maintenance access to pond
- Site security barrier to deter out of hours anti-social activity





Appendix III – Desk study results



Aderyn

LERC Wales' Biodiversity Information & Reporting Database

Customer Reference: Fourteen Lock
Canal Centre [PUBLIC]

LERC Reference: 0245-737

Date: 02-Jan-2025 10:37

Search Results Summary

Package B: Priority Species 1km Search for relevant species, designated sites and Phase I habitats within 1km of your location(s)

Species Records	865
Pri. Species	371
Cons. Concern	303
Loc. Important	55
Species Status	136
Invasive Non-Native	136
Species Status	136
Sites	7
Habitats	6

Location

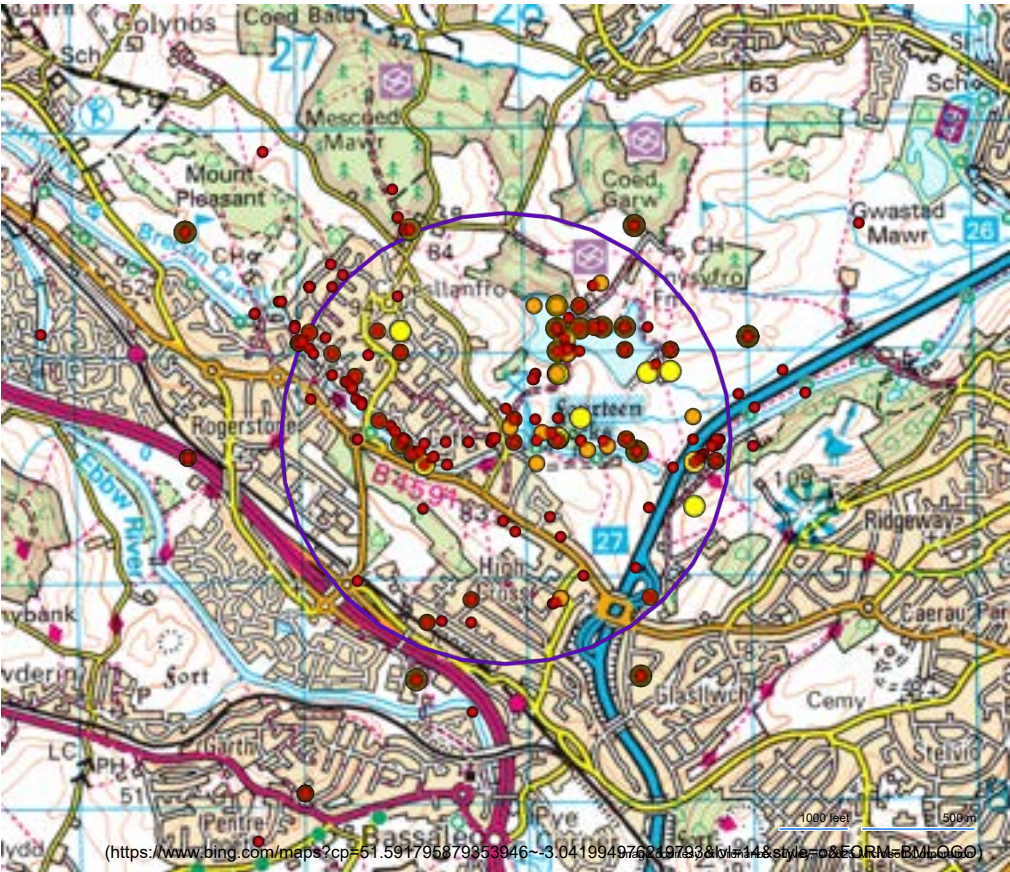
Location Type: Gridref
Details: ST2791388619
Area m²: 3,125,056



Species Map

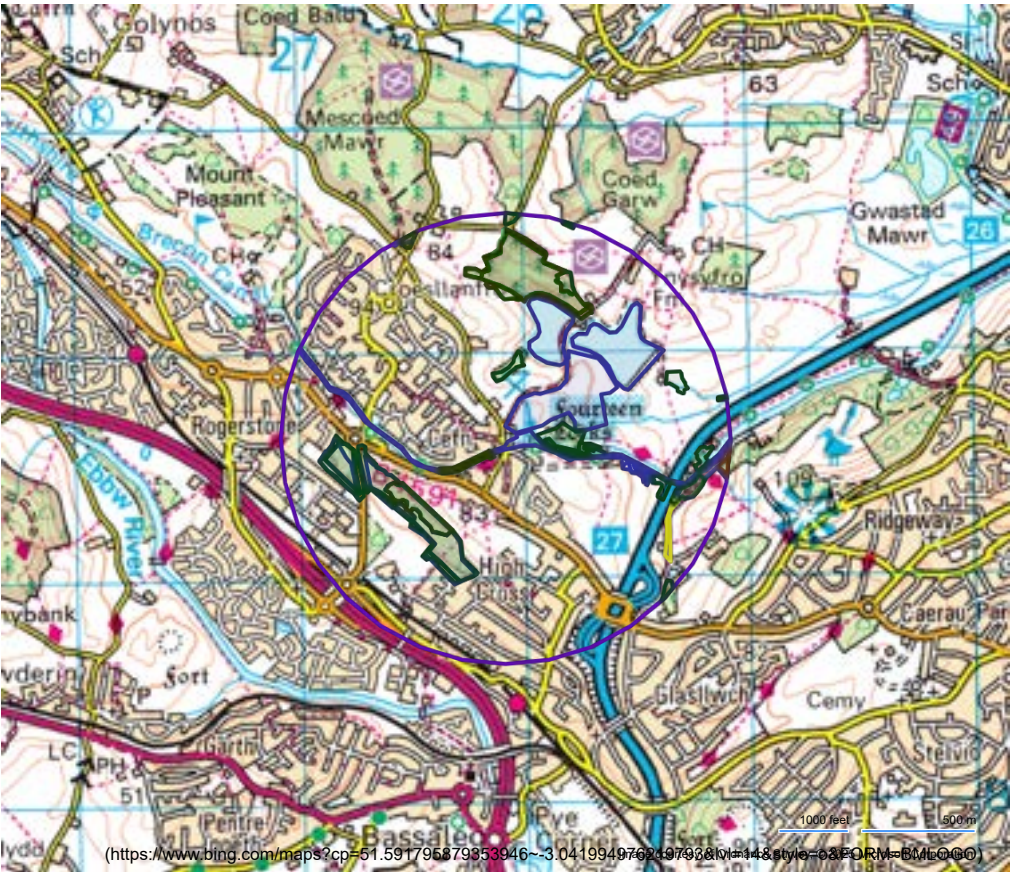
Species records are mapped below. Records are mapped as centred points (centre of grid reference polygon).

Icon	Name
	Pri. Species
	Cons. Concern
	Loc. Important



Designated Sites Map

Col.	Name
	Local Nature Reserve (16,354m ²)
	Wildlife Site / SINC (Adopted) (326,396m ²)
	Regionally Important Geodiversity Site (1,945m ²)
	Ancient Semi Natural Woodland (139,886m ²)
	Plantation on Ancient Woodland Site (112,175m ²)
	Ancient Woodland Site of Unknown Category (727m ²)
	NRW Priority Area (Woodland - PAWS) (112,175m ²)



Habitats Map

Col.	Name
	Semi-natural broadleaved woodland (107,724m ²)
	Standing water (103,051m ²)
	Semi-improved neutral grassland (69,892m ²)
	Running water (34,560m ²)

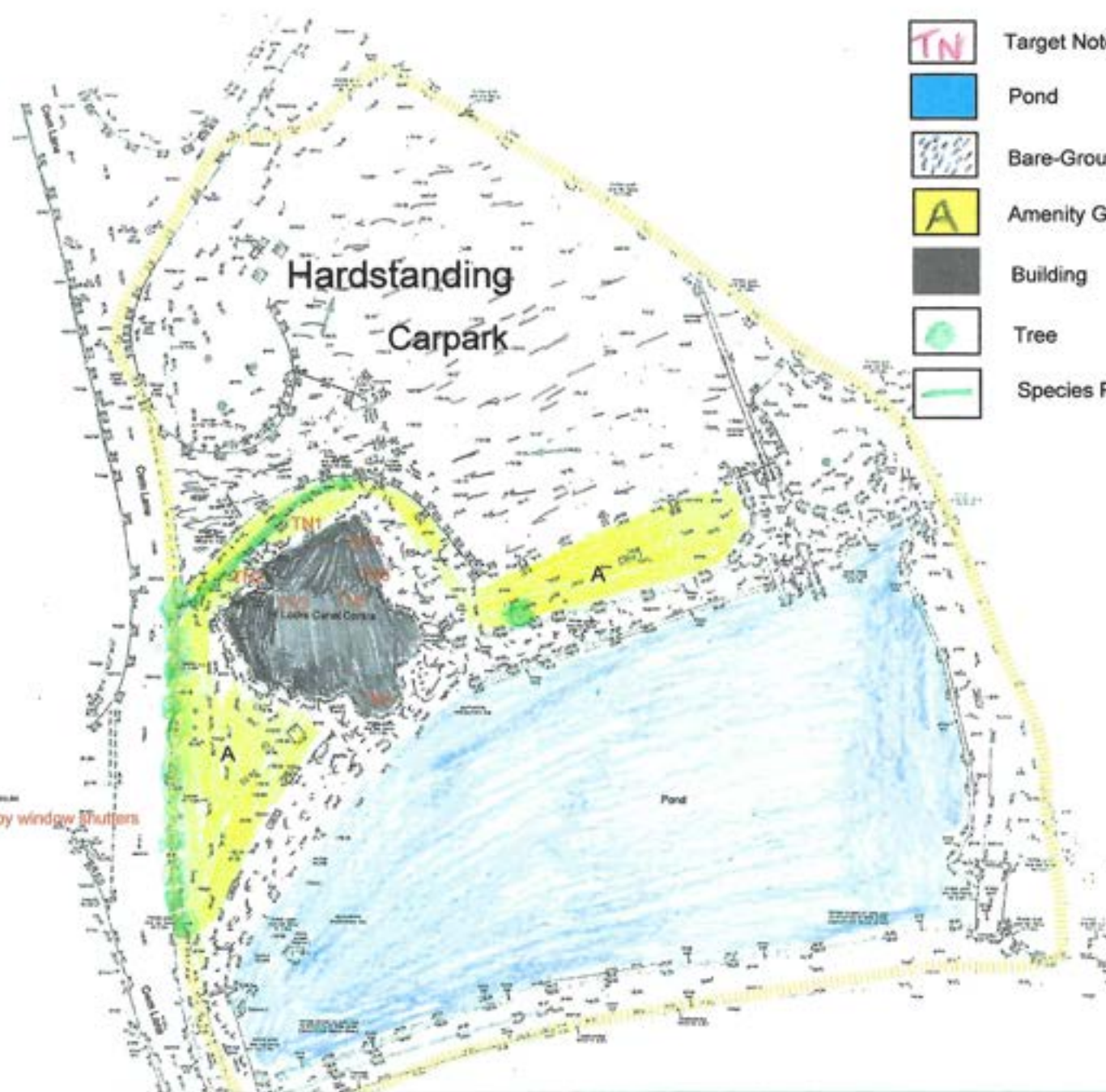


Appendix IV – Phase 1 habitat map

Fourteen Locks
Visitor Centre

Key

	Target Note
	Pond
	Bare-Ground/Hardstanding
	Amenity Grass
	Building
	Tree
	Species Poor Hedge



Target Notes

- TN1 - PRF gap under roof vent
- TN2 - PRF gap between wall & soffit box & roof corner & soffits by window shutters
- TN3 - PRF gap into soffit
- TN4 - PRF gap into soffit box
- TN5 - PRF gap into soffit box
- TN6 - PRF gap into soffit box
- TN7 - PRF gap into shutter housing