

Marches

Ecology

Title	Proposed Housing Development, Land to the Rear of the Nags Head, Chester Road, Lavister, Wrexham - Biosecurity Risk Assessment
Client	Hilbre Estates Ltd
Date	13th September 2013
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1 Introduction

Project Background

- 1.1 Marches Ecology was commissioned by Hilbre Estates Ltd to prepare a Biosecurity Risk Assessment in connection with a proposed housing development at land to the rear of the Nags Head, Chester Road, Lavister, Wrexham (OS Grid Ref. SJ 373 582). This document has been prepared in support of a planning application (Ref: P/2013/0493). A letter (Ref: NT/2013/114804/01) was initially provided by Gareth Thomas (Planning Liaison Officer, Natural Resources Wales – NRW) in response to the submitted application, which included the requirement for *‘The submission and implementation of a biosecurity risk assessment to the satisfaction of the local planning authority’*.
- 1.2 Further to the above, consultation was sought with Matthew Ellis (Senior Species Officer, NRW). During a ‘phone conversation of 05th September 2013 with Tom Knight (Marches Ecology) it was agreed that the Biosecurity Risk Assessment should consider the following:
- non-native invasive plants;
 - the provenance of material used for landscaping; and
 - the *Chytrid* fungus (associated with amphibians).
- 1.3 In a comment (reference/ date unknown) on the planning application submitted by Emma Broad (Biodiversity Officer, Wrexham County Borough Council) it was also stated that *‘The applicant should submit information relating to the protection of the water course.....from the spreading of non-native species during construction’* and that the landscaping scheme *‘is required to ensure that invasive non-native species are not used, which may spread to other sites using the Lavister Brook.’*

Proposed Development

- 1.4 The proposed development is illustrated on a McCormick Architecture plan entitled *‘Land to the Rear of the Nags Head, Chester Road, Lavister – Planning Drawing, Proposed Site Plan’*, Dwg. no. A(200)01/C, dated 10/07/13. Briefly, it concerns the construction of seven houses in a single field to the rear of the Nags Head public house. Associated infrastructure will include a new pub car park (to be partly located within an existing car park and partly within a small garden), and a new access way/ footpath (to be partly located within an existing car park). The proposed development would include driveways to the seven houses, soft landscaping/ planting in front gardens, and the provision of rear gardens to all

properties. A buffer strip will be created adjacent to Lavister Brook which will be allowed to regenerate naturally and in addition there will be no built development within 7 m of the brook. No existing boundary hedges will be directly impacted – however a short length of internal hedge will be lost. The construction period is estimated to be twelve months.

- 1.5 Although Dwg. no. A(200)01/C indicates the general layout of landscaped areas/ gardens a specific soft landscaping plan/ plant schedule is not available at this stage.

Need for Biosecurity Measures

- 1.6 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*¹. Prevention of the spread of parasites and diseases could also be added to this statement.
- 1.7 The proposed development site has been the subject of an 'Ecology Scoping Survey' report by The Tyrer Partnership that was initially prepared for the planning application (The Tyrer Partnership 2013²) – this included a walkover survey with regards protected species and habitats/ flora undertaken on 7th May 2013. A further walkover was undertaken by Max Ellson of Marches Ecology on 9th September 2013 – this was primarily undertaken with regards assessing the habitat for Great Crested Newts to assist in the preparation of a Reasonable Avoidance Measures Method Statement³, however care was also taken to identify the presence of any non-native plants that may be present on the site (as far as reasonably possible).
- 1.8 At the present time no non-native plants/ other species or issues with diseases/ parasites have been identified at the proposed development site (however the non-native invasive plant New Zealand Pigmyweed (*Crassula helmsii*) is for example known from a pond located approximately 90 m to the northeast – Marches Ecology (2013, *op. cit.*)). Marches Ecology (2013, *op. cit.*) concluded that '*the likelihood of Great Crested Newts utilising terrestrial habitat on the proposed development site is considered to be low/ negligible*' and further that '*No aquatic habitat will be directly or indirectly impacted by the proposed development*'. However it is recognised that the habitats that will be retained on/ adjacent to the site and habitats/ species present within the wider countryside at this location are potentially vulnerable to the incidental introduction of non-native species and or parasites/ diseases.

2 Biosecurity Risk Assessment

- 2.1 The proposed development is restricted to terrestrial activities. The immediately adjacent Lavister Brook will not be directly impacted during works. As such, it is considered that potential biosecurity risks are limited to the following:
- 1) The potential for non-native invasive (plant) species (and/ or parasites/ diseases) to be transferred on to the site both during the construction activities, and in association with imported plant material used for soft landscaping measures.

¹ <https://secure.fera.defra.gov.uk/nonnativespecies/index.cfm?sectionid=58>

² The Tyrer Partnership (2013). *Land to the rear of the Nags Head, Chester Road, Lavister, LL12 0DF – Ecological Scoping Survey*. Produced on behalf of Hilbre Estates Ltd.

³ Marches Ecology (2013). *Proposed Housing Development, Land to the Rear of the Nags Head, Chester Road, Lavister, Wrexham – Great Crested Newt Reasonable Avoidance Measures Method Statement*. Produced on behalf of Hilbre Estates Ltd.

- 2) The potential for the *Chytrid* fungus to be transferred to amphibians that may utilise the terrestrial habitats on/ immediately adjacent to the site.

2.2 These potential biosecurity risks are discussed below. *Section 3* provides the Method Statement that addresses the risks.

1) Non-native invasive (plant) species (and/ or parasites/ diseases).

- It is recognised that the inadvertent spreading of non-native invasive plant species (and/ or parasites/ diseases) from other sites by construction personnel/ machinery and/ or via imported plants utilised for soft landscaping is a potential risk. *Schedule 9* of the *Wildlife & Countryside Act 1981* (as amended)⁴ makes it an offence to 'plant or otherwise cause to grow' a list of non-native plant species in the wild. Measures must therefore be implemented to prevent non-native invasive plant species being brought on to the site.
- The Forestry Commission has prepared some useful guidance on biosecurity⁵ which, although not specifically relevant to the construction/ landscaping work, is considered a useful guide to assessing potential risk: it is deemed that the construction/ landscaping works are considered to be 'low-risk' (principally based on there being no known existing biosecurity issues/ invasive plants etc. at the site).
- In relation to soft landscaping, Fera (The Food and Environment Research Agency) states that '*In the last few years, a number of new tree and plant pests and pathogens have emerged as significant risks in the UK, including Chalara fraxinea, Phytophthora ramorum and Phytophthora kernoviae affecting trees, heathland plants and heritage gardens; oak processionary moth (Thaumetopoea processionea) with its associated threat to human health; and red band needle blight (Dothistroma septosporum)*'⁶. As such there is a need for general biosecurity measures to ensure that these issues are not compounded at this site – these are summarised in the Method Statement below.

2) Chytrid fungus.

- As far as is reasonably known this is currently not an issue at the development site. Froglife⁷ states that *Chytrid* (*Chytridiomycosis*) is an infectious disease caused by a fungus. '*It appears to be a major factor in dramatic amphibian declines in many parts of the world, and is particularly linked with the decline, and extinction, of tropical species. Chytrid has been found at 19 locations in the UK. It was reported for the first time in native amphibians in 2005, at a site in the southeast of England. The disease was later found at two separate locations in northern England. In 2008 Natural England and the Institute of Zoology began widespread disease monitoring of other sites in the UK to assess the threat that the disease may pose to our native amphibian species. The vast majority of samples were negative for chytrid but there were some positives which were quite widespread....It is thought the disease has been introduced through imported non-native amphibians*'.
- Any amphibians captured during visual-/ hand-searches associated with the RAMs scheme (Marches Ecology 2013, *op. cit.*) will be re-located to the agreed 'receptor site' (which is likely to constitute the immediately adjacent Lavister Brook corridor) which is

⁴ HMSO (1981). *The Wildlife and Countryside Act 1981*. HMSO, London.

⁵ 'Biosecurity – Good working practice for those involved in forestry', available at [http://www.forestry.gov.uk/pdf/FCMS028-guidance.pdf/\\$FILE/FCMS028-guidance.pdf](http://www.forestry.gov.uk/pdf/FCMS028-guidance.pdf/$FILE/FCMS028-guidance.pdf)

⁶ From <http://www.fera.defra.gov.uk/plants/plantHealth/treeHealth/>

⁷ <http://www.froglife.org/disease/chytrid/>

directly connected to the proposed development site in terms of habitat. Their however remains a risk that personnel associated with the construction work/ machinery that will be used on site have the potential to transfer the *Chytrid* fungus to the site – this will be minimised wherever possible as outlined in the Method Statement below.

- 2.3 Measures are also outlined in the Method Statement below to ensure (as far as is reasonably possible) that plant materials used for soft landscaping are of at least of UK (ideally local) provenance. Although this is not considered to present a biosecurity risk *per se* it is recognised that using plants that have been grown locally/ in the UK provide significant advantages and further minimises the risk of spreading of invasive plant species (and/ or parasites/ diseases).

3 Method Statement

- 3.1 This Method Statement will be issued to all contractors/ sub-contractors – where applicable it will be discussed as part of a tool-box talk associated with the Great Crested Newt Reasonable Avoidance Measures.

Non-native invasive (plant) species and/ or parasites/ diseases – construction

- 3.2 To minimise the risk of introducing invasive plant species (both aquatic and terrestrial) and/ or parasites/ diseases during the construction period the following precautions should be put in place and adhered to by all site personnel:

- All machinery/ equipment to be used on the development site will be assessed in terms of sites where it has been previously utilised. Should invasive plant species (both aquatic and terrestrial) 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 e.g. adjacent to Chester Road) prior to being utilised on the development site. All soil and other debris/ vegetation will be removed.
- On leaving the site machinery will be thoroughly cleaned using brushes/ a pressure-washer. All soil and other organic debris will be removed as far as is reasonable possible. This will be undertaken on hard-standing as detailed above.
- Each contractor will ensure that footwear utilised at the site are thoroughly cleaned using brushes/ a pressure-washer (at an appropriate off-site, hard-standing, location as detailed above) prior to being utilised on the site. Prior to taking such footwear off the site, all soil and other debris will be removed to avoid transferral of seed to other sites. Visitors must also clean their footwear before/ after entering the site.
- The Lavister Brook/ associated buffer strip will be fenced off for the duration of the construction period and no access by machinery or personnel will be allowed within the fenced area.

Non-native invasive (plant) species and/ or parasites/ diseases – soft landscaping

- 3.3 To minimise the risk of introducing invasive plant species (both aquatic and terrestrial) and/ or parasites/ diseases associated with soft landscaping (planting etc) the following precautions should be put in place and adhered to:
- All personnel involved in planting etc. to follow the measures outlined above in relation to construction.

- No non-native invasive plant species will be utilised in the soft landscaping scheme. A list of invasive plants that are listed on *Schedule 9* of the *Wildlife & Countryside Act 1981* (as amended) (as well as those which are considered (by Plantlife) to be required to be added to the *Schedule 9* list/ or banned from sale) is available at:
http://www.plantlife.org.uk/uploads/documents/Invasives_and_the_law.pdf
- All firms supplying plants, and those undertaking the planting *etc.* are required to confirm that will follow/ implement appropriate/ relevant measures included in the following documents:
 - the Fera publication: '*Nurseries, Retailers and Landscapers – Biosecurity Best Practice Protocols*'⁸ which provides advice on biosecurity measures; and
 - the Defra publication: '*Helping to prevent the spread of invasive non-native species – Horticultural Code of Practice*'⁹ which provides useful contextual material in terms of preventing the spread of invasive non-native species.

Although the 'best practice protocols' document has been written primarily for the control of two species of *Phytophthora* (*P. ramorum* and *P. kernoviae*), the measures are intended to offer protection generically across all plant pests and diseases. The document as such provides detailed advice on sourcing plants, handling plants, risk assessment and monitoring, hygiene, disposal of plant waste, *etc.* The 'code of practice' provides '*advice and guidance on the responsible use, control and disposal of invasive non-native plants, for people using plants in the horticultural trade, gardening, or related activities*'.

The Chytrid fungus

3.4 To minimise the risk of inadvertently introducing this fungus to the site the following precautions should be put in place and adhered to by all site personnel:

- All personnel will be questioned about their recent movements. Any footwear that may have been recently utilised on sites with amphibian populations, or whose owners keep non-native amphibian species in captivity, will be subject to appropriate disinfection prior to being utilised on the site.
- All machinery will be reviewed as to recent sites it has been utilised on. Any machine that has the potential to recently have been working on site(s) with amphibian populations will be subject to appropriate disinfection prior to being utilised on the site.
- Disinfection, if required, should follow the procedure as provided in ARG-UK Advice Note 4¹⁰: Use a brush to scrub off any debris, plant fragments, mud *etc* and rinse with water. Then disinfect using one of the following methods: 1) Soak/ wash in a bleach solution (1 measure of household bleach to 9 water) for 15 minutes; OR 2) Virkon (10 mg/ml, as per supplier's instructions) for 1 minute. Rinse with clean water and if possible allow to dry.

⁸ <http://www.fera.defra.gov.uk/plants/plantHealth/documents/nrlProtocol.pdf>

⁹ <https://secure.fera.defra.gov.uk/nonnativespecies/index.cfm?pageid=299>

¹⁰ ARG-UK Advice Note 4. *Amphibian disease precautions: a guide for UK fieldworkers*. Version 1: February 2008. Available at <http://www.arguk.org/advice-and-guidance/view-category>

3.5 Wrexham County Borough Council Local Planning Guidance Note No.7 'Landscape and Development'¹¹ notes that '*Certain plants will be more suited to the physical conditions of the site and to the local landscape character than others. As a general rule, locally native species are preferable for countryside boundaries and for large scale planting.*' Therefore, where possible and appropriate, only native species will be utilised as part of the soft landscaping scheme.

3.6 Plants of UK/ local provenance are known to have the following advantages¹²: improved growth, better chance of survival, assistance with protecting the local environment, reduction in 'genetic pollution'. As such, all firms supplying plants to the site are required to confirm as a minimum that the stock utilised is of UK (ideally local) provenance.

I have read and understand the requirements of this risk assessment.

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¹² Taken from <http://www.ryedale.gov.uk/pdf/SPGLandscaping%20on%20Development%20Sites.pdf>