

JAPANESE KNOTWEED MANAGEMENT PLAN

Herbicide Treatment Program

Site Address: Pant Road Dwellings, Merthyr Tydfil

Reference: TT60082

Client Name: Merthyr Motor Auctions

Date Surveyed: 27/08/2020

Report Prepared By: Rob Higgins

JAPANESE KNOTWEED...

KNOT A PROBLEM!

This survey report has been produced in accordance with the
Environment Agency 'The Knotweed Code of Practice' 2013v3

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DUTY OF CARE:

JAPANESE KNOTWEED AND YOUR OBLIGATIONS

Japanese knotweed needs to be handled in a responsible manner to protect the environment and prevent property risk, and any works conducted to control or eradicate this invasive weed should be completed in accordance to the Environment Agency's 'The Knotweed Code of Practice' 2013 (version 3).

The spread of Japanese knotweed is governed under the Wildlife and Countryside Act 1981 / Wildlife (Northern Ireland Order 1985. Part I (Wildlife – Miscellaneous, Section 14, Clause 2 of the Act states: ... if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence. Schedule 9 (animals and plants to which section 14 applies, Part II (Plants lists Japanese knotweed. It is therefore a defence to the provision of the Act to undertake all reasonable steps to control Japanese knotweed on, or infringing onto, your land.

The plant is not cited under any legislation that requires its presence to be notified to either DEFRA (Department for Environment Food and Rural Affairs or local planning authorities, and neither is it listed under The Weeds Act of 1959.

Under the Environmental Protection Act 1990, Duty of Care Regulations 1991, Japanese knotweed material and material (SOIL contaminated with Japanese knotweed if it is to be removed must be removed to a licensed landfill site for disposal, accompanied by appropriate Waste Transfer documentation.

Japanese knotweed is a non-native invasive plant species. It falls under the legislation of the Wildlife and Countryside Act 1981 and should be treated responsibly by professionals such as Japanese Knotweed Ltd and in accordance with current Environment Agency guidelines.

Taylor Total Weed Control Ltd is registered with the Environment Agency under the carriage of waste regulations 2011 registration number CB/UM3984NA. Copies of which can be forwarded.

Address	Pant Road Dwellings
District/Town	Merthyr Tydfil
County	Merthyr Tydfil
Post Code	CF48 3SH
Surveyor	Rob Higgins
Report Date	28/08/2020

2. Contact Details & Request to Survey

We have been instructed by Mr Paul Thomas (Utopia Design Architectural Services on behalf of the client) to undertake a survey of the above site, to determine to the best of our ability the presence of the non-native invasive plants 'Japanese knotweed' or it's hybrids -and other invasive weeds with a view to controlling and eradication of the above plants on this site.

3. Scope of Survey

Our survey will cover the following items and provide findings within:

- Correct botanical identification of Japanese knotweed (or hybrids) and any other invasive weeds.
- Record of locations and measurements of areas of contamination.
- Property Risk. Where applicable or record of damage.
- Treatment Advisory (Best treatment option and Japanese Knotweed control and eradication proposal/quotation)
- A health and safety risk assessment was also carried out to establish any concerns with the site.

4. Limitations of Survey

The findings of this survey are the result of a visual inspection only and should not be taken as a guarantee that Japanese Knotweed or other invasive weeds (schedule 9 of the Wildlife and Countryside Act 1981) are not present on other locations on the property or neighbouring properties. We do not undertake exploratory excavations during our survey and because knotweed has particularly deep rooted rhizomes knotweed may remain undiscovered by us somewhere within or close to the subject property.

The presence of Japanese knotweed and other invasive weeds can sometimes be concealed by property owners (occupiers) other parties, deliberately or by accident by way of, physical removal of the plants stems and crowns, mowing lawns or covering the knotweed area with turf, hard standing, landscape fabric, ornamental gravel, bark mulch and so on.

During the winter, knotweed goes into temporary dormancy, called Perennation, leaving no viable material above ground. On larger, more mature stands, the dead canes remain in place and provide a clear visual marker of the plant's location. However, on younger or disturbed growth, canes can fall over and be blown away, leaving no indication of knotweed whatsoever. The area of contamination identified at the time of our survey may not be definitive. There is a high probability that rhizomes (or in other cases seeds) of the plants may have already spread several metres beyond the circumference of the existing areas of contamination and will be ready to allow shoots to emerge above ground anytime within the next 2/3 years.

For the above reasons, we recommend conducting surveys during the growing season (where ever possible), where knotweed and other invasive weeds presence is much more evident.

We will identify, measure and plot the visible area of contamination on the site plan. There will also be an area of potential spread at least 7 m beyond the edge of the visible area of contamination. This is the area that will be treated and covered by any guarantee. If you are aware of a history of Japanese Knotweed appearing outside of the area we have indicated please alert us as areas outside of the areas identified in the treatment program will not be treated and cannot be added to an existing treatment program and guarantee.

5. Current Status and Plans for the Property/Site

Set of 8 detached garages off a main road. There are plans to demolish the garages and build a set of semi detached houses on the site.

6. Survey Findings - Description of Property/Site and adjacent properties

Set of 8 detached garages off a main road. Bordered by Llewellyn Street to the North and East, adjacent houses and their gardens on Llewellyn Street and Pant Road to the South and Pant Road itself to the West.

Presence of Japanese Knotweed

A thorough visual search of the site was undertaken to identify the presence, locations and extent of Japanese knotweed growth. This included the neighbouring boundaries and gardens where possible. The areas of the site surveyed identified as being affected by Japanese knotweed growth are best described as follows: Please be aware that knotweed can spread several metres underground so the area of contamination may already be much larger than the visible area.

Site Survey – Site Plan and Findings

We surveyed the site property and surrounding properties (see site plan) - and at the time of my visit we found the following:

On Site Japanese Knotweed Contamination (Within the Boundaries of the Site)

At the time of my survey there was evidence some mature dead canes located behind and between the garages, as well as some active semi mature and juvenile knotweed growth emerging behind the garages. There was also one small stem near the roadside of Llewellyn Street at the front of the site.

Off Site Japanese Knotweed Contamination (Outside the Boundaries of the Site)

At the time of my survey I could not see any visible signs of knotweed contamination in any of the adjacent plots, although full access was not available at the time,

7. Table of Japanese Knotweed Growth Recorded at the time of our Survey

	JK1	JK2	JK3	
Location of the knotweed	Knotweed growth between and behind the garages	Small stem of knotweed located next to the roadside at the front of the site		
Onsite/Offsite	On site	On site		
Site overgrown needs clearing (Y/N)	No	No		
Growth Type (Mature/ Immature/ Peppered)	Semi Mature	Immature		
Average stem height (m)	<0.5m but mature dead canes	<0.5m		
Visible growth area (m)	Peppered across 112m2	1m2		
No visible growth – may still be rhizomes (Y/N)	Yes	Yes		
Dead canes (Y/N)	Yes	No		
Proximity to habitable space (m)	<1m from 22 Pant Road	>7m		

Proximity to water (m)	N/A	N/A		
Proximity to boundary if JK is offsite (m)	N/A	N/A		
Description of any visible damage	None Seen	None Seen		
JK area has been disturbed/covered (Y/N) any visible	No	No		
Showing signs of previous chemical application (Y/N)	No	No		
JK will need winter brush cut N	No	No		

RICS CATEGORY

To help understand and categorise the level of risk that the knotweed presents to the lender, The Royal Institute of Chartered Surveyors have created a "risk" table. The location of the Japanese Knotweed in relation to the buildings at the property/development may need to be formerly recorded and the risk category may need to be accurately assessed.

Category	Descriptors
4	Japanese Knotweed is within 7 metres of a habitable space, conservatory and/or garage, either within the boundaries of this property or in a neighbouring property or space; and/or Japanese Knotweed is causing serious damage to outbuildings, associated structures, drains, paths, boundary walls and fences and so on.
3	Although Japanese Knotweed is present within the boundaries of the property, it is more than 7 metres from a habitable space, conservatory, and/or garage. If there is damage to outbuildings, associated structures, paths and boundary walls and fences, it is minor.
2	Japanese Knotweed was not seen within the boundaries of this property, but it was seen on a neighbouring property or land. Here, it was within 7 metres of the boundary, but more than 7 metres away from habitable spaces, conservatory and/or garage of the subject property.
1	Japanese Knotweed was not seen on this property, but it can be seen on a neighbouring property or land where it was more than 7 metres away from the boundary.

The RICS Category for the surveyed property is: 4

8. Treatment Program Recommendation

Specific Area to be Treated/Monitored

Options for treatment are either to treat the Japanese Knotweed in situ with a Herbicide application program or HAP (Details below) which would limit the potential for building to take place on the site. The other option would be excavation and removal of contaminated soils to a licensed landfill site. the third option would be to excavate and relocate the Soil and plant material to an area within the site that will not be developed and can be quarantined and used to treat the plant with a HAP. Treating the area of JK contamination with a HAP would not allow the area of contamination to be built on. The site is too small to accommodate a quarantine area. The planning permission requires that the soil and plant material is removed from the site. Excavation of the plant materials, rhizome and surrounding soil and removal to a licensed landfill site that accepts Japanese Knotweed appears to be the only method that will comply with the planning conditions. We can be on site to supervise the clients groundworks contractor - we would require a excavator with an experienced qualified operator and banksman, the client would need to organise a transport contractor to take the controlled waste to landfill complete the site paperwork and provide paperwork to confirm that the waste leaving the site has reached the landfill site.

It is critical that all areas of contamination are treated over a similar period in order to control the JK . The alternative would be the potential for Japanese Knotweed in untreated areas gradually encroaching back into treated areas. The owners of the surrounding properties with contamination must be put on notice and advised of their legal responsibility to take the appropriate action to control the Japanese Knotweed on their land and stop it encroaching on to neighbouring land that may have already been treated. Once we have excavated all of the knotweed plant material and soil we would need to put a basic HAP in place to monitor and treat any Knotweed that may emerge.

Japanese Knotweed spreads by means of underground roots or rhizomes and can penetrate several metres below ground from the visible edge of the areas of contamination (if the visible area of JK is 10 m2 that is not the area we have to focus on

- the potential area of spread underground can be as much as an extra 7 m in all directions. JK can take several years to emerge from beneath the ground. It is vital that the owners of any adjacent land that may also have contamination are advised of their legal responsibility to stop JK encroaching across boundary lines.

The following is a guideline to the schedule of visits we undertake; to monitor the site and apply herbicide with the aim of controlling the spread of knotweed in the contaminated locations on the site plan.

Taylor Total Weed Control Ltd must have safe and adequate access to the site and the contaminated locations including any adjacent plots. The client needs to make sure we have access.

3/4 year treatment program for the quarantined area, monitoring the rest of the site as appropriate.

Herbicide application program 3/4 years

Treatment Schedule

Treatment

Aug to Nov 2020 - Application of chemical treatment and inspection
May to July 2021 - Application of chemical treatment and inspection
Aug to Nov 2021 - Application of chemical treatment and inspection
May to July 2022 - Application of chemical treatment and inspection
Aug to Nov 2022 - Application of chemical treatment and inspection
May to Nov 2023 - Application of chemical treatment and inspection

Monitoring Period

May to Nov 2024 - Site visit to monitor and treat any re-growth
May to Nov 2025 - Site visit to monitor and treat any re-growth

Option A

5 year treatment program Inc. 2 years of monitoring
Total Cost = £1,100 plus VAT (Plus access Channels & brushcut if required)

Option B

5 year treatment program Inc. 2 years of monitoring + 5 year guarantee
Total Cost = £1,795 plus VAT (Plus access Channels & brushcut if required)

Option C

5 year treatment program Inc. 2 years of monitoring + 10 year guarantee
Total cost = £2,295 plus VAT (Plus access Channels & brushcut if required)

Insurance Backed Guarantee Option

Additional insurance premium of c£75 (Not available with Option A)

Payment Options

- Pay in Full - If you wish to pay the full cost of the treatment program upfront we can provide the company guarantee certificate as soon as we receive your payment.
- Pay in Installments - If you or your lender do not immediately require a copy of the company guarantee certificate then payment can be made in installments. In this case the guarantee would be issued at the end of the program when all payments have been received. Payment schedule when paying in installments would be as follows:

40% of the total cost in year 1

40% of the total cost in year 2

20% of the total cost in year 3

The guarantee will commence after 2 years of no re-growth. It is the clients responsibility to inform TTWC of any re-growth during the guarantee period. Only the Pant Road Dwellings site would be covered by any guarantee. The guarantee would not apply if the adjacent properties developed Japanese knotweed and allowed Knotweed to encroach or if they have knotweed on their land that is not part of a treatment program.

Insurance Backed Guarantee (IBG)

If you or your lender require an Insurance backed guarantee from a third party insurance company there is an additional premium of circa £75 to be added. The premium is paid to the insurance company and the policy will be issued directly to the client by the insurer. If the policy needs to be transferred to a new owner during the treatment program then the client must contact the insurer directly. There is usually a small administration charge of £15 levied by the insurer.

Excavation Supervision

We have supervised a number of excavations of Japanese Knotweed and either re located the controlled waste to other parts of the site where it is buried or quarantined and then treated with a herbicide application program - or moved it off site to a licensed Land fill sites.

To keep costs down, avoid duplication and allow the client to use his normal contractors and preferential rates we can just supervise the work and ensure it is carried out correctly and sign the work off as completed to our satisfaction.

THE CLIENT WILL SUPPLY ALL MACHINERY AND SUITABLY TRAINED OPERATIVES AND BANKSMEN.
IF WASTE IS BEING REMOVED FROM THE SITE OR AROUND THE SITE THE CLIENT WILL ALSO SUPPLY A TRANSPORT CONTRACTOR AND CONTACT THE NEAREST LANDFILL SITE THAT WILL ACCEPT JAPANESE KNOTWEED AND CO ORDINATE ALL PAPERWORK.

Our rates to supervise the sites are as follows.

Setting up bio controls: (prevention of spreading contamination across the site)

The client must supply suitable membrane and boards to create a secure bio pathway from the excavation to the point where it will be loaded onto vehicles, or quarantined, or sent to Landfill off the site.

Decontamination of the plant and equipment used and personnel involved.

Our costs are £650+ vat for the above for a small to medium sized site and may be subject to change for larger sites.

Supervision of the excavation of all visible JK. £95+vat per hour including traveling time. Minimum of 5 hours per day. It is important that the client has all plant personnel and vehicles in place ready for the excavation. We have to charge for our time.

Please read the following

Japanese Knotweed spreads by means of underground roots or rhizomes and can penetrate several metres below ground from the visible edge of the areas of contamination (if the visible area of JK is 10 m² that is not the area we have to focus on – the potential area of spread underground can be as much as an extra 7 m in all directions. In short we cannot accurately estimate how far the rhizome has penetrated and spread underground until we start excavating and following the rhizome (root)

An area of contamination measuring 25m² – if we only excavate 2 m deep that would be 50m³ and if each cube of soil weighs between 1.3 and 1.7 ton that could be 75 ton that has to go to landfill.

JK can take several years to emerge from beneath the ground. It is vital that the owners of any adjacent land with may also be contaminated are advised in writing (and copies retained) by the owner of the property we are treating of their legal responsibility to stop JK encroaching across boundary lines.

Below is an example of a hauliers quote for the removal of contaminated soils to landfill. The client would be responsible for obtaining their own quote and employing a suitable contractor

Non Hazardous soil and stone containing <5% incidental JKW

Haulage and disposal to fully licenced site for between £41.95 per ton + VAT

Non Hazardous soil and stone containing >5% JKW

Haulage and disposal to fully licenced site for between £175.85 per ton + VAT

The prices quoted include costs of all necessary transfer notes and landfill tax.

Terms and Conditions of quote

- Price quoted is subject to the material being classified through relevant testing supplied and accepted at the most suitable disposal site. The disposal site has ultimate control over the tipping and may reduce or stop accepting the material due to weather conditions or the condition of the material.
- Per load price is based on 8 wheel vehicles unless specified.
- A minimum load of 16 ton applies. Any order less than minimum amount will incur a surcharge of £15 per ton not carried up to the vehicle maximum capacity (16-20 ton depending on vehicle).
- A site visit may need to be arranged to segregate any hotspots that may have been identified in the Site Investigation report.
- We or any of our third party hauliers reserve the right to refuse a load of material that we feel will be rejected by the disposal site, and if refused, may be returned to site at the cost of the customer.
- Quote valid for a period of 30 days, after which prices may be revised.
- Prices quoted are subject to VAT @20%.
- Waiting time charged after 30 minutes on site @ £55 per hour (8 wheel or £70 per hour Artic).

To proceed with your order please fill out and return the following form - preferably by email.

9. Confirmation of Order

Address to be treated

Confirm which treatment program option and costing payment schedule you wish to proceed with:

Option A (5 year treatment & monitoring) -

Option B (Option A + 5 year guarantee) -

Option C (Option A + 10 year guarantee) -

Insurance Backed Guarantee -

Payment Option:

Pay in Full -

Pay in Installments -

Please supply us with an order number if you use one:

Name, address and contact number of the owner of the property/site:

Billing address if different from above:

Contact details and name of person to contact to arrange access - e.g. tenant or agent:

In signing this form I am confirming that I have read and understand your Terms and Conditions

Name

10. Site Plan & Photographs





22 Pant Road, Dowlais, Merthyr Tydfil, CF48 3SH



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11. The Legal Stuff

COMPLIANCE WITH THE ENVIRONMENT AGENCY CODE OF PRACTICE

Taylor Total Weed Control Ltd are licensed and certified as required by the National Proficiency Test Council. Taylor Total Weed control Ltd comply fully with the Control of Pesticides Regulations (Copra) 1986 and the Environmental Protection Act 1990. Only suitably qualified staff are allowed to apply herbicide and are expected to ensure that all relevant legislation relating to the use of herbicides is followed.

The procedures used by Taylor Total Weed Control Ltd comply with the Environment Agency and PCA Code of Practice for the control of Japanese Knotweed.

Taylor Total Weed Control Ltd is registered with the Environment Agency under the carriage of waste regulations 2011 registration number CB/UM3984NA. Copies of which can be forwarded.

REMOVAL OF DEAD KNOTWEED MATERIAL

To keep your costs down we will not remove any knotweed material from site as part of a Herbicide Treatment Program and Guarantee, as there is no need to. During the first winter of the program (and only if necessary) we will need to cut down the dead winter knotweed stems, but the dead cuttings are left on site to rot down naturally on protected surfaces, and then burnt. This facilitates improved access and herbicide efficacy in the ensuing growing season. If you want us to carry out incineration of the dead cut stems on-site this may incur an additional charge and can only be carried out if local by-laws permit burning.

In nearly all cases there is no need to remove knotweed material from site, but if you did it must be transported by a registered waste carrier from point of origin to a specially licensed landfill facility. As this is a controlled waste you will require a waste transfer note as evidence of its correct and legal disposal. The cost of off-site disposal of knotweed material can be significant and would be an additional cost to our quotation.

DISTURBANCE OF THE KNOTWEED AREA

Herbicide applications alone can ultimately render the plant unable to produce new growth (deemed as eradication) but are unlikely to remove viability from 100% of the underground rhizome system. This is an important note (especially for developers) and is recognised by the Environment Agency, who deem any ground containing dead knotweed (even after a specialist has declared eradication following herbicide treatment or even sifting) to be classified as controlled waste if removed from site. This is the same waste classification given to living healthy knotweed material and soils containing live knotweed!

Given the above, during and following treatment the ground will contain herbicide treated rhizome. The ground should be undisturbed during the Herbicide Treatment Program and may only be disturbed under guidance from TTWC Ltd during the guarantee period, but any disturbance may be restricted or incur additional knotweed management/control costs.

At any time during the treatment program or guarantee period; please do not cut or trim down green or treated Japanese Knotweed growth. Please do not treat the Japanese Knotweed yourself with herbicide.

DO's and DON'Ts

- DON'T**
- ☒ Cut or trim down green or treated Japanese knotweed growth
 - ☒ Treat the Japanese knotweed yourself with herbicide
 - ☒ Disturb the ground within 2-3m of the Japanese knotweed plants
 - ☒ Dispose of any knotweed material, or soil within 5m of the knotweed, off-site

- DO's**
- ☐ Leave the Japanese knotweed alone
 - ☐ Allow us access to the property to treat the knotweed with herbicide

BIO SECURITY

Action to be taken by owners/client; All contaminated locations are to be quarantined and where possible casual pedestrian traffic prevented from having access to the contaminated areas. The areas should be made secure. The ground in each treated location should not be disturbed unless TTWC Ltd is informed and on site. Disturbing the soil in the area of contamination during or after the treatment program may stimulate knotweed growth.

All Plant Stems, crowns and rhizomes must be allowed to decompose on site. No waste material to be removed from site. Any excavation work to be recorded and advised to TTWC Ltd. It is an offence to move controlled waste to an unlicensed site. If any waste material or soil is relocated onto the site it must be agreed with TTWC Ltd and its location recorded. During the winter dead canes can be cut at least 15 cm from the ground, left to dry out on a protected surface and burnt. Japanese Knotweed is a nonnative invasive species weed prevalent throughout the UK. Establish and execute a regular Herbicide Treatment and monitoring program to control any spread of Japanese Knotweed to the property.

ENVIRONMENTAL CONCERNS

The only potential special concerns would be the potential risk of wind drift of herbicide to neighbouring properties & potential Chemical spills. Neighbours need to be advised by the client of the potential for damage to vegetation close to the Japanese Knotweed. This is not always avoidable. Yes/No Water courses close to the areas of contamination. Access to the site would have to be made available to allow TTWC Ltd to treat & monitor the site. TTWC Ltd are treating the areas contaminated with Japanese Knotweed. We are not maintaining the whole site unless that is included in our work specification. TTWC Ltd have already carried out a risk assessment to identify hazards to humans, wildlife and the environment as a whole. Method statements have been produced to identify any controls required to manage any risks. Treatment to be applied Applications of Herbicide with either 2.4.D Amine or glyphosate as recommended by the Environment Agency Code of Practice for the eradication of Japanese Knotweed. Foliar spraying or stem injection if necessary.

CONTAMINATED WASTE

TTWC Ltd will regularly inspect the site to assess the progress of the program. It is important that the client keeps TTWC Ltd updated on any planned works or fundamental changes etc. on the site. This program, guarantee/warranty does not include the removal of Japanese Knotweed or soil or waste contaminated with Japanese Knotweed from the site unless specifically mentioned.

It is important to point out that ground that has been contaminated with Japanese knotweed remains classified as contaminated waste. If contaminated soil or waste is removed from the site it must only be handled and accepted by suitable registered waste carriers and disposed of at specialist licensed landfill sites and appropriate records kept.

WHEN WILL THE VISITS TAKE PLACE?

The application of herbicide will take place during the growing season (Apr-Nov). We will normally undertake two visits per year (sometimes three), but the timing of these visits is dependent on the knotweed growth patterns we observe. We will contact you directly 2-3 days in advance of a planned works.

WHAT CAN I EXPECT TO SEE DURING THE PROGRAMME?

Following the initial years treatment(s) knotweed can start to send up new shoots in the area surrounding the previous growth canes (the rhizome spread area). This is an expected and welcome side effect, as it shows that the knotweed is under attack from the herbicide and visually indicates the full spread of the underground rhizome system. These growths are treated under the program as another step towards eradication.

During treatment knotweed may continue to re-grow but often as stunted and mutated growth (it may re-appear as ground rosettes, known as sub-lethal bonsai growth). This re-growth may occur over successive seasons and require on-going treatment in order to prevent it from re-establishing.

WHAT HERBICIDES AND APPLICATION TECHNIQUES ARE USED?

There is no quick fix herbicide only eradication solution. Stem injection, Knapsack Spraying or Weed Wiping are simply different techniques of getting trans-locative herbicide into the rhizome system. On average no one application technique is more effective than another and eradication of re-growth will usually take 3 years to achieve.

We will apply herbicide to the knotweed using the most suitable technique for each property. Predominantly we will use knapsack spraying, using highly directional nozzles, but if we need to avoid damage to non-target plants we will either use stem injection guns or weed wiping. Stem Injection guns may also be used near water where necessary, and when the knotweed is very high and logistically difficult to spray.

The herbicide used is safe when wet (by label) but for precaution we simply advise that pets and children are kept out of the treated area for approximately 1-2 hours following application, until the herbicide has dried. We use herbicides which are approved for use on or near water (but will obtain an Environment Agency license if we need to treat knotweed within 12m of water).

12. Locations

Please be advised that our program to control any Japanese Knotweed is restricted to the sites specifically mentioned and identified on your property as outlined in the description above.

Taylor Total Weed Control Ltd cannot control any Japanese Knotweed that may exist or emerge on the land adjoining or adjacent to your property unless the land owner of that land gives us permission to spray their land and we have specifically mentioned the additional land in our quote/program. Please read the notes on encroachment and the Law in section 16.

If we are expected to control Japanese Knotweed in a location with several sites owned by different owners we will require the following:

Executing a herbicide treatment program or any other work on plots of land not owned by the client will require the client to obtain the owners of the neighbouring land /plot/property permission for Taylor Total Weed Control Ltd to have access to their land and to be allowed to apply herbicide or carry out any other work as per the agreed program.

DEFINITIONS

Eradication - In some cases it is possible that the very deep rooted Japanese knotweed rhizomes (roots) remain in a viable state, and may do so for up to twenty years or so. These rhizomes could potentially re-grow, especially if they get disturbed. In the unlikely event that regrowth or indeed new infestations of knotweed does occur at some time after the end of the guarantee period we will not be held responsible as we do not consider it to be deemed a failing of our work and therefore will not accept liability for any cost incurred for any future treatment of Japanese knotweed on the site. The spraying program is unlikely to remove the viability from 100% of the underground rhizome system and this is an important note (especially for developers) because the Environment Agency state that any ground containing knotweed (dead or alive) even after a specialist has been providing a herbicide treatment program should be classified as controlled waste if removed from site.

Guarantee - Our guarantees are applicable to the extent of the surveyed area or the extent of treatment area, unless explicitly advised otherwise. The guarantee is applicable to one party (i.e. property owner) only. The guarantee is assignable to another party but a transfer of benefit will incur an admin fee of £100 +VAT per transfer.

We will identify, measure and plot the visible area of contamination on the site plan. There will also be an area of potential spread at least 7 m beyond the edge of the visible area of contamination. This is the area that will be treated and covered by the guarantee. If you are aware of a history of Japanese Knotweed appearing outside of the area we have indicated please alert us as areas cannot be added to an existing treatment program and guarantee.

13. RICS Category of Risk; usually applicable to residential properties only. (Please see RICS table on page 5)

Japanese knotweed is an invasive and destructive plant that can cause serious damage to outbuildings, associated structures, drains, paths and boundary walls, for this reason it should not be ignored and does need to be controlled or removed.

The Royal Institute of Chartered Surveyors (RICS) has issued an Information Paper entitled 'Japanese knotweed and Residential Property' (RICS IP 27/2012). The paper specifically addresses the problems sometimes occurring with residential property mortgages when Japanese knotweed is encountered. The majority of UK residential mortgage lenders are reluctant to lend on Japanese knotweed affected properties. However, some individual lenders are willing to consider applications on a case-by case basis once remediation works has been implemented and these lenders will generally want to see a commitment by the owner of the property to fund, in advance, a long term treatment program effective against Japanese knotweed or the cost for the Japanese knotweed- infested soils to be excavated and removed to an off-site appropriately licensed landfill site.

Most lenders require assurance that the Japanese knotweed will not be allowed to spread and cause structural damage to the property and will want the Japanese knotweed problem to be managed by a professional company who can reliably provide at the very least a 5 year spraying program and guarantee or instant removal. To formally identify and record the knotweed problem and determine the solution the lender may also require a Japanese knotweed survey.

Risks of Not Taking Action

Japanese Knotweed spreads by means of underground roots or rhizomes and can penetrate several metres below ground from the visible edge of the areas of contamination (if the visible area of JK is 10 m² that is not the area we have to focus on - the potential area of spread underground can be as much as an extra 7 m in all directions. JK can take several years to emerge from beneath the ground. It is vital that the owners of any adjacent land with may also be contaminated are advised in writing (and copies retained) by the owner of the property we are treating of their legal responsibility to stop JK encroaching across boundary lines.

The closer JK emerges nearer to your property the less attractive it may become to a potential purchaser or to that purchasers' lender. The above could have an impact on the value of your property. There is also the long term prospect of Knotweed spreading from your land to your neighbours and the neighbour taking legal action against you. Doing nothing is not the best option.

If there is knotweed on adjacent properties I would recommend reading the notes we have supplied regarding communicating in writing with the owners of adjacent properties that are contaminated with Japanese Knotweed and the potential to contaminate and continue to contaminate your site. Section 16

If treatment is required for the adjacent properties we either produce a separate treatment plan for each property or add the additional areas that require treatment to this plan and adjust costs.

4. Guarantees

The following is a copy of the wording from the insurance backed guarantee.

Taylor Total Weed Control Ltd 1. Hereinafter referred to as "The Company" hereby GUARANTEES that, save as hereinafter provided or as provided in the Company's standard Terms and Conditions of business applicable at the date of the client's acceptance, in the event of the person entitled to the benefit of this Guarantee notifying the Company in writing within a period of FIVE/ TEN YEARS from the date of completion.

1. Any continuance or recurrence of the invasive weed indicated above respectively to the work carried out in the areas identified in the report as the treatment area.

The Company, on production of this Guarantee and all original relevant survey reports, quotations, specifications, drawings, plans, completion certificates and receipted invoices, with any amendments thereto issued by the Company (photocopies will not be accepted), will arrange for the land to be inspected at a mutually convenient time upon payment by such person of the Company's then current inspection fee, provided that the continuance or recurrence complained of is of a kind against which the Company carried out control treatment in the area in which such continuance or recurrence has taken place.

2. If upon such inspection it appears to the Company that the treatment carried out by the Company was in any way defective so as to have resulted in re – growth of the invasive weed within the treated areas, the Company will carry out, without further charge, such further treatments as shall to the Company appear to be necessary to control the invasive weed and will reimburse in the full the inspection fee paid.

3. This Guarantee does not cover any loss (including consequential loss see 10 below) or damage sustained by the person entitled to the benefit of this Guarantee save as set out in 2 above, whether caused by the Company's negligence or otherwise.

4. This Guarantee shall be of no validity or effect and shall be unenforceable against the Company in any one or more of the following circumstances.

5.(a) where the person entitled to the benefit of this Guarantee does not give written notice of the claim under this Guarantee to be received by the Company within three months from the date upon which the existence of such claim could, with the exercise of reasonable diligence by a continuous occupier of the affected premises, have been discovered;

5.

b where all works advised and recommended by the Company prior to, at the time of, or subsequent to, treatment carried out by the Company were not fully carried out effectively with good and proper materials and in a workmanlike manner by the Client's contractor.

(c) Where the client failed to pay the full price, any properly payable additional costs, and any interest due within 6 months of the date upon which the same fell due;

(d) Where the land and property has not been kept in a good and proper state, so as to detect and prevent tipping or the early detection of growth of invasive weeds.

(e) Where any recommendations given by the Company has not been complied with, whether such recommendation was given in the Company's report/quotation, or by separate leaflets. This may relate to cutting or pruning, the removal of waste, site clearance of the exclusion of plant materials from areas adjacent to the treatment area.

(f) Where, subsequent to the completion of treatment by the Company, there has been any disturbance to the works carried out by the Company. This may include excavations in areas where herbicide treatments have been undertaken, where root barrier have been installed or contaminated waste has been subject to burial on site.

(g) Where invasive plants have been re- introduced adjacent to watercourses or areas that have been subject to flooding or tipping or the uncontrolled propagation from adjacent land

(h) 5. This Guarantee is to be read subject to, and is limited by, the Company's standard Terms and Conditions of business current at the date of the clients' acceptance of the Company's offer to carry out the treatment which shall be deemed to be incorporated herein. In the event of any ambiguity or uncertainty arising the Terms and Conditions of this guarantee shall apply.

(i)

76. In the event of disposal of the property, being subject of this Guarantee, this Guarantee shall be assignable by the client above named, to the new owner in which case the provisions hereof set out at 1-5 above shall apply in respect of that new owners as if the name of that new owner were substituted for any reference to the client PROVIDED THAT Within three months of the change of ownership of the property, the new owner shall have a, given written notice of the change to the Company b, paid the Company's then current transfer fee; and permitted the Company's surveyor to inspect the property (so as to discover any defects as might prejudice the works carried out by the Company) if the Company in its absolute discretion so require. For the purpose of this Guarantee and Contracts (Rights of Third Parties) Act 1999, the person entitled to the benefit of the rights conferred by this Guarantee shall be the owner from time to time of the Property (the Relevant Third Party) provided always that the Relevant Third Party acknowledges and agrees that its rights under this Guarantee shall be subject to the terms and conditions set out in this Guarantee. The Company shall be entitled in any action or proceedings by any Relevant Third Party to rely on any term in the Guarantee and to raise any equivalent rights in defence of liability as it would have against the Client or any previous Relevant Third Party. Further, the Relevant Third Party agrees that it will be bound by any previous acts, omissions or default of the Client or any previous Relevant Third Party

9. For the avoidance of doubt, the Client and each subsequent Relevant Third Party acknowledges and agrees that when it is no longer the owner for the time being of the Property, it shall no longer be entitled to the benefit of the rights conferred by this Guarantee and that furthermore, neither the client, or any Relevant Third Party shall be entitled to assign or transfer its rights and /or obligations under this Guarantee.

10. All consequential losses are excluded from this Guarantee, and for the purposes of this Guarantee consequential loss means any indirect, special or consequential damages or losses suffered or incurred by the Guarantee holder and for the purposes of this Guarantee indirect, special or consequential damages or losses shall include, but not be limited to damages to or losses of data, furniture or equipment, economic loss or damage, damage to or loss of profits, interest, business revenue, anticipated savings, business or goodwill, any losses or costs or expenses which are not directly incurred by the Guarantee holder wholly in respect of or which are additional to the remedial work for which indemnity is provided by this guarantee, the cost and expenses of any redecoration, repainting or retiling work, the costs and expenses of removing and/or replacing any cupboards, carpets and other furniture, or any other fixtures or fittings and the incurring of liability for losses or damages of any nature whatsoever suffered by third parties including in each case incidental and/or punitive damages), even if the Company is advised in advance of the possibility of any such loss and /or damages;

11. In the event of you wishing to make claim under this guarantee, a fee at the rate prevailing at the time of your claim is payable and the following ORIGINAL documents must be produced by you:

12.

A. Report(s), estimate and any drawings or plans relating to it.

B. Receipted invoice or proof of payment.

C. Certificate or letter of completion.

D. This guarantee.

If the claim is justified, your payment will be returned in full. If your claim cannot be processed due to incomplete documentation or you decide not to pursue your claim, then an administration fee (at the rate prevailing at the time of your claim) will be deducted and the balance will be refunded.

13. In the event of a dispute arising under this guarantee as to the amount to be paid or the work to be performed the dispute may by agreement between the parties be referred for determination by an expert chosen by mutual agreement between the parties. If the parties are unable to agree on an expert within 7 days after the request by one party to another or if the expert agreed upon is unable or unwilling to act either party may apply to the General Manager of the Property Care Association for the appointment of a suitably qualified and experienced expert for the dispute in question.

TREATMENT PROGRAM AND MONITORING PERIOD EXPLAINED

1. Should any existing knotweed re growth appear in any treatment areas(s) specified in the original agreed treatment program within 2 years from the end of the treatment program then Taylor Total Weed Control Ltd, subject to the condition below, will return and spray the knotweed and will continue to treat the area originally outlined in the treatment program until you have 2 full years free of any knotweed activity/growth.
2. The TTWC Ltd guarantee will apply to the treatment area(s) only as defined in the original treatment program or JKMP. We will identify, measure and plot the visible area of contamination on the site plan. There will also be an area of potential spread at least 7 m beyond the edge of the visible area of contamination. This is the area that will be treated and covered by the guarantee. If you are aware of a history of Japanese Knotweed appearing outside of the area we have indicated please alerts us as areas cannot be added to an existing treatment program and guarantee.
3. This guarantee does not cover any loss (including consequential loss please read above) or damage sustained by the person entitled to the benefit of this guarantee as set out above whether caused by the company's negligence or otherwise.
4. TTWC Ltd cannot be responsible for any re- contamination from knotweed coming from adjacent plots that TTWC Ltd have not been originally commissioned to treat. If the Japanese knotweed on any adjacent property that is not included in the above program is not treated or controlled we cannot guarantee that your site will not be re contaminated from growth coming from the adjacent properties
5. This guarantee will not apply if the Taylor Total Weed Control Ltd has not been allowed to complete the treatment program as scheduled or if payment has not been received in accordance with our terms and conditions.
6. What to do if you have any re growth after the treatment program visits have been completed?
TTWC Ltd would require you to contact TTWC Ltd in writing within 3 month of any new growth appearing after TTWC Ltd have completed the final application or process outlined in your treatment program and if you have asked for a monitoring period, provided all visits had been completed and no payments remain outstanding Taylor Total Weed Control Ltd will return and spray the knotweed and will continue to treat the area originally outlined in the treatment program until you have 2 full years free of any knotweed activity/growth.
7. TTWC Ltd will not re treat any re growth if TTWC Ltd are not contacted in writing within 3 months of the new growth appearing.
8. TTWC Ltd cannot be responsible if there has been any disturbance to the area treated by the company or if the site has not been kept in a good and proper state (Quarantined secure area) so as to prevent foot traffic on the treated area and the movement of contaminated soil to and from the site during the treatment program. This includes fly tipping on the site. This is the clients' responsibility and a failure to take proper measures could negate the guarantee
9. In the event of transfer of the ownership of this property/site subject to our guarantee, this guarantee shall be assignable by the client named in the program to the new owner in which case the provisions set out above shall apply in respect of the new owner provided that within 1 month of the change of ownership the new owner will have provided the company with written notice of the change -supplying all relevant contact details and confirming in writing that they will take over the responsibility for payment of any balance payments of the program and warranty and agree to operate within the agreed credit terms. There is a £100 administration charge to make these changes.
10. The TTWC Ltd guarantee only applies; Guarantees have to be agreed and included with the basic treatment program at the start of the program. Guarantees cannot be added to basic programs after the program has finished.
11. This guarantee does not include the removal of Japanese knotweed, soil or waste contaminated with Japanese knotweed from the site. It is important to point out that ground that has been contaminated with Japanese knotweed remains classified as contaminated waste. If contaminated soil or waste is removed from the site it must only be handled and accepted by suitable registered waste carriers and disposed of at specialist licensed landfill sites.
12. If we are instructed to treat Japanese Knotweed on an adjacent plot(s) to your plot you will need to inform us that you have the permission of the owner(s) of that plot(s) to go ahead, have access and treat the Knotweed on his / her land. There would only be an adjustment in the price and responsibility of who would pay for any adjustment in price would have to be agreed before we could treat the areas. Please do not assume that we will be treating the adjacent sites that start to develop knotweed during the course of our program.

15. Terms & Conditions

On your instruction to proceed on whichever treatment program option you select, Taylor Total Weed Control Ltd (TTWC Ltd) will agree to visit the site and apply the relevant herbicides to the affected areas as outlined in either the

- A. Quoted basic 3 year treatment program and 2 year monitoring.
- B. Quoted treatment program (as above) with extended guarantee of 5 years.
- C. Quoted treatment program (as above) with extended guarantee of 10 years.

Any instruction to proceed applies to the whole program selected and not parts of the program.

TTWC Ltd may need to take into account the weather and growing conditions and if necessary for the benefit of the success of the treatment program adjust the timings of the site visits/applications to reflect weather / growing conditions and any other influencing factors.

It is not always necessary for the client to attend the property while we treat the site. We only require access to the contaminated areas and may not need access to the property/house itself. As long as we have access we can proceed to treat etc. TTWC Ltd will require regular access to the site and once any treatment program has been started TTWC Ltd will need to be informed if any soil or debris within 7 m of the areas of contamination has been moved on the site or removed from the site. TTWC Ltd will expect the client to quarantine the area to be treated and prevent unauthorized foot traffic across the site spreading contamination or re contaminating the site.

TTWC Ltd cannot guarantee any work it carries out if any adjacent contaminated sites are not treated at the same time and remain a potential source of recontamination. Working with your neighbours to resolve the problem is the best option. TTWC Ltd will require up to date contact details for the person on the property/site or owner of the site.

TTWC Ltd will send a message in advance to the contact informing them of TTWC Ltd.'s Intention to visit the site to carry out the appropriate work as per the treatment program. It is vital that TTWC Ltd receives a timely response to this message if it is not convenient to visit the site for any reason.

If TTWC Ltd advises the client of a time and date to have access and access is not available when TTWC Ltd arrive and prevents TTWC Ltd from carrying out the work TTWC Ltd will reserve the right to charge the client the full amount of the treatment value in addition to charging again for the rearranged treatment.

If TTWC Ltd are expected to collect keys from agents or other third parties a charge will be added to the invoice to reflect the time and additional fuels used.

TTWC Ltd would also require written confirmation, if the client wishes to terminate the program. All invoices outstanding for any treatments already carried out before any termination notice is received will remain the liability of the client and payment will be the responsibility of the client.

TTWC Ltd will also require clear access across the site to treat the contaminated areas. If the site is (becomes) over grown TTWC Ltd may need to ask the client to clear or cut access channels to the contaminated areas.

If TTWC Ltd are unable to gain access to the area(s) to be treated or the client advises TTWC Ltd that they do not want a treatment at that time TTWC Ltd cannot be held responsible for non-performance. Lack of access could affect the guarantee. The program is undertaken by TTWC Ltd on the basis that all treatments & if included guarantee visits, quoted in any treatment program will be carried out and paid for in line with the agreed credit terms. Any guarantee may not apply if these terms are breached.

Should the client decide to stop the program at any time before all applications and guarantee visits, have been carried or if TTWC Ltd are not allowed access to the site to carry out the work according to our JKMP or quoted program, any guarantees will not be applicable. If the client decides to re start the program after missing one or more treatments for whatever reason TTWC Ltd reserve the right to review the treatment program and if necessary revise the number of treatments required and extending the program time table. In certain circumstances if TTWC Ltd are paid via schemes that involve third parties, (bond pay etc.). If there are any additional costs incurred TTWC Ltd will have to add these costs to the cost of the treatment program. All Invoices must be paid in full including VAT within 15 days after the date of the invoice. Any delay with payments may be subject to £20 credit charge per month until they are paid in full. If any payments are outstanding or received late at any time during the

treatment program period then any guarantee connected with the program will not be applicable. We reserve the right to change payment terms to payment in advance if previous payments are delayed.

Please be advised that TTWC Ltd are contracted to control the Japanese Knotweed present in the locations (treatment areas) we have identified on your property as outlined in our survey.

TTWC Ltd cannot control Japanese Knotweed that may exist on the land adjoining your property unless the land owner of that land gives TTWC Ltd permission to spray their land and treatment of that land has been included in the original program or added to the original program and costs adjusted. Please be aware of re contamination from adjacent/other sites. Taylor Total Weed Control Ltd carries significant public and product liability insurance. Copies of which can be forwarded to you.

Termination of treatment program early or a change of ownership

Please be advised that we are entering into a contract with you to treat Japanese Knotweed on a certain property and you will remain liable for all payments – if you decide to sell that property at any time after we have started the treatment program you need to tell us the following:

If you or the new owner wants the treatment program to stop; We will need confirmation by email or by letter – a phone call is not acceptable.

If the new owner wants the treatment program to continue - who is liable for payment is it you or the new owner?

If the new owner is responsible we will need the new owners name and contact details and something in writing from them confirming they are prepared to assume responsibility for the balance of the treatment program.

If we do not receive any information about a change of ownership or even if you decide to stop the treatment program you will still be liable for the cost any treatment/visits we make to that property.

You will remain liable for all future treatment costs carried out by us – we will continue to treat properties until we are given written notice that the treatments program needs to stop or has been transferred to the new owner and we have received confirmation from the new owner that they are happy to assume responsibility for the balance of the payments.

You must receive written confirmation from us that we have received your instructions and the treatment program has been canceled or transferred to the new owner.

16. Encroachment and the Law - Japanese Knotweed Growing on Adjacent Properties

The presence of Japanese Knotweed on adjacent property/ land has the potential for contamination across the boundary line. If Japanese Knotweed spreads from one property to another the relevant law is of private nuisance which is “an act or omission which is an interference with, disturbance of or annoyance to a person in the exercise of the enjoyment of his ownership or occupation of land.”

If a Landowner has knotweed growing in the garden of their property they should make every effort to control the knotweed and prevent it spreading to a neighbouring property, and if they fail to do this they could be held responsible for the damage caused by the encroachment.

If your property is affected by knotweed because of encroachment the landowner of the adjacent property could be held responsible. It is not illegal to have knotweed on your land but it is illegal to allow it to spread.

Treating Japanese Knotweed on neighbouring properties and land

The roots or rhizomes of the Japanese knotweed plants can spread underground for several metres in all directions and could be as far as seven metres away from the main stand of Knotweed. If the visible knotweed is quite close to a boundary fence/wall it is quite likely that the underground rhizome has encroached into the neighbouring garden.

If the Knotweed in your property is spreading into the adjacent property or if the knotweed in an adjacent property is spreading into your property it would be prudent to ensure that the entire knotweed infestation/contamination is treated.

By doing this, you and the neighbouring landowner(s) have the peace of mind that all the knotweed affected areas are being treated. If your neighbours are not interested dealing with the knotweed problem on their land you can instruct us to treat the knotweed encroachment on the neighbouring property but we would have to increase the costs of the program to reflect this. The addition of a neighbouring property will not entitle the neighbours to a guarantee certificate for their property and they will need to contact us to discuss their requirements. If you want to treat Japanese knotweed growing on the neighbouring land /property you will need to obtain the owners written consent for us to have access to their land.

Encroachment of knotweed onto and from your property – claims for damages

If you are putting a treatment program in place to control knotweed on your land and are worried about re contamination from your neighbours land or if you do not currently have any contamination on your land and are worried about contamination from the adjacent property that has contamination, then you need to do the following.

You must write and point out to the owner of the property with the contamination their legal obligation and give them the opportunity to tackle the problem. It is vital that you put your neighbours on notice in writing as soon as you become aware of any encroachment or potential encroachment, and you state what reasonable action you want the landowner to take and by when. It is prudent to advise the owners of any property that have Japanese knotweed contamination that the consequences of allowing the knotweed to spread from their land may result in a claim from you on them for any damages and costs associated with controlling and eradicating Japanese knotweed that has encroached onto your property.

TTWC Ltd would strongly recommend that should the above circumstances manifest themselves the client should protect their interests and write to the owner of the neighbouring land advising them of the presence of Japanese knotweed on their land and encouraging them to take the necessary action to control its spread.

The neighbour/owner of the contaminated land should be further advised of any action the client has taken to control and either eradicate any JK that may exist on the client's land or if there is currently no contamination on the clients land, action to stop any contamination or re contamination encroaching from the neighbour's contaminated land onto the clients land.

To protect the client's legal interests the neighbours should be informed of what action is required to control the Japanese Knotweed on their land.

The neighbour should be advised of the possible consequences of a potential claim for damages if they fail to take the appropriate action to stop the Japanese Knotweed spreading from their land onto the client's.

In the meantime it is important that you put a treatment program in place to monitor and keep a record of the growth in the adjacent property and treat and record any encroachment onto your property until the neighbour controls their Knotweed.

TTWC Ltd would strongly recommend that should the above circumstances manifest themselves the client should protect his interests and write to the owner of the neighbouring land advising them of the presence of Japanese knotweed on their land and encourage them to take the necessary action to control its spread.

The neighbour should be advised of the possible consequences of a potential claim for damages if they fail to take the appropriate action to stop the Japanese Knotweed spreading from their land onto the client's.

Taylor Total Weed Control Ltd will write to your neighbours on your behalf.

Many people do not like approaching their neighbours on sensitive subjects that can affect both their and the neighbours property. However if your neighbour has knotweed on their land it may have an impact on the saleability of your property and consequently the value. Lenders may be reluctant to grant a purchaser a mortgage on a property with JK Contamination.

We can write to your neighbours advising them of their obligations in relation to Japanese Knotweed and the law and the potential consequences of a claim for damages if they are seen to be causing nuisance which is a crime.

In many cases more than one property may have knotweed contamination yet not all of the properties are executing a knotweed treatment program. If that is the case then it is important to establish and record the presence of knotweed on the various properties before during and after the treatment program and ensure that all owners of the properties with contamination are made aware of their responsibilities in stopping the spread of Japanese knotweed.

This level of record keeping and communication will then allow those owners who have acted responsibly and controlled the knotweed on their land to take the necessary action to claim for any damages arising from any knotweed encroachment from their neighbours' property. Taylor Total Weed Control Ltd can communicate with the owners of the adjacent properties on your behalf if required. £230+ vat for up to 3 properties.

1 . Treatment Option Table

Comparison Table for Knotweed Eradication Methods					
Method	Cost	Time	Track Record	Environmental Impact	Comments
Chemical methods					
In situ Herbicide Application Program – HAP (foliar spray)	★★★★★ Generally least expensive method	★ At least one season required, possibly more	★ WARNING Not suitable where ground is to be disturbed	★★ Medium impact, risk of harm from herbicide use	Generally used where ground is not to be disturbed and some regrowth is tolerable
In situ HAP (stem injection) usually near water course.	★★★★★ Generally least expensive method	★ At least one season required, possibly more	★ WARNING Not suitable where ground is to be disturbed	★★ Medium impact, risk of harm from herbicide use	Generally used where ground is not to be disturbed. Risk of dormancy and future regrowth.
Physical methods					
Excavation and sifting on site soil processing	★★★★ Approx. 50% saving compared to Dig & Dump	★★★★★ A matter of just days depending on volumes	★★★★★ High level of certainty	★★★★★ Low impact, no herbicide use, zero waste to landfill	A very cost effective solution suited to development sites
Dig & Dump excavation and removal - landfill disposal	★ Extremely expensive	★★★★★ A matter of just days depending on volumes	★★★★★ High level of certainty	★ High impact. EA method of "last resort"	The method of last resort where soils need to be removed from site
Cell burial – on site disposal	★★ Approx. 50% saving compared to Dig & Dump	★★ Major earthworks taking weeks or months	★ Control measure, not eradication, reliant on cell membrane	★★ High impact to site due to earthworks	Not recommended as Better options exist. A method we will not employ.

Stockpile & Herbicide Treatment	★★★★ Generally least expensive physical removal method	★★ A matter of days to move soils from construction critical areas	★★ High certainty where excavated but not in stockpile area	★★ Medium impact from use of herbicides	An economical option but space constraints often make it impractical
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The options we point out all conform to the Environment Agency code of practice for the control and eradication of Japanese knotweed and reflect the current legislation applicable to the treatment of Japanese knotweed. The costs of the various programs vary according to the time required, resources and labour involved.

The control and movement of Japanese knotweed is subject to several strictly enforced laws. Deviating from these options, e.g. fly tipping of Japanese knotweed waste can sometimes lead to prosecution and fines. These are not our rules but they exist to control the spread of invasive weeds such as Japanese knotweed.

Treatment options vary and usually depend on certain key factors. If there is no immediate construction planned or any urgent pressing need to control the Japanese knotweed, then it can be controlled with a Herbicide Application Program (HAP). Some lenders are quite happy to lend funds for mortgages as long as there is a HAP in place. Please see the section on Japanese knotweed Management Plans (JNMP).

Herbicide Application Program (HAP)

The herbicide approach HAP is by far the most efficient and cost effective option to treat and control Japanese knotweed on your land. Programs take years to be completely effective. The HAP involves treating the knotweed on site with a selection of appropriate herbicides at regular intervals over the next three to four growing cycles. Although you will see signs of deterioration after the first application in year one.

During the treatment program new shoots will appear as the plants respond to the treatment program. This is natural and allows us to apply more herbicide to the plant root or rhizome system and gradually weaken the plants ability to regenerate. In some cases this may involve treating a larger area as the area of contamination increases.

Excavation and Removal

If you need fast removal of the Japanese knotweed from the site in question.

The process is to excavate the plants and the surrounding contaminated soil, tracking and excavating the roots that may extend several metres from the visible edge of the contamination, possibly down to a depth of several metres.

We can reduce the amount of material that has to be removed if the excavation and rhizome tracing is closely supervised to reduce the soil excavated. All rhizomes must be traced, followed and removed to stop any regrowth appearing.

The soil and plant debris which is classified as contaminated waste must then be transported to a licensed site using licensed contaminated waste haulage contractors. Backfilling you may incur extra cost purchasing and transporting soil to the site to backfill the excavated area. It is important to point out that ground that has been contaminated with Japanese knotweed remains classified as contaminated waste. If contaminated soil or waste is removed from the site it must only be handled and accepted by suitable registered waste carriers and disposed of at specialist licensed landfill sites incurring landfill tax charges. Excavation and transportation to a licensed Landfill site used to be the solution when landfill costs were much lower.

Supervision of excavation and removal using staff and resources supplied by the client

We can be on site to supervise the excavation of Japanese knotweed plant and rhizome material and contaminated soil using the appropriate qualified manpower and equipment supplied by the client. We will ensure that all procedures are followed in line with the Environment Agency Code of Practice for the control of Japanese knotweed.

Excavate- relocate on site and treat with HAP

The plant material and contaminated soil is excavated and relocated on the current site, the area is quarantined and fenced off to prevent casual foot traffic. This quarantined contaminated area is then treated with an appropriate AP without the cost of transporting and landfill fees. We can carry this work out or supervise the client's resources in carrying it out.

Protective Membranes to prevent encroachment

In certain circumstances where there is contamination on an adjacent site it may also be prudent to dig down and install a specialist Japanese knotweed root membrane to prevent the rhizome roots spreading. The area protected by the membrane would then be treated with regular monitoring and an AP. Until the contamination on the adjacent site has been eventually brought under control.

18. COSHH

Hazardous Material: Roundup Pro Bioactive active chemical ingredient Potassium salt of glyphosate. Further information in all cases, follow manufacturer's recommendations and instructions

HAZARD	WHO MIGHT BE HARMED?	PRE CONTROL LEVEL OF RISK	CONTROL MEASURES	POST CONTROL LEVEL OF RISK
Contact with chemical during mixing and filling	Operator / Public / Site Personnel	High	- Wear personnel protective equipment (to include coveralls, waterproof boots, rubber gloves and face mask) - Exclude others from area of operation. Cease operation if anyone approaches	Medium
Contact with chemicals whilst spraying – eyes	Operator	High	- Wear eye protection (goggles, face visor, etc.) whilst spraying - Use air-inducing hollow cone nozzle to ensure directional spray - Short-term contact will not produce significant adverse effects - If contact is made with eyes, flush immediately with water	Low
Contact with chemicals whilst spraying – eyes	Public / Site Personnel	Medium	- Exclude all other personnel from operating area - Cease spraying immediately if anyone approaches exclusion zone and do not continue until unauthorised personnel have left exclusion zone - Short-term contact will not produce significant adverse effects - If contact is made with eyes, flush immediately with water	Low
Contact with chemicals whilst spraying – skin	Operator	High	- Wear personnel protective equipment (to include coveralls, waterproof boots, rubber gloves and face visor/goggles) whilst spraying - Use air-inducing hollow cone nozzle to ensure directional spray - Short-term contact will not produce significant adverse effects. - If contact is made with skin, wash immediately with water. Remove contaminated clothing	Low
Contact with chemicals whilst spraying – skin	Public / Site Personnel	Medium	- Exclude all other personnel from operating area - Cease spraying immediately if anyone approaches exclusion zone and do not continue until unauthorised personnel have left exclusion zone - Short-term contact will not produce significant adverse effects. - If contact is made with skin, wash immediately with water. Remove contaminated clothing	Low

Inhalation of chemicals whilst spraying	Operator	High	- Wear personnel protective equipment (to include face visor/goggles and mask) whilst spraying - Use air-inducing hollow cone nozzle to ensure directional spray ☐ Short-term contact will not produce significant adverse effects - If chemical is inhaled, remove immediately to fresh air	Low
Inhalation of chemicals whilst spraying	Public / Site Personnel	Medium	- Exclude all other personnel from operating area - Cease spraying immediately if anyone approaches exclusion zone and do not continue until unauthorised personnel have left exclusion zone - Short-term contact will not produce significant adverse effects - If chemical is inhaled, remove immediately to fresh air	Low
Contact with spray from leaks	Operator	High	- Ensure sprayer is used only by fully trained personnel - Ensure all pre-start checks are completed - Ensure equipment is fully maintained	Medium
Spray drift onto non-target species	Operator / Environment	High	- Use air-inducing hollow cone nozzle to ensure directional spray and limit spray drift - Hand apply herbicide using specialist glove-wipe equipment if more precise targeting is required.	Low
Contamination of water body	Plant, insect and fish life in water body / Public downstream due to contamination of water supply	High	- Ensure written consent has been obtained from the Environment Agency prior to conducting any herbicide application within 5m of a watercourse - Use air-inducing hollow cone nozzle to ensure directional spray and limit spray drift - Hand apply herbicide using specialist glove-wipe equipment if more precise targeting is required. Alternatively, stem inject chemical Glyphosate authorised for use in or near watercourse – minimal directly into plant removing any risk of spillage or drift ☐ adverse effects once diluted	Low