

**TIMSBURY LAKE, JINNY LANE,
TIMSBURY, HAMPSHIRE**

**UPDATED ECOLOGICAL
MANAGEMENT PLAN**

Final Document.

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Preliminary Ecological Appraisals • Protected Species Surveys and Licensing • NVC • EcIA • HRA • Management Plans
Habitats • Badger • Bats • Hazel Dormouse • Birds • Reptiles • Amphibians • Invertebrates • Riparian and Aquatic Species



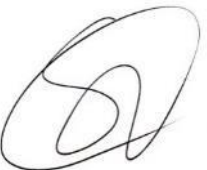
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1.0 INTRODUCTION

1.1 Background

Ecological Survey and Assessment Limited (ECOSA) have been appointed by Solent University to prepare an Updated Ecological Management Plan to inform the site team on the required management works in relation to protected species and habitats at Timsbury Lake, Jinny Lane, Timsbury, Romsey, Hampshire, SO51 0PF (hereafter referred to as ‘the site’).

Following the redevelopment of the Timsbury Lake site in 2010-2011 to create the Ship Handling Centre as part of the courses run by Warsash Maritime Academy, ECOSA have provided continued ecological monitoring and advice from the initial redevelopment and subsequent ecological enhancement works between 2011 and 2023. Protected species surveys and subsequent monitoring surveys have focused on bats, otter, hazel dormouse, water vole, breeding birds, reptiles, great crested newt and American mink, with monitoring undertaken on an annual basis where applicable. Monitoring at the site has been undertaken in accordance with the requirements set out within the Natural England European Protected Species Mitigation (EPSM) licence for otter, and in accordance with the water vole Method Statement (ECOSA, 2010a),

A Conservation Management Plan (CMP) (ECOSA, 2010b) was prepared by ECOSA to provide management prescriptions to initially address the construction of the Ship Handling Centre, and secondly address the post-construction maintenance management of the site. This document was approved by Test Valley Borough Council and has been adhered to since its approval. However, given the time which has elapsed since its production 14 years ago, and the changeable nature of protected species at the site, this Updated Ecological Management Plan is being prepared to provide an update on the management recommendations for the site.

1.2 The Site

The site is located in the village of Timsbury, approximately three kilometres north of Romsey, Hampshire, centred on National Grid Reference (NGR) SU 3561 2412 (**Map 1**).

The site comprises a man-made lake with associated islands and floating piers. Woodland habitat bounds the lake on all sides, with buildings associated with the Ship Handling Centre located in the north-west corner of the site. Access is obtained off Jinny Lane which runs parallel with the western site boundary. The surrounding landscape comprises agricultural land to the north, east and west, and an industrial estate to the south.

1.3 Aims and Scope of Report

The aim of this document is to provide an update on the ecological management regimes required at the site to ensure that there is a balance between preserving the biodiversity and allowing the functionality of the Ship Handling Centre. The management plan sets out the mitigation and management prescriptions for the site in order to retain the long-term ecological value.

1.4 Field Survey

1.4.1 *Habitat Classification and Condition Assessment*

To suitably inform on the habitats present within the site, and their condition, a site visit was undertaken. The field survey followed UK Habitat Classification (UKHab) methodology (UKHab Ltd, 2023), and covered all accessible areas of the site within the defined red line boundary.

The UKHab Survey Application, developed using the digital survey platform Coreo was used to map habitats in the field, collect the field survey data and photograph the site.

Whilst this site visit was not undertaken to support a Biodiversity Net Gain assessment, the condition assessment was based on the criteria within the Statutory Biodiversity Metric Condition Assessments (Natural England, 2023). Gaining an understanding of the condition of the habitats present within the site will allow for suitable management recommendations to be made.

1.4.2 *Survey Details*

The field survey was carried out by Olivia Walton and Joseph Hunt, Ecologists of ECOSA, on 27th June 2024. The weather conditions were dry with occasional sun, 100% cloud cover, an ambient temperature of 18°C and a light breeze.

1.4.3 *Survey Limitations*

Areas of woodland south of Timsbury Lake were not accessible during the field survey due to dense vegetation coverage and therefore were not subject to the condition assessment. However, a review of aerial photography demonstrates that the woodland habitats located either side of these areas are in similar condition and therefore this lack of access is not considered to be a significant limitation to this Ecological Management Plan.

2.0 MANAGEMENT PLAN OBJECTIVES

2.1 Introduction

This section provides an overview of the objectives of the Ecological Management Plan for the site. Specific objectives for each individual habitat type are detailed within the management prescriptions.

2.2 Overview of Management Plan Objectives

The overarching objective of the Ecological Management Plan is to retain and enhance the long-term ecological value of the site. These will be achieved through the following measures:

- The protection of retained habitats within the site that support multiple protected species; and
- Continuation of long-term management prescriptions for retained habitats to ensure the habitat diversity and suitability for wildlife is maintained, whilst allowing the functioning of the Ship Handling Centre.

2.3 Structure of the Management Plan

The general overarching management prescriptions for the site are provided within Section 3.0, with species specific management and mitigation measures detailed in Section 4.0.

The main habitat types which are the focus of this management plan are woodland, scrub, grassland, and hedgerows. Management prescriptions for each of these habitat types are detailed individually within Section 5.0.

3.0 GENERAL MANAGEMENT PRESCRIPTIONS

3.1 Introduction

This section provides an overview of the general management prescriptions for the site.

3.2 Review

As part of on-going monitoring and review process, the management plan will be periodically reviewed in order to ensure that the objectives are being met. Details of this review process are provided within Section 6.0.

3.3 Responsibilities

The implementation of the management plan will be the responsibility of the landowner, who will pass this onto the approved third-party contractors undertaking the management works.

3.4 Contractors

The proposed management works will be undertaken by specialist contractors with suitable experience in the management measures proposed. Monitoring and review will be undertaken in conjunction with suitably qualified ecologists with other specialists, such as arboricultural consultants employed/consulted as necessary.

4.0 SPECIES-SPECIFIC MITIGATION AND MANAGEMENT

4.1 Introduction

This section provides an overview of the species-specific mitigation measures and management prescriptions for the site. Where management prescriptions have been included, these are focused upon the areas subject to the most intensive use within the site as a result of the operational facility.

4.2 Bats

Bat activity surveys undertaken during the monitoring surveys have so far revealed that multiple bat species are using the site for foraging and commuting, with the most recent surveys in relation to bats (ECOSA, 2022) revealing at least eight species are utilising the site including common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, serotine *Eptesicus serotinus*, noctule *Nyctalus noctula*, long-eared bat *Plecotus*¹ species, Nathusius' pipistrelle *Pipistrellus nathusii*, Daubenton's bat *Myotis daubentonii* and *Myotis* bat species. These results are consistent with the results of previous monitoring of bat activity undertaken to date, and consistent with the characteristics of the species identified such as Daubenton's bat which utilises open areas of water for foraging.

In relation to roosting bats, two tree roost sites of soprano pipistrelle were identified from within the northern woodland during the initial bat monitoring surveys at the site (ECOSA, 2010a). Bat emergence and re-entry surveys undertaken of the teaching building in 2022 following the discovery of an unidentified bat within the ground floor facilities did not identify any further bats emerging or re-entering the building. Given the presence of the single individual, the teaching building was considered to contain a low status day roost of a species that regularly roosts in buildings such as soprano pipistrelle, common pipistrelle or brown long-eared bat *Plecotus auritus*.

Therefore, if any pruning and/or felling works of the on-site mature trees, or building refurbishment works are required they will need to be assessed by a suitably qualified bat licenced ecologist prior to works commencing. This will involve assessing whether the trees to be removed/managed, or the buildings subject to future works, have the potential to support roosting bats, and whether further assessment is required in accordance with current Bat Conservation Trust guidelines (Collins, J. (ed.), 2023).

¹ There are two species of long-eared bat, the brown long-eared bat *Plecotus auritus* and the grey long-eared bat *Plecotus austriacus*. These species can only be separated by examination of physical characteristics and Phylogenetic Analysis Identification of bat droppings. Unless confirmation of identification has been made by visual identification the two species shall be referred to in this report as long-eared bat. The brown long-eared bat is the commonest of the two species typically being found roosting within large roof voids although small voids and trees are also utilised. The grey long-eared bat is rare and confined to southern England and like the brown long-eared typically roosts in roof voids.

Bat boxes for a variety of species are located throughout the site, including upon the on-site buildings and woodland edges. To further enhance the site for bats utilising the site, in particular Daubenton's bat, it is recommended that additional bat roosting features are installed upon suitably mature trees along the woodland edge facing onto Timsbury Lake. As the species preferentially roosts within cavities in trees, (BTHK, 2018), bat boxes should be selected based on the internal dimensions and structure, with suitable boxes including the Improved Cavity Bat Box (**Figure 1**). This box contains a single large cavity inside with an internal ceramic heat sink to ensure improved temperature stability for roosting bats (Nestbox Company, 2022). If possible, natural tree roosting features should be created upon suitable tree species such as pedunculate oak *Quercus robur* including vertical splits to mimic hazard beams, or holes to mimic woodpecker holes. (Forest Research, 2010) . This method would be achieved by using a chainsaw to create natural features.



Figure 1: Improved Cavity Bat Box

4.3 Otter

Otter *Lutra lutra* have been recorded at Timsbury Lake since the ecological monitoring works began in 2011 – most recently identified in 2022 during the camera trap monitoring and otter surveys (ECOSA, 2022). Evidence of the species in the form of two otter spraint and feeding remains were identified during the spring and autumn otter surveys, whilst the camera trap monitoring recorded evidence of otter on five different occasions associated with the stream in the west of the site that flows into the River Test (**Figure 2** and **Figure 3**).



Figure 2: Otter alongside Timsbury Lake



Figure 3: Two otters at bridge within stream tributary of the River Test

It is recommended that this area of the lake is kept as secluded as possible from teaching activities in order to prevent human disturbance to the species. This is in addition to the areas already outlined within the EPSM licence, particularly the artificial otter holts (**Map 2**). All piling, dredging and/or digging works need to be avoided within the areas associated with the artificial holts to avoid any potential disturbance or destruction. Habitat management in relation to water vole (Paragraph 4.6) will additionally be of benefit for otter as this will promote site-wide terrestrial habitat connectivity.

4.4 Badger

Moderate levels of badger *Meles meles* activity were identified within the site prior to the redevelopment works in 2009/2010 (ECOSA, 2010b) however no specific surveys in relation to badger have been undertaken since given that no impacts on suitable badger habitat have resulted from the functioning of the site. As a result, badger is still considered to be present in the local area.

Woodland management within the site should take badger into consideration as the uprooting of trees has the potential to damage and/or destroy badger setts that may be present, and as a result impact individual badger. Advice from an ecologist should be sought if such woodland management works are to be undertaken.

4.5 Hazel Dormouse

Surveys for hazel dormouse *Muscardinus avellanarius* were undertaken at the site in 2009 during which no evidence of the species being present was recorded. No further species-specific surveys have been undertaken since given that no impacts on suitable hazel dormouse habitat have resulted from the functioning of the site. If extensive woodland management is required, then updating hazel dormouse surveys are recommended which may entail obtaining a mitigation licence from Natural England.

4.6 Water Vole

Impacts on water vole *Arvicola amphibius* were largely associated with the construction phase of the redevelopment and as a result a Natural England licence was obtained to permit the works which included the preparation of a Method Statement in relation to the species (ECOSA, 2010a). As a result, artificial water vole burrows were installed throughout Timsbury Lake as mitigation for the displacement works undertaken (**Map 2**). The most recent water vole monitoring works undertaken in 2022 identified four active and two disused water vole burrows and this evidence provides a positive indicator that the species is still residing at Timsbury Lake despite the historic construction works and usage of the site as a teaching facility.

Management works will be undertaken in accordance with **Appendix 1**, and any deviations from this will be subject to prior consent from a suitably qualified ecologist. The management of areas associated with the artificial water burrows will include the removal or suppression of any colonising woody vegetation including alder *Alnus glutinosa*, willow *Salix species* and bramble *Rubus fruticosus* on an annual basis, to favour at least a one metre wide water margin dominated by sedges and other herbaceous species. No roots will be removed in these areas however to avoid potentially collapsing/destroying burrows. This will be carried out in the period of December to February.

Any other removal of bankside vegetation will consist of the necessary minimum that is consistent with the operational needs of the facility. However, at all times areas of longer sedge dominated vegetation will be retained to a depth of approximately 75cm along the water's edge, above the water line. This will ensure the works will minimise their environmental impact on water vole and will promote suitable habitats where individuals can burrow and forage.

As a control measure for the removal of bankside vegetation, the installation of a knee rail along the northern boundary, or rope and post fencing, would ensure that excessive management encroachment does not occur and ensures that sufficient habitat is retained for the species.

4.7 Birds

Prior to the redevelopment works, breeding bird surveys were conducted at the site and the results indicated that the breeding communities present are generally typical of the woodland and wetland habitats present within the site. Since these formal surveys in 2009, no further bird surveys have been commissioned however breeding birds are present throughout the site, with personal communication with the site team on an annual basis confirming that great crested grebe *Podiceps cristatus* are still

breeding, and evidence of breeding mallard *Anas platyrhynchos* was also identified during the field survey in June 2024 (**Figure 4**).



Figure 4: Nest of mallard eggs

To avoid any potential impacts on breeding birds within the site, where possible, vegetation management/removal will be undertaken outside of the main bird nesting season which extends from March to August, inclusive. If this is not possible then the vegetation to be removed should be inspected by a suitably qualified person immediately prior to works commencing. Active nests will be left with an undisturbed buffer set by the supervising ecologist until nesting ends and chicks have fledged. If active nests are identified (individuals sitting on, eggs and/or chicks present), then there is the potential for the programme of the works to be affected.

4.8 Reptiles

Reptile surveys undertaken prior to the redevelopment works identified a peak count of seven grass snake *Natrix helvetica* as being present. Since the formal surveys, there have been incidental records of grass snake within the site, with the most recent record from the field survey undertaken in June 2024 whereby an individual adult was sighted moving from terrestrial to aquatic habitat off Otter Island in the north of the lake.

Given the consistent presence of at least one reptile species within the site, to ensure that reptiles are not impacted by site management works, a precautionary approach will be taken. Grassland throughout the site which has developed into tussocky structures suitable for foraging and sheltering reptiles, and dense scrub habitat suitable for sheltering and hibernation, will be retained wherever possible. However, if management is required for the operation of the site, the management works will be timed to coincide with the reptile active season which extends from April to October, inclusive. Vegetation removal/management will consist of the necessary minimum that is consistent with the operational needs of the facility. Grassland that is associated with the pathways within the woodland will have the width of the pathways restricted to avoid unnecessary habitat management above and beyond what is required. Scrub habitat

will avoid root removal outside of the active reptile season to prevent disturbing reptiles that may be sheltering or hibernating.

4.9 Great Crested Newt

Great crested newt *Triturus cristatus* have been recorded from within the ponds at the north-eastern area of the site since 2009. The 2024 monitoring surveys recorded a small population of the species, with eggs identified within two of the ponds, and therefore the species continues to breed within the site. In addition to the ponds within the north-east of the site, an individual great crested newt was identified on the driveway at the entrance to the site in the west in October 2022.

Given that the species has been identified commuting throughout the habitat along the northern site boundary, consideration for great crested newt will be required when undertaking management in relation to the grassland, scrub and any woodland habitat. The management for grassland and scrub habitat will follow the measures set out in Paragraph 4.8 and be undertaken during the great crested newt active season between April and October, inclusive. Any woodland management, including limb pruning and removal, will be considerate of where the arisings are stored and log piles created within cleared areas of habitat to avoid crushing of individuals.

4.10 Invertebrates

A suite of specialist invertebrate surveys were undertaken at the site prior to redevelopment works in 2009, and identified Nationally Scarce or Red Data Book terrestrial species, and the lakes as being of high conservation interest for aquatic invertebrate species.

Any woodland management in which log piles are created will be of benefit for invertebrate species within the site as these will provide additional foraging and sheltering opportunities. The retention of underwater tree roots associated with the ponds in the north-east of the site will be of benefit for aquatic invertebrate assemblages including mayflies and water beetles (Freshwater Habitats Trust, n.d.).

5.0 HABITAT-SPECIFIC MANAGEMENT

5.1 Introduction

This section provides an overview of the habitat-specific management objectives and prescriptions for the site – with **Map 3** showing the habitats present, and habitat conditions within **Map 4**.

5.2 Woodland

The habitat surrounding Timsbury Lake is dominated by Lowland Mixed Deciduous Woodland, and an area of wet woodland is present surrounding the great crested newt ponds in the north-east of the site. Pathways have been mown through the woodland creating rides which are used for access and associated with the functionality of the Ship Handling Centre to reach the piers along the northern side. Much of the woodland blocks on the southern side of the lake were not accessible during the field survey due to the dense vegetation structure present.

The condition assessment of the on-site woodland identified that the majority of the woodland blocks are in 'Moderate' condition. This classification was given due to significant browsing pressure present in 40% or less of the woodland, presence of only one or two woodland classes, and the lack of veteran trees. The woodland within the south-west of the site, and a small block immediately south of Pond 8 was classified as being in 'Poor' condition given that reduced species diversity was identified with only three to four native species present, lack of coppice regrowth and woodland classes, and no recognisable woodland NVC community at ground level.

5.2.1 Management Prescriptions

Most of the on-site woodland will be managed on a non-intervention to preserve the integrity of the Habitat of Principal Importance. The woodland along the northern lake boundary contains the non-native species buddleia *Buddleja davidii* and therefore controlling the distribution of the species is recommended. If the species begins to dominate the woodland shrub layer, a targeted removal programme should be considered to create more space on the woodland floor to allow native species to flourish. The removal programme will avoid the use of chemical control and focus of removing the plants from the root using hand tools instead to avoid any detrimental impacts from chemical leaching. This is also applicable to the woodland present to the west of Timsbury Lake where cherry laurel *Prunus lauroceosus* was identified. The distribution of the species should be monitored, and appropriate control measures implemented as per the recommendations set out for buddleia above.

Significant browsing damage was also identified along the northern woodland block and the installation of stock proof fencing may help to reduce this browsing pressure. This, in combination with the buddleia removal programme, may assist in improving the

habitat condition to 'Good'. The removal of non-native species will increase the areas of open space in the woodland, which in turn will allow for a more diverse woodland structure (with multiple classes) to grow, and the incorporation of the fencing will help to reduce damaged ground from hoof trampling.

It is recommended that habitat management of the wet woodland is undertaken using hand tools is undertaken between November to February to reduce excessive shading on the ponds. Such works will be sensitively timed in relation to protected species and will avoid digging up/removing roots to minimise impacts on soil structure. This will allow more light and space for marginal and emergent vegetation to develop.

5.3 Scrub

Areas of planted mixed scrub are present within the west of the site associated with the site entrance and was assessed as being in 'Poor' condition. This is due to the lack of a well-developed vegetated edge, and lack of clearings / rides within the scrub habitat. Varied life stages are also absent. Scrub is also present throughout the shoreline and also associated with the shrub layer within woodland habitat in the site however was not subject to condition assessment as it falls under the woodland habitat types its present within.

5.3.1 Management Prescriptions

The planted mixed scrub within the west of the site is native in provenance however is isolated in relation to surrounding woody habitat. It is therefore recommended that further native species planting is undertaken to promote habitat connectivity between this habitat and the nearby woodland. Any plants dying within the first year will be replaced with matching species. Light, regular, trimming of the shrubs in the first five years will encourage dense, bushy growth and is recommended. After five years, cutting will occur on a biennial basis (every two years) to provide a bushy habitat with suitability for a range of protected species.

The removal of shoreline woody vegetation (alder, willow and bramble) will be undertaken between December to February (Paragraph 4.6) to aim to reduce coverage down to 25% of the total bankside occupation, and subsequently allow approximately 75% to be occupied by herbaceous vegetation.

5.4 Ponds

There are eight distinct ponds located within the north of the site that were subject to great crested newt surveys in 2024 (ECOSA, 2024). Two of the eight ponds were assessed as being in 'Poor' condition given that over 10% of the surfaces are covered with duckweed / filamentous algae and the water quality was recorded as being of high turbidity. The remaining ponds were assessed to be in 'Moderate' condition due to having either less than 10% duckweed / algae coverage, or water of low turbidity.

5.4.1 Management Prescriptions

Whilst pond management is not required as part of site operations, given the dense overshadowing of the great crested newt ponds, it is recommended that rotational management of the mature trees is undertaken. This will involve either pollarding, coppicing or trimming the stems/trunks to ensure that at least 25% of the pond is left unshaded (Freshwater Habitats Trust, n.d.) however retention of the roots to provide suitable habitats for invertebrates. The rotational management should be undertaken to leave at least three years in between management to monitor the effects of the works. Works will need to be undertaken during the winter months (November to February, inclusive).

5.5 Grassland

Areas of grassland within the site are largely associated with woodland rides and site-wide access for the Ship Handling Centre staff. The ‘other neutral grassland’ (**Map 2**) present on the island in the north-east of the site has been assessed as being in ‘Poor’ condition due to the lack of variation in the sward height, evidence of physical damage from management regimes, and lower levels of species diversity. In comparison, the ‘other neutral grassland’ patch to the north of the lake by Pier 10 was assessed as being in ‘Good’ condition as it passed all the criteria by containing species diversity with indicator species typical of the habitat type present.

The ‘modified grassland’ within the west of the site has also been assessed as being in ‘Good’ condition. Despite the physical damage as a result of the mowing regime, the grassland contains the appropriate level of species diversity to qualify for ‘good’ condition and passes the other condition criteria including sward height variation, less than 20% scrub and bracken presence, and absence of invasive non-native species.

5.5.1 Management Prescriptions

Areas of grassland associated with the woodland rides, and grassland on the islands, will be managed during the period April to October (inclusive), and the width of the managed pathway limited to one metre wide. The sward will not be cut any lower than 25 millimetres in length and all arisings (cuttings) will be collected, with arisings piled in a suitable location away from the lake. This will help to prevent nutrient build-up. This in turn will promote species diversity within the sward and be of benefit for pollinating invertebrates within the site.

Areas used for burning organic material such as twigs and sticks were identified along the north of the lake and these such areas should be restricted in terms of the different locations utilised. This will ensure that physical damage to the grassland does not impact its condition. Controlled burning will only be undertaken where absolutely necessary, and only when the detritus piles are too large.

5.6 Hedgerows

Two hedgerows are present within the car parking area in the west of the site comprising hazel, hawthorn, spindle, field maple and white bryony. The condition assessment identified that these are in 'Moderate' condition.

5.6.1 *Management Prescriptions*

Hedgerow management should accord to the prescriptions set out in Paragraph 5.3.1 to avoid the nesting bird season and to encourage dense, bushy growth. Supplementary planting to increase the size of the hedgerows, or new hedgerow planting along this boundary to increase habitat connectivity is recommended.

6.0 MONITORING AND REVIEW

It is proposed that the party responsible for implementation of this management plan carry out regular *ad hoc* monitoring at the site to establish any obvious deviations or faults. Where any issues are highlighted, a suitably qualified ecologist will be consulted for advice where necessary.

An integral part of the management plan process will be a system of monitoring and a formal progress review. There will be a review meeting every three years attended by the Solent University, the management contractor, and ECOSA, to discuss the progress of the activities undertaken. This will enable issues to be identified and resolved where required. The meeting will take place to judge the effectiveness of the plan's aims, objectives and prescriptions.

The fixed-point photography surveys currently being undertaken as part of the ongoing ecological monitoring at the site (ECOSA, 2024) are recommended to be continued on an annual basis. This will provide an additional insight as to the success of the habitat management regime and target areas of greater success versus areas where alternatives will need to be explored within the review meetings.

7.0 TIMETABLE OF MANAGEMENT AND MONITORING WORKS

Management Prescription		Section Reference	Year ²											
			0	1	2	3	4	5	6	7	8	9	10	
Management Prescriptions	Installation of additional bat boxes and creation of natural roosting features to benefit roosting bats	4.2	+	+										
	Shoreline woody vegetation management in relation to water vole (December to February, inclusive) where required	4.6 and 5.3.1	+	+	+	+	+	+	+	+	+	+	+	
	Management of tree/ scrub/hedgerow habitat to be undertaken outside of nesting bird season (March to August, inclusive) where required	4.7, 5.2.1, 5.3.1 and 5.6.1	+	+	+	+	+	+	+	+	+	+	+	
	Grassland management, as necessary, to coincide with reptile and great crested newt active season (April to October, inclusive), arisings removed	4.8, 4.9 and 5.5.1		+	+	+	+	+	+	+	+	+	+	
	Rotational management of mature trees within woodland ponds	5.4.1		+				+				+		
Monitoring Progress Review and	Ad hoc monitoring by management contractors	6.0		+	+	+	+	+	+	+	+	+	+	
	Three year management review meeting	6.0		+			+			+			+	
	Annual fixed point photography surveys to monitor vegetation management	6.0	+	+	+	+	+	+	+	+	+	+	+	

² For the purposes of this management plan, the year this EMP has been prepared is referred to as “Year 0” with the management plan covering subsequent years “Year 1 – 10”.

8.0 REFERENCES

BTHK, 2018. Bat Roosts in Trees - A Guide to Identification and Assessment for Tree-Care and Ecology Professionals. Exeter, Devon: Pelagic Publishing.

CIEEM, 2017. Guidelines for Ecological Report Writing. Technical Guidance Series. [Online]

Available at: <http://www.cieem.net/publications/23/ecological-report-writing>

Collins, J. (ed.), 2023. Bat Surveys for Professional Ecologists; Good Practice Guidelines (4th Edition), London: The Bat Conservation Trust.

ECOSA, 2010a. Water Vole Method Statement Document 2, Delivery Information. Version 2, North Baddesley, Hampshire: Ecological Survey and Assessment Limited.

ECOSA, 2010b. Conservation Management Plan, North Baddesley. Hampshire: Ecological Survey and Assessment Limited.

ECOSA, 2022. Timsbury Lake, Timsbury - 2022 Ecological Monitoring Report, North Baddesley, Hampshire: Ecological Survey and Assessment Limited.

ECOSA, 2024. Timsbury Lake, Timsbury - 2024 Ecological Monitoring Report, North Baddesley, Hampshire: Ecological Survey and Assessment Limited.

Forest Research, 2010. Woodland management in the presence of bat species. [Online]

Available at: https://cdn.bats.org.uk/uploads/pdf/Our%20Work/Woodland_management_in_the_presence_of_bat_species_Wales.pdf?v=1541085321

Freshwater Habitats Trust, n.d. Pond Management Hub. [Online]

Available at: <https://freshwaterhabitats.org.uk/advice-resources/pond-management-hub/>

[Accessed July 2024].

Natural England, 2023. Statutory Biodiversity Metric Condition Assessments, s.l.: s.n.

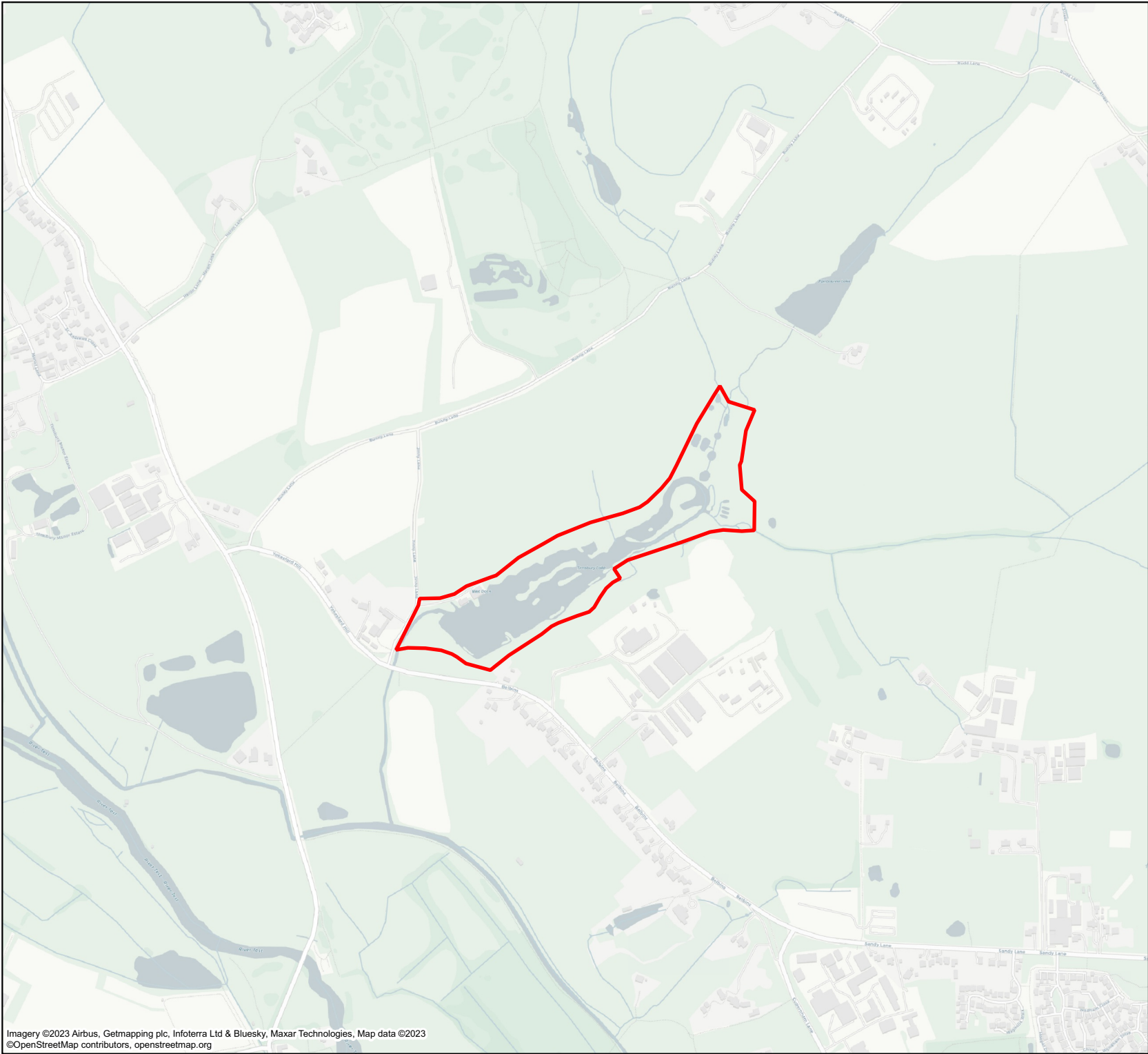
Nestbox Company, 2022. Cavity Bat Box. [Online]

Available at: https://cdn.shopify.com/s/files/1/0955/9060/files/DS_Cavity_Bat_Box19.pdf?726944573838868047

UKHab Ltd, 2023. UK Habitat Classification Version 2.0. [Online]

Available at: <https://www.ukhab.org>

Map 1 Site Location Plan



**TIMSBURY LAKE, JINNY LANE,
TIMSBURY, HAMPSHIRE**

**UPDATED ECOLOGICAL MANAGEMENT
PLAN**

Map 1 - Site Location Plan

Client:	Solent University
Date:	July 2024
Status:	Final

KEY

 Site Boundary



Imagery ©2023 Airbus, Getmapping plc, Infoterra Ltd & Bluesky, Maxar Technologies, Map data ©2023

1:10,000

0 100 200 300 400 m



Prepared by: JP Date: 100724

Last amended by: OW Date: 300724

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Map 2 Protected Species Mitigation






**TIMSBURY LAKE, JINNY LANE,
TIMSBURY, HAMPSHIRE**

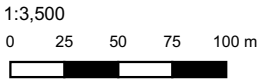
UPDATED ECOLOGICAL MANAGEMENT
PLAN

Map 2 - Protected Species Mitigation

Client:	Solent University
Date:	July 2024
Status:	Final

KEY

-  Site Boundary
-  Location of Artificial Water Vole Burrows
-  Location of Artificial Otter Holts (x 2)



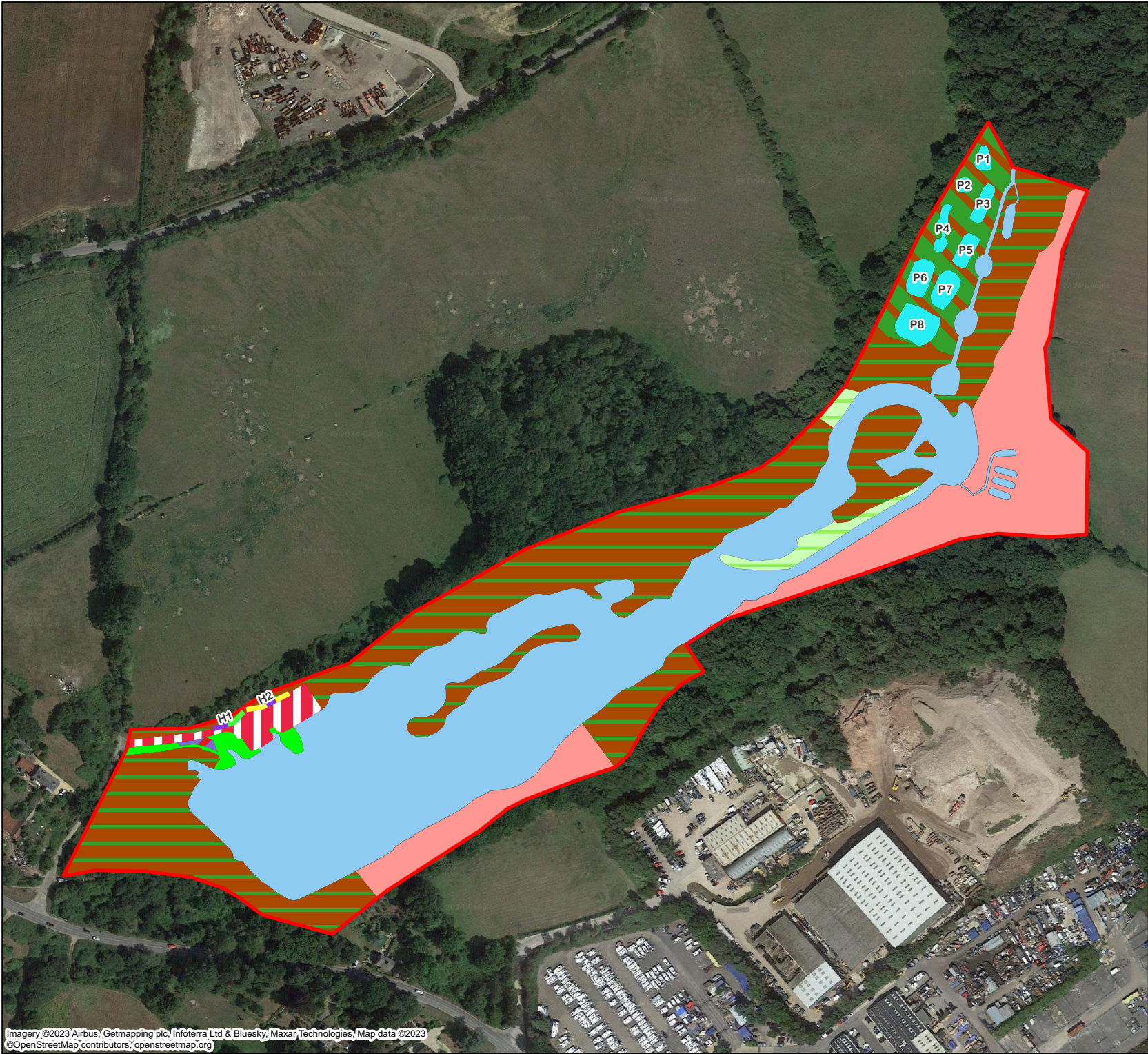
Prepared by: OW	Date: 300724
Last amended by: N/A	Date: N/A



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Map 3 Baseline Habitats Map



**TIMSBURY LAKE, JINNY LANE,
TIMSBURY, HAMPSHIRE**

**UPDATED ECOLOGICAL MANAGEMENT
PLAN**

Map 3 - Baseline Habitats

Client:	Solent University
Date:	July 2024
Status:	Draft

KEY

- Site Boundary
- Developed land; sealed surface
- Lowland mixed deciduous woodland
- Mixed scrub
- Modified grassland
- Other neutral grassland
- Ponds (non-priority habitat)
- Wet woodland
- Native hedgerow
- Native hedgerow with trees
- Not surveyed
- Out of scope

1:3,500
0 25 50 75 100 m



Prepared by: JP	Date: 100724
Last amended by: OW	Date: 300724



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Map 4 Baseline Habitats Condition and Distinctiveness Map

Appendix 1 Bankside Management Areas (ECOSA, 2010)

Notes

- ‘Bankside Management’ areas will be subject to regular management as these areas need to be kept clear for sight lines.
- ‘Non-intervention Banks’ will be left to grow longer between the waters edge and one metre inland (where paths allow). This will provide additional habitat for water vole and reduce the impact of bankside erosion which is starting to become an issue on site. Where immature trees start to grow these should be cleared when neccessary to keep the banks open.
- The ‘Areas Managed as Paths’ can be mown with a ride on mower on a regular basis.



NEW MANNED MODEL CENTRE,
TIMSBURY LAKE

ECOLOGICAL MONITORING

Bank Management

Client: Southampton Solent University	
Date: May 2017	Status: Draft

KEY

- Site Boundary
- Location of Artificial Water Vole Banks
- Repaired Boundary Fencing
- Bankside Managment
- Areas Managed as Paths
- Non-intervention Banks

Habitat features not to scale. Basemap reproduced from Ellis Belk Timsbury Lake, Romsey 'Location Plan', Project no. 08053, Drawing no. 04 Revision G, dated April 2009. Reproduced from Ordnance Survey digital map data. © Crown copyright 2016. All rights reserved. Licence number 0100031673.



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