



INVASIVE ALIEN SPECIES

PRESENTED TO

**Bartra Property Cookstown Limited
Transitional Care Facility**

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Table of Contents

REPORT LIMITATIONS.....	1
1 INTRODUCTION	3
1.1 Background.....	3
1.2 Quality Assurance and Competence.....	3
1.3 Objectives of Plan.....	3
1.4 Relevant Legislation.....	3
2 PROJECT DESCRIPTION	5
2.1 Site location	5
2.2 Description of Development.....	5
3 INVASIVE ALIEN SPECIES SITE SURVEY	6
3.1 Invasive Flora at the Site.....	6
4 INVASIVE SPECIES MANAGEMENT PLAN.....	8
4.1 Control Options.....	8
4.2 General Measures to Prevent the Spread of IAPS at the Site	8
4.2.1 Pre-Construction Survey	8
4.2.2 Management.....	8
4.2.3 Disposal of Material	9
4.3 Species-Specific Management Options.....	9
4.3.1 Buddleia.....	9
4.3.2 Sycamore	10
4.4 Monitoring.....	10
5 CONCLUSIONS	11
6 REFERENCES.....	11

List of Figures

Figure 1. One of the stands of Buddleia recorded along the south boundary of the Site. Photo taken on the 1 st of November 2022.	6
Figure 2. Invasive alien plant species recorded at the Site of the Proposed Development by Enviroguide Consulting.	7

1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by Bartra Property Cookstown Limited to prepare an Invasive Alien Species Management Plan for the 'Proposed Development' at Unit 21, First Avenue, Cookstown Industrial Estate, Dublin 24 (the 'Site').

1.2 Quality Assurance and Competence

Synergy Environmental Ltd., T/A Enviroguide Consulting, is wholly Irish Owned multi-disciplinary consultancy specialising in the areas of the Environment, Waste Management and Planning. All of our consultants carry scientific or engineering qualifications and have a wealth of experience working within the Environmental Consultancy sectors, having undergone extensive training and continued professional development.

Enviroguide Consulting as a company remains fully briefed in European and Irish environmental policy and legislation. Enviroguide staff members are highly qualified in their field. Professional memberships include the Chartered Institution of Wastes Management (CIWM), the Irish Environmental Law Association and Chartered Institute of Ecology and Environmental Management (CIEEM).

All surveying and reporting have been carried out by qualified and experienced ecologists. Shannen O'Brien, Ecologist with Enviroguide, undertook the habitat survey and desktop research for this Report.

Shannen has a B.A. in Zoology from Trinity College Dublin and a M.Sc. Hons. in Wildlife Conservation and Management from University College Dublin, and has experience in desktop research, report writing, and literature scoping-review, as well as practical field and laboratory experience (Pollinator surveying, sampling and identification, habitat surveying, invasive species surveying, etc.). Shannen has prepared Stage I and Stage II Appropriate Assessment Reports, Invasive Species Surveys, Ecology Statements, and EclAs.

1.3 Objectives of Plan

The objectives of this Invasive Alien Plant Species (IAPS) Management Plan are to:

- Describe the IAPS at the Site;
- Provide code of practice guidelines and legislative context to IAPS; and
- Provide a plan for managing the IAPS at the Site.

1.4 Relevant Legislation

The control of invasive species in Ireland comes under the Wildlife (Amendment) Act 2000, where it states that:

"(7) Any person who—

- (a) turns loose, wilfully allows or causes to escape any species of wild animal or the spawn of such wild animal or wild bird or the eggs of such wild bird,*
- (b) transfers any species of wild animal or the spawn of such wild animal or wild bird or the eggs of such wild bird from any place in the State to any other place in the State for the purpose of establishing it in a wild state in such other place,*

(c) plants or otherwise causes to grow in a wild state in any place in the State any species of flora, or the flowers, roots, seeds or spores of flora,

otherwise than under and in accordance with a licence granted in that behalf by the Minister shall be guilty of an offence.

(8) For the purposes of subsection (7), any reference to wild animals, wild birds, plants, flowers, roots, seeds or spores refers only to exotic species thereof."

Certain plant species and their hybrids are listed as IAPS in Part 1 of the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011, as amended). In addition, soils and other material containing such invasive plant material, are classified in Part 3 of the Third Schedule as vector materials and are subject to the same strict legal controls.

Failure to comply with the legal requirements set down in this legislation can result in either civil or criminal prosecution, or both, with very severe penalties accruing. Convicted parties under the Act can be fined up to €500,000.00, jailed for up to 3 years, or both.

Extracts from the relevant sections of the regulations are reproduced below.

"49(2) Save in accordance with a licence granted [by the Department of Arts, Heritage and the Gaeltacht], any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in anyplace [a restricted non-native plant], shall be guilty of an offence.

49(3) ... it shall be a defence to a charge of committing an offence under paragraph (1) or (2) to prove that the accused took all reasonable steps and exercised all due diligence to avoid committing the offence.

50(1) Save in accordance with a licence, a person shall be guilty of an offence if he or she [...] 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 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."

2 PROJECT DESCRIPTION

2.1 Site Location

The Site of the Proposed Development is 1.67ha, and is located at the junction of Cookstown Road and First Avenue, which border the east and the north boundaries of the Site, respectively. The southern and western borders are abutted by industrial buildings. The Site is located 1.8km southwest of the M50 and 500m northeast of the Tallaght University Hospital. The surrounding landscape is predominantly urban in nature.

2.2 Description of Development

Bartra Property Cookstown Limited intend to apply for permission for development on c.1.67ha at Unit 21, First Avenue, Cookstown Industrial Estate, Dublin 24. The Proposed Development will consist of the following:

- Demolition of all existing 1-3 storey industrial/commercial structures and small café totalling c.5,500sqm in area;
- Construction of a 1-5 storey Transitional Care Facility (step-up/step-down) providing 131 no. bedspaces over partial basement (total floor area c.6,743sqm) with central courtyard (c.519sqm);
- The basement consists of a sprinkler tank and pump rooms, water tank room, plant room and workshop;
- Provision of dining and kitchen areas, sitting/family rooms, activity rooms, coffee dock, hair salon, oratory, lobbies/reception areas, ancillary offices and staff areas, stores, toilets, shower/changing facilities, ESB substation, generator, switchroom, service yard and waste areas serving the facility;
- Lobbies, stair/lifts, photovoltaic panels and green roofs throughout;
- Partial provision of the pocket park identified in the Tallaght LAP (c.1,286sqm);
- New vehicular access from First Avenue and egress onto Cookstown Road via a one-way system through the subject site;
- Entrance signage on the eastern elevation of the proposed facility; and
- All associated Site development works, services provision, connection to the water supply, foul and surface water networks on First Avenue and Cookstown Road including partial diversion of the foul line to the north east of the site at First Avenue, temporary foul pump station, attenuation/bioretention systems, vehicular and pedestrian access including internal road and footpaths, interim pedestrian facilities/public realm upgrade works, landscape and boundary treatment works, tree removal, bicycle storage (76 no. total spaces), car parking (32 no. total spaces), set-down parking spaces, 1 no. ambulance set-down space serving the facility and delivery/loading areas to First Avenue.

3 INVASIVE ALIEN SPECIES SITE SURVEY

The Site was assessed for the presence of IAPS by Enviroguide Consulting during a preliminary habitat survey undertaken on the 19th of May 2021, and, if present, were classified as per Kelly et al., (2013). A second IAPS survey was carried out at the Site on the 1st of November 2022. Non-native species in Ireland to date have been assessed by Kelly et al., (2013) and attributed an impact rating of either 'High', 'Medium' or 'Low' impact based on a number of factors that determine a species' potential to become established in this country and have significant impacts.

3.1 Invasive Flora at the Site

No species listed on the Third Schedule of the *European Communities (Birds and Natural Habitats) Regulations* (S.I. 477 of 2011) including Japanese Knotweed (*Reynoutria japonica*) were recorded at the Site.

Two widespread '*Medium Impact*' plant species were recorded at the Site, namely Buddleia or Butterfly bush (*Buddleia davidii*), in stands along the southern boundary of the Site (Figure 1) and within the mature ornamental shrub planting on Site, and Sycamore (*Acer pseudoplatanus*), also present with the ornamental shrub planting on Site.



Figure 1. One of the stands of *Buddleia* recorded along the south boundary of the Site. Photo taken on the 1st of November 2022.



Figure 2. Invasive alien plant species recorded at the Site of the Proposed Development by Enviroguide Consulting.

4 INVASIVE SPECIES MANAGEMENT PLAN

4.1 Control Options

Control of all IAPS can be broken into either **physical** methods or **chemical** treatment. Physical methods include cutting, digging or excavating, hoeing and pulling by hand. Chemical treatment may involve the application of herbicide either by targeted spraying or direct application to the individual plant by wiping or direct injection (NRA, 2010). Care should be taken to choose the most appropriate method for the specific circumstances of each site. Where chemical treatment is recommended below, it is important that the services of registered and appropriately trained advisors and professional users are procured (TII, 2020). Information relating to professional users and the register is available on the website of the Pesticide Registration and Controls Divisions (PRCD) of the Department of Agriculture, Food and the Marine (DAFM)¹.

Legislation regulating the use of Plant Protection Products (PPPs) and the sustainable use of pesticides significantly impacts the management of IAPS. Those involved in managing IAPS with pesticides will need to be aware of, and comply with, this law. This legislation must generally be regarded as complex, evolving and difficult to interpret. Therefore, great care is required by users to ensure that the relevant legislation is fully researched and understood. Where any doubt remains as to the applicability and interpretation of relevant legislation, it is recommended that professional legal advice be obtained (TII, 2020a).

4.2 General Measures to Prevent the Spread of IAPS at the Site

4.2.1 Pre-Construction Survey

A pre-construction IAPS survey will be carried out prior to any construction activities (including enabling works) by a suitably qualified specialist to confirm the presence and extent of the invasive species within the Proposed Development Site prior to the Construction Phase commencing.

4.2.2 Management

The non-native/invasive flora species recorded at the Site, namely *Buddleia*, should be controlled/removed as per the appropriate best-practice guidelines and in consultation with the relevant qualified invasive species professional. Removal and disposal should be carried out in accordance with appropriate guidelines such as TII The Management of Invasive Alien Plant Species on National Roads – Technical Guidance (2020), with consideration given to the prevention of spread of these plants.

Areas identified as requiring specific IAPS treatment will be demarcated by an Ecological Clerk of Works (ECoW), and designated control measures will be implemented at the earliest possible stage to reduce the risk of spread of IAPS via enabling or advance works. The areas of infestation and the appropriate buffer zone will be isolated with fencing or warning tape and 'biosecure zone' signs will be erected at each contaminated area to alert workers to the presence of IAPS and to ensure that they avoid entering or unnecessarily interfering with these sites. To reduce the risk of material transfer of IAPS material at the Site, appropriate controls on the movement of machinery in the infected area will be implemented.

¹ <http://www.pcs.agriculture.gov.ie/sud/professionaluserssprayeroperators/>

4.2.3 Disposal of Material

If any material containing invasive plant species is collected (e.g., by hand-pulling or cutting), it is important that its disposal does not lead to a risk of further spread. The movement of plant material of any plants listed on the Third Schedule requires a licence from the National Parks and Wildlife Service (NPWS) under Section 49 of the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended). Invasive species (particularly roots, flower heads or seeds) must be disposed of at licensed waste facilities or composting sites, appropriately buried, or incinerated having regard to relevant legislation. All disposals must be carried out in accordance with the relevant Waste Management legislation.

4.3 Species-Specific Management Options

The following sections outline species specific management options for IAPS at the Site. Background information regarding various control options is included for certain species.

4.3.1 Buddleia

The following is extracted from TII (2020a):

“Buddleia (also known as the Butterfly bush) is a member of the Buddlejaceae family. It is a very fast growing shrub that can reach 2m in its first year, producing flowers and setting seed prolifically. Buddleia is a native of China and is widely planted as an ornamental in gardens, demesnes or parks. Because of its profusion of long, purple and nectar-rich flowers it also attracts a considerable diversity of butterflies (hence, its other common name – Butterfly bush) and other pollinating insects. It has a widespread distribution throughout Ireland and is particularly frequent in waste ground in urban environments. It colonises bare ground very rapidly and can quickly form monotypic stands. As Buddleia tolerates a broad range of environmental conditions and a wide diversity of soil types, including very poor soils, it is capable of growing on walls, rock outcrops or sub-soils; conditions that are frequently encountered on new road schemes. In particular, it poses a threat where features such as rock cuttings or eskers remain abandoned or are left to re-colonize naturally. In many countries it has established itself as a problem plant along watercourses where, due to its shallow root system, it is frequently washed away, resulting in erosion of the river banks and downstream blockages. In Ireland, Buddleia must be considered an invasive species because of the damage it can cause to hard standings and structures, and to native biodiversity. Buddleia produces very large numbers of viable seeds, which are dispersed via wind and water. The seeds are relatively short-lived in the soil, rarely lasting longer than four years. The plant can also readily spread by producing roots, and ultimately new plants, where stem nodes come into contact with the ground. It can also spread by fragmentation of stems or roots.

As Buddleia is a plant that favours disturbed sites, physical removal of plants can provide ideal conditions for the germination of seeds that are present in the soil. For this reason, care needs to be taken to ensure that revegetation of treated areas is undertaken swiftly. The branches of Buddleia are capable of rooting as cuttings, so care should also be taken to ensure material is disposed of in a manner to avoid this risk.

Chemical control

Foliar application of herbicide is capable of providing control with young plants and small infestations, but should be followed up at six-monthly intervals as regrowth is common.

Physical control

Removal of the flower heads before seed set (June or even July) is an important control method as it reduces the volume of seeds that are available to spread. Hand-picking of young plants will provide control but it is very tedious and should be undertaken with care to avoid soil disturbance, which can give rise to a flush of new seedling growth. Digging out plants is only practical with relatively minor infestations, at the initial stage of invasion, or where a site is to be excavated for development or road construction purposes. Mowing of young plants does not provide effective control as they re-sprout with vigour. The physical removal of mature stands is not recommended for the same reason. After uprooting, it is essential to plant the ground in order to prevent a flush of new seedling growth. When Buddleia plants are cut, regrowth from the stump can be very vigorous.

Combined chemical and physical control

Effective control can be achieved by cutting Buddleia plants to a basal stump during active growth (late spring to early summer) and immediately treating the total cut surface with herbicide concentrate. Monitoring will be required and retreatment, as necessary. Do not leave cut stems and branches on the ground as they will re-root and produce new plants."

Recommended Management

Physical removal and off-site disposal of Buddleia is recommended where it occurs within the Proposed Development footprint. If physical removal is not feasible, combined chemical and physical control is the recommended management option. Treatment should be followed by a period of monitoring.

The stands of Buddleia at the Site should be cut to a basal stump (approx. ground level) when vegetation clearance is planned to prepare the Site for construction. Roots will be dug out where possible and cut material and roots will not be left on bare ground to prevent rooting (store on an impermeable surface). If roots cannot be dug out then herbicide application to the cut stumps will be required as per best practice guidance.

Any clearance will be carried out outside of the nesting bird season of March 1st to August 31st, unless supervised by a suitably qualified Ecologist and vegetation is confirmed to be free of nesting birds.

4.3.2 Sycamore

Recommended Management

Physical removal of Sycamore and off-site disposal is recommended where it occurs within the Proposed Development footprint. Treatment should be followed by a period of monitoring.

Any clearance will be carried out outside of the nesting bird season of March 1st to August 31st, unless supervised by a suitably qualified Ecologist and vegetation is confirmed to be free of nesting birds.

4.4 Monitoring

In many cases, it is not possible to control an established stand of IAPS with a single chemical treatment. Therefore, repeated treatments over successive years is typically necessary. Where physical methods are used to control IAPS, the treated area will also need to be monitored over a number of years for regrowth.

Monitoring for regrowth of all IAPS treated at the Site will be carried out for 2 years following treatment by a suitably qualified ecologist. Further monitoring may be required if treatment has

not been successful. A site may be considered remediated after two consecutive growing seasons with no sign of regrowth from all of the previously identified stands (TII, 2020b).

5 CONCLUSIONS

This IAPS Management Plan presents a range of options for addressing the IAPS at the Site and a strategy that will be adopted during the construction and operation of the Proposed Development; in order to manage and prevent the spread of IAPS at the Site and recommends the most appropriate option. This management plan should be implemented by a suitability qualified professional in agreement with the planning authority.

6 REFERENCES

NRA. (2010). Guidelines on The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads (now Transport Infrastructure Ireland), Dublin.

Transport Infrastructure Ireland. (2020a). The Management of Invasive Alien Plant Species on National Roads – Technical Guidance. GE-ENV-01105. December 2020

Transport Infrastructure Ireland. (2020b). The Management of Invasive Alien Plant Species on National Roads – Standard. GE-ENV-01104. December 2020



Head Office

3D, Core C, Block 71, The Plaza, Park West, Dublin 12, D12F9TN, Ireland.

Tel: +353 1 565 4730

Email: info@enviroguide.ie

South West Regional Office

19 Henry Street, Kenmare, County Kerry, V93 CVH0, Ireland.

Tel: +353 646 641932

Email: info@enviroguide.ie

South East Regional Office

M10 Wexford Enterprise Centre, Strandfield Business Park, Rosslare Rd, Strandfield, Kerlogue, Co. Wexford, Y35 W5RD, Ireland.

Tel: +353 1 565 4730

Email: info@enviroguide.ie