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The
Ecology Consultancy

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. However due to access restrictions at the time of survey an inspection of the land on the south side of the river was not possible. A further survey was instructed in November 2023 once access was obtained to undertake a full investigation of this additional area.

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, with a further survey taking place on 30th November 2023. The surveys together 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 times of year at which the surveys were undertaken, it may still be possible that plants may be present which were not visible at the time of surveys.

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 on the north side of the river 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 - 4). A smaller area close to the bridge abutment on this side was also identified (Appendix 2, Photographs 5 – 6).



The secondary survey in November 2023 identified a wide area of Japanese Knotweed encompassing the majority of the centre of the area marked out for the potential compound. (Appendix 2, Photographs 7 – 8).

No other Schedule 9 invasive plant species were recorded on site during the surveys, however due to the times of year that they were 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.



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

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



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Appendix 1: Existing Site Plan and Invasive Species Locations



Appendix 2: Photographs



Image 1
Japanese Knotweed,
Reynoutria japonica
syn.
Fallopia japonica,
on the
northwest
bank.



Image 2
Japanese Knotweed
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 the
bank
above
river
upstream
from the
bridge on
the
northern
side.



Image 5
Japanese Knotweed
on the
bank
directly
above
bridge
abutments
on the
northern
side of the
river.





Image 6
Japanese Knotweed on the bank directly adjacent to the bridge on the northern side.



Image 7
Japanese Knotweed within whole central area of the site on the south side of the river.





Image 8
Japanese
Knotweed
close up
within
southern
section of
the site.

