

Title	Proposed Residential Housing Development on Land at Bedwell Road, Cross Lanes, Wrexham – Biosecurity Risk Assessment
Client	Tyrer Ecological Consultants Ltd
Date of Risk Assessment	22nd May 2019
Author	Tom Knight (Marches Ecology)

1 Introduction

Background

- 1.1 Planning Consent (Ref. no. P/2018/0138) has been provided to Residential Land Promotions Ltd for the construction of five detached dwellings with associated works on land off Bedwell Road, Cross Lanes, Wrexham (approximate OS Grid Ref. SJ 375 471). The consent was provided subject to thirteen conditions. Condition 11 states the following:

'Prior to the commencement of development, a scheme of reasonable avoidance measures in respect of great crested newts and a biosecurity risk assessment shall be submitted to and approved in writing by the local planning authority. The development shall be carried out in accordance with the details as approved'.

This document has been produced by Marches Ecology, in part, to satisfy this requirement (with regards a Biosecurity Risk Assessment).

- 1.2 A Biosecurity Risk Assessment identifies and assesses the risk posed due to the accidental spread of invasive non-native species (INNS) or diseases and proposes suitable control measures. It has been produced as a standalone document so that the salient points may be included in any Toolbox Talk or site induction provided to site contractors. The delivery of a Toolbox Talk would ensure site awareness and identify individual responsibility.
- 1.3 The structure of this Risk Assessment has been adapted from that provided by Scottish Natural Heritage (SNH) in a 'Biosecurity Risk Assessment proforma' and Natural Resources Wales (NRW) in a 'Generic Tree Health Biosecurity Risk Assessment Process and Template¹'. This Risk Assessment was completed by Tom Knight of Marches Ecology on 22nd May 2019.

Site Description

- 1.4 The proposal briefly concerns the construction of five detached dwelling units with associated garages. The proposed development site would be divided into five private units separated by timber fencing. Shared turning and car parking areas would be provided to the front of the properties. Small gardens would be provided at the rear of the properties with soft landscaping to the front. Two vehicle access junctions are to be provided off Bedwell Road.
- 1.5 The proposed development site is divided into two, roughly rectangular, separate pieces of land. The northern of the two is henceforth referred to as Area A; the southern as Area B. In total the site extends to approximately 0.67 hectares.

¹ <https://cdn.naturalresources.wales/media/684820/eng-th-biosecurity-risk-assessment.pdf>

- 1.6 The development would be located within an area currently used as a garden associated with Bedwell Cottage (Area A) and part of an agricultural field unit (Area B). Area A includes amenity grassland, bare ground, ephemeral vegetation, scattered shrubs, two stretches of hedge and sheds. Area B is characterised by species poor semi-improved grassland, with some Bramble scrub and a hedge along the Bedwell Road frontage.

Need for Biosecurity Measures

Introduction

- 1.7 The GB Non-native Species Secretariat (NNSS) states that '*Biosecurity means taking steps to make sure that good hygiene practices are in place to reduce and minimise the risk of spreading invasive non-native species. A good biosecurity routine is always essential, even if invasive non-native species are not always apparent*'². Prevention of the spread of parasites and diseases could also be added to this statement.
- 1.8 It is not always possible to see INNS/ diseases and they can be transmitted accidentally by people moving between sites. They are most often transported in soil or organic material, such as plant debris, that can be carried on footwear, equipment or by the wheels of vehicles and machinery. Some pathogens are dispersed in water and so the risk of these being spread increases when conditions are wet.
- 1.9 NRW, in their consultation response (Ref. CAS-70280-D0Y8, dated 30/10/2018), recommended that a Biosecurity Risk Assessment be required.

Known Status of INNS at the Site

- 1.10 'Section 14(1) of the *Wildlife and Countryside Act 1981* (as amended) makes it illegal to release or allow to escape into the wild any animal which is not ordinarily resident in Great Britain and is not a regular visitor to Great Britain in a wild state, or is listed in *Schedule 9* to the Act. It is also illegal to plant or otherwise cause to grow in the wild any plant listed in *Schedule 9* to the Act. The *Schedule 9* list of animal and plant species has been amended by the *Wildlife and Countryside Act 1981 (Variation of Schedule 9)(England and Wales) Order 2010*³. *Section 14 (1)* covers spreading the species or transferring polluted ground material from one area to another.
- 1.11 No INNS listed on *Schedule 9* of the *Wildlife and Countryside Act 1981* have been recorded from the proposed development site.
- 1.12 One species of plant listed on *Schedule 9* has been recorded from the brook corridor located approximately 68 m to the north of the site:
- *Impatiens glandulifera* (Indian Balsam).
- It is possible that further *Schedule 9* species are present within the surrounding area.
- 1.13 The NNSS provides a factsheet⁴ including identification features for Indian Balsam (listed as Himalayan Balsam on the website).

² <http://www.nonnativespecies.org/index.cfm?pageid=174>

³ <http://www.nonnativespecies.org/index.cfm?pageid=67>

⁴ <http://www.nonnativespecies.org/index.cfm?sectionid=47>

Vulnerable Species/ Habitats

- 1.14 NRW in their response (Ref. CAS-70280-D0Y8) to the planning application state that they 'consider biosecurity to be a material consideration owing to the nature and location of the proposal' and further that 'biosecurity issues concern invasive non-native species (INNS) and diseases'. The NRW response does not identify which INNS/ diseases are a concern or what ecological resources are deemed to be at risk.
- 1.15 As noted previously Indian Balsam has not been recorded from the site but is present along a brook close to the site. This plant spreads solely by seeds which can be carried by wind or water. However, the most likely vector for the spread of Indian Balsam to the site is via contaminated soil on footwear, equipment and or vehicles/ machinery. While this plant prefers damp habitat, it is considered that most parts of the site are vulnerable to the spread of this non-native invasive plant. Indian Balsam can colonise many habitats becoming dominant to the exclusion of native species.
- 1.16 While it is possible that the work-force could transfer other INNS/ diseases onto the proposed development site the habitats present are not considered to be particularly valuable/ vulnerable.

Other INNS that could be Brought to Site

- 1.17 It is possible that other INNS (e.g. Japanese Knotweed, Giant Hogweed, Cotoneaster), besides those listed above, could be inadvertently transported to the site. However, further to the Risk Assessment conducted below it is considered that the proposed general control measures should be sufficient in this instance with respect to other INNS that could potentially be transported to the site. Similarly, the use of an appropriate disinfectant (if required) should be sufficient for the control of relevant amphibian diseases.

Amphibian Diseases

- 1.18 A number of amphibian diseases have caused concern in recent years, in particular the chytrid infection and ranavirus⁵. Spread of these diseases is largely associated with the handling of amphibians or activity at waterbodies. However, it is also possible that spores may be transported on to/ from a site on contaminated footwear, equipment and vehicles/ machinery.
- 1.19 There is no aquatic habitat within the site. There are three waterbodies within 250 m of the proposed development with a possible fourth (unconfirmed). The terrestrial habitat within and adjacent to the proposed development site is largely considered to be of low/ moderate value for Great Crested Newts with some features of high value. It has been concluded that the risk that Great Crested Newts may be found at the proposed development site is low (Marches Ecology 2019)⁶. Due to the terrestrial habitat quality a similar conclusion may be reached regarding other species of amphibian though their presence cannot be ruled out.
- 1.20 The biosecurity risk posed by the development to local amphibian populations due to the potential for the spread of diseases is therefore considered to be low. The general control measures detailed below are considered appropriate to address this level of risk.

⁵ *Amphibian & Reptile Groups of the United Kingdom Advice Note 4 – Amphibian Disease Precautions: A guide for UK Fieldworkers*. Version 2, revised March 2017.

⁶ Marches Ecology (2019). *Proposed Residential Housing Development on Land at Bedwell Road, Cross Lanes, Wrexham – Great Crested Newt Reasonable Avoidance Measures Method Statement*. Produced on behalf of Tyrer Ecological Consultants Ltd.

2 Biosecurity Risk Assessment

Activities that may Cause Spread

- 2.1 Indian Balsam is usually spread through the transfer of material that contains seeds (and also by seed dispersal via wind and water). The disturbance of the soil/ substrate around existing plants along the brook bank may result in the spread of seedlings and seed. The proposed development does not currently include any work close to known locations of Indian Balsam.
- 2.2 Any activities that involve disturbance of the soil/ substrate may cause the spread of other invasive non-native plants and/ or plant diseases. Typical activities might include initial site clearance/ levelling and any subsequent excavation, *e.g.* for the installation of utilities/ pipes, *etc.* This includes the transfer of soil on machinery/ equipment and human vectors on to or off-site. Animal diseases could also potentially be transferred in this way.

Activity Risk Assessment

- 2.3 *Table A* on the following page presents the Activity Risk Assessment based on the assessment procedure described on the SNH proforma. For each activity the severity of impact (S), should the INNS be spread is assessed on a numerical (1-5) scale. Category 5 is the highest impact. The likelihood of spread (L) is similarly assessed on a numerical (1-5) scale. Category 5 is 'very likely' that the INNS would be spread.
- 2.4 The overall risk (R) for that activity is calculated by multiplying $S \times L$. The SNH proforma provides a matrix that identifies three levels of risk rating - green-amber-red. A score of four or less (green) is usually considered acceptable. A score of 4-12 is amber; above 12 is red and is considered unacceptable.
- 2.5 Following this initial assessment control measures that should be undertaken to reduce the likelihood of INNS being spread are identified/ described. A rating of low-high (1-5) is subsequently assigned for the residual likelihood (RI) of INNS being spread after the control measures are implemented. The residual risk (Rr) is recalculated by multiplying $S \times RI$. The residual risk scale is as follows:
- **0-4 - Risk likely to be acceptable.**
 - **4-12 - Consider further options for reducing risk; if not available consider proceeding with caution.**
 - **12+ - Risk is too high; do not proceed until further consideration of control options has been taken into account.**

Table A - Activity Risk Assessment

Activity	Hazard Description	Risk Rating			Control Measures	Rr after Controls		
		S	L	R		S	RI	Rr
Site clearance: removal of vegetation, removal of soil (some soil may be removed from site). Importation of materials, e.g. hardcore, top-soil.	1). Contamination of vehicles/ machinery and subsequent spread of INNS/ diseases to other sites. 2). Removal of contaminated soil/ materials - potential to spread INNS/ diseases within, and to other sites. 3). Importation of contaminated materials.	2	4	8	1). Do not enter areas where Indian Balsam is known to be present. Keep away from brook (minimum of 20 m). 2). Wherever possible, avoid bringing vehicles on to site. 3). Where vehicles are brought on to site keep to hard-standing wherever possible. 4). Maintain good machinery hygiene (including before accessing the site). Keep vehicles free from accumulated mud, pay particular attention to tyres/ wheel arches; tracks/ under-carriage. 5). If machinery/ equipment/ footwear has entered waterbodies on other sites they will be disinfected before accessing site, and prior to leaving. 6). Seek a declaration/ indemnity from suppliers that imported materials such as hardcore/ top-soil is weed/ disease free.	2	2	4
Moving vehicles/ machinery between sites.	1). Contamination of machinery (on tyres, tracks, buckets, etc) and subsequent spread of INNS/ diseases to other sites.	2	4	8	As 1-5 above.	2	2	4
Construction workers moving between sites.	1). Contamination of footwear/ hand-tools and subsequent spread of INNS/ diseases to other sites.	2	3	6	As 1 and 5 above. 2). Keep foot-wear/ hand-tools free from accumulated mud, pay particular attention to the treads on foot-wear. Thoroughly clean foot-wear/ hand-tools before entering site, and at the end of each day or leave on site.	2	1	2
Groundworks & landscaping: any excavations including foundations, pipe installation, etc.	1). Contamination of machinery and subsequent spread of INNS/ diseases to other sites. 2). Removal of contaminated soil/ materials - potential to spread INNS/ diseases within, and to other sites. 3). Contaminated soil could roll onto adjacent land.	2	5	10	As 1-5 above.	2	2	4

3 Method Statement

Introduction

- 3.1 Biosecurity risks at the site are limited to the potential for INNS/ diseases to be transferred on/ off and within site. Further to the appropriate implementation of the control measures this risk is likely to be deemed 'acceptable'.
- 3.2 The publication: Scottish Government (2010). *Biosecurity guidance for SEARS staff*. Revised October 2010; describes four levels of biosecurity control dependent on the perceived risk of the activity. Based on the Risk Assessment undertaken (*Table A* above) it is considered that the proposed works require Level 1 (Low Risk) biosecurity control as described in this guidance document and the general control measures detailed below are provided on this basis. The SEARS guidance and Forestry Commission (2012)⁷ are useful sources of general information on biosecurity. NRW also refer to Forestry Commission (2012).
- 3.3 This Method Statement will be issued to the Construction Site Manager (or equivalent) and it will be discussed with all contractors/ sub-contractors as part of a Tool-box Talk/ site induction. It will also be made available on site at all times.

General Control Measures

- 3.4 To minimise the risk of spreading INNS/ diseases to/ from the site the following precautions should be put in place and adhered to by all site personnel:
- 1) An appropriate location for the cleaning of machinery/ footwear as detailed below will be identified prior to the start of any works at the site. These facilities will be maintained throughout the construction phase.
 - 2) All machinery/ equipment to be used on the site will be assessed in terms of sites where it has been previously utilised. Should invasive plant species have been, or may have been, present, all machinery/ equipment will be thoroughly cleaned using brushes/ a pressure-washer (at an appropriate off-site, hard-standing, location) prior to being utilised on the site. All soil and other debris/ vegetation will be removed. As part of good machinery hygiene this approach should ideally be followed at all times.

Should the machinery/ equipment have previously been used in a waterbody then the procedure detailed above would be followed. In addition, the machinery/ equipment will be disinfected (e.g. with Virkon) in accordance with the guidance provided in the ARG UK Advice Note 4.

When using disinfectant, the instructions should be read and safety information implemented, use should be in accordance with the instructions, contact with eyes and skin should be avoided and personal protection equipment should be worn as necessary.
 - 3) The machinery utilised for the work will remain on-site for the duration of the work. On completion of the work the machinery will be thoroughly cleaned using brushes/ a pressure-washer. All soil and other debris will be removed from, in particular, the tracks, undercarriage and arm/ attachment. This will be undertaken on hard-standing within the site. Hand-tools/ other equipment should similarly be cleaned.

⁷ Forestry Commission (2012). *Biosecurity Guidance*. Forestry Commission, Edinburgh.

- 4) Refuelling of machinery or vehicles will be carried out in accordance with the appropriate Environment Agency Pollution Prevention Guidelines and all other relevant pollution guidance.
- 5) No vehicles will be allowed on site (areas where there is exposed soil/ substrate/ vegetation) unless they are required for the construction works. All other vehicles will be parked on existing areas of hard-standing.
- 6) Each contractor will use the same pair of footwear for the duration of the work and this footwear will be kept in the site compound throughout or will be thoroughly cleaned at the end of each day. This footwear will be cleaned using brushes and water/ a pressure-washer (on an area of hard-standing) prior to being utilised on the site. On completion of the work or at the end of each day all footwear will be thoroughly cleaned again at the same location. All soil and other debris will be removed from the footwear to avoid transferral of seed/ plant fragments to other sites.

As mentioned above should the contractor have entered any waterbodies on a previous site the footwear will be disinfected in accordance with the guidance provided in the ARG UK Advice Note 4.

- 7) Visitors (particularly those that will subsequently attend other sites) must clean their footwear before attending the site. The footwear used while accessing the work site must not be used when visiting other work sites until it has been thoroughly cleaned.

Other than where machinery/ footwear has entered a waterbody on a previous site it is currently considered unnecessary for anybody else accessing the site to disinfect their footwear/ vehicles - biosecurity hygiene being limited to cleaning with a brush/ water as described above.

Control Measures for Indian Balsam

- 3.5 The recorded Indian Balsam is located outside the proposed development site. No personnel or machinery will access this area.

I have read and understand the requirements of this method statement.

[illegible]