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Feeder Pipe Bridge Replacement, Abercynon Invasive Species Survey

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Introduction and background

Temple was commissioned by Rhondda Cynon Taff Borough Council in January 2023 to undertake a Preliminary Ecological Appraisal (PEA) walkover survey at the site of the proposed feeder pipe bridge, Abercynon. During the survey, the invasive species Japanese Knotweed (*Reynoutria japonica* syn. *Fallopia japonica*) was found to be present on site. Japanese knotweed is listed under Schedule 9 of the Wildlife and Countryside Act. Following on from this a full survey for invasive non-native species was undertaken to identify and map the areas where Japanese knotweed is present.

The site spans the river Taff, with both ends of the existing structure bounded by woodland on each bank. The river runs between the A470 and A4054 roads at the site (Grid Reference ST 09208 95484) and is approximately 1km northeast of the town of Abercynon. The Site comprises of the remnants of the old bridge, including 3 intact but disused ironwork pipes, and associated stone piers and abutments. The dominant habitat on site is semi natural broadleaf woodland. The Site is not part of any statutory designations however, 2 non-statutory designations, river, and lowland mixed deciduous woodland are present on site and are listed under Section 7 of the Environment (Wales) Act 2016. Additionally, the river and Ancient semi-natural woodland are also present on site and are priority habitats.

Methodology

A suitably experienced ecologist carried out an inspection of the Site for the presence of invasive plant species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) on 7th March 2023. The survey covered the entire site, including boundary features. The habitats



within the Site and locations of any invasive plant species were marked on a paper base map and subsequently digitised using ESRI ArcGIS software.

Limitations

- It should be noted that, whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.
- Given the time of year at which the survey was undertaken, it may still be possible that plants may be present which were not visible at the time of survey.

Legislation

Certain species of plant, including Japanese knotweed, giant hogweed and Himalayan balsam are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Such species are generally non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to plant or otherwise cause these species to grow in the wild.

How is the legislation pertaining to invasive plants liable to affect development works?

Although it is not an offence to have these plants on your land per se, it is an offence to cause these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this happening prior to the commencement of works.

Invasive species survey results

A stand of Japanese Knotweed *Reynoutria japonica* syn. *Fallopia japonica* was recorded in a number of locations. The main 2 stands that are within the works area are a small stand found growing within woodland approximately 15 metres from the river, on the northwest bank of the site, and a larger area stretching along the northwest bank of the river between the two areas of Ancient Woodland (Appendix 2, Photographs 1 - 3).

No other Schedule 9 invasive plant species were recorded on site during the survey, however due to the time of year that it was undertaken it is possible that further invasive species are present and they are unable to be identified at present. It would be advisable to undertake a further check once the vegetation is further along, prior to the start of works.



Japanese Knotweed has green shoots, emerging in early spring, afterwards, the hollow stems remain green but develop red or purple specks, as they grow in dense cane-like clumps to a height of 2 to 3 metres. The leaves are flattened at the base, with a pointed tip, and grow alternately up the stem. The leaves can be 120cm long and the dense canopy they form shades out other plant species. Hanging clusters of small creamy-white flowers are produced in August to October. In winter, the stems remain, turning woody and orange/brown in colour. They can remain upright for many years. Japanese Knotweed spreads by thick and woody underground rhizomes, which can extend 7 metres horizontally and 2 metres deep. Cut stems, but particularly rhizome fragments as small as 10mm can produce new plants, spreading via watercourses, machinery, fly tipping, contaminated soil, or garden waste. The plant is capable of growing through tarmac and through cracks in concrete and walls.

Recommendations

Japanese Knotweed, *Reynoutria japonica* syn. *Fallopia japonica*, is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) which is a list of non-native species that cause concern to UK biodiversity. Under section 14 of the Wildlife and Countryside Act 1981 (as amended) it is illegal to release or cause to spread any species covered by Schedule 9, including in soil waste.

A variety of control measures are available such as herbicide treatment, physical removal, and disposal as hazardous waste/controlled waste:

- Herbicide treatment alone is unlikely to entirely eradicate the plants due to the rhizomes and may take many years of treatment to prevent regrowth. Glyphosate-based herbicides are usually used to treat Japanese Knotweed. Given the close proximity of the Japanese Knotweed to the river Taff, there are likely to be restrictions on herbicide use and additional permits are potentially required. Permission/permit would be required from the relevant agency after submission of form AqHerb01: Agreement to use herbicides in or near water.
- Physical removal comprises principally of cutting the stems and excavation of all root material. All Japanese Knotweed material and any soil waste containing Japanese Knotweed is to be removed as controlled waste to licensed landfill. Stem cutting will not stop stem growth, so is only a temporary measure, and is best utilised with herbicide treatment. Stems should be cut cleanly to prevent any splintering and stacked on a membrane to avoid direct contact with soil or grass whilst they dry out. Once the stems



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have dried out they are dead, unlike the rhizomes and any crown material. Do not trim, flail or mow Japanese Knotweed.

A specialist contractor should be contacted to advise on the most suitable method of treatment for the site.

For vehicle and pedestrian access through the site a zone should be created for wheel washing and boot washing/scrubbing, which will need to be strictly observed to avoid the potential movement of any Japanese knotweed from the area into the wider site.



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Appendix 1: Existing Site Plan and Invasive Species Locations

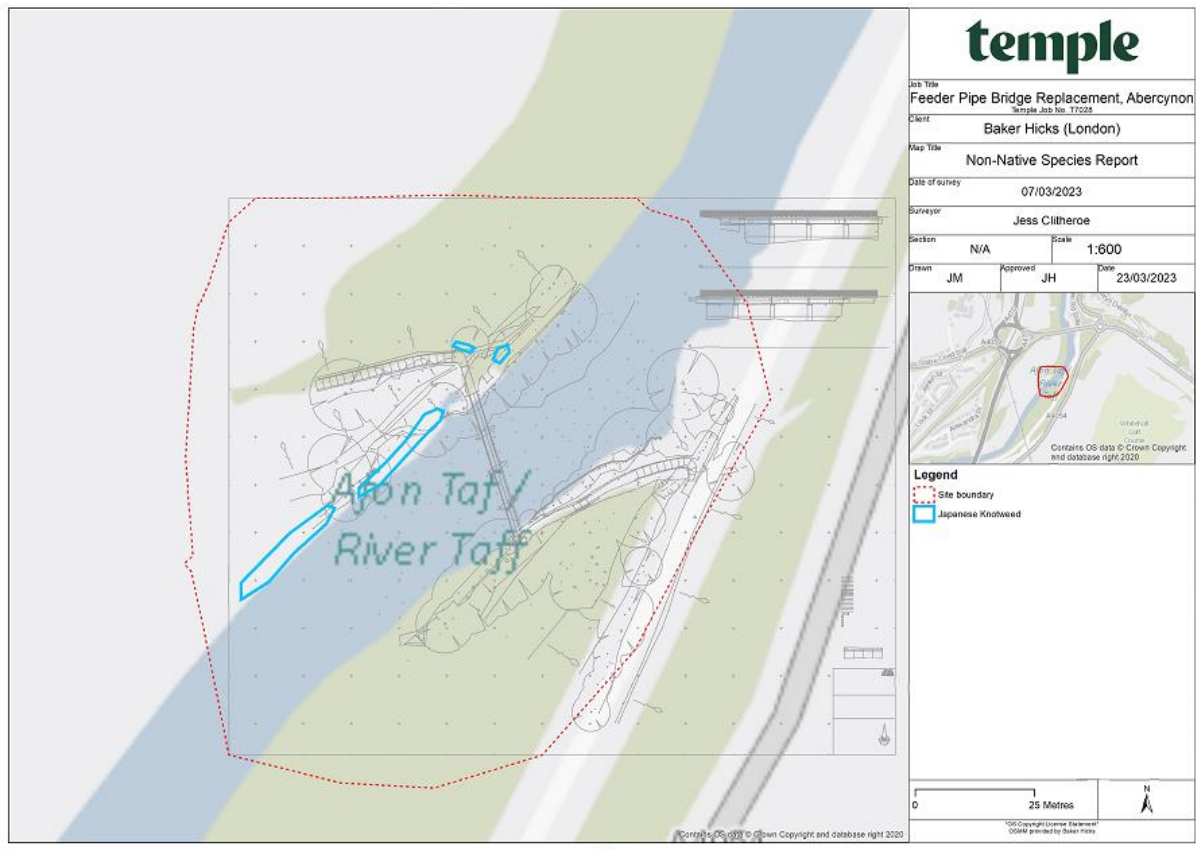


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Figure 1: Existing Site Plan and Invasive Species Locations





Appendix 2: Photographs



Image 1

Location of main stand of Japanese Knotweed, on the northwest bank. This is the area where the current access track will pass through.



Image 2

Japanese Knotweed, *Reynoutria japonica* syn. *Fallopia japonica*, on the northwest bank. View from river bank by bridge



Image 3

Close up of Japanese Knotweed on the area adjacent to the river

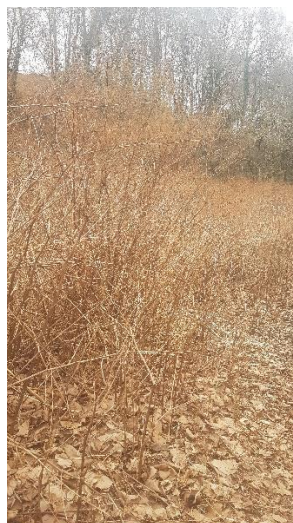


Image 4
Japanese
Knotweed on
bank above river
upstream from the
bridge on the
northern side

