



## Biosecurity Policy and Procedure

October 2016

### 1. Introduction

Thames21 is committed to good biosecurity and hygiene measures to minimise the risk of spreading invasive non-native species (INNS), diseases and parasites between water bodies.

Good biosecurity protocols are essential, even if INNS are not apparent. This is because many parasites, seeds, eggs and larvae are invisible to the naked eye and can survive for a long time out of water. Some INNS can survive for 15 days in damp conditions (eg poorly stored equipment), or up to 2 days in dry conditions. Some examples:

- Quagga mussel - larvae invisible to the naked eye
- Ranavirus - a highly infectious amphibian disease that can be transmitted by contact with infected water. It can survive a long time in the environment, even in dry material.
- Japanese knotweed – can regrow from a rhizome fragment, such as may be wedged in a boot tread.

Failure to prevent spread of an INNS from a site where it is known to be present is an offence under the Wildlife & Countryside Act, 1981.

### 2. Principles

Any site may have INNS, parasites or diseases that can be transmitted on contaminated equipment or clothes. Thames21 activities involve sharing equipment and PPE in many sites across different river catchments, which represents **high biosecurity risk**. In addition, many of our activities include INNS removal and working in areas known to contain INNS.

- Familiarise yourself with the priority non-native species and their potential methods of spread.

Identification fact sheets can be found on the GB non-native species secretariat website:

<http://www.nonnativespecies.org/index.cfm?sectionid=47>

- Avoid working in areas known to harbour plant or amphibian diseases.

### 3. Practicalities

The following biosecurity protocols should be carried out for all site visits and activities. Our activities are wide ranging so use your discretion and assess the biosecurity risks posed by the activity you are carrying out and the site you are working in.

### Basic level biosecurity:

- Ensure you arrive on site with clean equipment and footwear.
- If visiting multiple sites in a day, visit all sites in one catchment before moving to another, visit the riskiest site last.
- When practical, it is good practice to park vehicles on used tracks or hard standing away from water ways or off site. If parked on site, particularly in sites known to contain INNS, ensure tyres are free from mud and plant material before departure.
- Ensure footwear is visually clean of mud and plant material before leaving the site. Encourage volunteers and school groups to do the same with personal footwear. There is no need to disinfect footwear if you are not entering the water.
- Carry cleaning and disinfecting equipment in the vehicle at all times, even if you are not planning on entering waterbodies. You never know if someone or something may come in to contact with river or pond water unexpectedly and require cleaning/disinfecting.

### Additional biosecurity when working in freshwater:

The risk of coming into contact with aquatic pathogens or transporting invasive species increases when entering or working on the margins of freshwater bodies.

- All equipment (nets, buckets bottles, spades, anything that has been in contact with the pond or river water) and footwear should be inspected, cleaned, disinfected and dried (guidelines below). Cleaning should always be carried out when moving between sites, especially when moving between sites in different catchments.
- Take care not to transport any invasive species between waterbodies. For example, ensure there are no pockets of pooled water left in canoes or other equipment.
- If you come in to contact with potentially infectious material (dead amphibians, infected or diseased plants) handle it with disposable gloves and thoroughly disinfect all equipment, external clothing footwear and disposable gloves.

## **4. Cleaning and Disinfection Procedure**

### **You will need:**

- Brush and hoof pick
- Virkon® disinfectant tablets/powder and mixing bucket
- Disposable gloves
- Bin bags for waste
- Storage container for brushes, Virkon tablets, gloves etc that stays in vehicle.

Virkon is a DEFRA-approved, broad-spectrum disinfectant known to kill bacteria, fungi and viruses, including Ranavirus and the amphibian fungus Bd. It has a lower environmental impact than other options, however, avoid releasing it into water bodies as it is harmful to aquatic life. The manufacturer recommends disposal through the sewer system, washing down with plenty of water. On site, pour onto hard standing or onto low quality vegetation well away from the waterbody.

## **Procedure:**

### Cleaning

1. Immediately after leaving the water, clean all visible mud and plant debris off equipment and footwear using the brush, hoof pick and water from the local water body. This ensures all debris stays at the site where it was picked up.  
If equipment and footwear cannot be washed on site, carefully contain it in bin bags or buckets until it can be thoroughly washed. Take care that the washing water does not enter water courses or drainage systems – DON'T pour into surface water drains.
2. Gloves and clothes can be cleaned and disinfected by washing on a 40-60°C cycle with detergent.

### Disinfecting boots and equipment

1. Prepare a 1% Virkon solution (10g/l, as per manufacturer instructions) in the bucket. It can be done on site using water from the local water body (provided there is little/no organic matter in the water column as this reduces the effectiveness). Use as long as the solution is at least a medium pink colour (it is recommended to prepare a fresh solution each day). Wear gloves whilst preparing and using the disinfectant and avoid getting it in your eyes.
2. Soak cleaned equipment and footwear in the Virkon solution for 1-5 minutes then allowed to dry. Nets should be soaked for 10 minutes or sprayed thoroughly with 1% Virkon solution in a spray bottle, allowed to dry, then rinsed well in clean water and allowed to dry completely.  
Footwear can be quickly disinfected onsite by spraying the bases with Virkon solution in a spray bottle.

Allow all equipment to thoroughly dry out (48 hours) as this is also a method of disinfecting.

## **5. Health and Safety**

Virkon tablets/powder hazards identification:

- Irritating to skin
- Risk of serious damage to eyes
- Harmful to aquatic organisms.

The safety data sheet can be accessed here: <http://www.nonnativespecies.org/search.cfm>

## **6. Review**

This policy will be monitored and reviewed through the team meeting for the first six months; it will then be reviewed on an annual basis.

## **7. Commitment**

The organisation will consider the following over coming months:

- Catchment-specific PPE and equipment. This would reduce equipment transfer between catchments and therefore reduce the biosecurity risk.