Invasive Non-Native Plants

A practical handbook for site-managers & supervisors

Civil Engineering Contractors Association

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working for infrastructure

What are invasive non-native plants (INNP)?

Invasive non-native plants (INNP) are plant species introduced to the UK over time, that disrupt the growth of native plants and can alter habitats. They can spread rapidly and cause harm to the environment, economy, and human health. Invasive non-native species (INNS) have been identified as one of five main threats to biodiversity globally. It is important to be aware that only non-native plants that cause significant disruption are classed as INNP, and that not all non-native plants are harmful. This guidance focuses specifically on INNP. Further guidance on INNS can be found in 'Useful Resources' at the end of the document.

Continue reading for guidance on:

- **Why invasive non-native plants are a problem**
- **A contractor's legal responsibilities**
- **How to identify invasive non-native plants**
- **What to do if you find them on site, and**
- **Where to find further support and training.**

This document is aligned to the **Property Care Association - Module 0.**

PCA Property Care ASSOCIATION

Click the link above to access FREE video training, or visit the Property Care Association's YouTube Channel.

Why are INNP a problem?

Impacts

INNP pose a significant threat to a wide range of environments. They threaten the native biodiversity of our urban spaces and countryside, and can change habitats by altering the soil chemistry, water flow and light availability, inhibiting the growth of our natural species.

Annually, roughly £4 billion is spent on all invasive non-native species in the UK, including management and control, infrastructure repair and delays to development projects. (CABI 2023 Study)

INNP can also impact public health through injuries, allergies and restricting public access to contaminated areas.

Video - PCA Module 0 - Unit 1 - What are invasive plants? - click here.

Pathway Vectors

Pathway vectors are the ways INNP are introduced to the UK and the ways they spread. For the construction sector, we need to ensure our activity prevents the spread of INNP into, around, off, and between our construction sites.

Key pathway vectors for the construction sector to consider are:

Direct movement:

- the transportation of contaminated soil
- spreading seeds or plant fragments during vegetation clearance

Indirect movement:

- unclean machinery, tools or vehicles moving between sites,
- fragments on footwear or clothing,
- road or rail maintenance spreading plant material along routes, and
- when working in or near water, extra care should be taken to prevent spread by moving water or via watercraft between water bodies.

Biosecurity

Biosecurity is the range of control measures we take to prevent the accidental spread of INNP as well as invasive animals and disease. These will protect people, property, and the environment, reduce long-term management costs, embed good practice into daily operations and support compliance with legislation and industry standards.

The Environment Agency, Safety, Health, Environment and Wellbeing (SHEW) Code of Practice (CoP) specifies the Check, Clean, Dry approach (see above) and requires that a **biosecurity kit** is available on all construction projects, containing, as **a minimum:**

- **A bucket or container large enough to hold water to clean boots/gaiters/ wellingtons**
- **A receptacle to carry water**
- **A stiff brush that can be used to clean boots, including the tread/cleats**
- **A boot pick to get into the hard-to-reach crevices in the boot tread/cleats**
- **Disinfectant as required**

Invasive non-native species can also be aquatic. Contractors working adjacent to, or within water bodies can find further information on water-based invasive species, including floating pennywort, New Zealand pigmyweed, and parrot's feather on the Non-native Species Secretariat website.

Construction Ecological Management Plan (CEMP)

If required, the CEMP should detail the necessary INNS measures for a site and should be adhered to. It is often required for larger projects and developments as a condition for planning permission.

Video - PCA Module 0 - Unit 7: Biosecurity - click here.

Floating Pennywort.

New Zealand Pigmyweed.

Parrot's Feather.

Your Responsibilities

CHECK

Check your equipment and plant, including tracks, clothing, boots, and any watercraft for mud, aquatic animals or plant material. Remove anything you find and leave it at the site.

CLEAN

Clean everything thoroughly as soon as you can, paying attention to areas that are damp or hard to access. Use hot water if possible.

DRY

Dry everything for as long as you can before using elsewhere, as some invasive plants and animals can survive for **over two weeks** in damp conditions.

The Check, Clean, Dry approach is a nationally recognised initiative to prevent the spread of INNP.

Site managers and supervisors should:

- Plan measures to fit the specific site – if there is no requirement to remove the invasive species, contractors should ensure they avoid spreading the INNP.
- Identify high-risk areas and potential spread pathways
- Set up and maintain clearly marked exclusion zones for areas of INNP
- Establish designated haulage routes and access points
- Provide wash-down and brushing stations where needed
- Train and brief all staff/contractors on the plan
- Undertake a watching brief for any spread or regrowth of INNP
- Keep records: inductions, toolbox talks, cleaning logs, records of biosecurity breaches and other relevant records
- Review and adapt plan if site conditions change

Legislation

Breaches of legislation relating to INNP are treated as criminal offences and even minor breaches can result in the prosecution of individuals as well as companies.

The relevant legislation is as follows:

- The **Wildlife and Countryside Act 1981, Schedule 9** (headline legislation, England & Wales)
- The **Wildlife and Natural Environment (WANE) Act 2011** (headline legislation, Scotland)
- The **Invasive Alien Species (Enforcement and Permitting) Order 2019** (England & Wales).

Regulatory Guidance

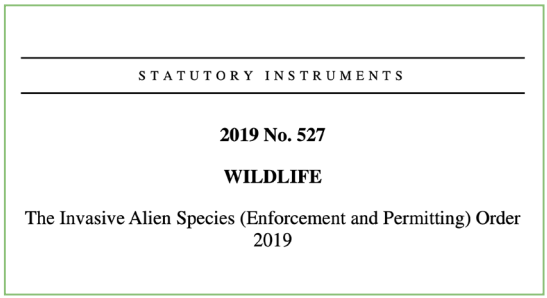
- **England** – Treatment and disposal of invasive non-native plants: RPS 178
- **Wales** - Regulatory Statement RD58.2 Treating and disposing of invasive non-native plants
- **Scotland** - NetRegs.

Video - PCA Module 0 - Unit 8: Legislation provides further details of the legislation covering INNP - click here.

Off-site Removal to Landfill

INNP require special disposal and it is recommended for sites to have an INNS Management Plan that will include details of removal and disposal. It is important to identify a landfill or waste facility that is permitted to accept INNP prior to disposal. These may be a significant distance from site and can have considerable transport costs. If any soil is being removed at the same time as the INNP, it may be necessary to test it for contaminants prior to disposal. This may have significant cost and time implications. Testing should be completed by a suitably qualified person with the appropriate controls in place to manage the risk of spreading INNP.

For more information visit: PCA Code of Practice for invasive non-native plants.

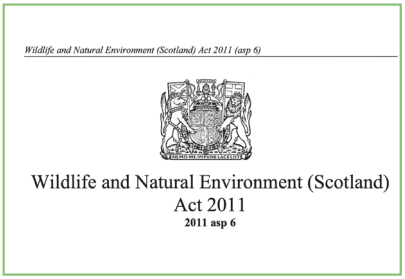

STATUTORY INSTRUMENTS

2019 No. 527

WILDLIFE

The Invasive Alien Species (Enforcement and Permitting) Order 2019


Wildlife and Countryside Act 1981


Wildlife and Natural Environment (Scotland) Act 2011 (asp 6)

Wildlife and Natural Environment (Scotland) Act 2011

2011 asp 6

Identification

Japanese Knotweed (Raynoutria japonica)

Key identifiers:

1. **Shield or spade-shaped leaves with a flat base and a pointed tip.**
2. **Bamboo-like hollow stems with purple flecking.**
3. **Red asparagus-like shoots emerging in spring.**

Video: PCA Module 0 - Unit 3: Japanese knotweed background, ecology and impacts - YouTube - click **here**.

Document - ID_Reynoutria_japonica_-Japanese_knotweed

Himalayan Balsam (Impatiens glandulifera)

Key identifiers:

1. **Pink, helmet-shaped flowers**
2. **Serrated leaves arranged in opposite pairs or whorls**
3. **Seed pods that explode when touched.**

Video: PCA Module 0 - Unit 5: Himalayan Balsam & Giant Hogweed - click here.

Document - ID_Impatiens_glandulifera_ Himalayan_Balsam

Giant Hogweed (Heracleum mantegazzianum)

Key identifiers:

1. **Huge white umbrella-shaped flower heads.**
2. **Thick stems with purple blotches and coarse white hairs.**
3. **Massive, deeply lobed leaves.**
4. **Grows up to 5m or more in height.**
5. **WARNING - Touching Giant Hogweed can cause severe and long-lasting skin damage.**

Video: PCA Module 0 - Unit 5: Himalayan Balsam & Giant Hogweed - click **here**.

Document - ID_Heracleum_mantegazzianum_Giant_Hogweed

Rhododendron (Rhododendron ponticum)

Key identifiers:

1. **Large evergreen glossy leaves**
2. **Purple to lilac funnel-shaped flowers**
3. **Forms dense, impenetrable thickets in woodland**

Document - ID_Rhododendron_ponticum_ Rhododendron

Gunnera (Gunnera tinctoria and G. x cryptica)

Key identifiers:

1. **Massive umbrella-like leaves (2m+)**
2. **Thick stalks with spines**
3. **Large cone or spike-like flower heads.**

Video - PCA Module 0 - Unit 6: Other Invasive Plants

Document - ID_Gunnera_species_(Giant_rhubarb)

Montbretia (Crocosmia crocosmiiflora)

Key identifiers:

1. **Bright orange or red flowers with arching stems**
2. **Sword-shaped leaves**
3. **Dense underground corm clusters**

Document - ID_Crocosmia_crocosmiiflora_Montbretia.pdf

Field Horsetail (commonly mislabelled as Marestail)

Field Horsetail is a native invasive plant, but it can cause some serious issues on construction sites. However, it doesn't fall into the same classification and is not bound by the same legislation as non-native invasive plants.

Key identifiers:

1. **Green bottle-brush appearance**
2. **Distinct segmented, jointed stems**
3. **Brown fertile shoots in early spring before green growth.**

For more information: How to Kill Horsetail Weed - 8 Ways that Work

Video - PCA Module 0 - Unit 6: Other Invasive Plants - click here.

What to do? CECA Invasive Plant Risk Response

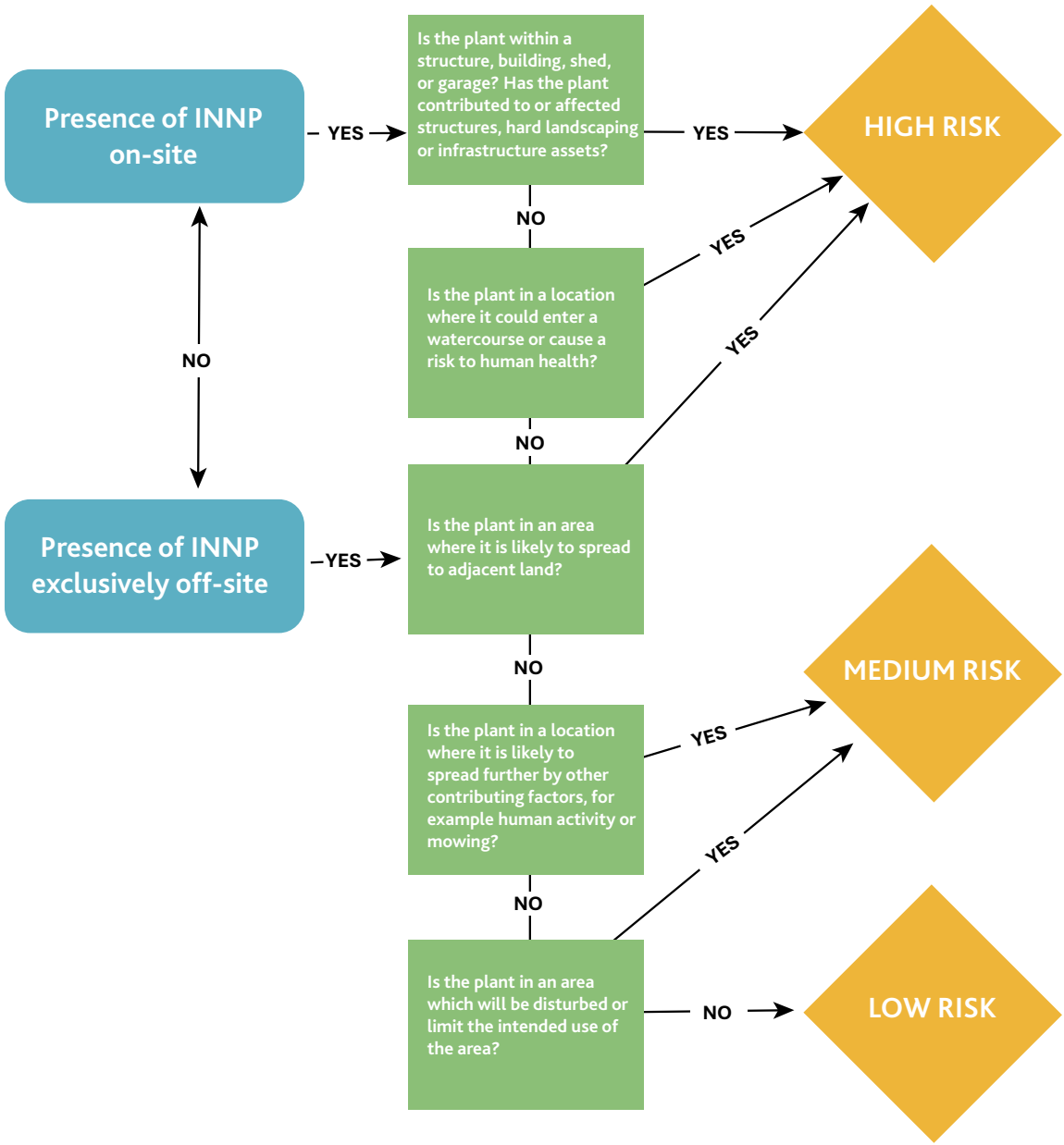
Immediate Actions - In All Cases

- **Stop works in the affected area immediately.**
- **Confirm identification where possible.**
- **Establish a clear exclusion zone.**
- **Prevent vehicle and plant movement through the area.**
- **Suspend any soil movement.**
- **Inform the environmental professional on the project, or seek further advice (see Further Information links).**

Site Controls - In All Cases

- **Demarcate the area with fencing or barrier tape.**
- **Brief operatives to avoid disturbance.**
- **Clean down machinery & boots, etc, before leaving the zone.**
- **Record GPS location and take photographs (include date-stamp or record of date taken)**
- **Monitor for any re-emergence.**

INNP Action - Flow Chart



INNP Action Checklist

High Risk

Potential legal breach, uncontrolled spread or contractual implications:

- **Notify site manager and principal contractor.**
- **Seek advice from a competent invasive plant specialist.**
- **Review and update RAMS before works recommence.**

Medium Risk

Potential legal breach, uncontrolled spread or contractual implications. However, this is a manageable risk if handled proportionately:

- **Escalate internally to a competent person.**
- **Consider specialist advice if uncertainty remains.**
- **Amend method statement if required.**

Low Risk

Record and proceed responsibly:

- **Escalate internally to a competent person.**
- **Consider specialist advice if uncertainty remains.**

Useful Resources

Useful Websites

- **Property Care Association - click here.**
- **Non-Native Species Secretariat - click here.**
- **Invasive non-native (alien) plant species: rules in England and Wales - click here.**
- **Net Regs (Scotland and Northern Ireland) - click here.**
- **Natural Resources Wales - click here.**

Further information and training

- **PCA Code of Practice for Invasive Non-Native Plants - click here.**
- **Module 0 PCA Module 0 - YouTube - click here.**
- **Invasive Non-Native Species Secretariat - click here.**
- **The Great Britain Invasive Non-Native Species Strategy 2023–2030 - click here.**

Acknowledgements

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