

Biosecurity Risk Assessment

**Site:
Summerhill, Wrexham**



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1. Introduction

Biosecurity means taking measures to ensure that good practices are in place to minimise the risk of importing and spreading non-native species, pests and infectious disease. As non-native species could be transmitted in any water or material, a good biosecurity routine is essential, even if invasive non-native species are not apparent.

At Summerhill, biosecurity issues concern Japanese Knotweed an invasive non-native species (INNS).

The below assessment (Table 1) outlines the activities on site with the potential to import or spread non-native species, pests and disease during the construction phase of the project and forms a series of operational precautions. The species discussed within the assessment are those either identified on site, or those considered to potentially be able to establish on site, if introduced.

Table 2 outlines the disinfection procedure to be used on site.

The site owners will be responsible for ensuring that all site contractors are given a copy of the Biosecurity Risk Assessment document. The site induction will emphasise the need to follow precautions detailed in the Biosecurity Risk Assessment document.

Table 1: Biosecurity risk assessment

Activities	Risk	Operational Precautions
Site access by all contractors	Medium – Import of invasive and non-native species for example: Japanese Knotweed Himalayan Balsam Giant Hogweed	Arrive at the site with clean footwear and vehicles. Keep access to a minimum.
Construction machinery Moving material on site and/or removal of material from the site Pedestrian access.	Low – Medium Route surveyed and no invasives species identified.	Ensure footwear and construction vehicles are clean (visually free from soil and debris) <i>before</i> leaving the site. Pedestrian access excluded from construction area.
All contractors working in/adjacent water	High - Contact with water. Any contact with water has the potential to transfer invasive aquatic species such as parrots feather and new zealand stonecrop as well as pathogens such as chytrid.	All vehicles/clothing that has been used in/near offsite water bodies to have been thoroughly disinfected before arriving on site. Wear appropriate protective clothing, which can be adequately cleaned and disinfected. Especially important for those in direct contact or physically handling animals such as amphibians, as this increases the risk of coming into contact with pathogens or infected material. Avoid contact with dead or dying amphibians. Equipment should be hosed down or pressure-washed before next project. Washings should not be allowed to enter any other watercourse or drainage system (i.e. do not put them down the drain or sink). Clean equipment should be dipped or sprayed with a disinfectant solution (e.g. Virkon) to kill diseases, but note this is unlikely to kill non-native species. Dry clothing and equipment, which should be thoroughly, dry for 48 hours

		before it is used elsewhere. Some non-native species can survive for as many as 15 days in damp conditions and up to 2 days in dry conditions.
Importing soil material	Medium - import Tree health and plant biosecurity, as well as potential hazardous substance contaminants	Procurement procedures should follow guidance in the construction code of practice for sustainable use of soils on constructions sites. Source only from a reputable supplier. Ascertain the source, type and suitability of the topsoil (natural, manufactured or skip waste) for its intended use.
Buying plants and trees	Medium - Plant disease and pests :. Chalara Ash Dieback, Phytophthora ramorum, P.kernoviae, Citrus longhorn beetle, Asian longhorn beetle, Oak processionary moth. Medium - introduction of non-native aquatic species:	Procurement procedures should follow the FERA Nurseries, Retailers and Landscapers Best Practice Protocols. Only use native plant species, sourced from reputable UK nurseries. Confirm these are not imported stock. Check for disease and pests when arrive on site.
Japanese knotweed	High – identified on site can regrow from a rhizome fragment , such as may be wedged in a boot tread. Can be spread by machinery.	4 Control techniques are summarised below: 1. Inspection and discovery A survey of the site pre commencement will be undertaken to identify locations of the plant. 2. Isolation A buffer of 7m around the plant will be created and maintained, this will be adequately fenced and signed as a no

		go area until the plant has been recognised as eradicated. 3. Chemical control Approved glyphosate herbicide application by approved person(s). 2 or 3 applications per year may be necessary to effectively control the plant, one in May, one in July and one in September. It may take 3 to 4 years before no retreatment is necessary. 4. Testing and monitoring Monitoring the effectiveness of the control method and any modification of this method that is necessary by surveying after each treatment and installing permanent photographic monitoring points. This will determine the effectiveness of the management over time.
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It is an offence under the Wildlife and Countryside Act 1981 to knowingly introduce Japanese Knotweed into the wild. Japanese Knotweed is already a major nuisance and an expensive maintenance problem.

All organisations are urged to avoid introducing this problem to new sites or spreading it, by vigilance and implementing control measures.

TABLE 2 Disinfection Procedure

Disinfection Procedure

Equipment

When disinfecting equipment the following will be required:
bucket, brush, disinfectant, disposable or washing up gloves (to wear while disinfecting), bin bags for waste and water.

Note when making up bleach or Virkon solutions, potable water is the ideal however pond/river water can be used so long as it contains little or no organic matter as this reduces disinfectant effectiveness.

Procedure

Clean all equipment: brushing off mud, plant and animal matter and hosing or pressure washing it down on site.

Disinfect: using one of the following methods:

- Soak in a bleach* solution (1 measure of household bleach to 9 measures water) for 15 mins;
- Soak in Virkon* (10 mg/ml, as per suppliers instructions) or spray for 1 minute;
- Fabrics including those worn on site can be washed on a 40oC cycle with detergent
- Rinse with clean water and allow to thoroughly dry for at least 48 hours before next use
- Dispose of disinfectant solution directly into mains drainage and flush with clean water.
- If mains drainage is not available further dilute the disinfectant and pour it onto unmade ground at least 10m away from the nearest water body.

Do not dispose of disinfectant if the drainage is connected to a septic tank, cesspit or sewage treatment plant as it could cause them to fail.

Do not dispose of disinfectant into a surface water drain as this directly connected to the local river, canal or stream. Do not dispose of disinfectant directly into a water body.

Note* always read the MSDS and COSHH assessment provided by the manufacturer and follow their instructions on storage, use and disposal. Used gloves and containers can be disposed of in the general waste.

Environment Agency

Identification Guidance

Spring

Japanese Knotweed produces shoots rapidly in spring, growing over 40mm (nearly 2 inches) a day in good weather.



The plant spreads by rhizomes (underground stems).

Each rhizome fragment can regenerate into a new plant.



Summer

Growth can be up to 2m (7 feet) tall.

It can grow through loose block-work and damages riverbank protection works, tarmacadam and paving.



Winter

Stems and foliage die back in winter to leave an unsightly mass of tangled dead vegetation.

Large above ground crowns are evident in established stands, particularly visible in winter and spring.



Bottom far right:
Spring crown growth.