**Whitcher Wildlife Ltd.**
**Ecological Consultants.**

# HEATON GRANGE, BATLEY.

# OS REF: SE 14818 25371.

# ECOLOGICAL IMPACT ASSESSMENT.

**Ref No:** **240231 / EcIA.**

**Date:** **19th August 2024.**

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# TABLE OF CONTENTS.

# 1. INTRODUCTION.

1.1. There are plans to develop land at Heaton Grange, Batley. The site was originally granted outline planning permission 2020/93777 and an application is now being made to discharge these conditions. Included within these are conditions to provide an up-to-date Ecological Impact Assessment (EcIA) for the site with additional considerations for reptiles and badgers. In addition a Biodiversity Enhancement and Management Plan (BEMP) showing a minimum provision of 2.48 habitat units and 0.64 hedgerow units.

1.2. Whitcher Wildlife Ltd has been commissioned to carry out a Preliminary Ecological Appraisal of the site to establish whether there are any issues that may affect the proposed works.

1.3. The site survey was carried out on 26th February 2024 with reptile surveys undertaken from April to June and this report outlines the findings of these surveys and makes appropriate recommendations.

1.4. The report has been converted to an Ecological Impact Assessment suitable for submission to the Local Authority.

1.5. Appendices I to IV of this report provide additional information on specific species and are designed to assist the reader in understanding the contents of this report.

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# 2. SURVEY METHODOLOGY.

2.1. Prior to visiting the site, the survey area was cross referenced to maps and aerial photographs to give a general idea of the habitats and potential issues within the area and to identify potential access and walking routes.

2.2. The survey area was walked where access was agreed and public rights of way were used where no access was agreed. All habitats within and immediately around the survey area were documented and the dominant species within that habitat listed in line with the UK Habitat Classification methodology to identify the broad habitat types throughout the survey area.

2.3. The survey area and immediate surrounding area was thoroughly searched for evidence of badger (*Meles meles*) activity by looking for the following signs in line with Harris S, Cresswell P and Jefferies D (1989). *Surveying Badgers*. Mammal Society: -

* Badger setts.
* Badger latrines or dung pits.
* Badger snuffle holes and evidence of foraging.
* Badger paths.
* Badger prints in areas of soft mud.
* Badger hairs caught on fencing.

2.4. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 100m in each direction were thoroughly searched for evidence of water vole (*Arvicola amphibius*) activity by looking for the following signs, in line with Dean M, Strachen R, Gow D and Andres R (2016). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series).* Eds Fiona Mathews and Paul Chanin. The mammal Society, London: -
(2011). *Water Vole Handbook: Third Edition*: -

* Water vole burrows.
* Water vole faeces and latrines.
* Water vole feeding stations.
* Water vole runs.
* Water vole prints in areas of soft mud.
* Water vole lawns.
* Predator field signs.

2.5. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 50m in each direction were thoroughly searched for evidence of otter (*Lutra lutra*) activity by looking for the following signs in line with the P Chanin (2003). *Monitoring the Otter* and *Conserving Natura 2000 Rivers: Monitoring Series No10 Guidelines: -*

* Otter prints in soft mud.
* Otter spraints.
* Otter Holts.

2.6. The survey area was searched for watercourses and waterbodies. Where found, and where safe to enter the water, all were thoroughly searched for the presence of crayfish, for approximately 50m in each direction of the site, by searching under rocks and logs. Where stated, crayfish traps were also deployed into the watercourse. All survey work was carried out in accordance with the *Conserving Natural 2000 Rivers Monitoring Series No 1, Protocol for Monitoring the White Clawed Crayfish*.

2.7. The survey area was searched for trees and structures and where found these were checked for potential bat roosting sites in line with Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)* by looking for the following signs: -

* Holes, cracks or crevices.
* Bat Droppings.

2.8. The land immediately adjacent to the survey area was assessed for bat roosting potential and bat foraging potential. Connective routes and flight lines were also assessed whilst on site and using maps of the area.

2.9. The area within 500m of the survey site was cross referenced to maps to highlight all ponds close to the site. Where possible, all ponds identified were accessed using agreed access or public rights of way to assess the potential for great crested newts (*Triturus cristatus*) to be present.

2.10. The survey area was assessed for the potential for reptiles and suitable reptile habitats. Where applicable the area was also searched for the presence of reptiles.

2.11. Where appropriate, the habitat within and surrounding the survey area was searched for species such as hazel, oak, honeysuckle, bramble and other species which may provide potential habitat for hazel dormice (*Muscardinus avellanarius*). Field signs such as feeding remains and nests were also searched for where possible, in line

with P Bright, P Morris and T Mitchell-Jones *The Dormouse Conservation Handbook 2nd Edition*.

2.12. Where appropriate, the area within and surrounding the survey area was assessed for its potential to house habitat for red squirrels. Field signs of red squirrels were searched for at least every 50m, looking for any dreys, feeding signs or sightings of red squirrels.

2.13. The survey area was searched for all alien invasive plant species as listed on Schedule 9 of the Wildlife and Countryside Act 1981. The location of all plants identified were recorded and listed within the survey report along with appropriate recommendations to avoid causing the plants to spread in the wild. All species were searched for, but the main species generally found under this category are Japanese knotweed, Giant hogweed, Himalayan balsam, Cotoneaster, Rhododendron and Japanese Rose.

2.14. All surveys were carried out in line with the Chartered Institute of Ecological and Environmental Management (CIEEM) survey standards and advice.

2.15. The initial site survey was carried out by Sam White BSc ACIEEM. Sam has had experience in a professional capacity as an Ecologist focusing primarily on survey work for protected species and Phase 1 Habitat surveys. Sam has a BSc in Environmental Conservation from Sheffield Hallam University and Graduated in 2015. Sam joined Whitcher Wildlife Ltd in May 2018 as an Ecological Consultant. Sam holds a survey licence for Great Crested Newt *Triturus cristatus*, Barn Owl *Tyto alba* and a Level 2 Class Licence for Bats. Sam is an Associate Member of the Chartered Institute of Ecology and Environmental Management.

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# 3. SURVEY RESULTS.

### 3.1. Data Search Results.

3.1.1. A data search request was submitted to West Yorkshire Ecology Services for records of protected species and designated sites within 2km of the survey area.

3.1.2. The data search found no designated sites within or adjacent to the survey area. The only such site within 2km of the survey area is Soothill Wood Local Wildlife Site, over 1.9km east of the survey area.

3.1.3. The closest relevant record to the survey area is of pipistrelle species, recording foraging, approximately 30m from the site. The record is dated from 2011, all more recent records of bat activity are significantly further from the survey area.

3.1.4. There are no records of badgers or reptile species within 2km of the site.

3.1.5. There is a single record of great crested newt over 1600m from the survey area, there are no records within 500m of the site.

3.1.6. There are records of swift within 500m of the survey area, however none of these are more recent than 2012.

3.1.7. The full data search may be made available to the client upon request but must not be put into the public domain.

### 3.2. The Survey Area.

3.2.1. The survey area comprises land at Heaton Grange, Batley.

3.2.2. The aerial map below shows the approximate location of the survey area, the extent of which is marked in red.

3.2.3. The survey area comprises land that has been left and is has now been subject to ecological succession. Previous survey data from others shows the site as largely sparsely vegetated ground, which has now grown over to be predominately dense scrub and rough grassland. The below photograph shows a general view of the survey area.

3.2.4. The time of year for the initial survey is suboptimal for botanical surveys, with many species, in particular spring annuals having died back over winter. However, as reptile surveys are being undertaken, the site will be visited multiple times and the species lists updated accordingly.

### 3.3. Survey Limitations

3.3.1. The initial site survey was undertaken during a suboptimal season for botanical surveys, however further visits for the purpose of reptile surveys were also used to update the species list within the report and allow for accurate condition assessments.

### 3.4. Description of Habitats.

3.4.1. Appendix VI of this report contains an annotated map marked up with the varying habitats within the survey area. The primary habitats on and adjacent to the site are: -

- g3c – Other Neutral Grassland.
- h3h – Mixed Scrub.
- u1 – Built-up Areas and Gardens.
- u1e – Built Linear Feature.
- w1g – Other Broadleaved Woodland.

#### *3.4.2. g3c – Other Neutral Grassland*

***Secondary codes: 10 scattered scrub, 32 scattered trees, 16 tall forbs, 81 ruderal/ephemeral.***

3.4.2.1. Rough grassland makes up large areas of the site. This is the habitat most affected by the limitations regarding the time of year. Some of the species present within the grassland include creeping buttercup *Ranunculus repens,* false oat grass *Arrhenatherum elatius,* perennial ryegrass *Lolium perenne,* creeping bent *Agrostis capillaris,* dandelion *Taraxacum officinale,* creeping thistle *Cirsium arvense,* white clover *Trifolium repens,* broadleaf dock *Rumex obtusifolius,* club woodrush *Scirpus sylvaticus,* spear thistle *Cirsium vulgare,* cocksfoot *Dactylis glomerata,* ribwort plantain *Plantago lancelota,* soft rush *Juncus effusus,* bramble *Rubus fruticosus,* ragwort *Jacobaea vulgaris,* stinging nettle *Urtica dioica,* common hogweed *Heracleum sphondylium,* foxglove *Digitalis purpurea,* cleavers *Galium aparine,* Himalayan balsam *Impatiens glandulifera* and rhododendron *Rhododendron ponticum,* and red fescue *Festuca rubra*.

3.4.2.2. A condition assessment for this habitat has been carried out and submitted along with the Biodiversity Net Gain assessment. This habitat is assessed to have poor condition.

***3.4.4. h3h – Mixed Scrub.***

***Secondary codes: 32 scattered trees.***

3.4.4.1. The majority of the survey area comprises dense scrub which is overgrowing the site. Some of the species present include bramble *Rubus fruticosus*, willow *Salix* sp., ash *Fraxinus excelsior*, oak *Quercus* sp., dog rose *Rosa canina*, great willowherb *Epilobium hirsutum*, silver birch *Betula pendula*, hawthorn *Crataegus monogyna*, Scottish boom *Cytisus scoparius*, buddleia *Buddleja davidii*, cherry *Prunus* sp., poplar *Poplus* sp., and cotoneaster *Cotoneaster* sp.

3.4.4.2. A condition assessment for this habitat has been carried out and submitted along with the Biodiversity Net Gain assessment. This habitat is assessed to have moderate condition.

3.4.4.3. The scattered trees within this habitat have been condition assessed individually on the attached condition assessment sheet, an example of these is shown below.

### *3.4.7. w1g – Other Broadleaved Woodland*

***Secondary codes: 33 line of trees.***

The are a line of semi-mature poplar *Poplus* sp. along the southern boundary of the site. This line of trees has been found to meet moderate condition and again has been assessed on the submitted condition assessment sheet.

**3.5. Description of Fauna.**

3.5.1. No badger setts were found within the survey area. There were previously filled holes present on the site, however there was no evidence to show these were caused by badger. There are paths under the adjacent fence line indicative of mammals, with no evidence of badger.

3.5.2. There is no watercourse within the survey area. Therefore, there is no habitat suitable for otter, water vole and white clawed crayfish.

3.5.3. A review of aerial imagery and Ordnance Survey mapping found there no ponds within 500m of the survey area. Therefore, great crested newts are assessed as absent from the survey area.

3.5.4. There are no buildings within the survey area and therefore, no suitable habitat for roosting bats within buildings.

3.5.5. There are numerous trees within the survey area however all are small in size and lack potential features for roosting bats.

3.5.6. The survey area provides moderate potential for foraging and commuting bats. The definition of moderate foraging and commuting habitat within the Bat Conservation Trust Guidelines 4th Edition specifically mentions scrub, lines of trees and linked residential gardens, all of which are present on and surrounding the site.

3.5.7. The survey area is suitable for nesting birds during the nesting bird season, which extends from March to August each year. A nesting bird survey was not undertaken during this site visit; however it should be noted that no inactive nests were found within the building.

3.5.8. The survey area provides good habitat for reptile species, in particular where debris has been left on site (shown below). In addition, the rough grassland contrasted by the dense scrub provides a natural habitat preferred by reptile species. The results of the reptile surveys is included in section 3.5 of this report.

3.5.9. The survey area lies outside the known UK distribution of hazel dormouse and therefore there are no hazel dormouse present within the survey area.

3.5.10. The survey area lies outside the known UK distribution of red squirrel and therefore there are no red squirrel present within the survey area.

3.5.11. Rhododendron *Rhododendron ponticum* is a non-native, invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) found within the survey area. The locations of each plant are shown on the annotated survey map at the end of this report, examples of each are shown below. The cotoneaster found within the survey area is not a species of cotoneaster listed on Schedule 9 of the Wildlife and Countryside Act 1981.

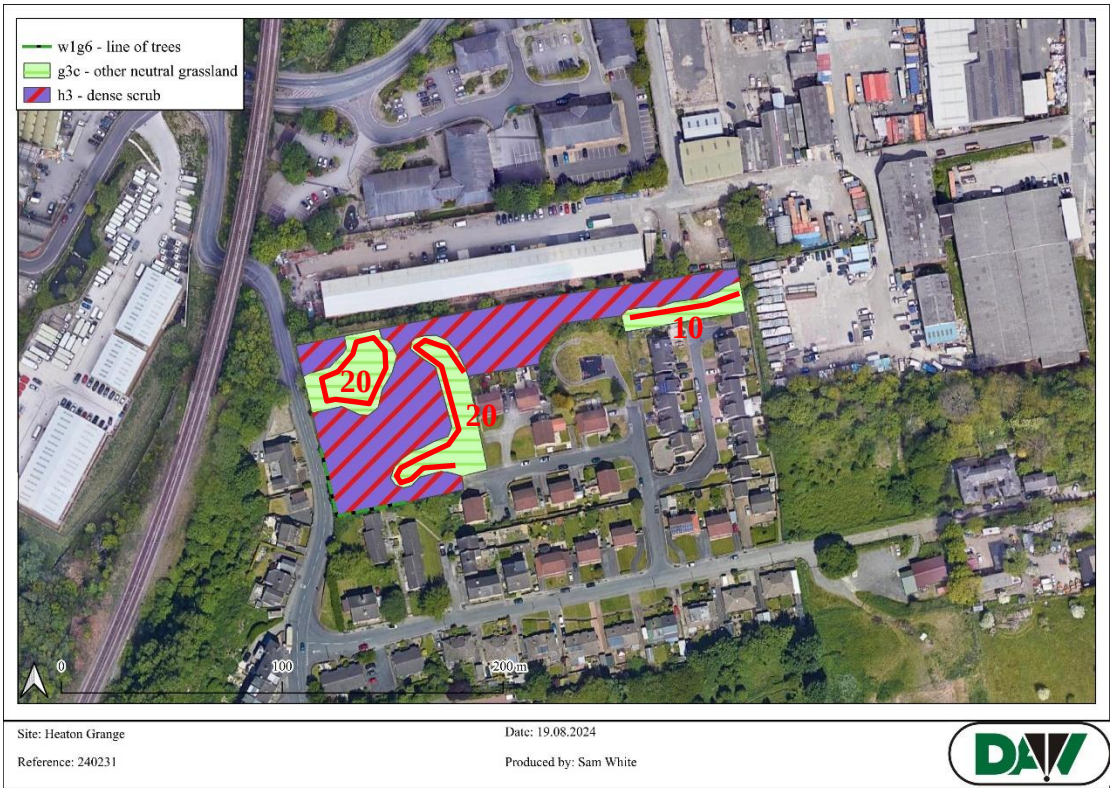
3.5.11.1. Himalayan balsam *Impatiens glandulifera* has previously been found on the site, however throughout the reptile surveys this was not found.

3.5.12. The survey area provides an ideal habitat for hedgehogs, with rough grassland, scrub and adjacent gardens all providing value to the species. There are occasional brash piles with the survey area that may also be used by hedgehogs, such as the one shown in the adjacent photograph.

**3.6. Reptile Survey Results.**

3.6.1. Reptile surveys were undertaken as requested by the Local Planning Authority to confirm the absence of reptile species from the site.

3.6.2. 50cm$^2$ squares of black roofing felt were distributed across the site in areas of optimal habitat. A plan of the reptile mat locations is shown below.




3.6.3. The table below shows the findings and weather conditions from each survey. All surveys were completed in weather conditions suitable for reptile species, with temperatures between 12ºC and 18ºC, with the surveys being conducted between 8am and 10am.

| Date | Temp | Weather | Results |
|---|---|---|---|
| 26/02/24 | Laid out 50 reptile mats | | |
| 9/04/24 | 12°C | 60% cloud, dry, sunny spells | No reptiles found |
| 29/04/24 | 13°C | 10% cloud, dry, sunny | No reptiles found |
| 10/05/24 | 15°C | 30% cloud, dry, sunny spells | No reptiles found |
| 13/05/24 | 16°C | 40% cloud, warm sunny spells. | No reptiles found |
| 18/06/24 | 15°C | 70% cloud, warm sunny spells. | No reptiles found |

| | | | |
|---|---|---|---|
| 24/06/24 | 18°C | 5% cloud, dry, sunny | No reptiles found |
| 28/06/24 | 18°C | 10% cloud, dry, sunny | No reptiles found |

3.6.4. Overall, no reptiles were found during these surveys. Despite the site providing suitable habitat for reptile species, the likelihood is this habitat is too isolated from other optimal habitat to sustain a population of reptiles.

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# 4. ASSESSMENT OF IMPACTS, MITIGATION AND RESIDUAL EFFECTS.

## 4.1. Designated Sites.

*4.1.1. Assessment.*

There were no statutory designated sites within, or adjacent to, the survey area. Therefore, no such sites will be directly impacted by the proposals.

*4.1.2. Mitigation.*

No mitigation measures are necessary.

*4.1.3. Residual Effects.*

The proposed development will have **no negative residual impact** on such sites.

## 4.2. Habitats.

*4.2.1. Assessment.*

4.2.1.1.The survey area comprised of a large residential building with established garden and driveway.

4.2.1.2. A copy of the Statutory Biodiversity Metric and associated condition assessment sheets are to be submitted with this report. Below is a summary of the baseline biodiversity value for the site.

| Habitat Type | Area (ha) | Condition Assessment | Distinctiveness | Biodiversity Units |
|---|---|---|---|---|
| Mixed Scrub. | 0.5480 | Moderate | Medium | 4.38 |
| Other Neutral Grassland. | 0.2480 | Poor | Medium | 1.14 |
| Urban Tree | 0.0855 | Moderate | Medium | 0.68 |
| **Total (excl trees)** | **0.8320** | | | **6.20** |

| Habitat Type | Extent (km) | Condition | Distinctiveness | Biodiversity units |
|---|---|---|---|---|
| Line of Trees | 0.062 | Moderate | Low | 0.25 |
| **Total** | **0.062** | | | **0.25** |

*4.2.2. Mitigation.*

4.2.2.1. In this case, a figure of 2.48 habitat units and 0.64 hedgerow units has been conditioned to be met by the development.

4.2.2.2. The below tables show both the created and retained habitats for the site.

**Retained area habitat**

| Habitat Type | Area (ha) | Condition Assessment | Distinctiveness | Biodiversity Units |
|---|---|---|---|---|
| Urban Tree | 0.0651 | Moderate | Medium | 0.52 |

**Created area habitat**

| Habitat Type | Area (ha) | Condition Assessment | Distinctiveness | Biodiversity Units |
|---|---|---|---|---|
| Urban Tree | 0.0611 | Poor | Medium | 0.17 |
| Modified grassland | 0.0995 | Moderate | Low | 0.35 |
| Introduced Shrub | 0.0092 | N/A | Low | 0.02 |
| Vegetated garden | 0.1119 | N/A | Low | 0.22 |
| Mixed Scrub | 0.1886 | Moderate | Medium | 1.26 |
| Developed land sealed surface | 0.4228 | N/A | V. Low | 0 |
| **Total (excl trees)** | **0.8320** | | | **2.53** |

**Retained linear habitat**

| Habitat Type | Length (km) | Condition Assessment | Distinctiveness | Biodiversity Units |
|---|---|---|---|---|
| Line of trees | 0.062 | Moderate | Low | 0.25 |

**Created linear habitat**

| Habitat Type | Length (km) | Condition Assessment | Distinctiveness | Biodiversity Units |
|---|---|---|---|---|
| Native Hedgerow | 0.201 | Poor | Low | 0.39 |
| **Total** | | | | **0.64** |

4.2.2.3. As is shown above, the final biodiversity units for the site are 2.53 area units and 0.64 linear units. In this case, whilst a loss on the existing habitats on the site, this meets the conditioned figures from the outline planning proposal and represent a net gain from the habitats on the site at the time of that application.

*4.2.3. Residual Effects.*

4.2.3.1. Overall, if the targeted conditions above are reached, the development of the site will achieve the conditioned figures. The habitats that have developed since the initial PEA that informed the outline proposal are young scrub, that lacks connectivity to offer significant ecological functionality.

4.2.3.2. The trading rules are not met within the submitted metric due to the figures for the current baseline differing from the initial baseline and conditioned target.

**4.3. Species.**

***4.3.1. Badgers***

***4.3.1.1. Assessment***

Badger surveys were requested by the Local Planning Authority. No badger setts or their field signs were identified within the survey area. Therefore, the works will have no direct impact on badger setts.

#### *4.3.1.2. Mitigation*

No excavations will be left uncovered overnight to prevent mammals from becoming trapped. Alternatively, mammal ramps will be installed in the excavations to allow badgers, and other mammals, to escape. All pipe ends will also be capped at the end of each shift.

#### *4.3.1.3. Residual Impacts*

With the mitigation outlined above, there will be **no negative residual impact** on badgers.

### *4.3.2. Foraging and Commuting Bats*

*4.3.2.1. Assessment*

The site provides suitable habitat for foraging and commuting bats although this is in an urban area which will be well lit. In line with current guidance the survey area was assessed as having moderate suitability for foraging and commuting bats.

*4.3.2.2. Mitigation*

The proposed plans for the site contain linked residential gardens, which will continue to provide moderate value in line with the Bat Conservation Trust Good Practice Guidelines 4$^{th}$ Edition. In addition, a sensitive lighting scheme with lights facing downwards at eaves height will be in place.

*4.3.2.3. Residual Effect*

Therefore, with the above in place there will be **no negative residual impact** on foraging and commuting bats by the proposed works.

### *4.3.3. Nesting Birds.*

*4.3.3.1. Assessment.*

The vegetation within the survey area was assessed as suitable for nesting birds. Any site clearance works carried out during the nesting bird season could have a high impact on nesting birds.

*4.3.3.2. Mitigation.*

All vegetation clearance and building demolition will be carried out outside the nesting bird season or will be preceded by a nesting bird survey carried out by a suitably experienced ecologist immediately before clearance. Any active nests found will be left undisturbed until the young have fledged.

*4.3.3.3. Residual Effects.*

Therefore, the planned development will have a **no negative residual impact** on nesting birds.

### *4.3.4. Reptiles.*

*4.3.4.1. Assessment.*

Reptile surveys were requested by the Local Planning Authority. These surveys found reptiles to be absent from the survey area, which is largely too isolated to be used by a large number of reptile species.

*4.3.4.2. Mitigation.*

As reptiles have been found to be absent no mitigation is required. However, the workforce should take due care during site clearance regardless and if any reptiles are found, these should be left to move of their own accord.

*4.3.4.3. Residual Effects.*

Therefore, the planned development will have a **no negative residual impact** on reptile species.

### *4.3.5. Invasive, Non-native Plant Species.*

*4.3.5.1. Assessment.*

Rhododendron, a non-native plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981), was identified on the boundary of the survey area. This species spreads by both seeds and lateral layering. Therefore, this species could be spread by the proposed works. Himalayan balsam has been previously found within the survey area, however it appears to no longer be present.

*4.3.5.2. Mitigation.*

4.3.5.2.1. A method of working must be in place to prevent the spread of rhododendron from the site. The plant spreads vegetatively and therefore, the plant itself must be treated as controlled waste. If cut, the plant must be either chipped to prevent regrowth or removed from site as controlled waste. In addition toolbox talks for both rhododendron and Himalayan balsam will be in place to brief the workforce on the identification of both plants.

4.3.5.2.2. If Himalayan balsam is later found to be present on the site, all soil within 7m of the plant, as well as the plant itself will be treated as controlled waste. Wash stations for tools, PPE and machinery within these areas will be required. However, this plant was not found during the subsequent reptile surveys.

*4.3.5.3. Residual Effects.*

Once the plant has been eradicated, there will be **no negative residual impact** on the spread of Schedule 9 plants in the wild.

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# 5. COMPENSATION AND ENHANCEMENT MEASURES.

5.1. Under the terms of National Planning Policy Framework, biodiversity enhancement measures should be provided within the development.

5.2. In order to allow hedgehogs to move between the gardens there will be holes in the fencing to allow for movement between the gardens. The minimum size for holes within the fence panels is 13cm. All gates will also be raised; the minimum size for a lifted gate is 15cm. This will ensure that access can remain to all aspects of the site.

5.3. At least 50% of the properties to be created will have a bat box of a suitable inbuilt design should be included in the design plans. The Habibat in-built bat brick, or similar, will be used to ensure roosting opportunities remain post development.

5.4. Two pairs of swift boxes of suitable inbuilt design will be included in the building designs. The Vivara Pro Woodstone Swift Box, or similar, will be used to ensure nesting opportunities remain post development. This swift nest box is designed to be fitted into a wall, high under the eaves and should be away from doors and windows.

5.5. Two inbuilt sparrow terraces of suitable inbuilt design will be included into the building designs, to replace the established vegetation which will be lost and known to support sparrows. 1SP Schwegler Sparrow Terrace or similar, will be used to ensure nesting opportunities remain post development.


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| Prepared by: | |
|---|---|
| Sam White BSc (Hons), ACIEEM | Date: 20th August 2024 |

| Checked by: | |
|---|---|
| Ruth Georgiou. BSc, MCIEEM. | Date: 21st August 2024 |

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# Appendix I. NESTING BIRD INFORMATION.

***Ecology***

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September. It is also worth remembering that some birds nest in trees and scrub, but others are ground nesting or prefer man- made structures or buildings.

***Surveys***

Nesting bird surveys search for potential nest sites in vegetation, buildings etc. Potential nesting sites are observed over a suitable period of time for bird movements or calling male birds that would indicate the presence of a nest. The presence of a nest can be identified from the field signs without the necessity to see the nest itself, thereby avoiding any disturbance of the nests. The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

***Legislation***

Nesting birds are protected under The Wildlife and Countryside Act 1981.

Part 1. -(1) Of the Act states that: - If any person intentionally: - kills, injures or takes any wild bird; takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Part 1. -(5) of the Act states that: - If any person intentionally: - disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or disturbs young of such a bird, he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after “intentionally” the words “or recklessly”.

# Appendix II. REPTILE INFORMATION.

***Ecology***

There are five main species of reptile that reside in the UK; Common or Viviparous Lizard (*Lacerta vivipara*); Sand Lizard (*Lacerta agilis*); Slow Worm *(Anguis fragilis*); Grass Snake (*Natrix natrix*) and Adder (*Vipera berus*). The Adder is the only native species that is venomous although this is rarely harmful to humans.

Reptiles occupy a wide range of habitats including woodland, marshes, heathland, moors, sand dunes, hedgerows and bogs. Sand Lizards are confined to moorland and coastal sand dunes where they lay their eggs in the warm sand. The range of the Sand Lizard in the UK is therefore very limited. Slow Worms can be found in a wide variety of habitats throughout Britain and is the most likely reptile to be found in urban and suburban environments.

Maintaining the right body temperature is vital to reptiles' survival. In the morning, they find a warm basking site to heat up their bodies, then later they may move back into the shade because they do not sweat and have to be careful not to overheat. During hot summers, Adders will try to move to damper, cooler sites.

Over winter reptiles will hibernate in burrows or under longs where they are protected from the cold and predators, emerging from February onwards as the weather warms up.

Reptiles generally begin to mate April to May with young born in late July to September. The Common Lizard gives birth to live young, hence the term viviparous, meaning live bearing.

***Surveys***

Reptile surveys involve the searching of refuge such as logs and stones for any animal sheltering below. Artificial refuge may be laid out on site for the purpose of reptile surveys.

***Legislation***

Reptiles are protected under Appendix II (sand lizards) and Appendix III (common lizard, slow worms, smooth snake, grass snake and adders) of the BERN Convention (1982), partially protected under Schedule 5 of the Wildlife and Countryside Act (1981), Annex IV of the Habitats Directive and are all listed under section 41 of the Natural Environment and Communities Act (2006) making them a species of principal importance.

This makes it an offence to disturb any reptile while it is occupying a structure or place it uses for shelter or protection or to obstruct access to such a place.

# Appendix III. INVASIVE PLANT SPECIES INFORMATION.

***Ecology***

The Government has acknowledged the problems that can be caused by non-native invasive species. In 2008 the Government launched "The Invasive Non-Native Species Framework Strategy for Great Britain". The strategy provides a framework for a more co-ordinated approach to invasive species management. It seeks to create a stronger sense of shared responsibility across government, key organisations, land managers and the public.

The Non-Native Species Secretariat has been established to oversee the implementation of the strategy. Details of the secretariat including risk assessments and action plans for some species are available at www.nonnativespecies.org.

In general, there are four basic methods of controlling weeds; mechanical, chemical, natural and environmental.

- ***Mechanical control*** *includes cultivation, hoeing, pulling, cutting, raking, dredging or other methods to uproot or cut weeds.*
  *Where this method is used all plant material must be considered "controlled waste" and must be disposed of properly.*
- ***Chemical control*** *uses approved herbicides.*
- ***Natural control*** *uses pests and diseases of the target weed to weaken it and prevent it from becoming a nuisance.*
- ***Environmental control*** *works by altering the environment to make it less suitable for weed growth, for example by increasing or decreasing water velocity.*

***Surveys***

A site will be searched for invasive plant species growing on site, from mature plants to new shoots. A site will also be searched for dead stems indicating that plants that may have seasonally died back are present.

***Legislation***

Invasive species listed under Schedule 9 are prohibited from release into the wild. Schedule 9, Section 14(2) prohibits 'planting' or 'causing to grow' in the wild of any plant listed in Part 2 of Schedule 9.

The following is a list of all the species of plant listed under Schedule 9 of The Wildlife and Countryside Act 1981.

| **Common Name** | **Scientific Name** | **England & Wales** | **Scotland** |
|---|---|---|---|
| Alexanders, Perfoliate | *Smyrnium perfoliatum* | ✓ | |
| Algae, Red | *Grateloupia luxurians* | ✓ | |
| Archangel, Variegated Yellow | *Lamiastrum galeobdolon subsp. Argentatum* | ✓ | |
| Azalea, Yellow | *Rhododendron luteum* | ✓ | |
| Balsam, Himalayan | *Impatiens glandulifera* | ✓ | |
| Cotoneaster | *Cotoneaster horizontalis* | ✓ | |
| Cotoneaster, Entire Leaved | *Cotoneaster integrifolius* | ✓ | |
| Cotoneaster, Himalayan | *Cotoneaster simonsii* | ✓ | |
| Cotoneaster, Hollyberry | *Cotoneaster bullatus* | ✓ | |
| Cotoneaster, Small Leaved | *Cotoneaster microphyllus* | ✓ | |
| Creeper, False Virginia | *Parthenocissus inserta* | ✓ | |
| Creeper, Virginia | *Parthenocissus quinquefolia* | ✓ | |
| Dewplant, Purple | *Disphyma crassifolium* | ✓ | |
| False-acacia | *Robinia pseudoacacia* | | ✓ |
| Fanwort | *Cabomba caroliniana* | ✓ | ✓ |
| Fern, Water | *Azolla filiculoides* | ✓ | ✓ |
| Fig, Hottentot | *Carpobrotus edulis* | ✓ | ✓ |
| Garlic, Three-Cornered | *Allium triquetrum* | ✓ | |
| Hogweed, Giant | *Heracleum mantegazzianum* | ✓ | ✓ |
| Hyacinth, water | *Eichhornia crassipes* | ✓ | ✓ |
| Kelp, Giant | *Macrocystis angustifolia* | ✓ | ✓ |
| Kelp, Giant | *Macrocystis integrifolia* | ✓ | ✓ |
| Kelp, Giant | *Macrocystis laevis* | ✓ | ✓ |
| Kelp, Giant | *Macrocystis pyrifera* | ✓ | ✓ |
| Kelp, Japanese | *Laminaria japonica* | ✓ | ✓ |
| Knotweed, Giant | *Fallopia sachalinensis* | ✓ | |

| | | | |
|---|---|---|---|
| Knotweed, Hybrid | *Fallopia japonica x Fallopia sachalinensis* | ✓ | |
| Knotweed, Japanese | *Fallopia japonica* | ✓ | |
| Knotweed, Japanese | *Polygonum cuspidatum* | | ✓ |
| Leek, Few-flowered | *Allium paradoxum* | ✓ | ✓ |
| Lettuce, water | *Pistia stratiotes* | ✓ | ✓ |
| Montbretia | *Crocosmia x crocosmiiflora* | ✓ | |
| Parrot's-feather | *Myriophyllum aquaticum* | ✓ | |
| Pennywort, Floating | *Hydrocotyle ranunculoides* | ✓ | |
| Potato, Duck | *Sagittaria latifolia* | ✓ | |
| Primrose, Floating Water | *Ludwigia peploides* | ✓ | |
| Primrose, Water | *Ludwigia grandiflora* | ✓ | |
| Rhododendron | *Rhododendron ponticum* | ✓ | |
| Rhubarb, Giant | *Gunnera tinctorial* | ✓ | |
| Rose, Japanese | *Rosa rugosa* | ✓ | |
| Salvinia, Giant | *Salvinia molesta* | ✓ | ✓ |
| Seafingers, Green | *Codium fragile* | ✓ | |
| Seafingers, Green | *Codium fragile tomentosoides* | | ✓ |
| Seaweed, Californian Red | *Pikea californica* | ✓ | ✓ |
| Seaweed, Hooked Asparagus | *Asparagopsis armata* | ✓ | ✓ |
| Seaweed, Japanese | *Sargassum muticum* | ✓ | ✓ |
| Seaweeds, Laver (except native species) | *Porphyra sp. except -*<br>*P. amethystea*<br>*P. leucosticta*<br>*P. linearis*<br>*P. miniata*<br>*P. purpurea*<br>*P. umbilicalis* | ✓ | ✓ |
| Shallon | *Gaultheria shallon* | | ✓ |
| Stonecrop, Australian swamp | *Crassula helmsii* | ✓ | ✓ |
| Wakame | *Undaria pinnatifida* | ✓ | ✓ |
| Waterweed, Curly | *Lagarosiphon major* | ✓ | ✓ |
| Waterweeds | *All species of the genus Elodea* | ✓ | |

# Appendix IV. HEDGEHOG INFORMATION.

***Ecology***

The hedgehog was a common species once widespread throughout the country but it has suffered a major decline due to loss of habitat. They are now found distributed across the UK, but the population increases to the south and east. Hedgehogs are rare in Scotland, Wales and Northern Ireland.

The hedgehog is a small, spiny mammal around 20cm long with a long snout. The back and sides of the hedgehog are covered in 25mm (1") long spines. These are absent from the face, legs and underside, which are covered with coarse, grey-brown fur.

Hedgehogs are highly active and range widely. They need to be able to move freely through a well-connected range of habitats to find food, mates and areas to nest. Studies show that hedgehogs can travel around 2km in a night in urban areas and 3km a night in rural landscapes. A viable population of urban hedgehogs is thought to need 0.9km$^2$ of well-connected habitat.

Hedgehogs nest year-round and produce different types of nest for daytime resting, breeding and hibernation. Daytime nests are a retreat during the active season, and are often temporary, flimsy and found in areas of rough grassland, loose leaf piles or garden vegetation. Breeding nests are made by females and are used to raise young. They tend to be more robust, like hibernation nests. Winter nests can be used for several months to hibernate through periods of cold weather and low food availability. The sturdiest nests rely on medium-sized deciduous leaves and a structure to hold the leaves in place. Bramble patches, log piles and open compost heaps are common locations for breeding and hibernation.

Hedgehogs are omnivores, but the bulk of their diet consists of macro-invertebrates such as beetles, worms, slugs, earwigs, caterpillars and millipedes. In urban areas, supplementary food in the form of cat, dog or formulated hedgehog food can make up a significant part of their diet. Access to water is also very important.

***Surveys***

Hedgehogs are nocturnal animals, so despite their spiny appearance they are often difficult to find.

All surveys should be conducted between May and November when hedgehogs are active.

Droppings can be found in grassland, farmland and in gardens. The droppings are crinkly, often studded with shiny fragments due to their diet of insects. They are variable in size, 15-50mm long and 8-10mm thick, blue/black in colour and sweet smelling with a hint of linseed oil.

Footprint tunnels and camera traps can also be used to survey for hedgehogs.

Further survey techniques can also be used to survey for hedgehogs, but these require a survey licence to carry out surveys involving trapping and torch or spotlight searches.

***Legislation***

The hedgehog is considered an endangered species, but it benefits only from general protection under the Wildlife and Countryside Act 1981. They are listed under Schedule 6 of the Act, which makes it illegal to kill, trap or capture wild hedgehogs, with certain methods listed. They are also listed under the Wild Mammals Protection Act (1996), which prohibits cruel treatment of hedgehogs and they are a species of 'principal importance' under the NERC Act, which confers a 'duty of responsibility to public bodies'.

However, none of these deal with the issues that are a threat to the hedgehog. The main threat is the increasing loss of habitat, the increasing traffic on our roads and the increasing use of herbicides, in particular those used to kill garden slugs.

# Appendix V. PROPOSED DEVELOPMENT PLAN.


Site: Heaton Grange - Post Development

Reference: 240231

Date: 20.08.2024

Produced by: Sam White

# Appendix VI. ANNOTATED MAP OF THE SURVEY AREA.


Site: Heaton Grange

Reference: 240231

Date: 19.08.2024

Produced by: Sam White

# Appendix VII. TARGET NOTES.

**T1.** Location of rhododendron
**T2.** Location of rhododendron
**T3.** Piles of debris and brash
**T4**. Piles of rubble

# Toolbox Talk: Himalayan Balsam

Whitcher Wildlife Ltd

Ecological Consultants

Himalayan Balsam was introduced into the UK in the early 19th century as an ornamental garden plant. The plant has since become established in the wild growing in a wide range of habitats, predominantly damp habitats and along watercourses. Himalayan Balsam grows in dense stands and therefore along river banks it can increase the likelihood of flooding during periods of heavy rainfall and can leave the river banks bare and exposed to erosion during the winter.

**Identification.**

Himalayan Balsam grows to around 2m and has a hollow, brittle stem. The plant stem is green to red early in the season and turns pink to red during the summer.


The plant has leaves up to 15cm long which are finely serrated along the edges and may have a pink mid-rib. The flowers are trumpet shaped and pink.


**Habitat and Spreading.**

Himalayan Balsam grows in a range of habitats but prefers damp habitats and river corridors. The plant grows in dense stands that out-compete native species. Along river corridors the plant can increase the likelihood of flooding during periods of heavy rainfall and leaves the river banks bare and exposed to erosion during the winter.


Himalayan Balsam spreads solely by seeds, which are small and easily carried by wind or water. The seed heads are approximately 2.5cm long and explode on touch when ripe.

The best form of control of the plant is to prevent it from seeding by cutting back or pulling before it can seed.

**Legislation.**

Under section 14 and Part II of Schedule 9 of the Wildlife and Countryside Act 1981 it is an offence for it to be planted or otherwise caused to grow in the wild. This includes spreading the species by transferring polluted ground material from one area to the other.

**If Himalayan balsam is identified during works, stop all works and contact Whitcher Wildlife Ltd directly on 01226 753271 or at info@whitcher-wildlife.co.uk**