

## Vyrnwy reserve

### Biosecurity Risk Assessment (draft for consultation)

#### Introduction:

The Levelling Up Fund section of works on the Montgomery Canal SSSI/SAC covers in channel restoration and associated bridge works, bank repairs, vegetation works and ecological enhancement. The stretch of canal encompassed by the LUF works, runs from Llanymynech to Arddleen, with some works south of Welshpool.

The works are the construction of an open water reserve (comprising two backwater features with constructed bar features, chute channels and island) connected to the River Vyrnwy, which over time will allow associated wetland habitat to develop. Excavated soil will either be used as part of adjoining landscaping/slope stability works or taken off site for disposal.

Himalayan Balsam is present along the River Dee and Montgomery Canal, with other species such as Signal Crayfish and Crayfish plague, invasive shrimp, giant hogweed present within the wider area. For these works to take place, a rigorous biosecurity programme must be followed to control the spread of these Invasive Non-Native Species (INNS) and ensure no new invasive species are introduced to the site or wider area.

#### Description of Works:

Table 1: Details of project works

Description of Works	OS Grid Reference	Nearest Post Code	Approximate Timing of Works
Construction of Vyrnwy open water reserve	the central NGR for the site is 325806 319509	SY22 6PG	July 2025 – Autumn 2025

### Bio-Security Risk Assessment & control measures

#### General risk statement:

As the works are water- and land-based, both aquatic and terrestrial invasive species are of concern. Both staff and equipment will be visiting site from other areas of work so incoming transference of non-natives is a possibility without implementing appropriate biosecurity measures.

Himalayan balsam has been identified as present along the northern site boundary and along the Montgomery Canal. No other INNS are known to be present within, or around, the worksite. There is always the potential for other invasive species to appear, such as introduction from contractors as well as wildlife vectors.

## Bio-security actions to prevent the spread of invasive non-native species (To be incorporated into Works Instructions to the Contractor).

### A: General considerations

The movement of equipment and staff onto site from other sites is one of two key risk areas associated with the works. Check Clean Dry principles must be implemented for all staff, PPE and plant & equipment arriving at site from other work areas to ensure no accident transfer of invasive plant or animal material.

Ensure all equipment, vehicles, tools and clothing are clean of soil and vegetation before they are allowed onto site. This cleaning can be by washing or sweeping with a stiff brush and will be undertaken away from the water. Runoff will be to soakaway on hard-standing or grass areas. Any soil and vegetation taken off will be bagged and disposed off-site.



Known areas of invasive plants close to the working area will need to be identified and highlighted on site. The Ecological Clerk of Works will survey the site during the growing season before the works start and record any INNS species in the area.

Other invasive plants could appear for various reasons and vigilance of INNS is key. All staff must be briefed on the recognition of the most likely invasive plants, and instructed to report them if spotted, so that the works can avoid them.

Following Check, Clean, Dry protocols, all plant, equipment, tools and clothing will be cleaned before being taken onto site and before removing it from site to another work location. It will all be left to thoroughly dry before being taken offsite. Extra care must be taken with machinery, tools and boots/clothing that has been in the canal.

- A check and washdown facility must be set up on site to review machinery brought in and to facilitate the cleaning and drying of machinery before it is taken offsite. This will need to be away from the canal and allow soakaway into hard standing. It will be clearly demarked and only be used for checking and cleaning (no storage). Any material washed off, will be collected and allowed to compost in a specifically allocated area. The arisings will be checked by the Ecological Clerk of Works for any INNS that start to grow.
- A boot/clothing and tool cleaning facility must also be installed to prevent contaminated soil/mud being moved around the site, or offsite. This will be set up at the access points between the site compound and the working area.

### B: Site-specific considerations

There is the potential for disturbed fragments of invasive plants to be dispersed downstream from the working area. As the terrestrial works start, there is also the risk of terrestrial plants (main issue is Himalayan balsam) or soil containing seed, being disturbed and transported around the site. We must take preventative action to reduce dispersal as far as practical:

#### Himalayan balsam

- The areas of canal and river that have balsam present and are within the working area will be demarked clearly. As movement of soil containing Himalayan balsam is required,

a management plan will be required to ensure this soil is not transported across the wider site, as this will result in balsam potentially being spread across the whole site. Soil containing balsam material must be managed separately to soil excavated from elsewhere in the site. Those areas containing balsam material must be logged and included in a long-term invasive species treatment plan, to ensure any existing or new invasive species are controlled.

- Himalayan balsam is spread through the seed bank present in the soil and from exploding seed pods on mature plants from mid-July, which can spread seeds up to 7m from the original plant. The plant will be growing from March onwards, so prior to beginning works including ground disturbance and vegetation clearance, clearance by hand-pulling of new growth of Himalayan balsam should be carried out. Appropriate biosecurity measures should be implemented during this stage to ensure the plant is not spread further. Removed balsam plant material will be retained on site in a separate compost pile and allowed to decompose without disturbance.
- Vegetation clearance in areas where balsam has been present (but has been removed) will be undertaken at an appropriate time but done last on site to reduce the chance of the plant being spread around site.
- Any balsam plant material remaining will be separated and left in the same area it is present on site.

No machinery, tools or equipment will immediately be taken offsite. It must be checked; then cleaned and dried before if needed. This includes handheld tools. Extra care must be taken with boots that may carry mud and vegetation debris. Washdown stations for boots are required.

All machinery, tools, equipment and clothing that is used in the canal must have extra attention paid to Check, Clean, Dry efforts after it is no longer needed and is due to be taken offsite. Ideally everything will also be sprayed with a disinfectant (like Virkon S) as well.