

**INVASIVE PLANT
SURVEY & REPORT**

at

**Land off Bankfield Drive
Huddersfield
West Yorkshire
HD9 2PH**

**Client:
Orion Homes**

**Client Address:
5 Benton Office Park
Bennet Avenue
Horbury
Wakefield
WF4 5RA**

**JCA Ref:
18204e/AWe**

**Date of Report:
03/08/2023**



Quality Assurance

JCA ref.	Version	Site Surveyed:		Report Completed:		Checked:	
		Date	Name	Date	Name	Date	Name
18204e/AWe	Planning	02/08/23	Adam West	03/08/23	Adam West	04/08/23	Alex Donovan

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*.

Risk Assessment Completed	
Bio-security Procedure Completed	
Lone Worker Procedure Completed	



Summary

A report is required at **Land off Bankfield Drive** in order to investigate the presence or absence of invasive plant species.

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; Giant Hogweed, Japanese Knotweed, Himalayan Balsam, and Floating Pennywort. 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.

No evidence for the presence of invasive non-native plant species was found during the site survey.



Contents

1. Introduction	5
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	6
2. Methodology	8
2.1 Site Survey Methodology	8
2.2 Survey Conditions	8
3. Results	9
3.1 Site Survey	9
4. Conclusions and Recommendations	10
5. References	11
Appendix 1: Non-native Invasive Species	13
Appendix 2: Site Location Plan	15
Appendix 3: Photographic Evidence	17
Appendix 4: Author Qualifications	19



1. Introduction

1.1 Purpose of the Report

- 1.1.1 A report is required at **Land off Bankfield Drive**, in order to investigate the presence or absence of invasive plant species, such as Japanese Knotweed, Giant Hogweed and Himalayan Balsam on the site.
- 1.1.2 The aim of the report is to determine if invasive species are present and, if so, the scale of the invasion and inform how the proposed development should approach the invasion. This will allow any 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 I am instructed by **Orion Homes** to visit the site and prepare my findings in a report.

1.3 Site Description

- 1.3.1 **Land off Bankfield Drive** is located at Ordnance Survey (OS) National Grid Reference SE 12159 06546, with nearby postcode HD9 2PH.
- 1.3.2 The site is bordered to the north and east by residential properties, to the west and south by agricultural fields.

1.4 Details of Proposed Development

- 1.4.1 The development proposed on this site is for 25 new residential properties to be constructed.

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 **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.

1.5.3 **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.

1.5.4 **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.

1.5.5 **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.

1.5.6 **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 **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.

1.5.8 **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 more sparse 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; Giant Hogweed, Japanese Knotweed, Himalayan Balsam, and Floating Pennywort.

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 who mapped and described any invasive species that were present.

2.2 Survey Conditions

- 2.2.1 The site was surveyed on 02/08/23 by Adam West, *ACIEEM, BSc (Hons)*.
- 2.2.2 Limitations: The survey was carried out at the time of year when most plants are typically in flower and most readily identifiable. All areas of the site were accessible during the survey. There were no perceived limitations on the survey.



3. Results

3.1 Site Survey

- 3.1.1 A map showing the location of the development site can be found at **Appendix 2**.
- 3.1.2 No invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were identified at **Land off Bankfield Drive**.



4. Conclusions and Recommendations

- 4.1 An invasive plant species was conducted at the **Land off Bankfield Drive** by Adam West, *ACIEEM, BSc (Hons)* on 02/08/23.
- 4.2 During the site investigation no invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were identified.
- 4.3 Invasive plant species are not considered to be a constraint on development.



5. 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 (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>Ludwigia 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>Crocasmia 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>Smyrnum 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.

Common Name	Scientific Name	Common Name	Scientific Name
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>

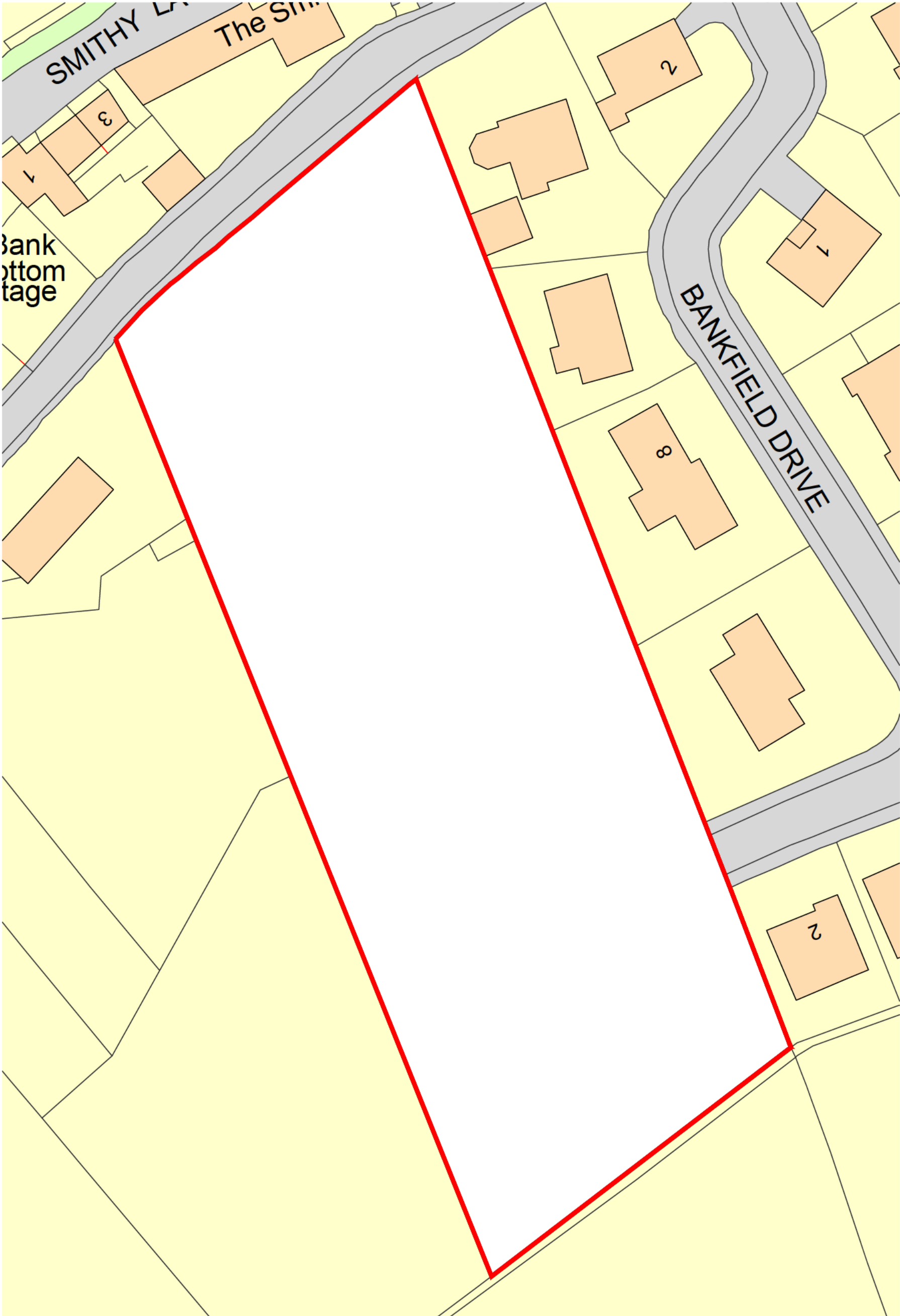
* denotes species are those found growing in the UK. The remaining species are rarely found.



Appendix 2: Site Location Plan



Bankfield Drive, Holmebridge



Revision notes:		
Rev.	Date:	Notes:
-	-	-

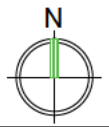
Revision notes:		
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Revision notes:		
Rev.	Date:	Notes:
-	-	-

Date: 20.01.21	Project: Bankfield Drive, Holmebridge
Scale @ A2: 1:500	Drawing Number: Location Plan
Drawn By: CD	Revision: -



SO GOOD O COME HOME
Unit 6, Bardon Office Park, Bardon Avenue
Horbury, Wakefield WF4 6PA. Tel: 01924 831000



Appendix 3: Photographic Evidence



Photo 1: The site viewed from the southern boundary.



Photo 2: The site viewed from the northern boundary.





Photo 3: Line of trees and dense bramble *Rubus fruticosus* on the southern boundary.



Photo 4: Dense stand of steepplebush *Spiraea tomentosa*, a likely garden escapee, on the eastern boundary.



Appendix 4: 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.

Alex Donovan, Graduate Ecologist

MBIOL, BSc Biology (Industrial).

Alex joined JCA in 2023 after graduating from the University of Leeds with a First Class Honours Integrated Master's degree in Biology. As part of his degree programme, Alex spent an industrial placement year working in the Uplands Research Department of the Game and Wildlife Conservation Trust, assisting on various ecological surveys and projects. Alex is a registered Trainee Bird Ringer, licensed through the BTO, and has previously conducted seasonal bat emergence and transect surveys.



The Information and advice which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and bona fide opinions.

Signed

.....

Adam West *ACIEEM*

03/08/2023

Proofread by

.....

Alex Donovan

04/08/2023

For and on behalf of **JCA Ltd**

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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



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