



29 June 2017

By Email Only [REDACTED]

Tim Beckett
The Planning Bureau

Our ref: RS/5911_S/SC

Dear Tim:

**38-44 London Road, Purbrook, Waterlooville, Hampshire, PO7 5LJ:
Japanese Knotweed Survey and Management Plan.**

Thank you for inviting Phlorum Ltd to carry out a Japanese knotweed (*Fallopia japonica*) survey at the above site in Purbrook.

We understand that you are managing a planning application for a care home on the site of the present trade depot and car garage. As a result, you require a methodology to manage the Japanese knotweed (here on referred to as knotweed) at the site.

As you are aware we carried out a survey on Monday 19th June 2017, the weather conditions during the survey were sunny.

Background Information

Legislation

Due to the vigorous nature of knotweed and its ease of spreading by disturbing and moving contaminated soils, there are a number of legal instruments that can affect landowners where knotweed plants are present. These include:

- the Anti-social Behaviour, Crime and Policing Act 2014 (England and Wales) can be used to require someone to control or prevent the growth of knotweed if it can be proven that the plant is having a detrimental effect of a persistent or continuing nature on the quality of life of those in the locality, and that the failure to act on the problem is unreasonable;
- third party litigation, where a landowner can be sued for costs and damages if they allow knotweed to spread from their property onto that of another site - either by translocation of infested soils or by allowing growth to occur across a site boundary (see *Waistell & Williams v Network Rail* [2017] for the precedent setting case on this – Phlorum successfully acted for the Claimants);
- the Environmental Protection Act (EPA) 1990, and the Waste (England and Wales) Regulations 2011 (in Scotland the EPA and The Environmental Protection (Duty of Care) (Scotland) Regulations 2014), where cut knotweed

material and soil containing rhizomes must be disposed of as controlled waste if they are to be removed from their site of origin; and

- the Wildlife and Countryside Act (WCA) 1981, where it is stated that it is an offence to plant or otherwise cause knotweed to grow in the wild.

Eradication Methods

There are several different options which can be used when providing a Japanese knotweed eradication scheme.

Essentially there are five main options for Japanese knotweed treatment. These are as follows:

1. excavate all material and then dispose of it at an appropriately licensed landfill site;
2. excavate all material and bury on site, and either:
 - the material is encapsulated totally by root barrier membranes; or
 - the buried material is covered with a root barrier membrane over the top of the burial pit;
3. excavate material and treat on site by use of a picking station, soils screens, or a series of soil turns and/or herbicide applications, either:
 - the material is passed through a picking station or series of soil screens;
 - material is laid in thin layers, 0.5m to 1m in depth, and periodically turned and sprayed; or
 - the material is laid in a treatment mound/landscaped area which can be grassed and then treated with herbicides as required;
4. carry out a reduced excavation and installation of a root barrier membrane;
5. treat with herbicide over a number of years.
6. the final option is to use a combination of the options above. Often on a site different knotweed stands will be treated differently depending on the different end uses of the site.

The Site Survey

The site consists of a roughly rectangular plot of land which is currently split into two; a builders yard to the north and eastern extents, featuring a building in the north west corner of the site, and a large area which is currently used for storing building materials. The southern portion of the site consists of multiple car garages, associated buildings, and gravelled areas.

Two areas of Japanese knotweed were identified on the site, and one area immediately off-site. These areas are shown on the attached Figure 1, and described below:

- **Area 1 (JK01):** Scattered Japanese knotweed shoots growing on either side of the interior metal palisade fencing separating the two businesses, covering an area of approximately 9m²;
- **Area 2 (JK02):** An established stand of knotweed amongst the tall ruderal vegetation in the south-western corner of the site. This area was not identified from previous surveys, as access was not possible down the footpath running down the site. The knotweed was observed covering an area of approximately 14m². The knotweed was seen growing in the downpipe (photo 3) approximately 1.5 meters above the ground.
- **Off-site;** Established knotweed in the fenced off area immediately south of the survey site. This area was viewed from the footpath, so the full extent of knotweed amongst the tall ruderal vegetation could not be established, however, knotweed was also observed in the pub garden south of the off-site area.

Limitations

The site was surveyed as far as was possible, access could not be obtained for the two areas behind the garage along the southern boundary. Of these knotweed was observed on both sides of tall brick walls, and therefore the presence of knotweed between the two sites should be assumed, until the areas can be accessed for further survey.

If any above ground growth has been disturbed or covered, or the below ground growth is dormant, then it is may be impossible to identify these areas in a survey.

Two areas in the south of the site could not be accesses and a further survey may be required, to establish the presence of knotweed in these areas. However, for the purposes of the management proposals below it is assumed that these areas have knotweed until surveyed and proved otherwise.

Survey Photographs

Photo No.	Description	Photograph
1	View east of JK 01, on the southern face of the palisade fence.	
2	View east of JK 01, on the northern face of the palisade fence.	

Photo No.	Description	Photograph
3	JK02. View north of the knotweed (circled in red) amongst the ruderal vegetation in the southern corner of the site.	
4	View west into the off-site area south of the south west boundary, showing knotweed growing at the base of the party wall.	

Methodology

Based on the site proposal plans provided by the client, we would advise that Areas JK 01, JK 02 and the area along the southern boundary are within the area likely to be affected by the new build, and will require controlled excavation. We understand that the area immediately south of the site, whilst not part of the plans is under the ownership of the developer, and will not be disturbed by the works and can be fenced off and treated with herbicides as part of a Herbicide Treatment and Monitoring Programme.

No materials should be removed from the site that could contain any Japanese knotweed, unless supervised by a Japanese knotweed specialist.

Further details of the two treatment options are detailed further below.

Controlled Excavation

As the areas of existing Japanese knotweed are within the development footprint, all or some of the Japanese knotweed will have to be excavated and removed from the site.

We recommend the knotweed areas are fenced-off with either Heras or temporary plastic net fencing, or similar materials, and signage is erected to prevent unauthorised access and accidental disturbance of knotweed soils. A four metre exclusion zone, from the last observable shoot, should be enforced around the knotweed area. Netlon fencing would only be recommended for light clearance works on site, and would not be suitable for the site demolition. Some fencing may need to encompass the building in the south-eastern corner as knotweed was observed growing from the guttering above ground level, as indicated in Photo No. 2.

We would recommend that a Japanese knotweed specialist is on site to supervise the demolition of the building in the southern section so as not to disturb the area of knotweed observed growing in the drainage pipe, and the vegetation clearance in the south-eastern corner to reduce the risk of spreading the knotweed across, or off site.

The Japanese knotweed specialist will be responsible for bio-security of the area and provide:

- A tool-box talk to all staff working in the area of Japanese knotweed by an invasive plant specialist covered identifying Japanese knotweed and the causes and risks of it spreading; and
- (if necessary) A boot wash was in place at the entrance to the works area, for all staff to clean all boots, and tools on leaving the Japanese knotweed area.

When the buildings have been reduced to ground level – and this will be required to access the knotweed areas JK02 and along the southern boundary – the controlled excavation of the knotweed areas under supervision of a Japanese knotweed specialist can be carried out.

The excavated material can then be loaded directly into waiting tipper lorries to be removed from the site via a licensed haulier to a licensed landfill site.

The following bio-security measures are recommended to be implemented for the works:

- A nominated person to be identified a clerk of works to ensure the boot and tools are cleaned every time they leave the Japanese knotweed area;
- Signs put up at the site entrance warning of the presence of Japanese knotweed in the work area;

- Waste Transfer Notes should be kept detailing all soil leaving the site;
- Lorries should be positioned on hardstanding during loading and adequately sheeted before leaving the site;
- All haulier and the receiving landfill site should be checked for appropriate licensing from the Environment Agency to transport and receive the waste as appropriate; and
- A thorough clean of all machinery (excavator tracks and buckets, etc.) before leaving the Japanese area to ensure that no rhizomes leave the area. It is important that the material removed during the cleaning remains in the existing area of Japanese knotweed. The cleaning should be documented by the person nominated above and photographs taken as a record.

Once the excavation has been conducted to the satisfaction of the supervising Japanese knotweed specialist it may be necessary to install a non-permeable root barrier membrane along the southern boundary to prevent the known off-site knotweed re-establishing back onto the site. The membrane should be installed vertically 2m below ground level, or at the base of the new retaining wall, depending on the final plans.

The areas can then be developed by the client.

Further monitoring visit will be required by the Japanese knotweed specialist to ensure that the excavated areas have two full calendar years with no knotweed re-growth. When this has been achieved, the specialist should be able to provide a Property Care Association backed Ten-Year insurance Backed Guarantee.

Herbicide Treatment of Off-site Japanese Knotweed Areas.

Off-site Japanese knotweed will only be treated with the landowners written permission.

The number of visits required and the timing of the visits will depend on several factors, including: the maturity of the Japanese knotweed plants; the size in area of the Japanese knotweed stand; the response of the plant to the treatment; the timing and length of the growing season each year; and the weather conditions on the day of the proposed treatment. However, we recommend that at least one visit per year is undertaken – usually in September or October – until there has been two years of no-regrowth.

Those applying the herbicide should be suitably qualified. An appropriate certification is NPTC: PA1 Safe Use of Pesticides; PA6 Hand Held Applicators; and PA6AW Hand held Applicators Use Near Water.

A visual inspection of the Japanese knotweed growth on the site and surrounding area will be undertaken. Any visible Japanese knotweed shoots on-site should be treated with a non-persistent, non-selective herbicide, suitable for use around aquatic environments.



Spraying should not take place in high winds or excessively wet weather conditions. Spray droplets should be applied in a manner that will prevent drift onto neighbouring properties.

Herbicide treatments should be applied to the green leaves of plants using electric knapsacks, handheld sprayers, or weed wipes, or injected into the hollow stem using a stem injection gun. The most appropriate method of treatment will be at the discretion of the Japanese knotweed specialist attending site.

The instructions for the use of the chemical, including the Materials Safety Data Sheets supplied by the manufacturers of suitable products, will be adhered to. The Control of Pesticides Regulations 1986 (as amended) will also be complied with.

Specific risk assessments for activities using herbicides, as required by the Control of Substances Hazardous to Health (COSHH) Regulations 1994 need to be undertaken prior to any work being carried out.

Appropriate Personal Protective Equipment (PPE) should be used following current codes of practice. Where herbicides are sprayed close to site boundaries with neighbouring properties, care will be taken to ensure that chemical droplets are not spread where they could affect members of the public and/or non-target plants.

Ten-Year Insurance Backed Guarantee

The ten-year insurance backed guarantee starts at the end of the herbicide control process, after there has been two years of no regrowth.

All guarantee applications are reviewed by the insurer before they can be approved. For the insurer to approve the guarantee application we will need written permission from any adjacent landowners to treat knotweed on their sites where it might impact the subject site. Current guidance from the RICS is that any off-site knotweed within 7m of the subject site boundary could affect it.

Further Information

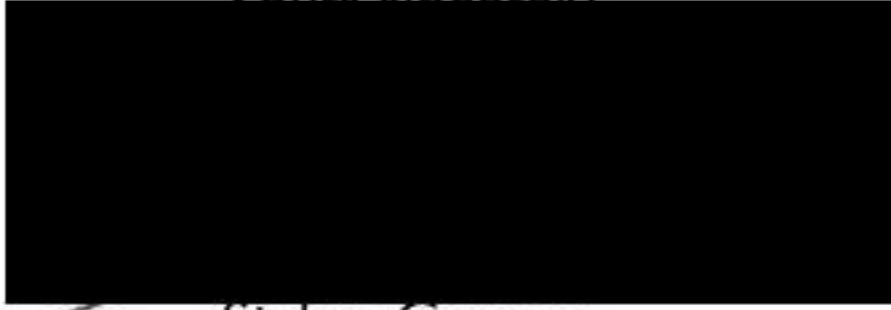
Phlorum is an award winning environmental consultancy that prides itself on providing transparent and honest professional services. We are UKAS certified by LRQA for OHSAS18001 (Safety), ISO14001 (Environment) and ISO9001 (Quality). We are also CHAS accredited, and members of Constructionline. We operate to Government-endorsed standards by being TrustMark registered, leaving you safe in the knowledge that your requirements will be dealt with in a professional manner from start to finish.

Phlorum is a founding member of the Property Care Association (PCA) Invasive Weed Control Group and the working group that produced the Royal Institution of Chartered Surveyors (RICS) guidance on knotweed surveys.



We trust this scope of work meets your requirements and if you have any queries, please do not hesitate to contact us.

Yours sincerely,



Stefan Cannon

Senior Environmental Consultant

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Figure 1: Japanese Knotweed at 38-44 London Road, Purbrook, Waterlooville, Hampshire, PO7 5LJ



Scale: NTS
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