

The background of the slide is a photograph of a wetland landscape. It shows a body of water in the foreground, with a line of green vegetation and a small building in the distance under a cloudy sky. A large, semi-transparent graphic of the Ebsford Environmental logo is overlaid on the image, with its points extending towards the corners of the slide.

Advanced Solutions for Aquatic Restoration & Vegetation Management

www.ebsford.co.uk

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Proposal to Eradicate Japanese Knotweed (*Fallopia japonica*) at Carlton Road, Barnsley



Date: 27/07/2017

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Strictly Private & Confidential

Project Brief



Ebsford Environmental Ltd were commissioned by Chris Cammidge to survey a development site in Barnsley for the presence of Japanese Knotweed and any other non-native invasive species..

A survey was carried out on 17th July 2017 by Ebsford Environmental representative, Ray Holderness (Senior Consultant). One relatively small infestation of Japanese Knotweed was identified and subsequent discussions with Chris Cammidge regarding the options for eradication resulted in the findings below. Due to the small estimated volume for excavation there are just the two options:

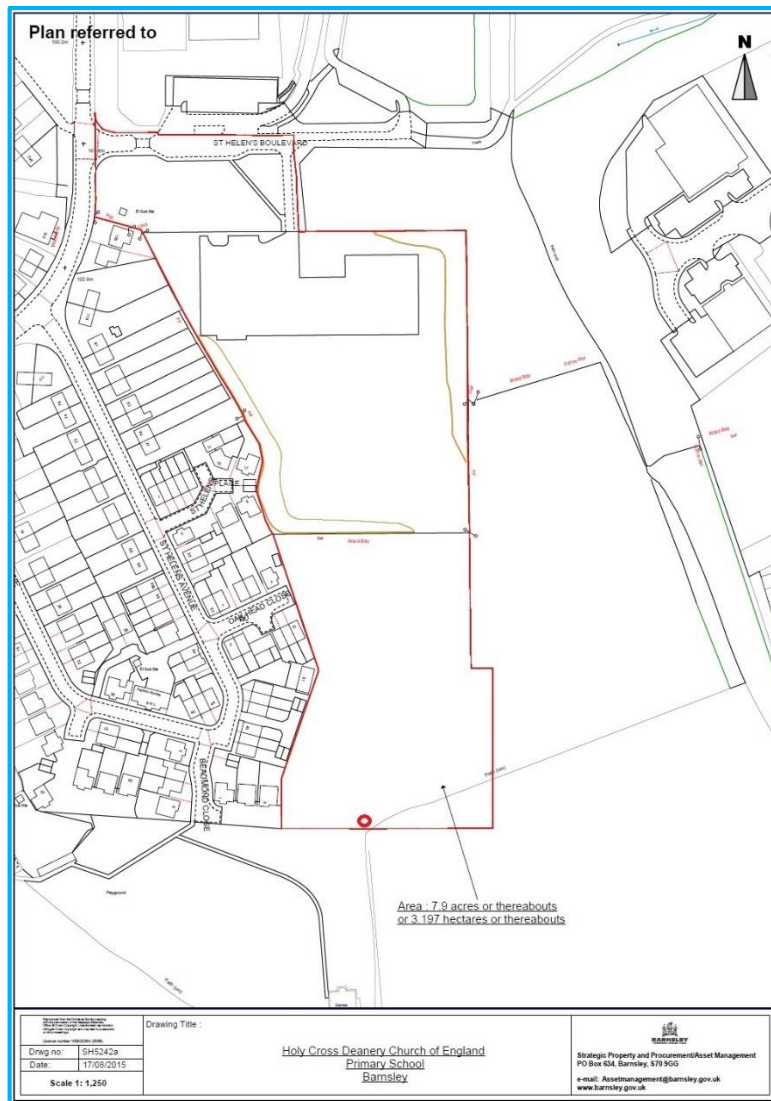
- Establish extent of Japanese knotweed within the development footprint
- Excavation and burial on site in proposed public open space
- Excavation and disposal off site

Invasive Weeds Overview Plan – Aerial View



Aerial picture above shows the area surveyed and the approximate location and extent of Japanese Knotweed.

Invasive Weeds Overview – Site Plan



Site Survey Observations



The largest part of the site is a former school that has been left to form scrubland and grassland with trees, shrubs and bushes within and around the school boundary. The remaining area of the site is farmland. At the time of surveying a crop was present in the field; a footpath crosses the farmland near the southern boundary. There was no visible signs of any invasive weeds within the former school but there is just one small area of Japanese Knotweed located close to the southern boundary, adjacent to a public playing field and playground. The Knotweed may have been fly tipped; the immediate area appears to be a raised mound.

Photographic Records



Knotweed location is indicated by the highlighted area.

Ebsford Recommendations



Methodology	Eradication Date	Achievable Y/N	Recommended Y/N	Reason (s)
Single season herbicidal	N/A	N	N	• N/A
Multi season herbicidal	N/A	N	N	• N/A
Translocation and herbicide treatment	N/A	N	N	• N/A
On site burial	Immediate	Y	Y	• Public open space may be suitable
Mechanical Screening	N/A	Y	N	• N/A
Offsite disposal	Immediate	Y	Y	• Relatively low volume for disposal

Ebsford Recommendations



To facilitate short or medium term development I would recommend either excavation, haulage and disposal off site (Dig & Dump) or on site burial of all Japanese Knotweed encapsulated within a specialist geo textile membrane.

To conform to Environment Agency guidelines, the Knotweed will require burial at a depth of two metres below the finished site level.

Full details with budget costs can be found on the following pages:

Off Site Disposal



Proposed Recommendation

- Ebsford would recommend offsite disposal of Japanese Knotweed and removal to a landfill site registered to accept such material. This will give immediate access to the proposed development area on completion of excavations. Ebsford will provide excavation, haulage and disposal off site; the client will provide site security and welfare facilities, if required.
- It is estimated that up to 60m³ of Knotweed contaminated material may be removed and this is expected to fill approximately 7, eighteen tonne lorry loads. Our trained and experienced supervisor will ensure that all visible Knotweed contaminated material from within the development footprint is removed, no cross contamination occurs and all machinery used during the process will be clean on completion of the works. The work is expected to be complete within one day and all documentation such as waste carriers license and waste transfer notes will issued to the client. Clean backfill may be required if site won material cannot be used; the client will be responsible for this.
- This offer is subject to the receipt of SI reports or soil tests being completed and the results showing excavated material will be otherwise inert, containing incidental (<5%) vegetation/Knotweed rhizomes and being accepted at the receiving landfill site at the inactive/lower rate of taxation. Knotweed is classified as non-hazardous controlled waste; if soil test results prove otherwise or the landfill site imposes taxation at the active/higher rate, delays may be necessary and extra costs may also be incurred.
- On completion of excavations and removal from site a ten year, £5,000,000 P.I backed warranty will be issued and monitoring of the site will take place for the duration of the warranty. The warranty covers hard standings, structures and is fully transferable; a sample warranty certificate is contained within this document.

Budget Cost Analysis – Off Site Disposal



Operation	Unit	No	Rate	Total
RAM's preparation and administration	lump	1	£200	£200
Excavator per day	Day rate	1	£420	£420
Haulage per lorry per day	Day rate	2	£700	£1400
Disposal based on 18 tonne per lorry load (including landfill tax)	Load/part load	7	£400	£2800
Site Supervision	Day rate	1	£400	£400
Issue of 10 year warranty for excavated areas	lump	1	£500	£500
Total Price				£5,720

Above are exclusive of VAT

The above costs are based on several variables such as the volume of excavation required, number of days to complete the work. I believe the above represent fairly accurate estimates but do not take into account events outside our control. Invoicing will be adjusted up or down to reflect the use of materials etc. If the client provides excavation plant and machinery, simply deduct the day rate cost indicated above.

On Site Burial



Proposed Recommendation

- Ebsford would recommend on site burial of all Japanese Knotweed. This will give immediate access to the proposed development area on completion of excavations. Ebsford will provide all excavation plant, haulage (dumper) and disposal to a designated area on site. The client will provide site security and welfare facilities, if required.
- Based on visual, above ground evidence, a maximum of approximately 60m³ of Knotweed contaminated material will be removed and placed in the burial pit as required. A designated area for the burial pit will need to be identified before works commence; a POS area can be utilized if suitable. Our supervisor will ensure all visible Knotweed contaminated material from within the site is removed, no cross contamination occurs and all machinery used during the process will be cleaned on completion of the works. The work is expected to be complete within one day. Clean backfill may be required if site won material cannot be used; the client will be responsible for this.
- On completion of excavations and burial on site a ten year, £5,000,000 P.I backed warranty will be issued and monitoring of the site will take place for the duration of the warranty. The warranty covers hard standings, structures and is fully transferable; a sample warranty certificate is contained within this document.

Budget Analysis – On Site Burial



Operation	Unit	No	Rate	Total
RAM's preparation and administration	1	1	£200	£200
Excavation and transportation (dumper) plant and machinery (inc' del' & coll)	Day Rate	1	£1,100	£1,100
Root barrier membrane for disposal cell (including fabrication and fusion welding)	m2	152	£10	£1520
Site Supervision	Day Rate	1	£400	£400
Issue of 10 year warranty	Ea	1	£500	£500
Total Price				£3,720

Above are exclusive of VAT

The above costs are based on several variables such as the volume of excavation required, number of days to complete the work. I believe the above represent fairly accurate estimates but do not take into account events outside our control. Invoicing will be adjusted up or down to reflect the use of materials etc. If the client provides excavation plant and machinery, simply deduct the day rate cost indicated above.

Case Study – Offsite disposal of Japanese knotweed



Client – Resource and Environmental Consultants

Project Length – 5 Days

Project Value – £22,900.00

Project - Kensington Avenue, Cheltenham

The Japanese knotweed was identified on the proposed car park extension at Cheltenham Spa train station. The disused railway embankment contained numerous sporadic infestations spread across a large area. Dense vegetation covering the embankment made accurate quantification of the Japanese knotweed difficult.

Tight access and strict timescales meant that the only feasible solution was Offsite Disposal to a licenced landfill.

Ebsford used their expertise and knowledge of the plants physiology to accurately quantify the Japanese knotweed. This resulted in significantly less material requiring offsite disposal than what was originally anticipated.

Ebsford took control of the site on a Wednesday and by Friday handed the keys back to the client with the site clear and Prepared for development. This was important to the client and kept car park closures to a minimum.



Certificate of Warranty:



Certificate of Warranty

Job No:



Ebsford Environmental Ltd certifies that the eradication of Japanese knotweed will have been successful, as per the recommendations given in our offer letter and subsequent correspondence relating to this project.

Name of client:

Site Covered:

Start Date:

Eradication Date:

Signed:

Date:

This warranty comes into effect from the eradication date given above for a period of 10 years.

Recommendations and advice given by Ebsford Environmental are covered by £5,000,000 PI insurance; this insurance covers our clients in the event that any of our treatments are deemed to be ineffective.

In the unlikely event this should happen Ebsford Environmental Ltd will commit to:

- Provide a timely and robust methodology for eradication
- Supply all remedial labour and material required FOC as per the original specification
- Rectify any damage caused during the period of treatment/warranty or suitably recompense our clients
- Act within any legislation covering Japanese knotweed
- Provide further warranties and assurances as necessary
- Supply clients with details of relevant insurances upon request and liaise with our providers regarding technical queries as necessary

Specific Exclusions to our warranty include

- Third party re-introduction, interference or disturbance
- Any incident deemed to be force majeure, fire or flood

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What our clients say



"Ebsford have worked exceptionally well on a number of projects giving professional advice not only to give a better outcome but cost effective too. The service turnaround from initial contact to working on site has been quick and effective. Competitive prices across the range of work has helped to get work completed with one company rather than going to two or three companies on one site. Overall an excellent company to work with"

Andrew Willerton – Landscape Architect – Bovis Homes

"Ebsford are a pleasure to have on site – hard working, knowledgeable and professional. Always produce a very high standard of work"

Jon Lane – Senior Contracts Manager – Ground control

"Thomas Armstrong have worked with Ebsford Environmental on a number of recent schemes which have identified Japanese knotweed at a late stage of development. From initial proposals through to practical completion they have offered a professional and no nonsense approach which has ensured we have met development timescales whilst avoiding unnecessary expense."

"We have used the Ebsford Enviroscreen machine now on a number of projects and must write to say how impressed we are with both the Ebsford approach and the machine itself. On every occasion we have found that the system has come in cheaper than alternative solutions, in some cases over 50% whilst allowing us to retain material on site for re-use as part of our development. We will continue to specify this solution as our system of choice and have no issue recommending Ebsford to our contacts."

Alan Finchett – Davis and Davis Properties

"From initial contact to completion of works, Nick Hartley and Ray Holderness of Ebsford have provided a simple, effective and professional solution to a problem which was only identified late in the process. After some research into Japanese knotweed it was refreshing to have the recommendation of a trustworthy contractor who delivered exactly what they claimed. The warranty was provided immediately upon completion and the health and safety of the site teams was without fault. I would have no hesitation in using Ebsford again or in recommending them to other organisations with Japanese knotweed problems".

John Lanagan – Impact Housing

About Ebsford



The owner operators of Ebsford Environmental have been offering consultant advice and advanced contracting solutions for Japanese knotweed eradication for over 15 years.

In addition to being founder members of the Invasive Non Native Specialist Association (INNSA), Ebsford also hold a highly respected place in the forefront of new technologies including the Enviroscreen 20-20 processing technology.

Founded in 2011, Ebsford Environmental aims to deliver simple, clear and effective advice to establish best practise, cost effective eradication solutions.





Utilities, Flood Defence & Regeneration Developments

- Public Open Space Regeneration
- Marina & Harbour Developments
- Integrating Removed Silt Onsite
- Efficient Maintenance Solutions
- Civils In/On/Near Water
- Asset De-silting
- Asset Restoration & Improvements
- River Restoration
- Rock Armour
- Soft/Bio Erosion Control
- Drainage Ditch and Culvert Clearance

Watercourses, Rivers and Canals, Lakes and Ponds

- River Restoration and Realignment
- Dredging and De-silting
- Soft Bio Erosion Control
- Lake & Pond Restoration and Development
- Efficient Maintenance Solutions
- Integrating Removed Silt On-site
- Establishing Native Aquatic Plants
- Groynes & Beach Nourishment
- Canal Restoration
- Accelerated Silt Dewatering

Vegetation Management

- Japanese knotweed Herbicidal Eradication
- Japanese knotweed Mechanical Eradication
- Japanese knotweed Screening
- Japanese knotweed Enviroscreen 20-20
- Site Clearance and Tree Works
- Other Non-Native Species
- INNSA

Corporate Values



Clients

- Offer ethical, impartial advice and consultation.
- Provide the highest level of health and safety and environmental knowledge on project delivery
- Give clear and transparent information and pricing
- Back our quality of work with warranties and guarantees

Staff

- Employ only highly skilled and committed individuals.
- Train and develop staff to be aware of the environment around them.
- Provide a safe and happy working environment both internally and externally.

Environment

- Be aware of all and any impact of our proposed works
- Liaise and discuss impacts with local and national authorities
- Limit and remove risk by provision of exemplary health & safety and environmental protocols
- Monitor projects and work with clients to remedy or rectify any environmental damage
- Provide bio-diverse aftercare packages for all works



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