

Walters Land

Former Hoover Works Merthyr Tydfil

**Treatment of Invasive Non Native Species
Japanese Knotweed**

Technical Note

260212/HP/19/TN/V1

February 2026

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**SPECIFICATION FOR TREATMENT
OF INVASIVE PLANTS AT FORMER HOOVER SITE
MERTHYR TYDFIL**

1.0 PREAMBLE

This document is for the treatment of non-native invasive plants and Japanese Knotweed with herbicide. The Contractor will be required to apply herbicide to all stands of Japanese Knotweed in order to achieve the full dieback of the vegetation in the 2026/2028 growing seasons.

- 1.1 A site remediation/reclamation strategy has been developed and this includes excavation of the top of the existing ground, reprocessing of the excavated materials, removal off-site of unacceptable deposits and then re-using the suitable materials. All earthworks are to be undertaken in general in accordance with the DTP Specification for Highway Works.
- 1.2 The Conditions of Contract for the site remediation/reclamation works are to be the ICE 7th Edition.
- 1.3 Areas of the site are affected by Japanese Knotweed, but these do not form part of the main site and are located the other side of the Cardiff to Merthyr Tydfil Railway line on the banks of the river Taff. If invasive plants are encountered within the main site the recommendations and procedures within this document will apply. As part of the works, the Principal Contractor, responsible for the required ground remediation/reclamation works, will also be expected to achieve full die-back of Japanese Knotweed and/or removal of materials affected by Japanese Knotweed prior to the proposed housing development.
- 1.4 The works outlined in this document deal only with the Japanese Knotweed element of the works. With regard to the Conditions of Contract, agreed costs, payment schedule etc., all of these should form a part of the main Contract for the entire site reclamation/remediation works.
- 1.5 The Client, as for the main remediation/reclamation works, for treatment and eradication of the Japanese Knotweed requires a 'lump sum' cost from the Contractor to deal with this element of the works.
- 1.6 The Contractor shall submit written Method Statements detailing the proposed treatment of various areas of the site affected by Japanese Knotweed including those adjacent to the water courses and ponds. A firm 'lump sum' cost for the execution of the proposed treatment shall be supplied by the Contractor.
- 1.7 A detailed written Method Statement provided by the Contractor shall describe the means by which the Contractor intends to fulfil the requirements with regard to the complete die-back and eradication of Japanese Knotweed. Information shall be supplied with regard to type (s) of herbicide to be used, rates of application, the estimated dates of herbicide applications.
- 1.8 The approximate site location and site boundaries are shown on Figures 1 and 2. It should be noted that on Figure 3 only approximate main areas affected by Japanese Knotweed are indicated and there may be other areas with Japanese Knotweed infestation which have not been identified and shown on the drawings. The Contractor is deemed to have visited the site and satisfied himself as to the full extent of areas requiring treatment.

2.0 PRELIMINARIES AND GENERAL CONDITIONS

2.1 THE PARTIES, THE SITE AND SCOPE OF WORK

Name of Parties

Employer : Walters Land

Supervising Officer : Intégral Géotechnique (Wales) Limited

2.2 LOCATION OF THE SITE

The site is located off A4054 Merthyr Road Pentrebach Merthyr Tydfil. For site location and boundaries, see Figures 1 and 2.

2.3 SITE VISIT

The Contractor shall be deemed to have visited the site and made himself fully familiar with site conditions and restrictions. No additional costs based on lack of knowledge of site conditions or the extent of Japanese Knotweed will be entertained.

2.4 GENERAL DESCRIPTION OF THE WORKS

2.4.1 In summary, the required works with respect to full dieback of the Japanese Knotweed shall include the following:

- (i) The erection, maintenance and removal of any temporary fences, barriers and warning signs necessary for public and employee safety and also to ensure that cross contamination during site activities does not take place.
- (ii) The treatment of all stands of Japanese Knotweed within the site boundaries.
- (iii) The complete dieback of all stands of Japanese Knotweed vegetation, initially with application of herbicide and then if not successful by excavation and removal off-site of the affected materials.
- (vi) Traffic management as appropriate.
- (v) Adherence to conditions or restrictions imposed by the various landowners or statutory authorities.

2.4.2 The works consist of the application of herbicide to the Japanese Knotweed supplemented by excavation to remove the roots which shall be treated separately, in order that the vegetation dies back fully in all areas during the 2026 to 2028 growing seasons. The contract remains in force until full dieback has been achieved and agreed with and approved by the Supervising Officer.

With regards to Japanese Knotweed, the first application of herbicide shall be carried out in early Spring 2026, as early as possible after the initial regrowth of the Japanese Knotweed and identification of the affected areas requiring treatment.

The site has differing densities of Japanese Knotweed cover. The knotweed is also present in different environments at the site (near watercourse and inland). It is intended that all Japanese Knotweed within the site boundaries is treated, either in-situ or ex-situ where retention of green belt areas limits the ability to excavate the plant.

For the purposes of this contract, the effectiveness of the treatment shall be assessed as follows:

- (a) At the commencement of the Contract, the areas of Japanese Knotweed to be treated shall be agreed with the Supervising Officer with any additional areas identified during the works being again agreed with the Supervising Officer.
- (b) Where necessary, and as agreed with the Supervising Officer, the Contractor will mechanically strain or trash last year's dead growth before any spraying takes place.
- (c) The success of treatment following the first application of herbicide shall be assessed by a site inspection attended by the Contractor and the Supervising Officer three (3) weeks after treatment. Any Japanese Knotweed that has not died back fully will be identified, agreed and marked on a drawing.
- (d) Further application(s) of herbicide may be required based on the results achieved after the first application of herbicide. Any Japanese Knotweed identified as not having died back fully after the first application (2.4.1a) will require further application(s) no longer than 4 weeks after the first application in order to achieve full dieback of all Japanese Knotweed vegetation.
- (e) If it is evident that the further applications of herbicide have not achieved full dieback of the Japanese Knotweed, the Supervising Officer will instruct the Contractor to carry out excavation works to remove the Japanese Knotweed roots. Under the supervision of the Supervising Engineer, the Contractor will excavate defined areas to a depth of not less than 2m and pan all excavated material through appropriate screens. All roots and other evidence of vegetation shall be handpicked and removed to a designated area of the site, the location of which is to be advised. At this secure location, any observed regrowth shall be sprayed with herbicide.
- (f) The screened soil shall be set aside and regularly examined (weekly) for signs of the Japanese Knotweed growth. Where regeneration of the Japanese Knotweed is identified, further spraying shall take place. The screened soil shall not be used as fill material until it is confirmed by the Contractor and Supervising Officer that it is appropriate to do so. The treated roots shall be stockpiled on site at a designated area (the location of which is to be advised) until disposed off site by a suitably experienced and licensed contractor to an appropriate waste disposal facility.
- (g) Following completion, the Contractor shall undertake long-term monitoring (term to be agreed) of treated areas to ensure invasive species are effectively controlled.

3.0 SPECIFICATION

3.1 The Works Generally

3.1.1 Compliance with Specification

All workmanship and materials shall be in accordance with the Clauses of this specification or amendments and with good horticultural practice. Any variation required by the Contractor shall be agreed with the Supervising Officer in writing.

3.1.2 Workmanship and Materials

A high standard of workmanship and materials is required, as set out in the specification. Any workmanship or materials that are not, in the opinion of the Supervising Officer, up to standard shall be redone at the Contractor's expense.

3.1.3 Competent Employment

The Contractor shall keep a competent foreman, approved by the Supervising Officer, in charge of the treatment works who is easily contactable by telephone to provide adequate and full supervision of the standard and progress of the works in accordance with the conditions of contract.

3.1.4 Contractors Alternative Proposals

If, during the Contract period, the Contractor wishes to substitute any materials or workmanship other than set out in this specification or within his method statement, he must ensure that it is to an equal or higher standard than that originally agreed. The agreement of the Supervising Officer to such substitution does not relieve the Contractor of any of his responsibilities in this respect. Any additional, unforeseen costs incurred by the Employer due to such substitution shall be ascertained by the Supervising Officer and deducted from the Final Account.

3.1.5 Suspension of Works: Inclement Weather

No reason for suspension of the work will be entertained other than inclement weather or the latest date for spraying having been exceeded. In the case of inclement weather all reasonable steps must be taken to avoid delays, whilst ensuring the effectiveness of the treatment. In particular the Contractor should not spray herbicide when there is sufficient breeze to cause the spray to drift off site.

3.1.6 Water

The Contractor shall make his own arrangements for any water required to execute the Works.

3.2 SITE CLEARANCE/PREPARATION

3.2.1 Litter/Debris

The Contractor shall be responsible for the removal of all debris, litter and noxious substances in the location of the Japanese Knotweed, caused by the works.

3.2.2 Identification of Japanese Knotweed

The Contractor shall agree the positions of all areas of Japanese Knotweed with the Supervising Officer prior to the commencement of the treatment. Any additional or newly arising stands of Japanese Knotweed shall be similarly noted and agreed with the Supervising Officer.

3.2.3 Deviations and Tolerances

Any deviations from the anticipated area that are found on site shall be reported to the Supervising Officer. Adjustments to quantities or areas to make up any discrepancies shall be agreed with the Supervising Officer and confirmed in writing before any action is taken.

3.2.4 Adverse Ground Conditions

The Contractor shall inform the Supervising Officer of any previously unidentified watercourses, active culverts or any variation in the ground conditions from those previously encountered.

3.3 HERBICIDE CONTROL

3.3.1 Good Practice

All products and workmanship are to be as follows:

3.3.2 Suitable for the purposes of the Works stated in, reasonably to be inferred from, the Contract Documents.

3.3.2 In accordance with good horticultural practice, including the relevant provisions of current BSI documents. The application of any herbicide shall be by Contractors with a recognised Certificate of Competence as required under the Food and Environment Protection Act. The Contractor must comply with the Code of Practice for Suppliers of Pesticides to Agriculture, Horticulture, and Forestry (HMSO 1990) and, Pesticides. Code of Practice for the safe use of Pesticides of Farms and Holdings (HMSO 1990).

3.3.3 All equipment, containers, and materials, are to be kept in a secure place when on site and not in use. All empty containers are to be removed from the site at the end of each day.

3.3.4 All operatives shall be certified to carry out weed control or be under the supervision of a certified person.

3.3.5 All operatives shall remove contaminated clothing at a designated decontamination area, the location of which is to be advised.

3.3.6 All vehicles leaving treatment areas shall be decontaminated at a designated wheel wash area, the location of which is to be advised.

3.4 Manufacturer's Recommendations

3.4.1 The Contractor shall handle, store, prepare and use each pesticide in accordance with manufacturer's conditions of approval relating to the use on the attached product label or accompanying leaflet, printed or written recommendations/instructions. He shall inform the Supervising Officer if these conflict with any other specified requirement.

3.4.2 The recommendations/instructions are those which are current ten working days before the date of tender. If they change between tender and implementation the Contractor shall inform the Supervising Officer and obtain instructions before ordering materials or starting work.

3.4.3 The Contractor shall submit copies of manufacturer's recommendations to the Supervising Officer when requested.

- 3.4.4 The Contractor shall ensure that all operatives read and follow carefully the manufacturer's instructions

3.5 Products

Products are to be new. The Contractor shall ensure that the whole quantity of each product and material required to complete the work is of consistent kind and quality. He shall handle and store the products with care to ensure that they are not damaged when applied to the work. Only adjuvants listed by the Ministry of Agriculture Fisheries and Food (M.A.F.F.) and those tank mixes approved by M.A.F.F. should be used.

3.6 Single Sources

Where a choice of manufacturer or source of supply is allowed for any particular product or material, the whole quantity required to complete the work must be of the same type, manufacturer and/or source. The Contractor shall produce written evidence of sources of supply when requested by the Supervising Officer.

3.7 British Standard Products

Where any product is specified to comply with a British Standard for which there is no equivalent European Standard it may be substituted by a product complying with a grade or category within a national standard of another member State of the European Community or an international standard recognised in the UK specifying equivalent requirements and assurances in respect of material, safety, reliability, fitness for purpose and where relevant, appearance. Notify the Supervising Officer of all such substitutions in advance of ordering and submit for approval documentary evidence confirming that the products comply with the specified requirements. Any submitted foreign language documents must be accompanied by certified translation into English.

3.8 Herbicide Treatment

Carefully calculate and calibrate the amount of spray according to the area in order to minimise the problem of surplus diluted spray.

3.7 Records

The Contractor should ensure that adequate records of all operations involving pesticide application are kept and retained for at least three years after the end of the contract.

3.9 Toxicity

No chemical shall be used which has persistent characteristics that renders the ground or vegetation toxic and unsuitable for landscape improvements for more than 2 years.

4.0 NON-HERBICIDAL CONTROL

4.1 Trashing of Japanese Knotweed

- 4.1.1 Any trashing of Japanese Knotweed involving the use of agricultural implements, strimmers or other cutting devices should be to the approval of the Supervising Officer. The Contractor should ensure that the operators of any such implements are properly trained in the use and safety of those implements.
- 4.1.2 During the course of any trashing of Japanese Knotweed the Contractor will take care to avoid any disruption or fragmentation of the ground surface, topsoil or subsoil.
- 4.1.3 All operatives shall remove contaminated clothing at a designated decontamination area, the location of which is to be advised.
- 4.1.4 All vehicles leaving treatment areas shall be decontaminated at a designated wheel wash area, the location of which is to be advised.

5.0 TYPES OF TREATMENT - METHOD STATEMENT

Treatment methods can be selected from the following Control Strategies. Alternative strategies may be proposed by the Contractor.

5.1 Herbicidal Control

5.1.1 Introduction

This section of the specification the control strategies using herbicides.

Details of the herbicide application methods are given.

Japanese Knotweed flowers between August and October when it is attractive to bees. Where spraying of flowering Japanese Knotweed is required, spray in late evening.

'Away from watercourses' in the following clauses mean at a distance where no risk of the chemical reaching watercourses exists. From experience of other sites, the Environment Agency/NRW are likely to require a distance of approximately 20m from the stream, however confirmation of this is to be obtained by the Contractor prior to commencement of the works.

5.1.2 Control Strategy 1

Non-Persistent Herbicides

Applicability: Land away from watercourses on bare ground or established grassland of no nature conservation value.

Timing: Apply as foliar spray when shoots have fully-open leaves (i.e. late Summer/early Autumn for Japanese Knotweed) and are in active growths. If shoots are above 1.5m tall or obscured by tall dead stems so that thorough application is impossible, trash down the vegetation to form 'inroads' and apply foliar spray.

Application rate and spray method: As stated by manufacturer for Japanese Knotweed

Follow-up: Re-assess 3 weeks following first application (see Clause 1.4.2c). Re-apply to remaining living vegetation until vegetation has fully died back if required.

5.1.3 Control Strategy 2

Non-Persistent Herbicides

Applicability: On bare ground or vegetation to be killed in areas not away from watercourses.

Approved for use as directed near watercourses.

Timing:	Apply as foliar spray when shoots have fully open leaves (i.e. late Summer/early Autumn for Japanese Knotweed) and are in active growth. If shoots are above 1.5m tall, or obscured by tall dead stems so that thorough application is impossible, trash down the vegetation to form 'in roads' and apply foliar spray.
Application rate and spray method:	As stated by manufacturer for Japanese Knotweed and/or Himalayan Balsam, perennial weeds or woody weeds. A wetting additive approved by the manufacturer (e.g. "Mixture B") shall be used to improve herbicide uptake. Where application is to be made in the vicinity of vegetation to be retained, the Contractor shall select a method which ensures the protection of desirable plants, e.g. weed wiper or herbicide glove.
Follow-up:	Re-assess vegetation 3 weeks after first application (see Clause 1.4.lc. Re-apply until complete dieback of Japanese Knotweed vegetation has been achieved.

5.2 Mechanical Clearance and Control

5.2.1 Trashing and Clearance

Where required before spraying, cut Japanese Knotweed to within 50mm – 150mm of ground level using trimmers, hand tools or mechanical mowers. The Contractor shall take all measures necessary to prevent cut material from being washed into watercourses or contaminating adjacent land. The cut material shall be collected and stockpiled in a designated treatment area on site, the location of which is to be advised.

5.3 Excavation to Remove Roots

- 5.3.1 When instructed by the Supervising Engineer, the Contractor will carry out excavation works in defined areas to remove Japanese Knotweed roots. Excavations shall extend to at least 2m depth. These excavations will be required in areas of the site where there has been insufficient period for herbicide spray to be fully effective and where the ground needs to be excavated in order to carry out the necessary ground remediation/reclamation works within the agreed overall programme.
- 5.3.2 The materials arising from excavations shall be passed through screens to remove all roots and vegetation which shall be handpicked and taken for storage at a designated area on site, the location of which is to be advised. Any regrowth observed within screened roots and vegetation shall be sprayed in accordance with Clause 5.1 above before being removed to an approved licensed disposal site.
- 5.3.3 Screened soil shall be stockpiled in approved locations (locations to be advised) and checked for Japanese Knotweed regeneration on a weekly basis. Any regenerated Japanese Knotweed shall be treated in accordance with Clause 5.1. The stockpiled material shall not be used for filling until the Contractor and

Supervising Officer have agreed that further treatment is unnecessary.

- 5.3.4 The base of the excavation shall be left open for a minimum of two weeks to establish if any Japanese Knotweed is present at this lower level. If instructed by the Supervising Officer, the Contractor will treat the base of the excavation in accordance with Clause 5.1.

6.0 DISPOSAL

6.1 Removal of Arisings and Tidiness of the Works

All rubbish, debris and surplus materials other than vegetation, arising from the Works shall be removed from the site as they accumulate, to a licensed disposal site approved by the Supervising Officer.

6.2 Removal of Vegetation

Cut vegetation both green and poisoned shall be left on site. Extreme care shall be taken to ensure that no live fragments of Japanese Knotweed are dropped on, or carried to, another site, or allowed to enter watercourses.

6.3 Chemicals

6.3.1 Surplus diluted spray should be disposed of either in a water authority approved soakaway well away from any drains or watercourses or on an area of uncropped land signposted and fenced to exclude people and animals. The Contractor should dispose of unwanted concentrated material via an approved specialist waste contractor.

6.3.2 The Contractor shall immediately notify the Supervising Officer, and the EA/NRW where applicable, of any spillages of pesticides liable to contaminate water bodies or areas of vulnerable planting.

6.4 Fires

6.4.1 The siting of fires shall be agreed with the Supervising Officer.

6.4.2 Fires shall only be permitted where and when they will cause minimum nuisance to the public, and will not cause danger for road and rail users or damage to property, trees or other vegetation to be retained.

6.4.3 No fires shall be left unattended.

7.0 DEFECTS

WORK PRIOR TO PRACTICAL COMPLETION

7.1 Make Good

This means that the Contractor shall carry out local remedial work, including the replacement of fences and rails, damaged kerbs and paving, replacement of damaged drains, lights and other services, as appropriate and necessary to leave the work sound and neat to approval at the end of each treatment.

WORK AT COMPLETION/MAKING GOOD DEFECTS

7.2 Making Good Damage

The Contractor shall make good all damage consequent upon the work.

7.3 State of Works

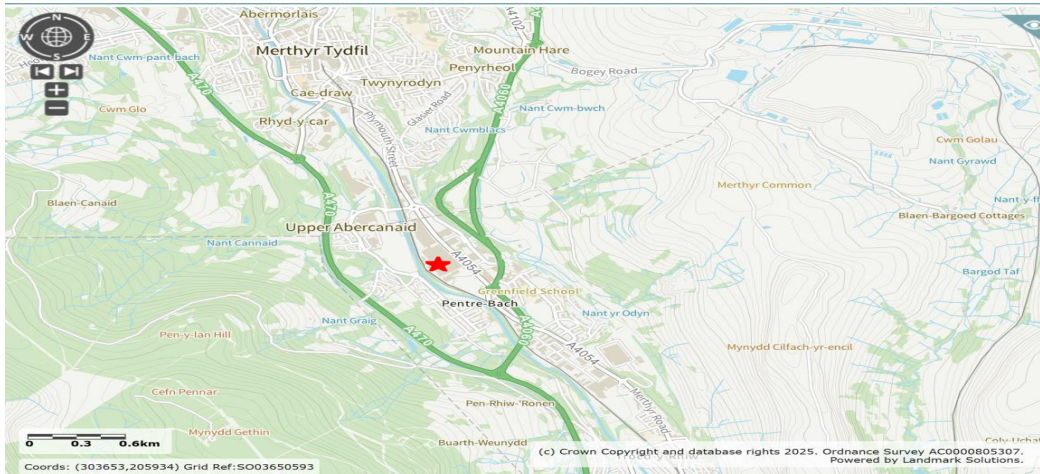
The Contractor shall ensure that the works are left in a clean and tidy condition at the end of the Contract.

7.4 During the defects liability period the Contractor shall treat any residual, persistent areas of Japanese Knotweed that has not fully died back to the satisfaction of the Supervising Officer at the Contractor's expense.

7.5 The Contractor shall undertake an agreed period of long term monitoring (the duration of which is to be advised) to ensure invasive species are effectively controlled. The long term monitoring shall cover all treated areas of the site and the designated decontamination and waste stockpiles treatment areas.

The Site

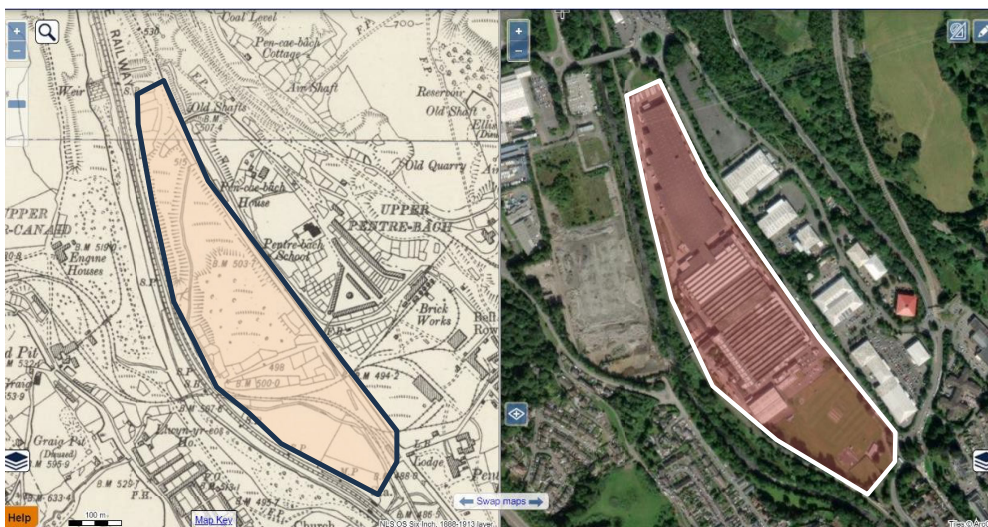
Figure 1



Site Location Plan

Former Hoover Works Merthyr Tydfil

Figure 2



Invasive Species

Invasive Species

Several stands of invasive species were located throughout the site. All of these areas have been marked on the map using target notes. Rockspray cotoneaster was located in multiple areas throughout the site. The greatest density of stands was located along the southern boundary of the old car park to the east (TN2). A smaller stand was located along the eastern boundary of this car park (TN1) along with snowberry (*Symphoricarpos albus*). Two small areas of rockspray cotoneaster were found along the site boundaries of the main Hoover site. One was located on the eastern site boundary (TN4) and the other was located on the western site boundary (TN5).

Photo 1: Large area of rockspray cotoneaster present in the old car park to the north of the site (TN1).



In an area of scattered scrub behind the cricket club main building there were several small areas of bamboo shoots (TN10). It was not possible to identify the species at the time of survey because there was very limited growth.

Montbretia was located within the introduced shrub hedgerow around the bowling green (TN11). It was interspersed within the understorey vegetation in this location.

Himalayan balsam was found within the dense scrub bordering the cricket field along the western site boundary (TN12). It was noted throughout the scrub in patches. Full mapping of its extent within the scrub was not possible due to the density of the vegetation present.

Photo 2: Himalayan balsam present within the dense scrub on the western boundary of the cricket field (TN12).



Target notes for site are summarised below:

- TN1: Small area of rockspray cotoneaster located along the eastern boundary of the car park.
- TN2: Large area of rockspray cotoneaster located along the southern boundary of the car park.
- TN4: Area of rockspray cotoneaster located along the eastern boundary of the main site.
- TN5: Small area of rockspray cotoneaster located along the western boundary of the main site.
- TN10: Small shoots of bamboo growing within the scattered scrub beneath the trees behind the main cricket club building.
- TN11: Montbretia present within the cherry laurel hedgerow surrounding the bowling green to the south of the site.
- TN12: Himalayan balsam present in areas throughout the dense scrub along the western site boundary of the cricket field.
- TN13: Area of Japanese knotweed on the east back of the River Taff. This was identified in doc: GC4005-RED-74-XX-RP-L-0001 and was found to still be present.

Figure 3

