Japanese Knotweed Proposal

The Riverlands, Henley-in-Arden, B95 5GD

Prepared for: Marijana Bainbridge of Henley Parish Council

Prepared by: Amber Tunney on 10/11/2021

Reference: 17007

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1.0 Introduction

Thank you for your recent enquiry regarding Japanese knotweed and for giving us the opportunity to submit our proposals. We are one of the leading knotweed specialists in the UK able to offer insurance backed guarantees (IBGs) for up to 10 years underwritten by AA-rated Great Lakes Insurance SE.

The problems typically experienced with Japanese knotweed on commercial and development sites are;

- delays to development/construction works, and associated increased cost
- spread of knotweed (encroachment) onto adjoining land resulting in risk of neighbour dispute and ultimately legal action under private nuisance
- criminal sanctions under the Wildlife & Countryside Act 1981, by permitting the spread of Japanese knotweed into the wild, or under the Environmental Protection Act 1990 Part 2 "duty of care" relating to controlled waste
- problems with land sale or purchase due to nil or low valuations for lending purposes
- risk of damage to existing or future buildings, hard surfaces, drains etc.

Rest assured, where knotweed is tackled correctly, these problems can usually be avoided.

2.0 Project Objectives

We understand that there is a presence of Japanese knotweed and Himalayan Balsam along the banks of the river Alne within the boundary of the parish council that has been identified. There has been a programme of volunteers to pull the Himalayan balsam from the riverbank and there are currently no plans for any landscape changes.

3.0 Site History & Conditions

The information below has been derived from;

- a walkover site survey carried out by Amber Tunney on 10/11/2021 in the presence of Marijana Bainbridge. The survey did not include any physical investigations.
- Information submitted to us, namely:
  - A map showing the location of the Riverlands and Weirs
  - Information regarding location and extent of the plants.

The site is currently an open access public parkway along the river Alne that runs behind Prince Harry Road and Riverside gardens. There are residential developments on either side of the river with the river and park running between them. The area is managed by Henley Parish Council and it became apparent in spring 2021 that there was a growth of Japanese knotweed towards the boundary of the land, of which the county council has also been made aware.

The parish council have since been made aware that the river banks and the land surrounding is their responsibility, therefore they would like to treat the knotweed to avoid any further spread. It was also requested that a treatment option for the Himalayan balsam found alongside the riverbanks was included.

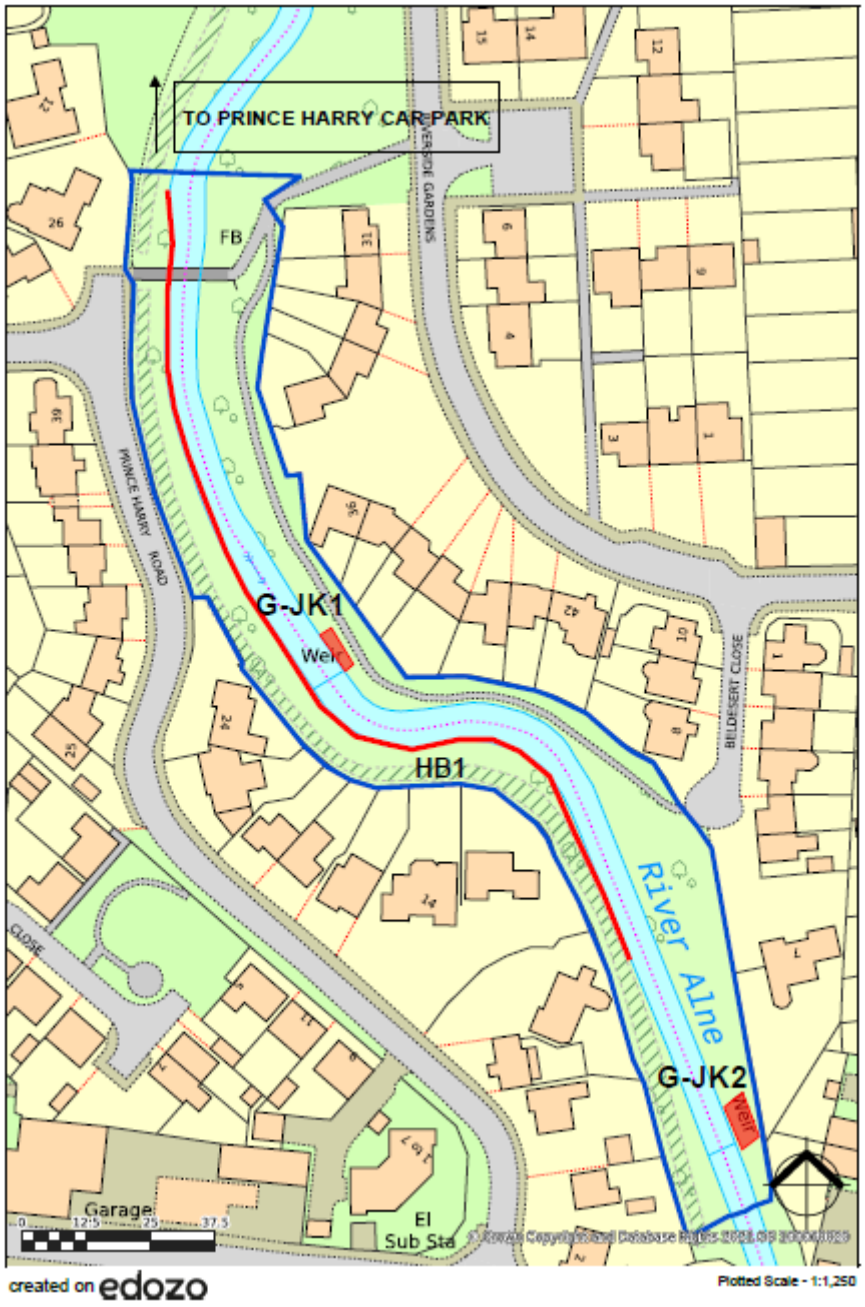
The visible knotweed appears to be Giant Knotweed (Reynoutria sachalinensis) which is closely related to the more common Japanese knotweed (Reynoutria japonica). This is a larger plant and the rhizome system is also aggressive and invasive. This is present on the site in 2 locations as per the table below.

There is also Himalayan Balsam along the river.

Table 1 – Schedule of Infestations, defining the extent of visible knotweed

Ref	Visible Length (m)	Visible Breadth (m)	Visible Area (m^2)	Relevant comments (e.g. location description, maturity, previous treatment, distribution etc.)
G-JK1	14	3	42	Some knotweed trailing into river
G-JK2	7	3	21	Close to the river
	Total		**63**	
HB1	200m	-	200m	Along riverbank.

The extent of visible knotweed above ground is an indicator of the extent of infested soil but it is not a definitive measure. Maturity of the knotweed, soil conditions and any previous attempts at eradication will affect both the lateral and vertical spread, and hence volume of infested soil.



Legend for Site Location Plan		
	G-JK1	Visible extent of Japanese knotweed (as referenced in Schedule of Infestations)
	HB1	Himalayan Balsam Location (as referenced in Schedule of Infestations)
		Boundary of Survey Area

Figure 1: G-JK1, Full length of visible plant approx 14m

Figure 2: G-JK2, Visible stand of canes

Figure 3: G-JK3, Height of stand approx. 2.5m

4.0 Treatment/Removal Options

4.1 In-situ herbicide

Method: Our treatment programme typically consists of four to six herbicide applications (it can be more or less depending upon the plant's uptake of the herbicide), using DEFRA approved herbicides applied at suitable times during the knotweed growing season (typically May to October) over a period of 2 years. On completion of treatment, the dead canes can either be left to rot on site or can be removed by Environet as an optional extra. Monitoring visits are carried out for two years following completion of treatment to check for regrowth.

Suitability: Herbicide treatment is suited where the knotweed is;

- in good condition and has not been previously treated
- in a non-critical construction area,
- somewhere that can be quarantined for the duration of the treatment programme,
- in a location that will never be disturbed.

Whilst herbicide treatment has the lowest upfront cost, it is seldom the most economical option on a construction site when other factors are taken into consideration. Achieving complete eradication is extremely difficult. It is impossible to verify with any degree of certainty that all rhizome has been killed, due to herbicide induced dormancy. Dormancy is often broken by ground disturbance (typical on construction or landscaping projects), re-awakening the plant and causing it to regenerate.

Disturbing areas of ground containing dormant knotweed should be avoided at all costs on commercial or development sites to prevent further spread.

4.2 Dig & Dump

Method: Physical removal of Japanese knotweed by excavating all the roots and affected soil is a recognised quick method for clearing land of knotweed. It often results in large quantities of infested soil being excavated, transported, and consigned to landfill for disposal. We ensure that ALL, but ONLY infested materials are removed by tracing the infestation laterally and vertically through the ground. This prevents any clean material leaving site unnecessarily.

Works can be carried out in total by Environet, or if you have other groundworks contractors on site, we can provide a supervisory service.

Suitability: The Environment Agency consider it the "method of last resort" but it is suitable for sites where an instant solution is required, and where no other options are acceptable. As infested soils are classed as controlled waste and subject to landfill tax, this method can become extremely expensive, particularly where large areas are affected. There are currently few remaining landfill sites in the country that will receive knotweed waste, pushing up disposal and haulage costs further.

There are better options available, often at a lower cost that come with additional benefits such as a lower carbon footprint and zero waste output.

4.3 Xtract™

Method: Xtract™ is a far more cost-effective and eco-alternative to dig & dump. Developed by Environet using eco-innovative patented technologies, Xtract™ is an on-site remediation method eligible for Land Remediation Tax Relief. Viable rhizome is removed from the soil, leaving the remediated soils on site for reuse in soft or hard landscaping - making it a zero-waste solution.

The infested soil is fully excavated and then processed with bespoke screening equipment to split the soil into two fractions – the fines (remediated topsoil for soft landscaping) and the oversize (containing the knotweed roots, stones and other sub-soil fractions).

The reduced oversize portion is either;

- stockpiled on-site for subsequent herbicide treatment, or
- undergoes a picking process to remove the rhizome from the oversize, or
- is crushed and reused as engineering fill within a containment membrane, or
- where any of the above are not suitable is consigned off-site to a licensed landfill.

Suitability: Our consultants will review the soil profile as part of their investigations to determine the suitability of the material and the site for the Xtract™ process.

5.0 Recommendations

There are a multitude of site-specific factors that can affect the treatment and removal options. Appendix 1 identifies those that have been given due consideration.

As we have identified that Japanese knotweed is present suitable fencing and warning signs should be erected with a 3m buffer zone around the infestation, signage placed in the site office and welfare facilities with pictures of Japanese knotweed with a designated point of contact and a toolbox talk to be delivered to anyone working within the fenced knotweed area. These actions will prevent the accidental spread of Japanese knotweed. If you require a quote for any of these please let us know.

We recommend that the Giant knotweed found along the east of the river is treated using our aquatic safe herbicide. This method is safe to use alongside the river.

This method utilises a glyphosate-based herbicide to reduce the growing potential of the plant and is an effective control method for unwanted growth. The herbicide will be sprayed onto the plant during the summer months to ensure the best intake into the root system and will effectively stop the plant from growing.

As for the Himalayan Balsam on site, it is my recommendation that the parish council continue pulling/cutting the plant before the plant can set seed. This generally occurs between August-October after the plant has flowered. Himalayan Balsam is classed as a controlled waste so cannot be disposed of within green/garden waste. Therefore, going forward, the uprooted plants should be left to one side, on site, to rot/dry out. If this is done prior to seed-setting, the seed bank within the riverbanks will eventually die out.

6.0 Guarantees

The objective for all methods is to kill and/or remove **all** viable rhizome from the ground. Due to the invasive nature of knotweed some minor regrowth is to be expected. Regrowth following excavation methods is straight-forward to deal with and is no major cause for concern. We monitor all our work following Xtract™ and where a valid insurance backed guarantee is in place, we will deal with any regrowth at no additional cost to you.

Environet's Insurance Backed Guarantees have the following advantages:

- "AA-" rated insurer accepted by all major lenders. Our guarantees are underwritten underwritten by CLS Property Insight Ltd on behalf of Great Lakes insurance SE, UK Branch, part of the Munich Re group of companies, a market leading rated insurer. It goes without saying that these are accepted by all the major banks and building societies in the UK.
- £100,000 limit of liability. The limit of liability is generally set at the contract value, with a minimum cover value of £5,000. If required, cover can be arranged with a limit of liability of up to £100,000. Larger values can be obtained subject to insurer approval.
- Cover effective in days – no delays. Our IBG can be issued following our first visit/treatment, subject to receipt of full payment. This means you have certainty that you are fully covered from day one.
- Up to 10 years' cover We can provide guarantees for 5 or 10 years to cover the treated area plus buffer zone, or the entire property.
- No excess charges. There is no excess charge, or fee payable for making a claim.
- Assignable. Our IBGs can be assigned to new freehold or leasehold owners. We can also add extra beneficiaries that have an interest in the land, (other than a freehold interest), e.g. leaseholders, or lenders using the property as security at any time during the guarantee period.

7.0 Costs

Element	£ (ex VAT)
In-situ Herbicide Treatment	
Herbicide Treatment Programme for stands G-JK1 & G-JK2 identified in the Schedule of Infestations rhizome including provision of Environet standard 5-year insurance backed guarantee:	£5,750.00
Extra over to include standard 10-year insurance backed guarantee (optional):	£7,000.00
Options	
Additional consultancy services not forming part of our original instructions are charged at £750 + VAT and disbursements:	
Please note, we have assumed the following will be provided by the client: a) Access, including where necessary suitable site haul roads b) Suitable and adequate working space c) Welfare facilities d) For any excavation work, a signed permit to dig e) Site security	

Please note:

- Our Standard Terms & Conditions apply
- We are used to rapid mobilisation and will use our best endeavours to fit in with your programme requirements subject to reasonable notice. We will agree dates with you for site mobilisation, and ensure all plant and labour is scheduled to suit. If you need to postpone site mobilisation from the agreed date, please give us as much notice as possible. Where agreed dates are postponed by the client or their representative, we reserve the right to charge for any costs we incur. Where less than 3 working days', notice is given these costs may include fees for additional administrative work to re-arrange the mobilisation, any costs we receive from our suppliers, and abortive time charges where staff cannot be deployed on other projects at short notice.
- All figures shown exclude VAT, which will be added to your invoices at the prevailing rate
- No offsets or retention will be accepted. Guarantees cannot be validated until full payment is received

- Payment Terms are strictly 30 days from date of invoice via card or BACS. We are unable to accept cash or cheques.

- This quotation is open for acceptance for 60 days from the Proposal Date

8.0 Acceptance

If you have any queries regarding the content of this proposal or require a quote for an alternative method, please contact us on 01932 868700. We may be able to engineer a lower cost solution that still meets your revised needs.

To accept this quotation, please complete the instruction form that accompanies this quote and email to sales@environetuk.com.

Please note the Company credit checks all new business customers prior to commencing performance of the Services. The results of the credit check shall determine the Company's payment terms with the Customer. Where standard payment terms are agreed, a non-refundable deposit of 25% of the Contract Price shall be invoiced upon issuance of the Company's written acceptance of the Customer's order. We reserve the right to delay commencement on site until in receipt of the deposit payment.

Where non-standard payment terms are deemed necessary owing to a less than satisfactory credit rating, we will contact you prior to invoicing to agree alternative terms.

We look forward to working with you.

Appendix 1

Site Specific Constraints

Site Specific Constraint		Comments (where applicable)
Any identified watercourse (controlled water) in close proximity of the knotweed?	No	
Is groundwater assumed to be deeper than 3m below ground level?	Yes	
Has the presence of rare or protected species/habitats been identified or reported to us?	No	
Is there a risk of knotweed encroachment across site boundaries now or in foreseeable future?	No	
Is there any evidence of, or any reported previous ground disturbance within theoretical area of infestation;	No	
Is there any evidence of previous herbicide treatment to the knotweed, or has any been reported to us?	Yes	
Is the knotweed in close proximity of buildings/structures?	No	
Is the soil type/conditions known?	No	
Is the knotweed on sloped ground?	No	
Are there any known underground obstructions?	No	
Is access available for the required machinery?	Yes	