

The Boat House

Ecological Assessment

December 2021



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1 INTRODUCTION

1.1 Background

1.1.1 Derek Finnie Associates was commissioned by Robert Rigby Architects Ltd, on behalf of The Reading School, to undertake an ecological assessment of an area of land identified for a replacement Boat House, at the end of Cow Lane, Reading, herein referred to as the 'Site'. This is currently a proposal to construct a new Boat House on the site of a previous Boat House which burnt down in December 2019.

1.1.2 A consultation response from Reading Borough Council's Ecology Consultant on the proposal stated:

The application site comprises an area of land approximately 40m south of the River Thames where it is proposed to erect a new boat house to replace the building that was burnt down recently.

The site is located at the end of Cow Lane and is adjacent to the River Thames which is a priority habitat (as per the NPPF) and the site, the river, and other surrounding habitats are likely to be used by a range of protected and priority species including bats, reptiles, nesting birds, otter, and water vole.

As such, an ecological assessment (comprising an extended Phase 1 Habitat and Species Scoping Survey, any phase 2 surveys, and details of ecological enhancements would need to be provided) to assess the potential impacts the proposals may have on protected and priority species, priority habitats including the river Thames.

1.1.3 To this end, an Extended Phase 1 Habitat survey of the Site was undertaken in November 2021. The following report describes the methodology employed, describes the current ecological conditions within the Site, evaluates the ecological receptors identified and assesses the potential impact of the proposal based on information gathered to date.

2 LEGISLATIVE FRAMEWORK

2.1 National policy and Guidance

Legal Framework

- 2.1.1 The legislative framework applicable to this assessment is summarised below and outlined in Appendix 1.

International Conventions and Directives

- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive);
- Council Directive 2009/147/EC on the Conservation of Wild Birds (Birds Directive);
- The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979;
- The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1983; and
- Convention on Biological Diversity 1992.

National Legislation

- Environment Act 2021
- The Wildlife and Countryside Act 1981 (WCA);
- The Conservation of Habitats and Species Regulations 2017;
- The Countryside and Rights of Way Act 2000 (CROW);
- Natural Environment and Rural Communities Act 2006 (NERC);
- The Protection of Badgers Act 1992; and
- The Hedgerow Regulations 1997.

Statutorily Protected Sites

- 2.1.2 Local Nature Reserves (LNRs); National Nature Reserves (NNRs); Sites of Special Scientific Interest (SSSIs); Special Areas of Conservation (SAC); and Special Protection Areas (SPAs) contain examples of some of the most important natural and semi-natural ecosystems in Europe and receive strict protection under United Kingdom (UK) legislation. Although not strictly protected under legislation, Ramsar sites are given the same level of protection through policy.

Non-Statutory Sites

- 2.1.3 Non-statutory sites of county conservation value are designated by Local Planning Authorities (LPAs); within Berkshire these are known as Local Wildlife Sites (LWS). Such sites are afforded a measure of protection in local development plans.

Protected Species



- 2.1.4 Under UK legislation, a number of species, including bats *Chiroptera* sp. and great crested newts *Triturus cristatus* are strictly protected from death, injury or harm; whilst places used for their shelter or rest are protected from damage, disturbance and destruction. Certain species such as some reptiles and birds only receive partial protection under UK legislation, e.g. protection from killing / injuring only or protection at certain times of the year only.

Invasive Weeds

- 2.1.5 The WCA 1981 makes it an offence to plant or otherwise cause to grow in the wild numerous species including Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum*.

Non-Statutory Policies

- 2.1.6 The UK Biodiversity Action Plan (UK BAP) was established in response to the global Convention on Biological Diversity, 1992. Individual Action Plans define actions and measures to meet the conservation objectives defined in the strategy and specify measurable targets. They determine the broad habitats and species that are of value to the natural environment of the UK and identify actions and projects that could be undertaken to help protect or enhance the national biodiversity.
- 2.1.7 Local Biodiversity Action Plans (LBAPs) are implemented through planning policy, identifying habitats and species in need of conservation action at the local or regional level. BAPs in the UK have no statutory status but provide a framework for implementing conservation requirements.

Planning Policy

National Planning Policy

National Planning Policy Framework

- 2.1.8 The following objectives relating to biodiversity conservation are considered relevant to this assessment. The National Planning Policy Framework (NPPF) seeks to:
- Protect and enhance valued landscapes, geological conservation interests and soils;
 - Recognise the wider benefits of ecosystem services;
 - Minimise impacts on biodiversity and provide net gains in biodiversity, where possible, contribute to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - Prevent both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability;
 - Remediate and mitigate despoiled, degraded, derelict, contaminated and unstable land, where appropriate; and
 - Prevent the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.

Local Planning Policy

- 2.1.9 Reading Borough Council's Local Plan (adopted November 2019) is also relevant, especially the following policies:

EN12: BIODIVERSITY AND THE GREEN NETWORK

The identified Green Network, the key elements of which are shown on the Proposals Map, shall be maintained, protected, consolidated, extended and enhanced. Permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network. The Green Network comprises:

- *Sites with identified biodiversity interest - Local Wildlife Sites, Local Nature Reserves, Biodiversity Opportunity Areas, protected and priority species and their habitats, Priority and Biodiversity Action Plan habitats, and the River Thames and all its tributaries (including the River Kennet and the Kennet & Avon Canal); and*
- *Areas with potential for biodiversity value and which stitch the Green Network together – designated Local Green Space and open green spaces, and existing and potential Green Links.*

New development shall demonstrate how the location and type of green space, landscaping and water features provided within a scheme have been arranged such that they maintain or link into the existing Green Network and contribute to its consolidation. Such features should be designed to maximise the opportunities for enhancing this network. All new development should maximise opportunities to create new assets and links into areas where opportunities are as yet unidentified on the Proposals Map.

On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible. Development should:

- *Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and*
- *Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable.*

In exceptional circumstances where the need for development clearly outweighs the need to protect the value of the site, and it is demonstrated that the impacts cannot be: 1) avoided; 2) mitigated or; 3) compensated for on-site; then new development will provide off-site compensation to ensure that there is "no net loss" of biodiversity. Provision of off-site compensation shall be calculated in accordance with nationally or locally recognised guidance and metrics. It should not replace existing alternative habitats, and should be provided prior to development.

EN14: TREES, HEDGES AND WOODLANDS

Individual trees, groups of trees, hedges and woodlands will be protected from damage or removal where they are of importance, and Reading's vegetation cover will be extended. The quality of waterside vegetation will be maintained or enhanced.

New development shall make provision for tree retention and planting within the application site, particularly on the street frontage, or off-site in appropriate situations, to improve the level of tree coverage within the Borough, to maintain and enhance the character and appearance of the area in which a site is located, to provide for biodiversity and to contribute to measures to reduce carbon and adapt to climate change. Measures must be in place to ensure that these trees are adequately maintained.

3 METHODOLOGY

3.1 Data Search

- 3.1.1 A review of the Government's MAGIC website was undertaken for the location and extent of statutory protected sites within 2km of the Site, extending to 5km in the case of Natura 2000 sites.
- 3.1.2 Given the extent of the Site, and the habitats present, it was not deemed necessary to undertake a data search with the Local records Centre, in line with the information presented in Appendix 2 of CIEEM (2018a)

3.2 Habitat Survey

- 3.2.1 An 'extended' Phase 1 Habitat Survey was carried out in November 2021; this followed the methodology presented by the JNCC (2010). The Phase 1 technique aims to classify each habitat into categories based on the assemblage of plant species present, with the dominant plant species for each habitat being noted. In some cases, sub-divisions or modifications of the standard categories can be made where this is useful in providing further detail.
- 3.2.2 An 'extended' form of the basic methodology was employed to determine whether any notable or protected species of fauna utilise the study area, in particular badgers, bats, amphibians, reptiles and birds. In the absence of direct evidence of these species, an assessment was made on the potential for the site to support such species.

3.3 Badger Survey

- 3.3.1 Potential badger *Meles meles* habitat had been identified from analysis of aerial photography of the wider area. Hence, all suitable areas within the proposed development site were searched for signs of use or occupancy by badgers during the November 2021 survey.
- 3.3.2 The survey aimed to locate and record field sign evidence of badger activity, including paths, push-throughs, foraging signs, latrines, prints and setts.
- 3.3.3 The following criteria were used when classifying any setts found (after Thornton 1988):

Main Setts: These usually have a large number of holes with large spoil heaps and generally look well used. They usually have well defined paths to and from the sett and between sett entrances. Although normally the breeding sett, it is in continual use all year round. It is possible to find a main sett that has become disused because of excessive disturbance.

Annexe Setts: These are generally close to a main sett, within 50m or so, and are usually connected to the main sett by one or more obvious, well-worn paths. They consist of several holes, but are not necessarily in use all the time, even if the main sett is very active.

Subsidiary Setts: Often these have only a few holes, are usually at least 50m from a main sett, and do not have an obvious path connecting them with another sett. They are not continuously active.



Outlier Setts: These usually only have one or two holes, often have little spoil outside the hole, have no obvious path connecting them with another sett, and are only used sporadically.

3.4 Preliminary Bat Roost Assessment

- 3.4.1 The potential of the trees around the periphery of the Site to support bat was assessed against the criteria in Table 1 (after BCT 2016).

Table 1. Assessment criteria for bat roost evaluation.

Potential	Features
High	A structure or trees with one or more potential roost sites that are obviously suitable for use by large numbers of bats on a more regular basis
Moderate	A structure or trees with one or more potential roost sites that could be used by bats but unlikely to support a roost of high conservation status.
Low	A structure or trees with one or more potential roost sites that could be used by individual bats opportunistically; OR trees with no obvious potential, but of a size and age that indicates a full climbing survey could result in cracks or crevices not visible from the ground being found.
Negligible	Trees with no potential to support roosting bats.

3.5 Survey Constraints

- 3.5.1 Phase 1 can be undertaken at any time of the year, with November being considered to be suitable, although species that flower early in the year may have been under recorded. But given the habitats within the Site, this is not likely to have altered the findings significantly, therefore confidence in the results is moderate to high.
- 3.5.2 The survey was undertaken in line with the latest sectoral guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM) and BS 42020: 2013 *Biodiversity – Code of Practice for Planning and Development*.

4 SITE DESCRIPTION

4.1 Desk Study

- 4.1.1 There are no statutory designated sites within 5km of the application site.
- 4.1.2 Reading Borough Council's Ecology Consultant suggests the River Thames, which lies approximately 50m to the north of the Site is "*a priority habitat (as per the NPPF)*". Whilst Priority Habitats are mentioned in NPPF (at paragraph 179(b)), they are not defined within NPPF, but instead within a list published by the Secretary of State under section 41 of the Natural Environment and Rural Communities Act 2006 which more or less mirrors the original UK Biodiversity Action Plan list. Definitions of the habitats included within the Priority Habitats are produced by Biodiversity Reporting and Information Group (BRIG).
- 4.1.3 Within the definition presented for River Priority Habitats, Maddock (2008) states that a river would be classified as a Priority Habitat if it meets one of the following criteria:
- Riverine water bodies of high hydromorphological/ecological status
 - Headwaters
 - Occurrence of the EC Habitat Directive Annex I habitat
 - Chalk Rivers
 - SSSIs
 - Species including:
 - i. Annex II Habitats Directive species 3
 - ii. BAP priority species
 - iii. Invertebrate species which are strongly indicative of river shingle.
- 4.1.4 This section of the River Thames does not appear to meet any of the above criteria; hence it would not be considered a Priority Habitat. It is not shown as such on the MAGIC database.

4.2 Extended Phase 1 Survey

- 4.2.1 The Site supports area of tall ruderal vegetation, with areas of bare soil, developing over the site of the previous Boat House. A line of three semi-mature horse chestnut and one silver birch is present immediately to the east, outside the application boundary. A hardstanding track is located immediate to the south and west. To the north is an area of well-maintained amenity grassland with the occasional tree. The Thames lies 50m to the north of the Site boundary.
- 4.2.2 The following Phase 1 habitats were encountered within the Site:
- Tall ruderal; and
 - Bare ground.
- 4.2.3 Each habitat is described in turn below and depicted on Figure 1 (see also Plates 1 - 5).

Tall ruderal

- 4.2.4 The Site is dominated by a tall ruderal community that appears to be developing on an area of recently bare ground. Common nettle *Urtica dioica* is the most abundant species, with lesser amounts of creeping thistle *Cirsium arvensis*, ragwort *Senecio jacobaeae*, white dead-nettle *Labium alba*, broad-leaved dock *Rumex obtusifolius*, prickly sow thistle *Sonchus asper*, yarrow *Achillea millefolium*, mullein *Verbascum thapsus* and bramble *Rubus fruticosus* agg. also noted.

Bare ground

- 4.2.5 Bare ground accounts for approximately 20% of the Site; this is interspersed throughout the tall ruderal.

4.3 Fauna

- 4.3.1 No evidence of badger activity was encountered within the Site, and the Site was assessed as having negligible potential to support such species. No badger activity was noted in the immediate surrounding area either.
- 4.3.2 None of the trees within the Site displayed any features that could be exploited by roosting bats.
- 4.3.3 The Site may provide some limiting foraging habitat for bats but given the extent of the Site and alternative foraging areas in the vicinity, the Site is unlikely to provide an important bat feeding area.
- 4.3.4 There are no waterbodies within the Site or in the immediate vicinity, hence the potential for terrestrial phase amphibians to be present is negligible.
- 4.3.5 Given the short nature of the sward around the Site and its relative isolation resulting from the hardstanding track, it was not assessed as suitable for reptiles.
- 4.3.6 Given the habitats present, the Site is unlikely to support common, widespread bird species associated with the urban fringe environment.
- 4.3.7 Given the distance to the River Thames and the paucity of suitable habitats within the Site, the potential for with water vole or otter was assessed as negligible.
- 4.3.8 No other uncommon species, or species of a raised conservation concern were noted within the Site and the Site was assessed as having negligible potential to support such species.

5 EVALUATION

5.1 Definition of ecological value

- 5.1.1 While some level of subjectivity is unavoidable when apportioning value to ecological features and resources, certain parameters and points of reference can be used to help ensure consistency. Those used in this appraisal are explained below.
- 5.1.2 Sites already possessing statutory or non-statutory nature conservation designations will have been subjected to some form of evaluation process in the past, and their importance defined at a geographical scale (e.g. international, national, local). For these, evaluation will generally reaffirm their qualifying attributes, or in some cases may identify where designation may no longer be appropriate.
- 5.1.3 Factors such as extent, naturalness, rarity, fragility and diversity are all relevant to the determination of ecological value, and for the evaluation of sites and habitat features outside designated sites, these and other criteria as described by Ratcliffe (1977), may be applied. Ratcliffe's criteria are integral to the procedure for selecting both Sites of Special Scientific Interest and many non-statutory designation systems in the UK, and therefore remain an accepted standard for site evaluation.
- 5.1.4 In applying these criteria, attention may be drawn to the relative scarcity or abundance of features within the survey area and in the wider geographical context. Some criteria are however absolute and not relative to scale. Ancient woodland, for example, is fragile irrespective of whether it is being considered in an international or local context. Similarly, the value of an otherwise poor habitat may be elevated if it is central to the survival of a rare species.
- 5.1.5 Where evaluation is important for the purposes of informing decisions related to land-use planning and development control, the above approach needs to be supplemented by consideration of whether individual species are subject to legal protection, or whether habitats or species are present which have been identified as 'priorities' for biodiversity conservation in the UK. Planning authorities have a statutory duty to further biodiversity objectives and the presence of such resources may be material to the determination of development control decisions.
- 5.1.6 Further indications of conservation status for individual species are provided by reference to the Red Data Book system, the Vascular Plant Red Data List for Great Britain (Cheffings and Farrell 2006) or for birds by reference to the Birds of Conservation Concern (Stanbury *et al.* 2021) This divides birds into three lists; Red List (birds of high conservation concern), Amber List (birds of moderate conservation concern) and Green List (not of conservation concern).
- 5.1.7 Scales of comparison varying from the international to the context of the local area may be used to define the measure of importance attached to individual features. The definition of geographic terms can vary, but in this evaluation the geographic frame of reference contained within the CIEEM guidelines (CIEEM 2018b) is used, as summarised in Table 2.



Table 2. Ecological Evaluation Criteria

Value/Importance	Criteria
International (European)	Habitats An internationally designated Site or candidate Site (Special Protection Area [SPA]), provisional SPA, Special Areas of Conservation (SAC), candidate SAC, Ramsar Site, Biogenetic / Biosphere Reserve, World Heritage Site or an area that would meet the published selection criteria for designation. A viable area of a habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat, which are essential to maintain the viability of a larger whole. Species Any regularly occurring population of internationally important species, threatened or rare in the UK (i.e. a UK Red Data Book species) or, of uncertain conservation status or, of global conservation concern. A regularly occurring, nationally significant population/number of an internationally important species.
National (English)	Habitats A nationally designated Site (Site of Special Scientific Interest [SSSI], National Nature Reserve [NNR], Marine Nature Reserve [MNR] or a discrete area), which would meet the published selection criteria for national designation (e.g. SSSI selection guidelines). Species A regularly occurring, regionally or county significant population/number of an internationally/nationally important species. Any regularly occurring population of a nationally important species, threatened or rare in the region or county.
Regional (South east)	Habitats Sites that exceed County-level designations, but fall short of SSSI selection criteria. Species Any regularly occurring, locally significant population of a species listed as being nationally scarce, which occurs in 16 of 100 10km² squares in the UK. A regularly occurring, locally significant population / number of a regionally important species. Sites maintaining populations of internationally/nationally important species that are not threatened or rare in the region or county.
Authority Area (e.g. County or District) (Berks)	Habitats Sites recognised by local authorities, e.g. Local Wildlife Sites (LWS). County/District Sites that the designating authority has determined meet the published ecological selection criteria for designation, including Local Nature Reserves (LNR). A diverse and/or ecologically valuable hedgerow network. Semi-natural ancient woodland greater than 0.25ha. Species Any regularly occurring, locally significant population of a considered regional rarity or localisation. Sites supporting populations of internationally/nationally/regionally important species that are not threatened or rare in the region or county, and not integral to maintaining those populations. Sites/features scarce in the County / District or that appreciably enrich the County/District habitat resource.
Local (immediate local area or village importance)	Habitats Areas of habitat that appreciably enrich the local habitat resource (e.g. species-rich hedgerows, ponds etc). Sites that retain other elements of semi-natural vegetation that due to their size, quality or the wide distribution within the local area are not considered for the above classifications. Semi-natural ancient woodland smaller than 0.25 ha. Species Populations/assemblages of species that appreciably enrich the biodiversity resource within the local context. Sites supporting populations of county/district

Value/Importance	Criteria
	important species that are not threatened or rare in the region or county, and are not integral to maintaining those populations.
Site level (Limited ecological importance)	Sites that retain habitats and/or species of limited ecological importance due to their size, species composition or other factors.

5.2 Site Evaluation

- 5.2.1 No part of the Site or the immediate surrounding area is cover by any form of designation on ecological grounds.
- 5.2.2 None of the habitats within the Site would be considered to be of any ecological interest and hence have assessed as being of Negligible value.
- 5.2.3 No specially protected species, or species of a raised conservation concern, were identified within the Site. Beyond the occasional potential foraging bat, the Site was assessed as having negligible value to support such species.

6 DISCUSSION

- 6.1.1 The proposed construction of a replacement boat house on the site of the previous structure would result no significant adverse impact; the end result would be a return to the pre-December 2019 situation.
- 6.1.2 The construction activities would not pose any risk to any specially protected species, or species of a raised conservation status.
- 6.1.3 There would appear no reason, on ecological grounds, that would prevent the project proceeding.

REFERENCES

- BCT. 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines. Third Edition.* Bat Conservation Trust, London.
- Charter Institute of Ecology and Environmental Management (CIEEM) 2018a. *Guidelines for Preliminary Ecological Appraisal. Second Edition.* CIEEM, Winchester.
- Charter Institute of Ecology and Environmental Management (CIEEM) 2018b. *Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland. Third Edition.* CIEEM, Winchester.
- Cheffings, C.M. & Farrell, L. (eds), 2005. *The Vascular Plant Red Data List for Great Britain.* Joint Nature Conservation Committee.
- JNCC 2010. *Handbook for Phase 1 habitat survey - A technique for environmental audit.* Joint Nature Conservation Committee, Peterborough.
- Maddock, A (Eds) 2008. *UK Biodiversity Action Plan; Priority Habitat Descriptions: Rivers.* BRIG.
- Ratcliffe. D.R. 1977 *A Nature Conservation Review (Volumes 1 & 2).* Cambridge University Press.
- Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* **114**: 723-747

PLATES



Plate 1.

See Figure 1 for Plate locations.



Plate 2.



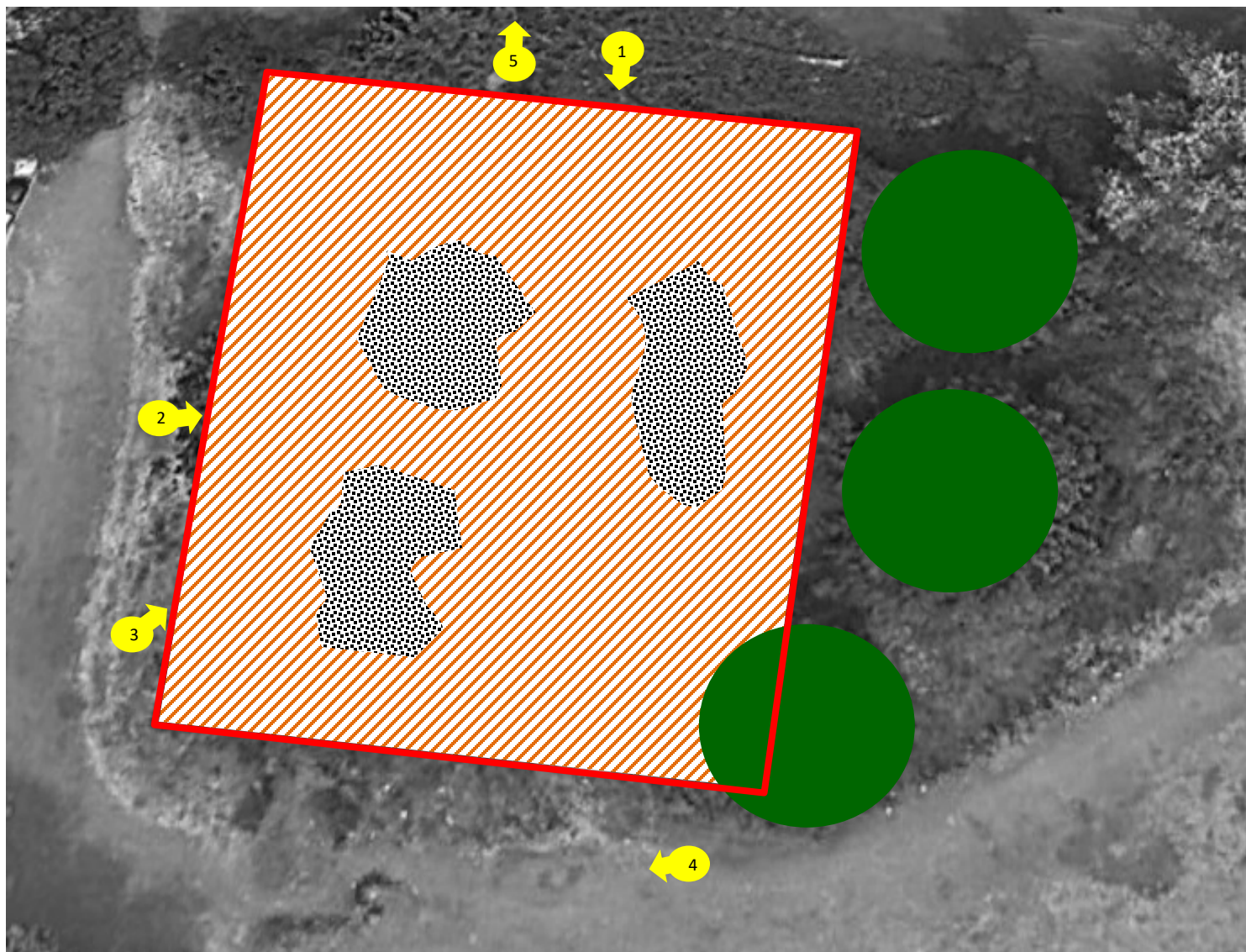
Plate 3.



Plate 4.

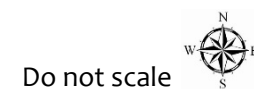


Plate 5.



Legend:

- Broad-leaved tree
- Tall ruderal
- Bare ground
- Site boundary



Do not scale

Drawing No: Figure 1

Title: Phase 1 Habitat Map

Date: December 2021

Project: Boat House

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