



Invasive Alien Plant Species Assessment

DEVELOPMENT OF A RESIDENTIAL DWELLING AT CORNEDDAN,
BALLINALEE, CO. LONGFORD.

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1 Introduction

Beo Ecology has been commissioned by TA Group to carry out a Screening for Appropriate Assessment for the proposed construction of a residential dwelling located at Corneddan, Ballinalee, Co. Longford. TA Group are providing the engineering led team for the design and construction of the dwelling, and associated siteworks, at this location on behalf of Longford County Council. The location of the proposed works is presented in **Figure 1-1**.

Invasive alien plant species (IAPS) are those that are non-native which have been introduced by human intervention, outside their natural range, and have a negative impact on the wildlife or habitats in Ireland. They have the ability to threaten our native wildlife, causing damage to the environment, human economy and or health.

1.1 Statement of Authority

Sheila Murphy trading as Beo Ecology holds a B.Sc. (Hons) in Environmental Science, and M.Sc. in Biodiversity and Conservation, she has over 12 years' experience in her field. She has extensive experience in conducting IAPS surveys and assessments for a variety of large and small-scale projects, along with report writing for a range of projects including road developments, wastewater treatment plants and one-off housing developments. She is a Full Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM).

1.2 Legislative Context

The global threat of invasive species is recognised in the suite of international, European and national policy and legislation. From an international perspective the Conference of the Parties to the 10th Convention on Biological Diversity addressed invasive species under Target 9 which states:

“By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.”

In Europe, the *Regulation on the prevention and management of the introduction and spread of invasive alien species* [1143/2014], a binding legal tool for all Member States, entered into force on the 1st of January 2015. The IAS Regulation provides for a set of measures to be taken across the EU in relation to invasive alien species included on the Union list. This Regulation sets out rules to prevent, minimise and mitigate the adverse impacts of the introduction and spread, both intentional and unintentional, of invasive alien species on biodiversity and the related ecosystem services, in addition to human economy and health impacts.

Nationally, the *European Communities (Birds and Natural Habitats) Regulations 2011 [SI.477]* contain the provisions to address invasive alien species. These are set out in the following regulations:

Regulation 49: Prohibition on introduction and dispersal of certain species:

“49. (2) Save in accordance with a licence granted under paragraph (7), any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in any place specified in relation to such plant in the third column of Part 1 of the Third Schedule, any plant which is included in Part 1 of the Third Schedule, shall be guilty of an offence.”

Regulation 50: Prohibition on dealing in and keeping certain species:

“50. (1) Save in accordance with a licence granted under paragraph (7), and subject to Regulation 74, a person shall be guilty of an offence if he or she has in his or her possession for sale, or for the purposes of breeding, reproduction or propagation, or offers or exposes for sale, transportation, distribution, introduction or release— (a) an animal or plant listed in Part 1 or Part 2 of the Third Schedule, (b) anything from which an animal or plant referred to in subparagraph (a) can be reproduced or propagated, or (c) a vector material listed in Part 3 of the Third Schedule, in any place in the State specified in the third column of the Third Schedule in relation to such an animal, plant or vector material.”

A list of species non-native species subject to restrictions list under Third Schedule (Part 1) of Regulations 49 and 50 can be found listed here: <http://www.irishstatutebook.ie/eli/2011/si/477/made/en/print#>

Regulation 74: Transitional provisions in relation to Regulations 49 and 50 (Incl. Regulation 50 is not yet in effect until such time that the Minister gives public notice of it).

In addition, disposal of invasive alien plant species is regulated under Section 32 of the Waste Management Act, 1996 to 2008; and Section 4 of the Air Pollution Act, 1987.

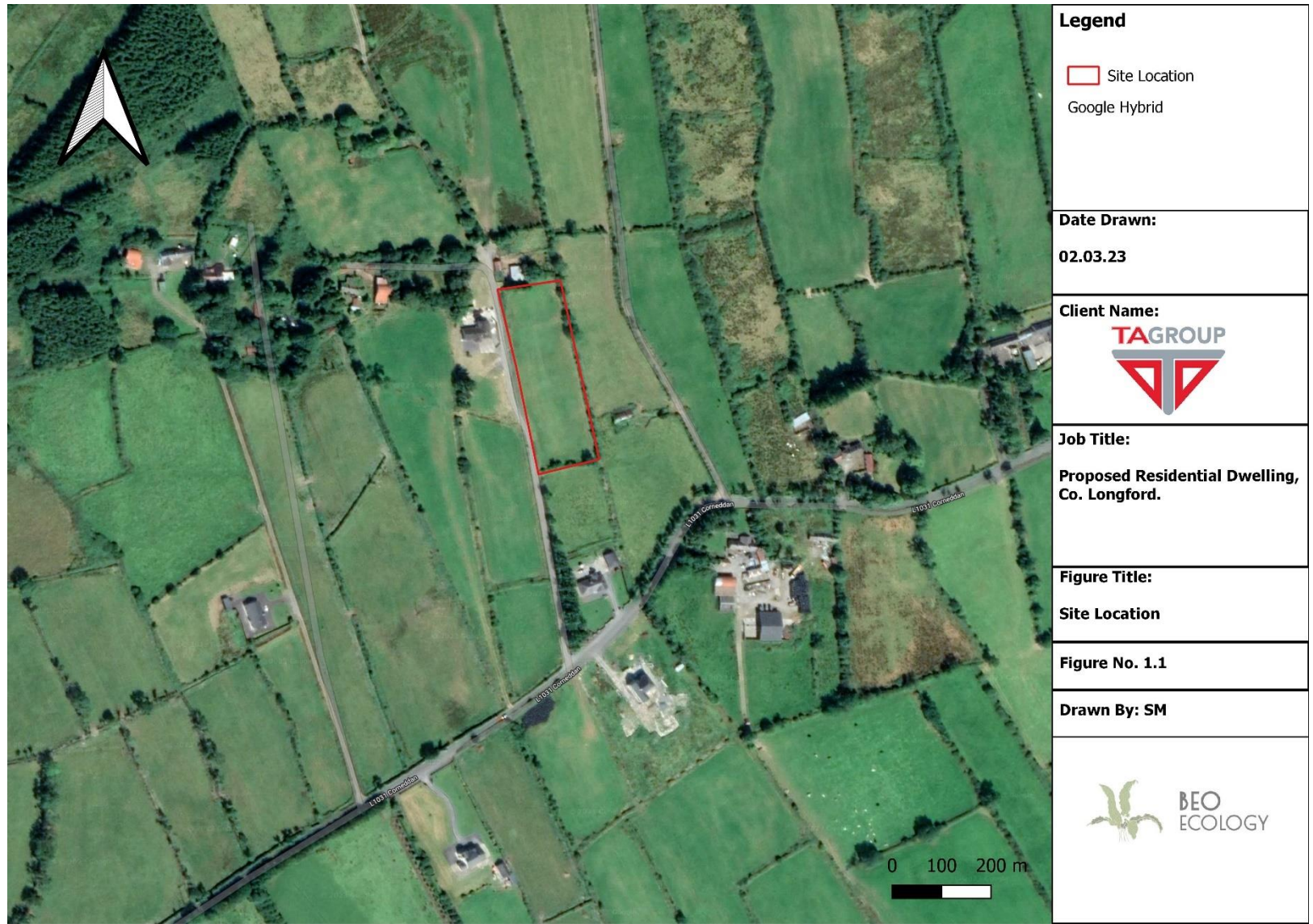


Figure 1-1: Site Location of IAPS Survey

2 Methodology

2.1 Guidance

This Invasive Alien Plant Species (IAPS) Assessment has been prepared with regard to the relevant provisions of the EU Council Directive 92/43/EEC and Ireland's EU (Birds and Natural Habitats) Regulations 2011 (as amended). The methodology followed for this assessment has had regard to the following guidance and legislation;

- EC (2000). Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg;
- EC (2018). Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg;
- CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland. Chartered Institute of Ecology and Environmental Management;
- European Commission (EC) (2018), Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats Directive' 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission;
- EC (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission;
- EC (2007a) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. European Commission;
- EC, (2007b), Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. European Commission;
- EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission;
- Chartered Institute of Ecology and Environmental Management (CIEEM) Version 1.1 (September 2019), Guidelines for Ecological Impact Assessment in the UK and Ireland;
- The European Communities (Birds and Natural Habitats) Regulations 2011 as amended;
- European Union (Environmental Impact Assessment and Habitats) Regulations 2011 S.I No 473/2011 as amended,
- NPWS (2019), The Status of EU Protected Habitats and Species in Ireland. Habitat Assessments Volume 2. Version 1.0. Unpublished Report, National Parks and Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland;
- NPWS (2019), The Status of EU Protected Habitats and Species in Ireland. Species Assessments Volume 3, Version 1.0. Unpublished Report, National Parks and Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland;
- The Planning and Development Act 2000 (as amended);
- The Planning and Development Regulations 2001-2019; and
- Recent Irish and European case law on the Habitats Directive.

2.2 Information Consulted for this Report

A desk study was undertaken as part of this assessment. This has been informed by the following sources of data;

- Information provided by the client on the project;
- National Biodiversity Data Centre (NBDC) online database and mapping of invasive species records (<https://www.biodiversityireland.ie/projects/invasive-species/>), Accessed: July 2022;
- Invasive Alien Species in Ireland (<https://invasives.ie/>);
- Invasive Species Northern Ireland (<http://invasivespeciesni.co.uk/>);
- Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads, National Roads Authority (2010);
- The Management of Invasive Alien Plant Species on National Roads – Standards. GE-ENV-011004, TII (2020);
- The Management of Invasive Alien Plant Species on National Roads – Technical Guidance. GE-ENV-01105, TII (2020);
- Environmental Protection Agency (EPA) geoportal mapping tool (<https://gis.epa.ie/EPAMaps/>);
- EPA Catchments interactive online mapping and data (<https://www.catchments.ie/>);
- National Parks and Wildlife Service protected site and species information and data (<https://www.npws.ie/protected-sites/>);
- Available aerial orthophotography of the site (<https://www.bing.com/maps/> and <https://www.google.ie/maps/>);
- Geohive online environmental sensitivity mapping tool (<https://airomaps.geohive.ie/ESM/>);
- Ordnance Survey of Ireland mapping and aerial photography (www.osi.ie); and
- Longford County Development Plan 2021-2027.

2.3 Desk Study

A review of the National Biodiversity Data Centre (NBDC) online database was conducted¹ for invasive species, located in the following 2km² grid squares: N18W in which the proposed works are located. **Table 2.1** below outlines the NBDC data search results, with both invasive flora and faunal species listed. The 1km² grid square N1883 in which the proposed works are also located, was also checked for the presence of invasive species, none were recorded.

Table 2-1: NBDC Invasive Species Results for Relevant 2km² Grid Squares

Common Name	Scientific Name	Grid Square	Status
Japanese Knotweed	<i>Fallopia japonica</i>	N18W	3 rd Schedule (Regs 49 &50), High Impact Invasive Species
Indian Balsam	<i>Impatiens glandulifera</i>	N18W	3 rd Schedule (Regs 49 &50), High Impact Invasive Species

¹ <https://maps.biodiversityireland.ie/> Accessed: March 2023

2.4 Site Assessment

An ecological site walkover was conducted on the 7th March 2023 by Ecologist Sheila Murphy BSc. MSc. MCIEEM. The habitats identified on site were classified in accordance with “*A Guide to Habitats in Ireland*” (Fossitt, 2000).² See **Image 2-1** to **Image 2-4** below of the site location.

Improved Agricultural Grassland (GA1)

The site consists of an improved agricultural grassland which has not undergone any recent grazing. The field gently slopes southwards. The species composition of the field is dominated primarily by grasses and limited herb species, species noted include cock’s foot (*Dactylis glomeratus*), creeping bent grass (*Agrostis stolonifera*), docks (*Rumex sp.*), Yorkshire fog (*Holcus lanatus*), creeping buttercup (*Ranunculus repens*) and occasional rush species (*Juncus sp.*) scattered throughout the field. The field has gently slopes southwards.

Hedgerows (WL1)/Treelines (WL2)

Earth-banks (BL2) are a feature on all field boundaries. There is a short but steep, approximately 2m in height, bank located on the northern boundary. This supports a broken hedgerow (WL1) and scrub (WS1) development. The hedgerow consists of scattered hawthorn (*Crataegus monogyna*), occasional brambles (*Rubus fruticosus*) and a small stand of broom (*Cytisus scoparius*). Species in the understory comprise of herb Robert (*Geranium robertianum*), creeping buttercup (*Ranunculus repens*), ivy (*Hedera helix*) and fescue (*Festuca rubra*). A small mammal burrow is located in the earthbank at ITM 618162 -7.7243, it appears to be a rabbit burrow and not recently active.

In addition, there is a short mature conifer spruce treeline running along the northern boundary at the entrance track.

The eastern boundary of the site is bound by an earth-bank and an unmanaged hedgerow (WL1). The earth-bank is low on the field side, however, has a steep drop of 1.5-2m to the east, where a stagnant and partially dry drainage ditch (FW4) runs along its base.

The hedgerow runs north-south for approximately 50m and is dominated by semi-mature hawthorn (*Crataegus monogyna*), occasional ash (*Fraxinus excelsior*) and scattered gorse (*Ulex europaeus*) bushes. This further develops into a low gorse dominated hedgerow for approximately 80m to the southern end of the field. The earth-bank and associated drainage ditch are crossed at numerous locations by mammal trails heading eastwards.

An earth-bank is located along the southern boundary, this supports broken hedgerow/treeline (WL2) comprised of frequent hawthorn (*Crataegus monogyna*), ash (*Fraxinus excelsior*), gorse (*Ulex europaeus*), brambles (*Rubus fruticosus*) and ivy (*Hedera helix*). The bank is approximately 1.5-3m in height.

Drainage Ditches (FW4)

The southern field boundary is bound by a heavily vegetated drainage ditch and earth-bank. The drain is located on the field side edged by grassy vegetation. There is limited water flow, with the ditch primarily stagnant. The instream vegetation is mainly comprised of rushes and die-back vegetation in the form of ferns (*Dryopteris sp.*).

A drainage ditch and an earth-bank runs along a section of the western boundary, bordering the roadside. The ditch has a steady flow southward and appears to be culverted, crossing the road to the west. The field on the roadside is bound by an earth-bank, its steep on the roadside but low internally, nearly level within

² [A Guide to Habitats in Ireland \(Fossitt, 2000\)](#). Alphanumeric codes for habitat classification are provided in accordance with ‘*A Guide to Habitats in Ireland*’ (Fossitt, 2000)

the field. It supports primarily grassy species including trailing St. John’s wort (*Hypericum humifusum*), primrose (*Primula vulgaris*), creeping buttercup (*Ranunculus repens*), vetchlings and the basal leaves of nipplewort (*Lapsana communis*). Further north this drainage ditch is slightly overgrown with some scrub development instream of brambles and rushes. The depth of the ditch banks ranges from 1-2m. A scrub thicket is present to the north-west of the site corner along the ditch banks and adjoining the site entrance track.



Image 2-1: Improved agricultural grassland viewed from the north-east.



Image 2-2: Hedgerow and earth-bank along the eastern boundary.



Image 2-3: Field margin at drainage ditch and earth-bank on southern boundary.



Image 2-4: Earth-bank and scrub development on western boundary (roadside)

2.4.1 Survey Limitations

The optimum survey season for invasive alien plant species is during the summer months when vegetation is in full growth. Given that this survey was undertaken in early March 2023, outside of the prime survey season, a seasonal constraint is present regards on-site findings. Therefore, it should be noted that some IAPS, particularly those in their immature stage of growth development and in a die-back state may not be identifiable during surveys undertaken outside the recommended survey months.

3 Best Practice Guidelines

No Invasive Alien Plant Species (IAPS) were identified within the proposed works site location. It should be noted early March is not the optimum IAPS survey season, with vegetation primarily undergoing die-back. However, no evidence of IAPS vegetation stands die-back was noted. All works on site should adhere to best practice biosecurity measures. In the event IAPS are identified during future works best practice guidelines should be adhered to.

All works should be carried out in accordance to the following documents:

- *Guidelines on the Management of Noxious Weed and Non-Native Plant Species on National Roads*, National Road Authority (NRA)³ (2010).
- *The Management of Invasive Alien Plant Species on National Roads – Standard*. GE-ENV-01104, Transport Infrastructure Ireland (December 2020).
- *The Management of Invasive Alien Plant Species on National Roads – Technical Guide*. GE-ENV-01105, Transport Infrastructure Ireland (December 2020).

The management and control of IAPS should be carried out by a suitable qualified person. It is recommended that the treatment and post-treatment monitoring of IAPS is conducted in line with the TII guidelines as listed above. See **Appendix A** for site treatment and monitoring recording templates as per TII guidelines.

It is essential that the methods used comply with the law and that all necessary licences, permits, consents and permissions are in place.

Professional users of pesticides must be registered pursuant to Regulation 4 of the Sustainable Use of Pesticides Regulations, and must have the appropriate training (with associated certificates) required to perform the necessary treatment to suitably manage the targeted IAPS. Chemical treatments must always be used in compliance with the product label.

3.1 Biosecurity Measures

There is potential that invasive species may be accidentally introduced to a location via contaminated vehicles and equipment, in particular tracked vehicles, which were previously used in locations that contained invasive species. Adapted from the *Irish Water Guidance* (2016), the following best practice avoidance measures will help to contain and/or prevent the introduction of invasive species on a site as follows:

- All plant and equipment employed on the proposed works (e.g. diggers, tracked machines, footwear etc.) must be thoroughly cleaned down using a power washer unit, and washed into a dedicated and contained area prior to arrival on site and on leaving site to prevent the spread of invasive aquatic / riparian species such as (but not limited to) Japanese knotweed (*Fallopia japonica*) and Himalayan Balsam (*Impatiens glandulifera*). A sign off sheet must be maintained by the contractor to confirm cleaning;
- Material gathered in the dedicated and contained clean down area will be appropriately treated as contaminated material on site; and
- For any material entering the site, the supplier must provide an assurance that it is free of invasive species.

³ Now referred to as Transport Infrastructure Ireland (TII)

Appendix A – Monitoring & Treatment Recording Templates

Table 2 Treatment monitoring information that must be recorded every time any treatment of IAPS is performed

Column Name	Data Type	Information
SiteID	Text	Provide ID for site recorded as part of full topographical survey
Company	Text	Name of company applying treatment
TreatedBy	Text	Name of individual applying treatment
TreatDate	Date	Date and time of treatment
Weather	Text	Description of weather conditions
TreatMeth	Text	State the method of treatment used
Herbicide	Text	State the name of herbicide used
Pesticide Control Service (PCS)	Text	Provide PCS Number
Cal_Rate	Text	Provide calibration rate per hectare
Conc_Used	Text	State the total concentration of herbicide used
Water_Vol	Text	State the water volume used per hectare
Nozzle	Text	State the nozzle type used
Cal_SUD	Text (Yes/No Response)	Was the calibration used in compliance with the Sustainable Use Directive
Qual&Reg	Text (Yes/No Response)	Did a qualified and registered adviser carry out the treatment?
Prof_User	Text	Name of qualified and registered professional user
Notes	Text	Any notes re treatment

Table 3 Site inspection regrowth monitoring data that must be recorded in subsequent growing seasons post- treatment

Column Name	Data Type	Information
SiteID	Text	Read Only field, displaying ID for site recorded as part of full topographical survey stage
Company	Text	Name of company undertaking inspection
InspectBy	Text	Name of individual undertaking inspection
Ins_Date	Date	Date and time of survey
Regrowth	Text (Yes/No Response)	Is there any evidence of regrowth?
%Regrowth	Number	Whole number as a percentage of overall site, indicating estimate of regrowth
Comments	Text	Comments regarding regrowth (e.g. is regrowth coming from untreated adjacent lands outside of the site)
NewStands	Text (Yes/No Response)	Are there any new infestations evident adjacent/outside original site?
NewStdCom	Text	Comments re new infestation: where it is relative to site, how abundant
Notes	Text	Any notes re treatment?