Ben Jones
ECOLOGY

Report Type:	**Ecological Appraisal**
Client Name:	**Mr D Jones**
Site Address:	**16-18 Bennion Road Hightown Wrexham LL13 7AW**
Report Reference:	**EA BJ24-067.2**
Date of Issue:	**24th October 2024**
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Report Details	
Classification	Ecological Appraisal
Status	Final
Reference	EA BJ24-067.2

Version History	
Report Reference	**Date of Revision**
EA BJ24-067.1	24th April 2024
EA BJ24-067.2	24th October 2024

Quality Assurance		
	Name	**Date**
Author:	B. Jones BSc(hons) MSc MCIEEM **Senior Consultant**	24th April 2024
Reviewed by:	L. Maggs BSc(hons) **Senior Consultant** On behalf of **Barns Ecology**	24th April 2024
Amended by:	B. Jones BSc(hons) MSc MCIEEM **Senior Consultant**	24th October 2024

The report should be read in its entirety. Questions arising from the survey report should be directed to the author of the report who will be pleased to clarify any technical issues raised.

Whilst surveyors make every reasonable effort, Ben Jones Ecology cannot guarantee that all protected species have been identified and survey results are definitive. Many species are cryptic and transitional in habit.

Reports are considered valid for two years for planning purposes, after which time further survey information may be required.

Ben Jones Ecology can provide advice and support for recommendations and planning conditions.

The use of this report or survey data for any form of formal submission to an NGO or other authority implicitly implies acceptance of the terms and conditions.

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1 Executive Summary

1.1 Purpose of the Report

Ben Jones Ecology was commissioned by DPA on behalf of the client, Mr Jones, to update the ecological appraisal of garages to the rear of 16-18 Bennion Road as part of the planning application to demolish the garages and construct a semi-detached dwelling on site.

The survey report has these principal aims:

- To provide an initial assessment of the ecological value of the site in local context.
- To identify potential ecological constraints relating to the development, and recommend measures to avoid, reduce or manage negative effects, and to provide a net ecological gain.

1.2 Methodology

The appraisal included a desktop study for nearby designated sites and previously recorded protected species and a revisit to site, OS grid reference SJ33684960, on 3rd April 2024.

1.3 Key Impacts and Mitigation Measures

The previous survey undertaken in 2022 by Greenscape Environmental did not reveal any evidence of species of ecological concern, or any habitats listed in Section 7 of the Environment (Wales) Act, and so nothing was recommended beyond simple ecological enhancements.

The revisit in 2024 confirmed that nothing had changed. There was still no evidence of protected species on or around the site and the original recommendations are still valid.

1.4 Conclusion

It has been agreed with the client that the biodiversity value of the site will be enhanced post-construction with the inclusion of bat and bird boxes. The new gardens will include low-lying herb and shrub vegetation which will be an improvement over the existing hardstanding.

There are no ecological constraints to the development as currently proposed.

2 Introduction

This report has been compiled by Ben Jones BSc (hons) MSc who has 9 years' experience conducting ecological appraisals.

For full details of surveyors and licences please see Appendix A.

2.1 Project Background

Ben Jones Ecology was commissioned by DPA to conduct a survey to determine the presence of protected species and potential for the damage or destruction of habitats of value. This forms part of the planning application for the demolition of garages and construction of dwellings on land to the rear of 16-18 Bennion Road, Wrexham.

2.2 Purpose of the Report

This report aims to:

- Identify the key ecological constraints to the proposed development relating to priority habitats and species and protected species (HMSO, 1981).
- Inform planning to allow significant ecological effects to be minimised or avoided where possible.
- Allow any necessary mitigation or compensation measures to be developed following the mitigation hierarchy.
- Identify the opportunities offered by a project to deliver ecological enhancement (Ministry of Housing, Communities and Local Government, 2021).
- Provide information to assist landowners with avoiding committing legal offences in relation to wildlife (HMSO, 2000)

2.3 Site Context and Location

The site is located in Wrexham, OS grid reference SJ33684960. It is set in an urban environment surrounded by residential housing and gardens meaning there is little connectivity to surrounding countryside. There is a small, wooded area to the rear of the development where a garden network could provide some habitat.

3 Methodology & Constraints

Broad methodologies for data collection and interpretation were informed by PEA guidance (CIEEM, 2017). Full details can be found in Appendix B.

3.1 Desk Study

The desk study provides contextual information such as the site's proximity to designated areas and previously granted licences (Natural England, 2018). Previously recorded species in the vicinity are obtained from local records centres (Cofnod, 2024).

3.2 Field Survey

3.2.1 Date and Survey Conditions

Table 3.1. Survey conditions

Date	Time	Equipment Used	Weather
12/04/2022	10:00	Camera, strong torch	Rain
Comments	Greenscape Environmental Survey conducted by Ben Jones		
03/04/2024	10:45	Camera, strong torch, DJI Mini 4 Pro Drone	Intermittent rain
Comments	One surveyor used		

3.2.2 Habitats

The habitats on site were assessed for their potential to support protected species and therefore assist in the determination of site value.

The site had not been subject to any form of specific management, maintenance or cleaning prior to this updated survey.

3.3 Species Survey

3.3.1 Bats

An assessment of the suitability of site to support roosting bats was conducted following best practice guidance looking for evidence of roosting or potential access points (Collins, J. BCT, 2023). There were no constraints to this methodology.

3.3.2 Other Mammals

An assessment of the suitability of site and its surrounds to support badgers, water vole, otter and dormouse were scoped out at the desktop stage due to the lack of suitable habitat to be impacted by the development as proposed.

3.3.3 Birds

An assessment of the suitability of site and its surrounds to support nesting birds was conducted, looking for current/old nests and listening for bird calls. There were no constraints to this methodology.

3.3.4 Amphibians & Reptiles

Amphibians and reptiles were scoped out of the survey requirement as there are no ponds within 250m and the original phase 1 survey found no evidence of amphibians on site.

3.3.5 Invasive Species

Signs of invasive non-native plant species were searched for throughout the site.

4 Baseline Ecological Conditions

4.1 Nearby Features of Importance

The map from Natural England presented in Figure 4.1 indicated that the site is not within 1km of any designated areas.

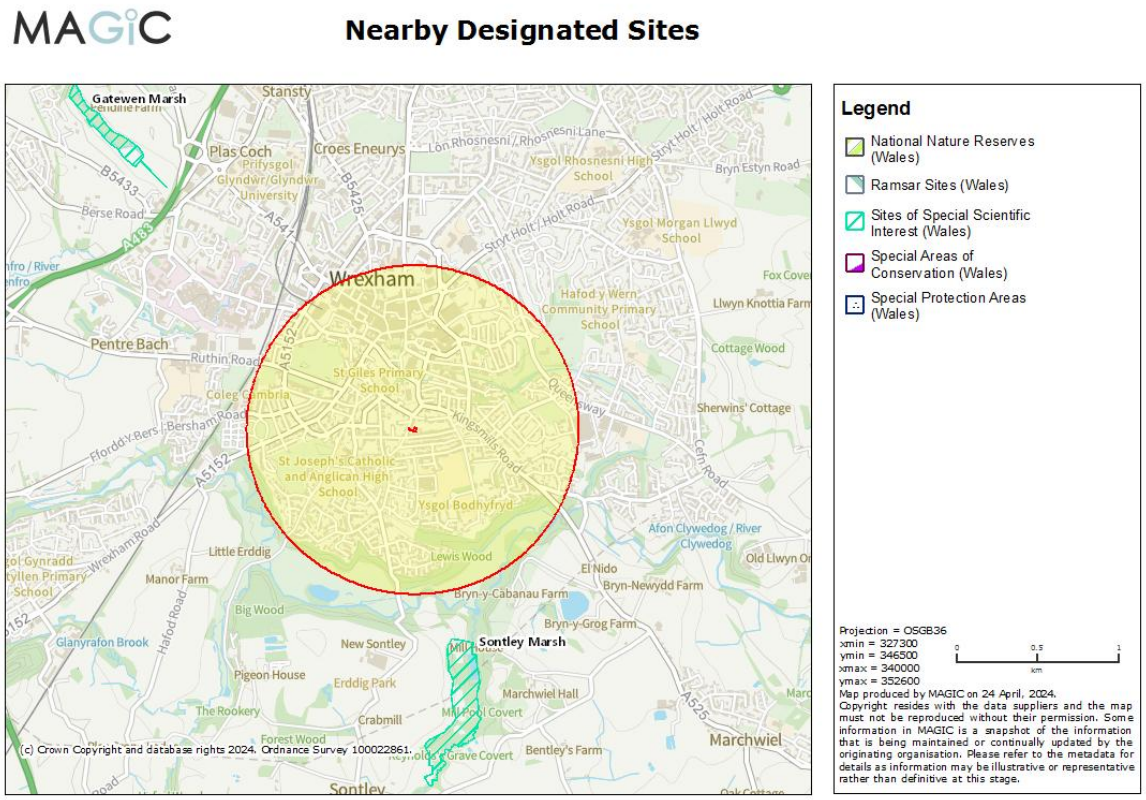

Figure 4.1. Identifying any designated areas near site, a 1km buffer is shown

4.2 Habitats on Site

The site is a series of connected garages along the eastern boundary. These are red brick construction with corrugated asbestos roofs. All frontages are onto a shared driveway and parking area consisting of stone and tarmac. There are two detached garage/shed buildings which are also included within the red-line area.

Figure 4.2. Site overview in 2024

Figure 4.3. Frontages in 2022 (left) and 2024 (right)

Figure 4.4. Detached garage building in 2022 (left) and 2024 (right)

Figure 4.5. Second detached garage building in 2022 (left) and 2024 (right)

The site is accessed by a shared track connecting to Bennion Road to the west, out of the southwestern corner of site. This is a tarmac drive bounded by fence and walls associated with neighbouring properties.

Figure 4.6. Access track in 2022 (left) and 2024 (right)

Figure 4.7. Access from road in 2022 (left) and 2024 (right)

4.3 Bats

4.3.1 Records

Records of bats within 2km include historic records of common pipistrelle (*Pipistrellus pipistrellus*) most recently from 1999, approximately 85m northeast of site.

4.3.2 Field Observations

The site had no features suitable for roosting bats. The corrugated asbestos roofs provide no suitable crevices for bat roosts. The timbers supporting these roofs are small and modern with no cracks or features that might provide crevice shelter.

The potential roost value of site had not increased between the original 2022 survey and that conducted in 2024.

Figure 4.8. Lack of roost features in 2024

4.4 Birds

4.4.1 Records

Records of birds within 2km include swift (*Apus apus*) in 2014, 140m southwest of site, with other recorded species within 1km including house martin (*Delichon urbicum*), swallow (*Hirundo rustica*), blue tit (*Cyanistes caeruleus*), kestrel (*Falco tinnunculus*) and house sparrow (*Passer domesticus*).

4.4.2 Field Observations

The site had limited potential to support nesting birds. Damage to windows on the east of the garages, and damage to the roof in places may permit birds access, but there are limited features of interest or value to nesting birds. No evidence of nesting was seen on site in either 2022 or 2024.

4.5 Invasive Species

No evidence of invasive species was found on or around the site.

5 Description of Proposed Development

The current plans are for the demolition of the existing garages and the construction of 2no. two-storey dwellings. The access will remain the same.

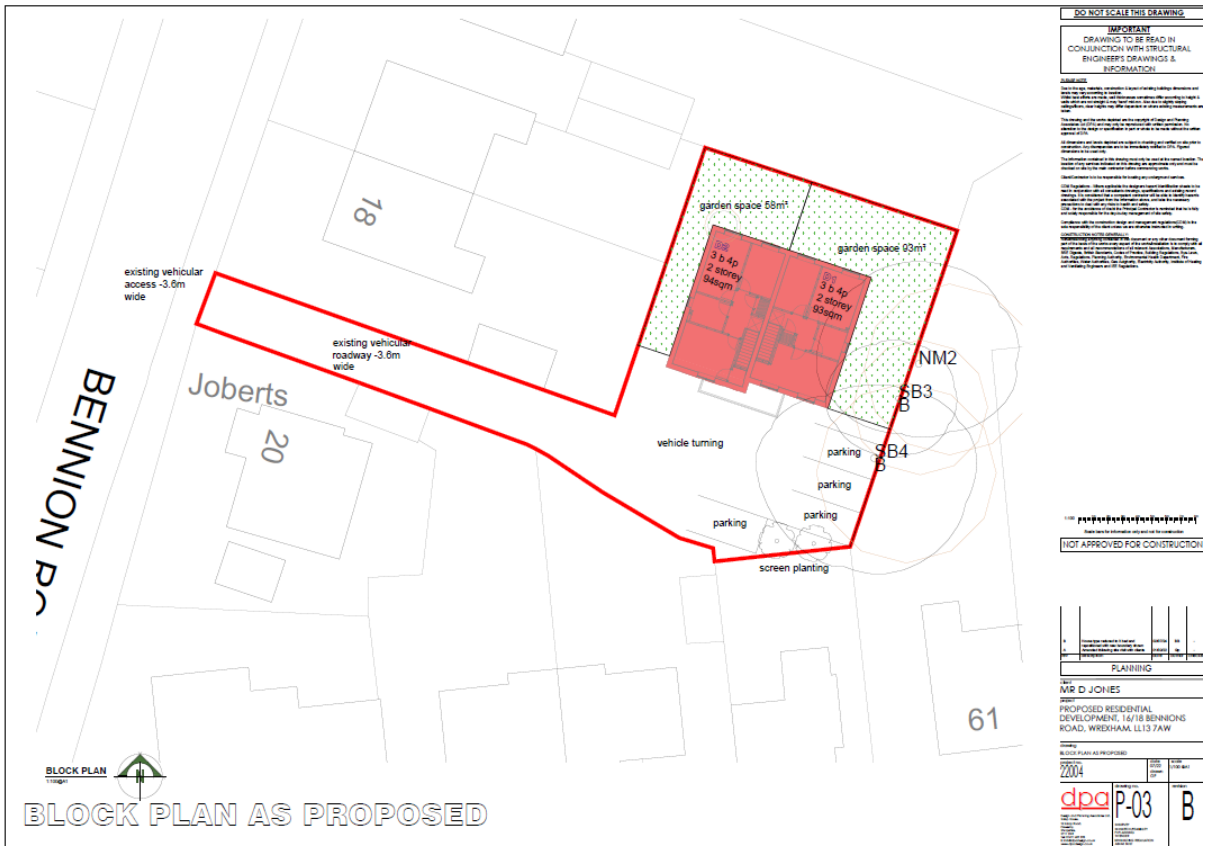

Figure 5.1. Proposed site plans

6 Impacts, Enhancements and Mitigation

6.1 Nearby Features of Importance

Figure 4.1 shows that there are no designated sites within the vicinity of this development. No negative impact is expected.

6.2 Habitats on Site

6.2.1 Impacts

As the site is not comprised of any habitats of principal importance listed in Section 7 of the Environment (Wales) Act (HMSO, 2016), mitigation will be delivered at a site and species level.

6.2.2 Enhancements

In order to obtain an ecological net gain for the site, the remaining green spaces and site boundaries will require enhancement for local wildlife.

It is understood that hedgerows may be planted along new site boundaries, and gardens will be planted with a typical array of ornamental herb and shrub plants.

6.3 Bats

6.3.1 Impacts

Even without consideration the demolition of the garages will not see the loss or damage of roosts, nor will it risk the death or injury of individual bats.

The buildings are of negligible roost value and no evidence was found, no further surveys are required and work can commence as soon as planning permission has been granted.

6.3.2 Enhancements

It is recommended that permanent provision be made for roosting opportunities for bats with the inclusion of an integrated bat box in the new building. This will be erected at a height of 3-4 m and in a southerly, westerly or easterly facing direction.

Enclosed Bat Box (B and C)

- Designed specifically for the pipistrelle bat
- Available in all brick types
- Discrete home for bats
- Various sizes
- Several roosting zones are created inside the box
- Bats are contained within the bat box itself
- Maintenance free with entrance at the base
- Ideal for new build & conservation work

Bat Box B

Bat Box C

Eco Habitats for Bats	Sizes (mm)	Durability
Bat Box Type A	215 x 65	F2 S2 – Fully Frost Resistant
Bat Box Type B	215 x 215 or 215 x 290	F2 S2 – Fully Frost Resistant

Figure 6.1. Example integrated bat box

6.3.3 Monitoring

Failing boxes or enhancements will be replaced at the cost of the developer if deterioration or damage is noted within five years post-development.

6.4 Birds

6.4.1 Impacts

No evidence of nesting birds was found in either 2022 or 2024. No negative impact is expected from the development as proposed.

6.4.2 Enhancements

It is recommended that at least one woodcrete box is erected on site to provide an enhancement for passerine birds.

a. 26/32mm hole nest boxes (e.g. Schwegler 1b) should be installed at a minimum height of 3m in a westerly, northerly or easterly aspect.

Figure 6.2. Bird boxes

6.4.3 Monitoring

Failing boxes or enhancements will be replaced at the cost of the developer if deterioration or damage is noted within five years post-development.

6.5 Invasive Species

As there was no evidence of any invasive species on or around the site, there is no risk of the development causing the spread of such species to the wider landscape. No further consideration is required.

7 Concluding Remarks

The survey has focussed on the potential habitats or protected species to be damaged or destroyed as part of this development.

The site did not have any evidence of any protected or priority species in 2022 and the update in 2024 did not reveal any alterations that imply a significant change. The site only had limited potential for nesting birds, but the lack of evidence in either year suggests none are present.

There is opportunity to enhance the site specifically for nesting birds and roosting bats by including appropriate artificial boxes. Planting of the gardens will provide a small biodiversity boost in the local area.

The development can proceed without the loss of habitat of significant value, and without the loss of the favourable conservation status of any protected species. As there is no evidence of protected species within and around the development site, there is no requirement to address the three tests under Regulation 55 of The Conservation of Habitats and Species (HMSO, 2019).

There are no ecological constraints to the development as currently proposed.

Appendix A – Surveyor Details

Table A.1. Details of surveyors' experience and licences held

Name	Membership of associations/ experience	Licenses
Ben Jones BSc(hons) MSc	Senior Consultant MCIEEM Ben has a degree in Marine and Freshwater biology and a Master's degree in "Managing the Environment". He has 9 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales. As a member of the CIEEM he is bound by professional conduct.	Holder of survey licenses for bats and newts in England and Wales. England: Bats - 2017-29112-CLS-CLS GCN - 2016-25209-CLS-CLS Wales: Bats – S091847/1 GCN – S091242/1
Logan Maggs BSc(hons) Of Barns Ecology	Senior Consultant Logan has a degree in Conservation and Land Management. He has over 10 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. England: Bats - 2016-24901-CLS-CLS GCN - 2017-29218-CLS-CLS Wales: Bats – S091096/1

Appendix B – Methodology

Desk Study

Table B.1. Data sources

Organisation/Resource	Information Assessed
Local Records Centre - Cofnod	Protected/Priority Species records (2km)
MAGIC website	International statutory designations (1km) • Special Protection areas (SPA) • Special Areas of Conservation (SAC) • RAMSAR sites National statutory designations (1km) • Sites of Special Scientific Interest (SSSI) • National Nature Reserves (NNR) EPS Licenses for protected species (2km)

A data search was purchased from Cofnod in 2022, which has since expired. An update was purchased in April 2024.

A search on Multi Agency Geographic Information for the Countryside (Magic Maps) determined nearby designated areas. The map is presented in Section 4.1.

Field Survey

The level of survey is aimed to identify field signs of or habitats with the potential to support protected species and therefore assist in the determination for detailed phase 2 surveys.

Determination of Ecological Value is based on the general criteria provided by CIEEM (2017).

Table B.2. Criteria of ecological values

Ecological Value	Description and Examples
High	Habitats or features that have high importance for nature conservation, such as statutory designated nature conservation sites of international or national importance or sites maintaining viable populations of species of international or national importance (e.g. Red Data Book species; European protected species).
Medium	Sites designated at a county or district level, e.g. Local Wildlife Site (LWS), ancient woodland site, ecologically 'important' hedgerows or ecological features that are notable within the context of a region, county or district (e.g. a viable area of a Priority Habitat or a site that supports a viable population of a priority species).
Low	Sites of nature conservation value within the context of a parish or neighbourhood, low-grade common habitats, such as arable fields and improved grasslands and sites supporting common, widespread species.

Species Surveys

Bats

Features on site were assessed for potential for bat roosts, foraging and commuting.

An external assessment of all structures on site was undertaken to determine potential roost features (PRF). The potential suitability of the structures assessed was assigned a rating of None, Negligible, Low, Moderate or High in accordance with table 4.1 of Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th edition.

An internal assessment of all structures was undertaken by a suitably licensed surveyor for evidence of roosting bats such as droppings, feeding remains and staining.

Daytime surveys were conducted with the aid of a strong torch and a 12x55 monocular. Bat species may leave little evidence of their presence.

Evidence for the presence of bats includes:

- Holes, cracks and rot holes used as roosts, marked by streaks of urine and faeces.
- Smoothed, darkened edges where bats have rubbed and left natural body oils when entering and exiting a space.
- Faeces under a roof access point, a well-used feeding point or a resting spot.
- Feeding signs such as discarded insect wings under a feeding point.
- Lack of cobwebs around eaves, roof spaces, beams or ceilings where routes are kept clear by bats or presence of droppings in a cobweb.
- Presence of roosting or dead bats in or behind any object.

Birds

Searching for evidence of nesting birds, including barn owls, involved looking for:

- Presence of nests
- Collections of droppings and/or feathers
- Highly distinctive droppings or splats under roosting points.
- Presence of owl pellets/feathers
- Listening for bird song
- Recording bird activity

Appendix C – Policy

The following areas of policy and legislation are of relevance to ecology and provide context to the surveys conducted. Findings presented in this report are in line with the following:

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – as listed in:

- Schedule 2. European protected species of animals
- Schedule 5. European protected species of plants

The Wildlife and Countryside Act (1981) – as listed in:

- Schedule 1. Birds protected by special penalties at all times
- Schedule 5. Protected animals
- Schedule 8. Protected plants

Countryside and Rights of Way Act (2000)

Environment Act (2021) – Part 6 – Nature and Biodiversity

Natural Environment and Rurally Communities (NERC) Act (2006)

Planning Policy Wales 2002, updated Dec 2018
Section 6.4 – Biodiversity and Ecological Networks

The Nature Recovery Plan for Wales – Setting the course for 2020 and beyond (2015)

Environment Act (Wales) (2016)
Section 7

Bats

All bat species are protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- Deliberately capture or kill any wild animal of a European Protected Species.
- Deliberately disturb any such animal.
- Damage or destroy a breeding site or resting place of such a wild animal.
- Keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a European Protected Species, or any part of, or anything derived from such a wild animal or plant.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine or to both.

Seven bat species are on the UK Biodiversity Action Plan and are listed as Species of Principal Importance under the provisions of the Natural Environment and Rural Communities (NERC) Act 2006. The National Planning Policy Framework (NPPF) states that to minimise impacts on biodiversity and geodiversity, "*planning policies should… promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations*".

Birds

Under Section 1 of the Wildlife and Countryside Act 1981 (as amended), birds, their nests and young are all protected from damage, particularly during the breeding season. The Act allows for fines or prison sentences for every bird, egg or nest destroyed. It makes it an offence to:

- Intentionally kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built.
- Take damage or destroy the egg of any wild bird.
- To have in one's possession or control any wild bird, dead or alive or egg or any part of a wild bird or egg.

Some bird species are included in the UK and local BAPS and are recognised as species of principal importance for nature conservation in accordance with section 41 of the NERC Act 2006. Such species and their habitats receive protection through the provisions of the NPPF.

Appendix D - Bibliography

CIEEM Guidelines for Preliminary Ecological Appraisal, 2nd Edition. - Winchester : Chartered Institute of Ecology and Environmental Management, 2017.

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