

**INVASIVE PLANT  
SURVEY & REPORT**

at

**Swallow Lane (Phase 2)  
Huddersfield  
West Yorkshire  
HD7 4NB**

**Client:**

**Jones Homes (Yorkshire) Limited**

**Client Address:**

**Green Bank House  
Green Bank  
Cleckheaton  
BD19 5LQ**

**Client Contact:**

**01274 852700 (Tel)**

**JCA Ref:**

**15543b/RW**

**Date of Report:**

**21/02/2024**



## Quality Assurance

Version	Site Surveyed:		Report Completed:		Checked:	
	Date	Name	Date	Name	Date	Name
Planning	16/02/24	Eleanor Clark	21/02/24	Rick Westwood	22/02/24	Eleanor Clark
		Rick Westwood			23/02/24	Adam West

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development* and the *CIEEM’s Code of Professional Conduct*.

<b>Risk Assessment Completed</b>	]
<b>Bio-security Procedure Completed</b>	
<b>Lone Worker Procedure Completed</b>	



## Summary

A report is required at **Swallow Lane (Phase 2) Golcar, Huddersfield**, to investigate the presence or absence of invasive plant species. The site was surveyed on 16/02/2024 by Eleanor Clark and Rick Westwood. During the survey evidence of two invasive plant species was discovered, montbretia *Crocoshmia x crocosmiliflora* and giant hogweed *Heracleum mantegazzianum*.

An invasive plant species is any non-native plant that has the ability to spread causing damage to the environment, the economy, our health and the way we live. In the UK there are a number of species designated as invasive and fall under legislation (see Appendix 1 and Section 1.6). Invasive plant species are listed under Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended). Invasive species include; montbretia Japanese knotweed, giant hogweed and Himalayan balsam. It is an offence to plant or cause to grow in the wild any of the species outlined within this legislation. In addition to this, in January 2015 the EU Invasive Alien Species Regulation (1143/2014) came into force, banning fourteen non-native invasive plants. It is an offence of keep, cultivate, breed, transport, sell or exchange any of these species or release them, intentionally or unintentionally, into the environment anywhere within the EU.



## Contents

<b>1. Introduction .....</b>	<b>5</b>
1.1 Purpose of the Report .....	5
1.2 Terms of Reference.....	5
1.3 Site Description .....	5
1.4 Details of Proposed Development .....	5
1.5 Common Invasive Plant Species .....	5
1.6 Invasive Species and the Law .....	7
<b>2. Methodology .....</b>	<b>8</b>
2.1 Site Survey Methodology .....	8
2.2 Survey Conditions .....	8
<b>1. Results .....</b>	<b>9</b>
1.1 Site Survey.....	9
<b>2. Conclusions and Recommendations.....</b>	<b>10</b>
2.2 Giant Hogweed .....	10
2.3 Montbretia.....	10
2.4 Prevention of Further Contamination.....	11
<b>3. References .....</b>	<b>12</b>
<b>Appendix 1: Non-native Invasive Species .....</b>	<b>14</b>
<b>Appendix 2: Site Location and Invasive Plants Plan .....</b>	<b>16</b>
<b>Appendix 3: Proposed Development Plan.....</b>	<b>17</b>
<b>Appendix 4: Photographic Evidence .....</b>	<b>18</b>
<b>Appendix 5: Author Qualifications.....</b>	<b>22</b>



# 1. Introduction

## 1.1 Purpose of the Report

- 1.1.1 A report is required at **Swallow Lane (Phase 2), Golcar, Huddersfield** in order to investigate the presence or absence of invasive plant species, such as montbretia and giant hogweed on the site.
- 1.1.2 The aim of the report is to determine the scale of the invasion and inform how the proposed development should approach the invasion. This will allow the invasion to be reduced or controlled and have a lower impact on the development and biodiversity in the area.

## 1.2 Terms of Reference

- 1.2.1 JCA Limited were instructed by **Jones Homes (Yorkshire) Limited** to visit the site and prepare findings in a report.

## 1.3 Site Description

- 1.3.1 **Swallow Lane (Phase 2)** is situated in the village of Golcar, approximately 5.12km southwest of Huddersfield centre, at grid reference: SE 09200 16000.
- 1.3.2 The site is surrounded by residential properties and Swallow Lane to the north, residential properties to the east, agricultural land, Ridings Lane and Heath House Wood (a broadleaf, deciduous woodland and Priority Habitats Inventory area) to the south and residential properties to the west.

The village of Golcar is classified as a conservation area due to its notable architecture and historic character.

## 1.4 Details of Proposed Development

- 1.4.1 The development proposed on this site is the construction of 21 residential buildings.

## 1.5 Common Invasive Plant Species

- 1.5.1 An invasive plant species is any plant that has the ability to spread causing damage to the environment, the economy, our health and the way we live. In the UK there are a number of species designated as invasive and fall under legislation (see **Appendix 1** and **Section 1.6**). Those most commonly encountered are:
  - 1.5.2 **New Zealand Pigmyweed** (*Crassula helmsii*):



New Zealand Pigmyweed is an invasive non-native plant that grows in ponds, lakes, reservoirs, canals and ditches as well as on damp mud on the margins of ponds and reservoirs. It tolerates a wide range of conditions and is invasive throughout most of England.

#### 1.5.3 **Montbretia** (*Crocasmia x crocosmiliflora*)

Montbretia can out compete native flora because of its ability to spread quickly from underground corms. It is illegal to allow montbretia to grow in the wild.

#### 1.5.4 **Horsetail** (*Equisetum arvense*):

Horsetail is a deep rooted, highly invasive native species, which spreads rapidly via rhizomes. If left untreated this species can quickly spread throughout a site, dominating and out competing other floral species. Although not listed under any legislation, this is a problematic species and can cause significant damage if not removed.

#### 1.5.5 **Japanese Knotweed** (*Fallopia japonica*):

Japanese knotweed is an invasive non-native weed, found mainly in urban areas and adjacent to waterways, it is considered a nuisance in property development. As plants can re-grow from rhizomes, they can grow through gaps in flooring in conservatories and patios. All waste containing Japanese Knotweed comes under the control of Part II of the Environmental Protection Act 1990.

#### 1.5.6 **Shallon** (*Gaultheria shallon*):

Shallon is a suckering evergreen shrub that can form dense thickets up to 1.5m high. It is scattered thinly across the UK, with particular concentrations in heaths and acid woodlands of southern England and western Scotland.

#### 1.5.7 **Giant Hogweed** (*Heracleum mantegazzianum*):

Giant Hogweed has a natural defence mechanism that can result in severe health problems. The stems, leaves and sap contain various photosensitizing furanocoumarins which will cause burning to skin when combined with ultraviolet light. Symptoms can persist for days, months or even years depending on each individual's sensitivity to Giant Hogweed compounds.

#### 1.5.8 **Himalayan Balsam** (*Impatiens glandulifera*):

Himalayan Balsam is an invasive non-native weed that can tolerate low light levels, and therefore shades out other vegetation and reduces biodiversity. Each plant can produce up to 800 seeds, which can shoot out and disperse up to 7m away.



### 1.5.9 Parrot's Feather (*Myriophyllum aquaticum*):

This is a popular, non-native invasive, pond-plant which produces long stems and floating mats. Its vigorous growth allows it to become dominant in water bodies, growing to such an extent that it can choke water bodies and out-compete native vegetation, blocking light and altering patterns of flow. Parrot's feather is well established in large parts southern England but is sparser in the north, Scotland, Wales and Ireland.

## 1.6 Invasive Species and the Law

1.6.1 Invasive plant species are listed under Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended) (please refer to **Appendix 1, Table 2**) or described on the Non-Native Species Secretariat (NNSS) website. Invasive species include; montbretia, Japanese knotweed, giant hogweed, Himalayan balsam, and parrot's feather.

Subject to the provisions of this Part, if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence.

1.6.2 In addition to this, in January 2015 the EU Invasive Alien Species Regulation (1143/2014) came into force, banning fourteen non-native invasive plants (see **Appendix 1, Table 3**). The Regulation imposes strict restrictions on a list of species known as "species of Union concern". These are species whose potential adverse impacts across the European Union are such that concerted action across Europe is required. It is an offence of keep, cultivate, breed, transport, sell or exchange any of these species or release them, intentionally or unintentionally, into the environment anywhere within the EU. Eight of these are popular plants and six are less known in the UK.



## 2. Methodology

### 2.1 Site Survey Methodology

2.1.1 The entire site was walked over by an experienced Consultant Ecologist and a Graduate Ecologist who mapped and described any invasive species that were present.

### 2.2 Survey Conditions

2.2.1 The site was surveyed on 16/02/2024 by Eleanor Clark and Rick Westwood.

2.2.2 The weather conditions during the site visit are summarised in **Table 1**:

Survey date	Lead surveyor	Temp		Humidity	Wind		Cloud Cover	Precipitation
		Start	Finish		speed	Direction		
16/02/2024	Eleanor Clark with Rick Westwood	8:15	10:15	92%	14mph	West	Scattered clouds	None

2.2.3 Limitations: Due to the timing of the survey, some species which are more easily identified during spring or early summer, due to flowering timings, may not have been identified in all cases.

2.2.4 Areas of the site were difficult to access, due to dense scrub, rubbish piles and mounds of earth. As a result, there may be invasive species growing in parts of the site that couldn't be reached and that potentially remain unidentified.



# 1. Results

## 1.1 Site Survey

1.1.1 A map showing the location of the development site and the location of invasive plant species can be found at **Appendix 2**.

1.1.2 The following invasive plant species were identified at Swallow Lane (Phase 2), Golcar, Huddersfield:

### 1.1.3 Montbretia

1.1.4 Montbretia, a WCA 9 species, can out compete native flora because of its ability to spread quickly from underground corms. It is illegal to allow montbretia to grow in the wild.

1.1.5 Montbretia was identified in three locations (**Appendix 2: Site Location and Invasive Plants Plan**):

- On the northeast aspect of the site, near an access track, at grid reference SE 09200 16000 (**Appendix 2, Appendix 4: photograph 1**).
- On the south central aspect of the site, west of a line of trees, at grid reference SE 09247 16029 (**Appendix 2, Appendix 4: photograph 2**).
- On the north aspect of the site, located in two raised flower beds, south of a residential patio area, at grid reference SE 09266 15978 (**Appendix 2 Appendix 4: photograph 3**).

### 1.1.6 Giant Hogweed

1.1.7 Giant hogweed, a WCA 9 species, has a natural defence mechanism that can result in severe health problems. The stems, leaves and sap contain various photosensitizing furanocoumarins which will cause burning to skin when combined with ultraviolet light. Symptoms can persist for days, months or even years depending on each individual's sensitivity to giant hogweed compounds. Giant hogweed was identified in one location on the site.

1.1.8 During the site investigation, **giant hogweed** was identified in **one** location:

- On the east central aspect of the site, at grid reference SE 09278 15991 (**Appendix 2, Appendix 4: photograph 4**).



## 2. Conclusions and Recommendations

- 2.1.1 An invasive species method statement is recommended for the safe removal of montbretia and giant hogweed found during the site survey.
- 2.1.2 A botanical survey is recommended to determine whether montbretia and giant hogweed are present on site, in as yet unidentified locations, between May or early June.
- 2.1.3 If montbretia and giant hogweed are confirmed as being onsite, in as yet unidentified locations, an invasive species method statement is recommended.
- 2.1.4 The following eradication strategies are recommended for complete eradication of the invasive species identified.

### 2.2 Giant Hogweed

- 2.2.1 There are several strategies available for the safe control and removal of Giant Hogweed. Incorrect treatment of Giant Hogweed can result in hefty penalties should you inadvertently cause it to spread into other areas. Below is a summary of the options available:
- 2.2.2 *Root Cutting:* This is most suitable for minor infestations involving small numbers of plants. This method involves cutting the tap root to around 15cm below ground level and treating any remaining roots with herbicides. Any re-growth should be cut and disposed of safely.
- 2.2.3 *Seed/flower Head Removal:* This method involves cutting the flower heads off after the seeds have formed, but before they mature. This should be placed in a suitable plastic bag and disposed of safely.
- 2.2.4 *Cutting and Mowing:* This method is suitable for large infestations and involves mowing plants whilst young and continuing throughout the growing season. Do not mow plants that have flower or seed heads as this will aid dispersal. This method will require cutting at least 3 times a year over several growing periods.
- 2.2.5 *Cutting and Covering:* This method involves cutting plants down to the ground layer and covering the spoil with a plastic membrane. This should be left for several years before being removed and re-planted.
- 2.2.6 *Herbicidal Control:* This will require 1 to 2 herbicidal treatments during the growing period and removing flower/seed heads. Plants can be sprayed with appropriate herbicides during the growing season, preventing re-growth the following year.

### 2.3 Montbretia

- 2.3.1 There are several strategies available for the safe control and removal of



Montbretia. Incorrect treatment of Montbretia can result in penalties should you inadvertently cause it to spread into other areas. Below is a summary of the options available:

- 2.3.2 *Manual removal:* This is most suitable for minor infestations involving small numbers of plants. This method involves digging out plants and the surrounding soils that contain corms and roots. This is done once between April and May. No monitoring is required. It is imperative to remove all corms and roots as any left behind will lead to regrowth.
- 2.3.3 *Chemical removal:* This method is suitable for large infestations and involves treating the area by spraying leaves with a glyphosate-based herbicide. This is to be carried out annually between April and May. Any regrowth that occurs will need to be sprayed and it is important to monitor the site for three years of no regrowth.

## **2.4 Prevention of Further Contamination**

- 2.5 During the development, if topsoil is being brought on site its source should always be considered as it can easily introduce a non-native species along with it. The British standard for topsoil, BS 3882:2015, outlines the standard to which soil imported into a site should meet.



### 3. References

#### Guidelines for surveys and report writing:

British Standards Institute (BSI), (2013) *BS 42020:2013, Biodiversity - Code of practice for planning and development*. London.

Chartered Institute of Ecology and Environmental Management (CIEEM), (2015) *Guidelines for Ecological Report Writing*. Winchester.

Joint Nature Conservation Committee (JNCC), (2010) *Handbook for Phase 1 habitat survey: A technique for environmental audit*.

#### Invasive Species:

British Standards Institute (BSI), (2015) *BS 3882:2015, Biodiversity Specification for topsoil*. London.

Department for Environment, Food & Rural Affairs, (2015) *Species Control Provisions: Draft Code of Practice for England*.

Environment Agency, (2013). Bristol: Environment Agency.

GB non-native species secretariat (2016) *Nonnativespecies.org*. Available at: <http://www.nonnativespecies.org/home/index.cfm> (Accessed: 22 September 2016).

Plantlife (2016) *Plantlife.org.uk*. Available at: <http://www.plantlife.org.uk/> (Accessed: 22 September 2016).

*Prevent harmful weeds and invasive non-native plants spreading - Detailed guidance* (2014) *Gov.uk*. Available at: <https://www.gov.uk/guidance/prevent-the-spread-of-harmful-invasive-and-non-native-plants> (Accessed: 22 September 2016).

#### Relevant Legislation:

*Environmental Protection Act 1990* (c.43) Available at: <http://www.legislation.gov.uk/ukpga/1990/43> (Accessed: 22 September 2016)

*EU Invasive Alien Species Regulation* (No. 1143/2014) Available at: [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOL\\_2014\\_317\\_R\\_0003](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOL_2014_317_R_0003) (Accessed: 22 September 2016)

*Wildlife and Countryside Act 1981*, (c. 69) (as amended). Available at: <http://www.legislation.gov.uk/ukpga/1981/69> (Accessed: 22 September 2016)



# Appendices



## Appendix 1: Non-native Invasive Species

**Table 2:** Invasive species listed in Part II, Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) for England and Wales.

Common Name	Scientific Name	Common Name	Scientific Name
Few-flowered Leek	<i>Allium paradoxum</i>	Floating Water Primrose	<i>Ludgwigia peploides</i>
Three-cornered Garlic	<i>Allium triquetrum</i>	Water Primrose	<i>Ludwigia grandiflora</i>
Hooked Asparagus Seaweed	<i>Asparagopsis armata</i>	Water Primrose	<i>Ludwigia uruguayensis</i>
Water Fern	<i>Azolla filiculoides</i>	Giant Kelp	<i>Macrocystis angustifolia</i>
Fanwort	<i>Cabomba caroliniana</i>	Giant Kelp	<i>Macrocystis integrifolia</i>
Hottentot Fig	<i>Carpobrotus edulis</i>	Giant Kelp	<i>Macrocystis laevis</i>
Green Seafingers	<i>Codium fragile</i>	Giant Kelp	<i>Macrocystis pyrifera</i>
Green Seafingers	<i>Codium fragile tomentosoides</i>	Parrot's Feather	<i>Myriophyllum aquaticum</i>
Hollyberry Cotoneaster	<i>Cotoneaster bullatus</i>	Laver Seaweeds (except native species)	<i>Porphyra</i> spp.except: <i>P. amethystea</i> <i>P. leucosticta</i> <i>P. linearis</i> <i>P. miniata</i> <i>P. purpurea</i> <i>P. umbilicalis</i>
Cotoneaster	<i>Cotoneaster horizontalis</i>		
Entire-leaved Cotoneaster	<i>Cotoneaster integrifolius</i>		
Small-leaved Cotoneaster	<i>Cotoneaster microphyllus</i>		
Himalayan Cotoneaster	<i>Cotoneaster simonsii</i>		
New Zealand Pygmyweed	<i>Crassula helmsii</i>		
Montbretia	<i>Crocoshmia x crocosmiiflora</i>		
Purple Dewplant	<i>Disphyma crassifolium</i>	False Virginia Creeper	<i>Parthenocissus inserta</i>
Water Hyacinth	<i>Eichhornia crassipes</i>	Virginia Creeper	<i>Parthenocissus quinquefolia</i>
Waterweeds	<i>Elodea</i> sp.	Californian Red Seaweed	<i>Pikea californica</i>
Japanese Knotweed	<i>Fallopia japonica</i>	Water Lettuce	<i>Pistia stratiotes</i>
Hybrid Knotweed	<i>Fallopia japonica</i> x <i>F. sachalinensis</i>	Japanese Knotweed	<i>Polygonum cuspidatum</i>
Giant Knotweed	<i>Fallopia sachalinensis</i>	Rhododendron	<i>R. ponitcum</i> x <i>R. maximum</i>
Shallon	<i>Gaultheria shallon</i>	Yellow Azalea	<i>Rhododendron luteum</i>
Red Algae	<i>Grateloupia luxurians</i>	Rhododendron	<i>Rhododendron ponticum</i>
Giant Rhubarb	<i>Gunnera tinctoria</i>	False-acacia	<i>Robinia pseudoacacia</i>
Giant Hogweed	<i>Heracleum mantegazzianum</i>	Japanese Rose	<i>Rosa rugosa</i>
Floating Pennywort	<i>Hydrocotyle ranunculoides</i>	Duck Potato	<i>Sagittaria latifolia</i>
Himalayan Balsam	<i>Impatiens glandulifera</i>	Giant Seafingers	<i>Salvinia molesta</i>
Curly Waterweed	<i>Lagarosiphon major</i>	Japanese Seaweed	<i>Sargassum multicum</i>
Variegate Yellow Archangel	<i>Lamiastrum galeobdolon</i> subsp. <i>Argentatum</i>	Perfoliate Alexanders	<i>Smyrniium perfoliatum</i>
Japanese Kelp	<i>Laminaria japonica</i>	Wakame	<i>Undaria pinnatifida</i>



**Table 3:** Invasive non-native species subject to restrictions set out in Article 7 of the EU Invasive Alien Species Regulations.

<b>Common Name</b>	<b>Scientific Name</b>	<b>Common Name</b>	<b>Scientific Name</b>
Eastern Baccharis	<i>Baccharis halimifolia</i>	Water Primrose*	<i>Ludwigia grandiflora</i>
Green Combomba*	<i>Cabomba caroliniana</i>	Creeping Water-primrose*	<i>Ludwigia peploides</i>
Water Hyacinth*	<i>Eichhornia crassipes</i>	American Skunk Cabbage*	<i>Lysichiton americanus</i>
Persian Hogweed	<i>Heracleum persicum</i>	Parrot's Feather* Whitetop Weed	<i>Myriophyllum aquaticum</i>
Sosnowskyi's Hogweed	<i>Heracleum sosnowskyi</i>		<i>Parthenium hysterophorus</i>
Floating Pennywort*	<i>Hydrocotyle ranunculoides</i>	Asiatic Tearthumb	<i>Persicaria perfoliata</i>

\* denotes species are those found growing in the UK. The remaining species are rarely found.



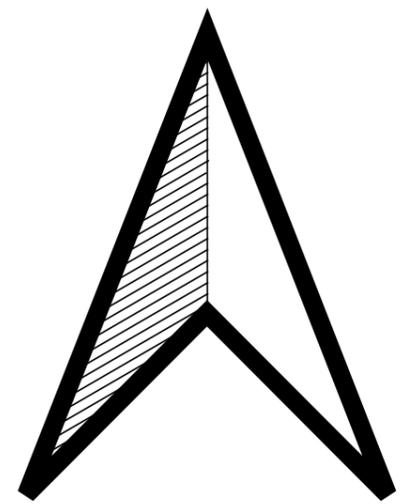
## **Appendix 2: Site Location and Invasive Plants Plan**





Site name & address  
**Swallow Lane (Phase 2)**  
**Huddersfield**  
**West Yorkshire**  
**HD7 4NB**

- Key**
- Red line boundary
  - Location of invasive species
- 1. Montbretia
  - 2. Giant hogweed



Site Swallow Lane (Phase 2)	Client Jones Homes (Yorkshire) Limited
Project INVASIVE PLANT SURVEY & REPORT	Author RW
Plan ref 15543b/RW	Revision Planning

## **Appendix 3: Proposed Development Plan**



The Contractor is responsible for checking dimensions and any discrepancy to be verified with the Architects before proceeding. Figured dimensions to be worked to only. **DO NOT SCALE**

FOR DESIGN RISK ANALYSIS SEE DOCUMENT CONTAINED IN PRE-CONSTRUCTION INFORMATION PACK



**KEY**

- SF10 - 1800mm FEATHER EDGED TIMBER FENCE
- SF1 - 1800mm BRICK WALL & TIMBER SCREEN
- SF7 - 850mm PLOT DEFINITION FENCE
- SF9 - 1000mm BLACK METAL RAILINGS
- SF15 - 1100mm ESTATE RAILINGS
- PERSONNEL GATE
- BIN STORAGE AREA
- BCP BIN COLLECTION POINT (SERVING MORE THAN 1 PLOT)
- AFFORDABLE UNIT (PRIVATE RENT)
- PRIVATE LIGHTING BOLLARD
- PIR PIR light to front of house
- Block Paving
- Tarmac

NOTE - DRAWING TO BE READ IN CONJUNCTION WITH DRAWING SDL\_2016\_5.16G STANDARD FENCE AND LANDSCAPING DETAILS

Retained dry stone wall with timber fence positioned in front of the wall.

Retained dry stone wall with timber fence positioned in front of the wall.

Retained dry stone wall with timber fence positioned in front of the wall.

Rev	Date	By	Description
Location Golcar, Swallow Lane (Phase 2)			
Title Site Layout			
Scale	1/200@A1	Drawn By	JHY
Date	16.10.23		
Drawing Number	JHY-1354-200		Rev #

**JONES HOMES**

JONES HOMES (YORKSHIRE) LIMITED  
 GREEN BANK HOUSE, GREEN BANK, CLECKHEATON, BD19 5LQ  
 TEL: (01274)852700 Fax:(01274)852701

## Appendix 4: Photographic Evidence

Photo 1:



Montbretia, located at grid reference SE 09272 16011, viewed from the south.



Photo 2:



Montbretia, located at grid reference SE 09247 16029, viewed from the south.



**Photo 3:**



Montbretia, located at grid reference SE 09266 15978, viewed from the west.



**Photo 4:**



Giant hogweed, located at grid reference SE 09278 15991, viewed from the north.



## **Appendix 5: Author Qualifications**

### **Adam West, Principal Ecologist**

*BSc (Hons) Animal and Wildlife Management.*

Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Bachelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence and a Natural England Level 2 bat survey class licence.

### **Eleanor Clark, Assistant Ecologist**

*BSc (Hons) Biology, MSc Biodiversity, Ecology & Ecosystems.*

Eleanor gained her undergraduate degree in biology in 2017 from the University of Portsmouth before going on to complete an MSc in Biodiversity, Ecology & Ecosystems at the University of York in 2019. Eleanor has 2 years of experience in ecological consultancy with experience surveying for a range of protected species. Eleanor holds a Natural England Level 1 great crested newt licence and is working towards her bat licence.

### **Rick Westwood, Graduate Ecologist**

*BA (Hons) History and Politics*

Rick gained his undergraduate degree in History and Politics in 2001 from Leeds Metropolitan University before going on to complete a PGCE in History at the University of Leeds in 2003. After 17 years in secondary education and a year working in the NHS, Rick began assisting on bat emergence surveys in 2023, after which, he gained employment as a Graduate Ecologist at JCA Ltd.



I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed

.....

.....

Rick Westwood  
21/02/2024

Reviewed by

.....

.....

Eleanor Clark  
22/02/2024

Reviewed by

.....

.....

Adam West, Principal Ecologist *BSc (Hons) Animal and Wildlife Management, ACIEEM.*  
23/02/2024



For and on behalf of **JCA Ltd**

**Registered Office:**

**Unit 80  
Bowers Mill  
Branch Road  
Barkisland  
Halifax  
HX4 OAD**

**Tel. 01422 376335**

**Fax. 01422 376232**

**Email: [adam@jcaac.com](mailto:adam@jcaac.com)**

**Web : [www.jcaac.com](http://www.jcaac.com)**





## ECOLOGICAL SERVICES

### Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

### Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

## ARBORICULTURAL SERVICES

### Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

### Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

### Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

### Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

### Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

### Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control



## HEAD QUARTERS

Unit 80 Bowers Mill,  
Branch Road,  
Barkisland  
Halifax, HX4 0AD

