

Biosecurity and management of invasive non-native species for construction sites and Controlled Activities

1.0 Introduction

Non-Native Species (NNS) are any animal or plant introduced (deliberately or accidentally) by human activity to an area in which they do not naturally occur. Some animals and plants may have been transported here a long time ago and be considered “naturalised”, but these are still considered non-native species. Others are native to some parts of the UK but not to other parts (for example native to the mainland but not all islands).

Invasive Non-Native Species (INNS), sometimes referred to as ‘invasive alien species’, are those non-native species that have the ability to spread rapidly and become dominant in an area or ecosystem, causing adverse ecological, environmental and economic impacts. INNS can also affect our health.

Examples of the negative effects caused by invasive non-native species include; economic cost, structural damage, environmental degradation, aesthetic degradation, biodiversity loss, loss of land function, access restrictions and increased risk to human and animal health and safety. Costs incurred because of invasive non-native species can include repairs to damaged structures and environment, delays to works, loss in value of a landholding or other asset, potential for prosecution because of damage caused by invasive species or infringement of legislation. There is also a risk of loss of reputation through mismanagement of invasive species, especially where the interest of sensitive local groups (such as a fisheries trust) could be affected.

1.1 Legislation and responsible authorities for non-native species in Scotland

In Scotland the main legislation relating to the control of non-native species is the Wildlife and Countryside Act 1981. Under this legislation it is the landowner or land manager’s responsibility to prevent the planting or otherwise causing to grow in the wild of any non-native plant, or releasing of any non-native animal or spread of any non-native species out-with its native range.

Any criminal act relating to this legislation (eg illegal spread of NNS) should be reported to Police Scotland who are the prosecuting authority, by dialling ‘101’.

The bodies with responsibilities for non-native species issues in Scotland are detailed in the Scottish Government’s [Code of Practice on non-native species](#):

Relevant Body	Habitat
Scottish Natural Heritage	Dry land, river banks and wetlands
Forestry Commission Scotland	Woodland, trees & woody shrubs
Scottish Environment Protection Agency	Standing and running freshwater
Marine Scotland	Marine environments

All general non-native species enquiries and reports should be directed to SEARS, or alternatively to the Habitat Lead:

SEARS (Scottish Environment and Rural Services)

24/7 customer service 08452 30 20 50 or info@sears.scotland.gov.uk

SNH: non_native_species@snh.gov.uk

FCS: fcscotland@forestry.gsi.gov.uk

Marine Scotland: marinescotland@gov.scot

SEPA: www.sepa.org.uk/about_us/contacting_sepa/by_email.aspx

1.2 Key considerations

Managing land inhabited by a non-native species, in a timely and appropriate way, **can help avoid**:

- Excessive development costs
- Physical damage to buildings and hard surface
- Harm to the environment.
- Reputational damage
- Compensation claims
- Prosecution

Identifying a non-native species on a site early lets developers assess and cost options for managing, disposal, or destruction.

Making sure staff can identify non-native species which are present on site can reduce waste costs and improve how you manage the site. A clerk of works can oversee the management of non-native species and is a good way of ensuring that contractors treat them in an appropriate manner.

1.3 Your legal responsibilities when dealing with non-native species

Under the Wildlife and Countryside Act 1981 it is an offence to plant or otherwise cause to grow in the wild any non-native plant, or release any non-native animal. If you have invasive non-native species on your premises you have a responsibility to prevent them from spreading into the wild.

If you are undertaking control of any non-native plants on land that you own or occupy, you must comply with specific legal responsibilities relating to:

- Spraying herbicides
- Burning invasive plants
- Burial of soil containing invasive plant material
- Disposing of invasive plants and contaminated soil off site.

Full details are available via [Netregs](#).

When dealing with any non-native species, demonstrating that you have exercised due diligence, adopting best practice and taking reasonable steps to comply with the legislation is prudent. This involves:

- **Adopting a precautionary approach.** Don't release or plant until you have a clear understanding of the situation.
- **Carrying out risk assessments.** Due diligence is likely to include assessing the risk of an offence happening, establishing what to do to avoid it happening and acting according to best practice to prevent it happening.
- **Identification of non-native species, mitigation advice and following good management practices.** Photographs of many INNS species, advice on mitigation methods and 'good practice' guidance for many key species can be found at the GB Non-Native Species Secretariat website: www.nonnativespecies.org. You should seek early advice from an expert or habitat lead, if you are unsure about any issues relating to either the identification/management or release/planting of any non-native plant or animal.

1.4 Avoiding the introduction, movement and spread of non-native species on and off your construction site

a) Pre-construction considerations:

- Ensure detailed checks and risk assessments are carried out for non-native species within initial site feasibility assessments and surveys.
- Where any non-native species is present, ensure you understand the risks and implications of managing it, as well as your legal requirements. Seek advice early.
- Where a non-native species is identified as a risk of being introduced, spread within, or moved off site, ensure mitigation measures are considered at the early planning stage, and ensure enough time is given to implement them.
- Consider phasing the development to allow time to deal with the presence and/or risk of spread of non-native species.
- Ensure non-native species and locations (mapped) are incorporated within all relevant site method statements, including the site Ecological Protection Plan and Species Protection Plans, where appropriate.
- Where a species requires long-term management (e.g. [Japanese knotweed](#)), ensure a site management plan is put together that addresses all issues associated with it
- Nominate a designated Clerk of Works to manage the issue of non-native species on your site from an early stage.

b) Biosecurity considerations on-site:

If your site does not currently have any non-native species, it is also important to consider potential pathways of introductions onto your site from elsewhere and for mitigation procedures to be put in place to prevent this.

You should brief all contractors fully, and ensure all staff are aware of what the species looks like (www.nonnativespecies.org) and the issues associated with it. This could be done through 'tool-box' talks or within site introductions. Everybody working on site must understand the role and authority of the Clerk of works managing the issue of the non-native species.



An example of a foot bath & biosecurity station (Copyright Galloway Fisheries Trust)

You should record any areas that are contaminated/infested with non-native species within your management plan, isolate them with fencing and put up restricted access signs.

c) Equipment / machinery

To maintain good site hygiene when dealing with any non-native species:

- A fence that can be clearly seen should mark out the area of issue. Signs should be erected to warn people working there that the area is infested / contaminated.
- Where contaminated soil, materials or water are located, signage should be erected to indicate them.
- Personnel working on or between sites should ensure their clothing and footwear are cleaned where appropriate to prevent spread
- Tracked vehicles should not be used within the area of infestation.
- All vehicles leaving the infested area and / or transporting infested soil/materials must be thoroughly pressure-washed in a designated wash-down area before being used for other work.
- Where cross-contamination is possible (i.e. from one site to another), consider designating vehicles or machinery to specific sites where possible to prevent spread.
- Material / water left after vehicles have been pressure-washed must be contained, collected and disposed of appropriately.
- All chemicals used for the control of non-native species should be stored and used in a responsible manner.
- All wash facilities including waste water from washing vehicles, equipment or personnel should be managed in a responsible way so as not to not cause harm to the environment.

See [Netregs](#) for further information.

d) Use and movement of soil and water

The introduction of a non-native species both onto and off a site is most likely to happen in the following ways:

Contaminated topsoil

If soil has been treated for and is free from Japanese knotweed it can be re-used on site without the need for a waste management license or an exemption. If taken off site, this material must be disposed of in a licensed landfill. Developers reuse treated soils at their own risk and they should be re-used in a restricted area, rather than spread across the site, but this should be recorded in an ongoing management plan and inspected/treated accordingly.

You should always consider the source of topsoil brought onto any site, which can easily introduce a non-native species along with it, particularly Japanese knotweed.

Section N.6.4.5 of BS 3882:1994, the British Standard for topsoil clearly states that it is critical that material should be free from Japanese knotweed propagules, rhizome and vegetative fragments.

Use of water and/or crossing of water

If using water on your site for construction purposes or to wash vehicles or equipment, you should ensure that the source of that water will not inadvertently act as a vector for the transportation of non-native species to/from your site or elsewhere.

If you abstract or store any surface or ground water on your site for any reason you must gain appropriate authorisation from SEPA. Disposal of contaminated wash water, including all silt and other solids (e.g. plant fragments), must also be dealt with in a responsible manner to avoid pollution and to prevent the spread of any non-native species that may be present. For further information see [Netregs](#) (Pollution Prevention Guidance 5 - Works and maintenance in or near water, and Invasive Plants pages), and/or seek advice from SEPA.

Contamination of vehicles or machinery

Where non-native species are known to be within or close to your site, you should take care not to facilitate the transportation of plant seeds or fragments, animals or eggs on machinery, vehicles or by foot, from one site/river catchment to another. This may require the need for an exclusion zone and/or the use of designated machinery/ equipment on key sites to prevent movement from one site or river catchment to another.

You should inspect vehicles before moving them from site to site or off site, and provide wash facilities suitable for the machinery you have, if needed, e.g. a drive through bath or footbaths. You should pay particular attention to caterpillar tracks and where trucks and dumpers are stowed.



An example of a temporary drive-through bath

1.5 Further guidance

[Net Regs \(Construction and Building Industries INNS guidance in Northern Ireland and Scotland\)](#)

[CIRIA Manual C679 'Invasive species management for infrastructure managers and the construction industry' \(Available for purchase\).](#)

[Wildlife and Countryside Act 1981 & Code of Practice on Non-Native Species, Wildlife and Natural Environment \(Scotland\) Act 2011](#)

[The Knotweed Code of Practice – managing Japanese Knotweed on development sites \(EA\) \(Environment Agency document - England & Wales only\)](#)

[The Non-native Species Secretariat \(NNSS\)](#)

[The Economic Cost of Invasive Non-Native Species on Great Britain 2010](#)

[Forestry Commission Scotland – Tree pests and diseases](#)

CASE-STUDY: CLYDE WINDFARM, EAST AYRSHIRE

Introduction

The Clyde Windfarm was constructed spanning two river catchments; the River Clyde in South Lanarkshire and the River Annan whose headwaters are in Dumfriesshire.

As part of early investigative work it was noted that the Clyde river catchment was inhabited by a very invasive non-native species; the North American signal crayfish, which can cause significant adverse impacts within our freshwaters, and can spread between waters either by the movement of individual animals and/or the movement of their eggs.

The status of signal crayfish within the river Annan catchment, however, was unknown, but it was flagged early on that the construction of the wind farm must not inadvertently spread them from the River Clyde to the River Annan, if they were not already present. The two river catchments were, however, hydraulically linked which could offer easy access for crayfish.

Pre-site surveys

The windfarm construction company commissioned the Annan District Salmon Fishery Board (ADSFB) to undertake a report to confirm/establish the status of signal crayfish on the Annan headwaters which were closest to the Clyde and close to the construction site (i.e. if present or not), and electrofishing, kick-sampling and trapping were carried out on four of the most vulnerable burns most likely to see accessed by signal crayfish. Results showed that although difficult to confirm with 100% certainty, it was highly unlikely that there were any crayfish in this part of the Annan.

Recommendations were made by ADSFB to undertake further surveys to prevent natural spread of signal crayfish, but also to prevent cross-contamination by civil engineering work for the windfarm (by people and machinery) across the river catchments.

Mitigation policies and procedures

The windfarm company adopted the following policies and procedures in order to mitigate risk of the spread of signal crayfish:

- Catchment boundaries were clearly marked.
- Separate plant was used for forestry felling operations in one catchment or another, or plant washed down if moved between catchments;
- A drive through wheel wash was set up at key sites to prevent potential spread between sites.