

Parc Hadau Development Site

Draft Framework for a
Habitat Management Plan

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1 Background to the Draft Framework for a Habitat Management Plan (HMP)

- 1.1 Development is planned by Yr Hadau Ltd at the site known as Parc Hadau, Waunsterw (the 'Development Site'). Yr Hadau has made a long-term commitment to positive biodiversity management of the Development Site. Habitat has been retained / created where possible within the project design, primarily within two areas: a 10-15 m eastern buffer zone between the development and the broad-leaved ancient semi-natural woodland (ASNW) to the east, and a central wetland area.
- 1.2 Planning permission was granted during December 2019, subject to the discharge of a number of Conditions. This document provides some of the information required to discharge Condition 7, which states:
- 1.3 *"No development shall commence on site (including site clearance), until such time as a draft framework for a Habitat Management Plan (HMP) has been submitted to and approved in writing by the LPA for all areas of retained/created habitat onsite, including wetland features. The content of the HMP shall include the following and shall deliver the measures set out in the Ecological Assessment and Parc Hadau-comments on ecology chapter (letter 3/12/2019):*
- a. Description and evaluation of features to be managed.*
 - b. Ecological trends and constraints on site that might influence management.*
 - c. Aims and objectives of management.*
 - d. Appropriate management options for achieving aims and objectives.*
 - e. Prescriptions for management actions.*
 - f. Preparations of a work schedule (including an annual work plan capable of being rolled forward over a minimum of a 25-year period).*
 - g. Details of the body or organisation responsible for the implementation of the plan.*
 - h. Ongoing monitoring and remedial measures."*
- 1.4 The relevant measures (referred to above) set out within the Ecological Assessment are:
- Retention and management of a 10-15 m buffer / dark corridor between the development and the ASNW.
 - Creation of small open 'glades' within the buffer.
 - Creation of a diversity of habitat structures within the buffer.
 - Creation of ponds and grassland surrounds within the central wetland area.
 - Planting of a range of native species that are more likely to attract a range of invertebrates.
 - Installation of bat boxes.
 - Construction of hibernacula and deadwood piles within the buffer.
- 1.5 The measures set out within the comments on the ecology chapter (letter 03 December 2019) are:
- Planting of dense scrub along the (western) development side of the buffer.
 - Installation of nest boxes suitable for starling *Sturnus vulgaris*, and a range of passerines within the buffer.

- 1.6 In addition to the above, a small patch of the invasive species *Crocosmia x crocosmiiflora* is present on the boundary of the ASNW and the buffer zone. This is also considered within this draft framework for habitat management.
- 1.7 The broad aims and management principles are set out within this document, which considers the likely state of the Development Site as it will be post-construction. The proposals for management within this document take into account the soft landscaping plans produced by Farrer Huxley which were submitted alongside the planning application. Final management prescriptions and details of monitoring will be set out in detail within the final HMP, which will be provided once a final layout and landscaping details have been agreed, and prior to occupation of the Site, in line with planning condition 7.

2 Ecological Interest of the Parc Hadau Development Site

- 2.1 Detailed information regarding the condition of the Development Site prior to development can be found within the Ecological Assessment submitted with the planning application.
- 2.2 Retained habitats are:
- Marshy grassland dominated by purple moor-grass *Molinia caerulea*, within scrub glades at the southern end of the buffer zone. It is unmanaged but retains species typical of the habitat and although it is limited in extent it is a component of what is currently the Waunsterw SINC.
 - Scattered scrub, present throughout the buffer zone. Young downy birch *Betula pubescens* and grey willow *Salix cinerea* are the most frequent species towards the southern end, encroaching into the open glades of marshy grassland and bracken. Sessile oak *Quercus petraea* and bramble *Rubus fruticosus* become more frequent on drier ground to the north and east.
 - Broadleaved ASNW is limited in extent within the Site boundary but it is an irreplaceable habitat and is a component of what is currently the Waunsterw SINC. Whilst these areas do not contain any mature trees, a remnant woodland ground flora of frequent bluebells *Hyacinthoides non-scripta* and ferns is present including scaly male fern *Dryopteris affinis* ssp. *Affinis*, lady fern *Athyrium filix-femina*, hard fern *Struthiopteris spicant* and broad buckler fern *Dryopteris dilatata* is present.
 - Two small streams (designated as SINCS) run along the northern and eastern boundaries of the Site in association with the mature hedgerow and woodland respectively. Both are narrow and heavily shaded with no aquatic or marginal vegetation.
 - Bracken occupies the drier ground at the northern end of the buffer zone where it occurs in association with scattered young oak *Quercus* sp. and bramble scrub.
- 2.3 Within the buffer zone there is the opportunity to:
- retain and encourage the development of marshy grassland glades.
 - plant dense native scrub species along the development edge of the buffer zone.
 - diversify the habitat structure within the buffer zone.
 - create hibernacula and deadwood habitat piles.
 - install bat boxes on trees.
 - control the spread of invasive *Crocsmia*.
- 2.4 The sections of ASNW on Site are not included within the buffer zone, and proposed management prescriptions are minimal in those areas.
- 2.5 Within the central wetland area there is the opportunity to:
- create wet meadow grassland within the open space.
 - create ponds within the grassland.

3 Broad Aims and Management Principles

Overarching Aim

- 3.1 The overarching aim is to partly compensate for the loss of marshy grassland and willow scrub as far as possible at the Development Site and to enhance the value of the retained habitats for ecology. Note that other compensation measures are to be put in place at a nearby (offsite) location at Godre'r-graig.

Aims and General Management Principles

- 3.2 Five key habitats / habitat features will be targeted:
- a. Marshy grassland.
 - b. Wetland and ponds.
 - c. Scrub (wet woodland) and ASNW.
 - d. Streams.
 - e. Hibernacula and deadwood piles.
- 3.3 For each habitat / habitat feature, a rationale for the inclusion of the key habitats, general management principles, and broad aims of management are set out below. In addition, further broad measures for bats and birds are considered.

A. Retain / create marshy grassland

Rationale

- 3.4 Marshy grassland is a key component of the Waunsterw SINC, and is an important habitat for reptiles (which forage on the invertebrate communities it supports and use open areas / exposed tussocks for basking), as well as for birds, small mammals, invertebrates and flowering plants. Therefore its retention within the buffer zone is an aim of this management plan. It is present in areas of perennially wet soils within the buffer zone which will be retained. The marshy grassland on Site was found to support low populations of common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*, which are to be translocated into the buffer zone. The creation / maintenance of open marshy grassland glades within the buffer zone will improve the habitat of the buffer zone for reptiles.

Proposed measures

- 3.5 Marshy grassland is present within glades in the buffer zone, where it will be retained (with the exception of areas where native buffer planting overlaps it). Areas of scrub within the buffer will be selectively cleared to create additional glades in which grassland will be encouraged to develop. Conditions suitable for the development of grassland can then be maintained through control of successional vegetation. Cutting of this grassland is unlikely to be required but this will be kept under review. Grassland suitable to support a range of invertebrates and to provide basking and hibernation opportunities for common lizard and slow-worm, will be allowed to develop.

B. Create wetland and ponds

Rationale

- 3.6 A damp meadow grassland and shallow ponds of varying depths with marginal vegetation will be a valuable wetland habitat, potentially of botanical and entomological interest. An increase in invertebrates will in turn provide increased foraging opportunities for bats and breeding birds. In

addition, the wetland area will provide visual amenity benefits and education opportunities for residents.

Proposed measures

- 3.7 A central wetland area, sown in part with a suitable wet meadow grassland seed mix and with shallow ponds, potentially with shallow connecting ditches, will be created. This wetland area is likely to include areas of amenity and infrastructure such as frequently mown grassland, paths and benches. The wet meadow grassland areas will be managed through a single annual cut during late July / August (unless a second cut becomes necessary in any given year), and ponds will be dredged infrequently to remove silt and leaf litter. The aim would be to create and maintain a herb-rich, diverse grassland and ponds containing a range of native aquatic macrophytes.

C. Manage scrub and ASNW

Rationale

- 3.8 Scattered scrub, broadly lacking structural diversity, is present throughout the buffer zone. Some open areas (glades) are present, though most are dominated by bracken and bramble on drier ground at the northern end. Two small areas of ASNW lie within the Site boundary (in the north-eastern and south-eastern corners), and these are contiguous with a larger area of ASNW (off Site) to the east. The proposed measures for the buffer zone (buffer planting and selective coppicing) are intended to protect the adjacent ancient woodland, and to create a dark corridor for bats, with suitable habitat to support nesting birds and reptiles.

Proposed measures

- 3.9 Infill planting of native woody species along the development side of the buffer zone is proposed, to provide a dense boundary barrier between the built environment and the buffer zone. This will screen the buffer and adjacent ancient woodland from light spill (and retain their function as a dark corridor for nocturnal mammals), encourage an increased quantity and diversity of invertebrates (enhancing the value of the buffer zone for foraging by bats), provide nesting habitat for birds, and to act as a physical barrier between the housing and the adjacent ancient woodland (minimising the risk of increased trampling of the ancient woodland flora due to the development). This would require minimal maintenance. Coppicing of scrub surrounding (existing and newly created) glades would be carried out during construction and at an agreed frequency thereafter, with the aim of increasing structural diversity and enhancing the quality of the habitat for invertebrates and the species that feed on them (especially reptiles and bats). The ASNW on Site will require minimal management, which would aim to maintain its current condition. These prescriptions aim to achieve a continuous and dense scrub barrier, minimise light levels within the buffer zone to create a dark corridor, increase the structural diversity of the scrub surrounding the glades and maintain the condition of the areas of ASNW.
- 3.10 A small patch of the invasive species *Crocasmia x crocosmiiflora* is present on the boundary of the ASNW and the buffer zone in the south-east. In order to avoid its further spread it will be treated in order to control it, and the approach to this will be set out in the final HMP taking into account the sensitivity of the ASNW.

D. Streams

Rationale

- 3.11 Two narrow and heavily shaded streams (lacking aquatic or marginal vegetation) run along the northern and eastern boundaries of the Site. They are designated SINC. Disturbance by residents could arise.

Proposed measures

- 3.12 Monitoring of the general condition of the streams once the Site is occupied will take place, and remedial measures will be proposed and implemented if significant adverse effects on the streams

are apparent. Given the difficulty in predicting the likelihood and significance of an impact, no specific management or remedial measures are proposed at this stage.

E. Create hibernacula / deadwood piles

Rationale

- 3.13 Two hibernacula are to be created within the buffer zone. These will provide suitable hibernation habitat and basking features for reptiles and amphibians, thereby further increasing the carrying capacity of the buffer zone (translocation receptor). The deadwood piles would also benefit hedgehogs *Erinaceus europaeus*, invertebrates and nesting birds.

Proposed measures

- 3.14 The hibernacula will be constructed of deadwood and rubble within shallow depressions in the buffer zone. For further details see the Reptile Method Statement in the CEMP. Several small deadwood piles will also be constructed by stacking cut brash from the scrub coppicing and clearance works. The aim will be to create and maintain hibernacula and deadwood piles in suitable condition long-term to support hibernating and basking reptiles and amphibians. Additional material will be added to the deadwood piles periodically as they decay and break down.

Further measures (bats and birds)

Rationale

- 3.15 Some bats and other nocturnal mammals can be deterred by excessive lighting. Protection of the buffer and ancient woodland edge from light spill will maintain their value to bats and other nocturnal mammals, and minimising lighting within the built environment and central wetland area would provide increased foraging opportunities there for bats. The installation of bat and bird boxes within the buffer zone would increase the value of the Development Site for roosting bats and nesting birds.

Proposed measures and indicators of success

- 3.16 Dense scrub planting along the development side of the buffer zone is proposed to screen it from light spill from the development (see under 'scrub and ASNW' above). Bat boxes will be installed on trees within the buffer zone. These will be of a design which is more or less self-cleaning and requires minimal maintenance. The condition of the boxes would require monitoring and they should be replaced if they become unsuitable or unsafe. Bird nest boxes suitable for passerines (including some of a design suitable for use by starling) should be installed within the buffer zone, with the aim of increasing the Site's nesting resource.

4 Figure

(see overleaf)



LEGEND

Site boundary

Broadleaved Ancient Semi-Natural Woodland

Central Wetland Area

Eastern Buffer Zone

Pond

Invasive species
Crocosmia x crocosmiiflora

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PROJECT TITLE

PARC HADAU, WAUNSTERW
(IMPLEMENTATION PHASE)

DRAWING TITLE

Figure 1: Key Management Areas

DATE: 03/07/2020
DRAWN: AN

CHECKED: JAG
APPROVED: JG

SCALE: 1:1,000
VERSION: 1.2

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