

Site Assessment Survey

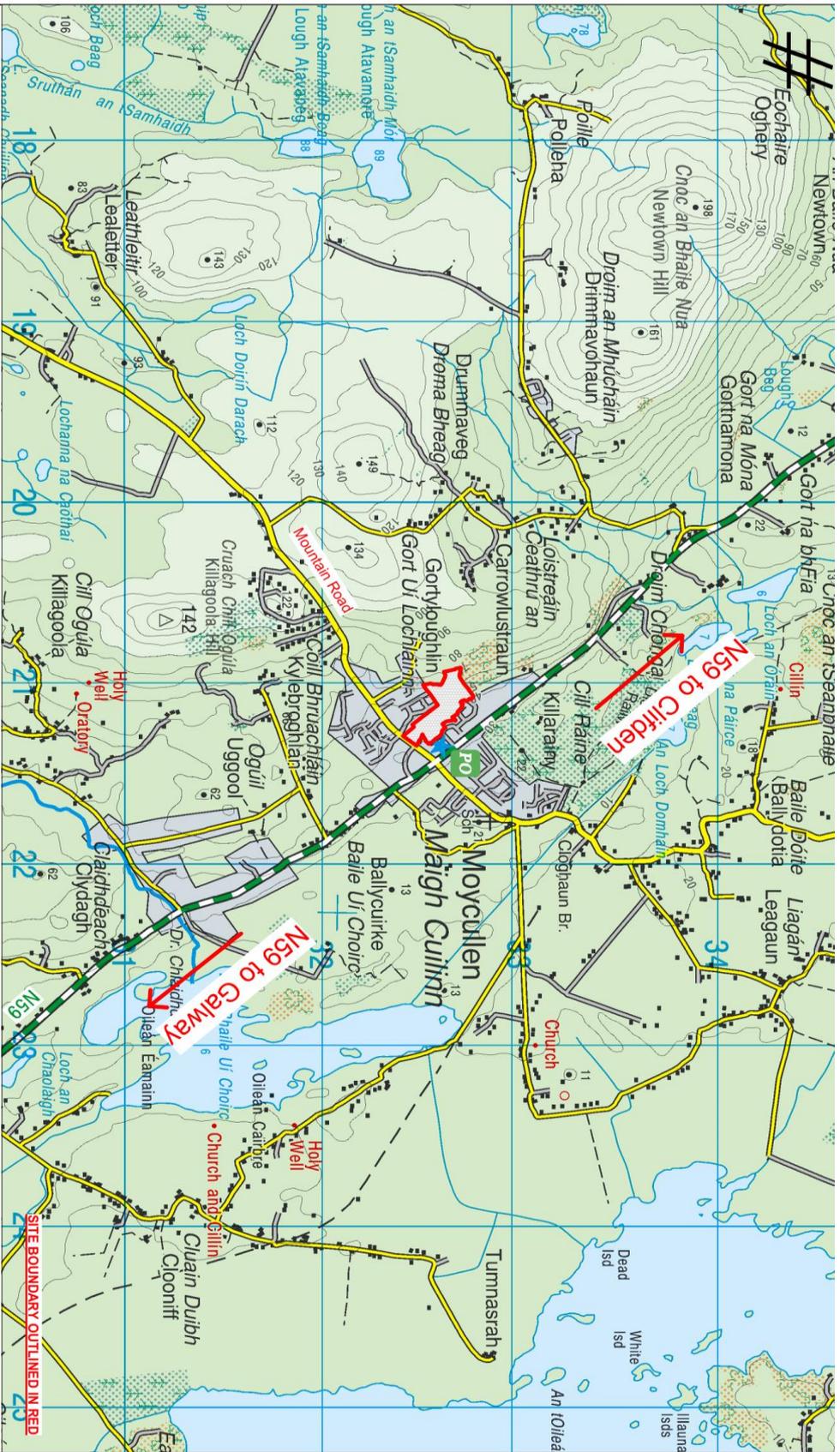
<p style="text-align: center;">Client Details:</p> <p>Name: Vincent Hannon Architects – Mr Brian Fahy – on behalf of Galway County Council</p> <p>T: (091) 483 934 E: bfahy@vha.ie</p>	<p style="text-align: center;">Survey address:</p> <p>Moycullen Co. Galway</p> <p>Date: 25/10/18</p>
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<p>Surveyors Details:</p> <p>Name: Peter Byrne</p> <p>T: 087 6647 695</p> <p>E: thejapaneseknotweedcompany@gmail.com</p>
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<p>Land Owner – Contact Details</p> <p>Name: Galway County Council</p>
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<p>GPS Co-Ordinates</p> <p>N 53 ° .3365 W-9 ° .1810</p> <p>Site Area: 6 ha. Photos Points marked: Yes</p> <p>Maps Obtained: Yes</p>

<p>Land Use Type – Brief Description</p> <p>Domestic Site:</p> <p>Commercial Site:</p> <p>Agricultural Site:</p> <p>Brownfield Site:</p> <p>Greenfield Site: ✓ Woodland, mostly overgrown</p> <p>Public Amenities:</p> <p>Other:</p>



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Address: Gort Ui Lochlainn & Coill Bhrachlín, Moycullen, Co. Galway.

NOT TO SCALE

PROJECT: Moycullen, Gort Ui Lochlainn	TOWNLAND: Gort Ui Lochlainn & Coill Bhrachlín		DRAWN BY: T McLoughlin	DATE: 25/05/2018	<p>Galway County Council</p>
SITE BOUNDARY SHOWN OUTLINED IN RED	DRAWING TITLE: Location Map		APPROVED BY: K Finn	DATE: 25/05/2018	

Legislative background

At an international level Ireland has signed up to a number of treaties and conventions, including the **Convention on Biological Diversity**. Such treaties and conventions require the Irish Government to address issues of invasive alien species. This has been implemented through the **Wildlife Act 1976 and 2000** and further regulated through the **European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011)**

Regulation 49

‘a person shall be guilty of an offence if they: plant; disperse; allow or cause to disperse; spread or cause to grow the plant in the Republic of Ireland’. The list of species in the Third Schedule includes Japanese Knotweed, Giant Knotweed and their hybrid Bohemian Knotweed.

Regulation 50

‘an offence to or intend to; import; buy; sell; breed; reproduce or propagate; offer or expose for sale; advertise; publish a price list; transport; and distribute any plant species or vector material listed in the Third Schedule’.

Non-native species subject to restrictions under Regulations 49 and 50 are included in the third schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I 477 of 2011). The invasive species listed in the Third Schedule include: Japanese Knotweed, Giant Knotweed, Giant Rhubarb, Himalayan Balsam, Himalayan Knotweed, Bohemian Knotweed and Rhododendron.

The vector material (i.e. facilitates spread), referred to in the regulations (Third Schedule Part 3) which applies to Knotweed species is:

“Soil or spoil taken from places infested with Japanese Knotweed, Giant Knotweed or their Hybrid Bohemian Knotweed”

The Waste Management Act 1996, as amended and associated regulations must be complied with if Japanese Knotweed contaminated material is to be moved off site.

It is a requirement to dispose of this material to a fully licenced wasted facility, capable of accepting such contaminated material. This disposal requirement applies to all Japanese Knotweed material including untreated and treated plant material. It also applies to soil containing the plant material, i.e. a 7m radius around the above ground stand and up to 3m deep below the stand, this is site specific.

If Japanese Knotweed contaminated material is removed off site it will require a **licence from the National Parks and Wildlife Service** in advance of any removal, in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477)

Guidance Documents

The following guidance documents and literature sources were consulted during the preparation of this report:

- National Roads Authority NRA (2010). *Guidelines on management of noxious weeds and non-native invasive plant species on national roads.*
- Crushell, P., Foss P., Hurley C. & O' Loughlin B. (2011). *County Kerry Invasive Species Survey 2011 – Pilot Mapping Study of the River Lee Catchment, Tralee.* Report prepared for Kerry County Council and The Heritage Council
- Environmental Agency (UK) (2013). *The Knotweed Code of Practice: Managing Japanese Knotweed on Development Sites (Version 3, amended in 2013)*
- Stokes, K., O' Neill K., & McDonald R.A. (2004) *Invasive Species in Ireland* Unpublished Report
- NPWS (2011) *Actions for Biodiversity 2011-2016, Irelands second National Biodiversity Plan.* Department of Arts Heritage and the Gaeltacht.
- Department of Environment (2013). *An invasive alien Species Strategy for Northern Ireland.* www.doeni.gov.uk
- Irish Water Report. *Information and Guidance Document on Japanese Knotweed Asset Strategy and Sustainability*

Introduction:

This site survey report has been prepared for Vincent Hannon Architects on behalf of Galway County Council and is for their sole and exclusive use. This report reflects the particular site circumstances and conditions as they presented on the day of the survey carried out by Peter Byrne, certified surveyor of The Japanese Knotweed Company on the 25/10/18. Depending on the time of year of the site survey and particularly in advance of, or at the beginning of, the annual growing season, the evidence of invasive plant species on site may be limited. This was not the case on this particular site at Moycullen, Co Galway.

Invasive Species

The convention on Biological Diversity defines an alien invasive species as '*an alien species which become established in natural or semi-natural ecosystems or habitats, is an agent of change and threatens native biological diversity*' The terrestrial invasive plant species **Winter heliotrope** (*Petasites fragrans*), **Mares Tail** (*Equisetum Arvense*) *Gunnera*, (*Gunnera Tinctoria*), *Buddleia*, (*Buddleja davidii*) and *Running Bamboo* (*Phyllostachys*) were recorded on site and a species account is described below:

Winter Heliotrope (*Petasites fragrans*) is a plant native to North Africa and the Mediterranean regions. Brought to Ireland by gardeners in the 19th Century, it spreads rapidly underground, and grows quickly, blocking out light from native plants and dominating the area. We only have male plants of winter heliotrope in Ireland. This means it never creates seeds, and all the plants that you see around the country are clones, and have been spread from a broken-off piece of the original plant. It favours spread along disturbed areas such as construction sites roadsides and riverbank sides.

Winter Heliotrope was located at the western and south eastern boundaries of this site, these 2 locations are identified on the map contained within this document. Above ground growth of approximately 300m² was recorded on the date of this survey.



Mares Tail (*Equisetum Arvense*) is an invasive, deep-rooted perennial weed that will spread quickly to form a dense carpet of foliage, crowding out less vigorous plants in beds and borders. Mares tail is a non-native invasive, deep-rooted weed with fast-growing rhizomes that quickly send up dense stands of foliage. Mares Tail is easily recognised by its upright, fir tree-like shoots that appear in summer. In spring, fertile light brown stems, 20-50cm (10-20in) tall, appear with a cone-like spore producing structure at the end of the stems. In summer, sterile green shoots develop into fir tree-like plants, 60cm (2ft) tall. The creeping rhizomes of this pernicious plant may go down as deep as 2m (7ft) below the surface, making them hard to remove by digging out, especially if they invade a border. They often enter gardens by spreading underground from neighbouring properties or land.

95m² of Mares Tail was identified close to the south western boundary of this site and is marked on the map contained within this document.



Gunnera, (Gunnera Tinctoria), is a non -native invasive plant that was first introduced to Ireland over 100 years ago as an ornamental plant. It is predominantly found in western coastal counties. Gunnera is a large herbaceous plant that forms dense colonies it can grow up to 2 metres in height. It has large leathery umbrella shaped leaves, with spikes on the back of the leaves and along the stems. The size of the leaves and their early spring emergence prevent native plants from germinating or growing due to shading. Gunnera has a large rhizome which can grow up to 2 metres in length along the ground, it can re-sprout from tiny fragments of the rhizome and can reproduce by seed, this allows the plant to spread rapidly and makes it very difficult to eradicate.

6 young Gunnera plants were located to the south east of the site and are marked on the map contained within this document.



Buddleia, (Buddleja davidii) commonly known as the butterfly bush was introduced from Asia for its beautiful flowers and for its ability to attract butterflies to gardens but has become increasingly clear that Buddleia can be highly invasive. It produces lots of small, light seeds, which spread extremely easily. It can grow in many places, even in cracks in buildings several floors up. Buddleia can form thickets in places like disused industrial sites and railway lines and natural habitats and hedgerows. These places support a large number of native birds and insects some of which can be rare and are becoming more endangered as a result of the presence of non-native invasive species in this country. Buddleia can quickly cover open ground which means these native species can no longer survive in their natural habitats.

10m² of Buddleia was located in the western corner of this site and is marked on the map contained within this document.

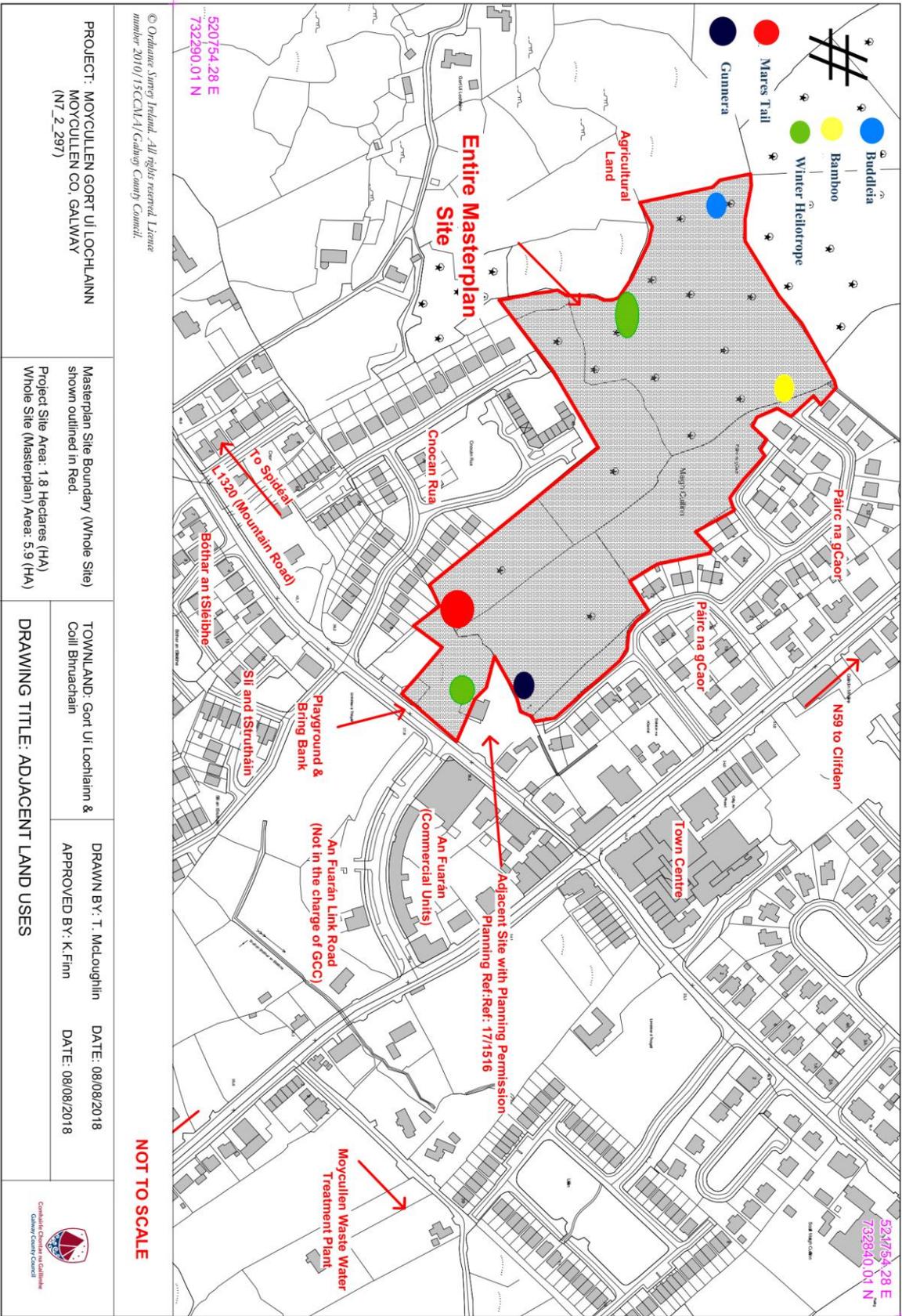


Running Bamboo (Phyllostachys) this species of Bamboo are commonly referred to as 'running bamboo' because plants can spread as culms that grow at the nodes at long, indeterminate rhizomes. The underground rhizomes of running bamboo can spread more than 30 metres from the mother plant and are averse to environmental conditions and herbicides. As many non native invasive plants, Bamboo knows no boundaries **and** has become an invasive pest which runs and runs, sending up suckers at will and colonising vast areas of ground.

30m² of Bamboo was located at the northern corner of this site and is marked on the map contained within this document.



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Please be aware that while it is not an offence to have non-native invasive plants on your property it is illegal to allow it to spread off of your site onto another and carries a severe penalty under Irish legislation pertaining to non-native invasive plants. See current legislation section of this document.

Please be aware that while herbicide treatment alone does not eradicate most non-native invasive plants administered correctly it does allow control of the plant to be gained and therefore managed. On a site planned for construction such as this there are limited options available to allow construction to proceed without constraints. The recommended option for this site is to completely remove the soils containing non-native invasive plant root material to a licenced soil recovery facility under licence from the National Parks & Wildlife Services as all the non-native invasive plants identified on this site require such a licence for removal from site.

Vehicles and footwear that come into contact with these non-native invasive plants could act as vectors for further spread within the site and indeed off site. This site needs to be fenced off immediately to prevent this from occurring.

Control measures should be implemented using a recognised professional service with expertise in this field of work, and take into account any and all sensitivities highlighted in this report. Particular care should be taken in circumstances where the invasive plant species are located within an officially designated site of ecological importance, such as an SAC, SPA or NHA, or are set within the context of known ecological sensitivities.

Where the use of herbicides are proposed, they should be applied strictly in accordance with the manufactures recommendations, by a registered professional pesticides user and fully in compliance with the European Communities (Sustainable Use of Pesticides) Regulations, 2012

Under no circumstances should any invasive alien plant species be cut or dug out without the advice, direction and supervision of a certified surveyor of invasive plants. Most plant species have extensive root / rhizome systems which spread well beyond the footprint of the above ground plant, approximately 7 metres laterally and can regenerate themselves from very small fragments of root or stem.

The off-site removal of non-native invasive plants and soil infested with non-native invasive plant root material is strictly controlled by legislation and will require a licence from the National Parks and Wildlife service in advance of any removal, in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011

To prevent the uncontrolled spread of invasive alien plant species strict bio-security measures and protocols should always be adhered to under the direction of a certified surveyor of invasive plants.

Controls to be Recommended

Methods	Stand reference	Yes	No
Dig & Burial Method			X
Off Site Disposal		✓	
Dig & Cell Burial on site			X
Raised Bund Method			X
Foliar Spray			X
Weed Wiping			X
Stem Injection			X
Root Barriers			X
Geotextile Membrane			X
Sifting on site			X
Cane Removal			X

Note: Environmental & Sustainability issues to be factored into all management, treatment & control methods.

Description of Site Substrate	Description of Desirable Vegetation
Overgrown woodland	Native Flora

Degree Of Infestation	Yes	No
Low – (Sparse Presence of Plants) = 1% > 5% Cover		
Moderate – (Scattered Presence of Plants) = 5% > 25% Cover	✓	
High – (Dense Presence of Plants) = 25% > 45% Cover		
Extreme – (Concentrated Presence of Plants = 45% & Greater		

Is site on or adjacent to special area of conservation or interest - No

Comments	Yes	No	Other
There was no information available on the date of the survey			

Final Comments

It is recommended that a site specific management plan and biosecurity documents be designed and created for this site. This management plan will detail the recommended removal of the non-native invasive plants under licence from National Parks & Wildlife Services

It is important to note that herbicide treatment of non- native invasive plants is not a treatment option for sites that are for planned construction as herbicide alone will only achieve control and gain management of non-native invasive plants. Herbicide treatment will not eradicate any non-native plants with rhizome root.

Please Be Aware of Current Legislation:

Currently Regulations 49 and 50 of the European Communities (Birds and Natural Habitats) Regulations 2011 make it an offence to

- Plant, disperse, allow dispersal or cause the spread of Japanese knotweed.
- Keep the plant in possession for purpose of sale, breeding, reproduction, propagation, distribution, introduction or release.
- Keep anything from which the plant can be reproduced or propagated from without a granted licence.
- Keep any vector material, in this case soil or spoil taken from Japanese knotweed, for the purposes of breeding, distribution, introduction or release

And is punishable by fines of up to €500,000 or imprisonment for up to three years.

Regulation (EU) No. 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species (2014) OJ L 317/35

Wildlife Acts, 1976 to 2012, as amended



Regulation (EC) No. 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (hereinafter referred to as the ‘Plant Products Regulation’);

European Communities (Plant Protection Products) Regulations, 2012 (S.I. No. 159 of 2012);

Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (‘Sustainable Use of Pesticides Directive’)

European Communities (Sustainable Use of Pesticides) Regulations, 2012, (S.I. No 155 of 2012)

Waste Management Acts, 1996 to 2013 and related legislation.