

Invasive plant species management plan

CLIENT	Russell Homes (UK) Limited
SITE	Land to the west of New Street, Littleborough, OL15 8HW
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Summary

In summary the following invasive plant species were recorded within the development boundary -

- 9 no. areas containing Japanese knotweed
- 12 no. areas containing Himalayan balsam
- 3 no. areas containing Variegated Yellow archangel
- 1 no. area containing horsetail

Due to proximities of some of the recorded invasive plant species to the development boundary, associated propagules (a vegetative structure that can become detached from the invasives plant species recorded on site and give rise to a new plant) could extend development boundary / on neighbouring land. Additional areas containing invasive plant species were also recorded on neighbouring land.

To facilitate the development, a mechanical remediation strategy is required to be implemented, whereby associated impacted materials are excavated-removed. At this stage, the excavated impacted materials will be buried within a designated area on site in accordance with Environment Agency's RPS 178.

To reduce the viability and control the spread of infestations left in-situ, appropriate ongoing monitoring and treatment programmes will be implemented.

During all works , biosecurity control measure should be implemented to aid in preventing propagules being spread around site (and potentially "off-site").

In the meantime, it is recommended that the areas of infestation are not disturbed, includes the following approximate buffer zones around the associated recorded surface growth –

- 3-4m around areas containing Japanese knotweed and Himalayan balsam
- 2-3m around areas containing horsetail and Variegated Yellow Archangel

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Disclaimer

The information in this report is up-to-date and accurate to the best knowledge of the Surveyor, based on a reasonable inspection, taking in to account the site conditions at the time of the visit. Japanese Knotweed Solutions Limited provide no warranty or guarantee that Japanese knotweed (or any other plant) is not present, or was not present at the time of the survey – only that there were no visible signs detected by our Surveyor.

It is important to note that Japanese knotweed forms extensive underground rhizome networks, that it does not generally grow from November until around spring time, that it can remain dormant for periods of up to twenty years and that it can re-grow from very small pieces of viable material. In rare instances, knotweed plants can also grow from seed in the UK.

While every effort has been made to identify any and all invasive plants on site, it is possible for the presence of Japanese knotweed to be concealed from even a very experienced surveyor, for new infestations to establish quickly or for knotweed to be overlooked during a survey, particularly where the site is overgrown with other vegetation or otherwise obstructed. Where there were any areas of the site that could not be surveyed or properly inspected, this will be noted in the Survey Results.

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Introduction

Russell Homes (UK) Ltd have been granted planning permission for a residential development at land to the west of New Street, Littleborough, OL15 8HW under application 22/01039/FUL. Planning condition 11 as part of the granted planning permission, relates to invasive plant species which are present on site, and states the following:

11. Invasive Species

No development shall take place, until a scheme of works, which shall include a detailed method statement, for the control and disposal of the invasive plant species, has been submitted to and approved in writing by the Local Planning Authority. The agreed scheme of works and method statement shall be implemented in full throughout the course of the development.

Reason: To secure the satisfactory disposal of this invasive species of plant, which under the terms of the Wildlife & Countryside Act 1981, as amended, it is an offence to be caused to spread in the wild, in accordance with the general principles of Policy G6 of the adopted Rochdale Core Strategy.

Japanese Knotweed Solutions Limited (JKSL) were commissioned by Russell Homes (UK) Ltd to assess the extents of invasive non-native plant species (includes Schedule 9 invasive non-native plants included under Section 14 of the Wildlife and Countryside Act 1981, and invasive non-native plant species as listed on European list of Species of Special Concern / covered by the Invasive Alien Species Order 2019) present on site and to provide appropriate remedial and treatment options.

This invasive plant species management plan document has been developed to include the following:

- Identifies what the objectives of the management plan are and how the objectives will be achieved
- Summary of areas of infestation identified within the development boundary
- An evaluation of control options
- A detailed description of the control actions to be implemented
- An assessment of the risks associated with any control action implemented
- A description of how the success of the control action will be evaluated
- Advice on how to prevent spread around- and off-site for all operations undertaken within the development boundary
- Schedule of works summarising when each phase of remediation works will be undertaken

JKSL has used its understanding of the current legislation and the recommended best practice in developing this management plan proposal and continue to evolve our methods and recommendations to clients in line with current understanding of the problem.

About Japanese Knotweed Solutions Limited

Japanese Knotweed Solutions Ltd (JKSL) is a full member of trade bodies INNSA (Invasive Non Native Specialists Association) and the PCA (Property Care Association) which are for contractors and contractors who specifically deal with Japanese knotweed.

As we are a member of an appropriate trade body, we can normally offer insurance-backed guarantees on projects.

In addition to this, having works completed by a member of one of these organisations is often a precondition of finance in the UK, particularly mortgage lending.

JKSL's robust safety, environmental and quality management systems are approved and registered with UK accrediting bodies. If you want to know more about JKSL, visit our website and learn why you should choose us and view our other accreditations.

JKSL use in-house teams, with our three most senior site staff having each worked for the company since its founding in January 2002; we also have numerous other members of site and office-based staff with ten years' experience with the company. This ensures that your works will be carried out by some of the most experienced invasive species specialists in the UK. Our teams work year-round on Japanese knotweed and other invasive weed removal projects, so all works will be completed by a knowledgeable specialist.

JKSL has been at the forefront of invasive plant treatment for twenty years, and we continue to offer the most up-to-date and reliable methods available for remediating these problems – but what we recommend to our clients are the most reliable methods we are aware of, and the most suitable method for the development plans for the site / property in question.

Management plan objectives

The objectives of this Management Plan are to:

- assist Russell Homes (UK) Ltd with controlling and preventing the spread of recorded invasive non-native plant species (includes recorded areas containing Japanese knotweed, Himalayan balsam, Variegated yellow archangel and horsetail) during the future development of the site located at/known as land to the west of New Street, Littleborough, OL15 8HW.
- implement ongoing monitoring pre and post development.
- ensure that all works specifically relating to the invasive non-native plant species are carried out in accordance with the relevant laws and statutes.

To ensure the above objectives are achieved, the following measures are to be implemented:

- Identify all areas of invasive non-native plant species situated within the development boundary and on immediate neighbouring land.
- Determine the areas of invasive non-native plant species which are to be directly/indirectly affected by the proposed development.
- Determine the areas of invasive non-invasive plant species situated within the site boundary which are not to be affected by the proposed development.
- Implementation of a biosecurity control measures for all contractors when working within and in close proximity of known infestations containing invasive non-native plant species.
- Implementation of an appropriate remediation-treatment strategy.

Site information

The site, circa 3.5ha in size, is located within a mixed rural and urban area in the town of Littleborough, situated to the northeast of Rochdale. The location plan is enclosed within Appendix 1.

The north eastern section of site appears to form an area of recreational mainly comprising of rough grassland with New Street directly to the east, a stream/ditch which courses from the northwest to the southeast and woodland in the north.

A large pond (section of site with accumulated surface water) is situated within the central area of site which forms part of a horse paddock which extends to the western, southern and south-eastern sections of site.

The site is fairly undulating, however generally it falls from the north to the south.

The far eastern section of site includes an existing public footpath, which connects Dearnley Avenue with New Street.

Surrounding land uses, mainly include residential to the north, east and west, rough grazing pastures to the east (beyond New Street) and south (Stubley Mill Road). A neighbouring livery yard is situated next to the south-eastern boundary of site.

Background

JKSL originally inspected the far eastern section of site (where the existing public footpath connects Dearnley Avenue with New Street) and immediate area to the south on 9th July 2025. During the survey, 8 no. areas containing Japanese knotweed, 4 no. areas containing Himalayan balsam surface growth and 1 no. area containing horsetail surface growth, were recorded within the survey, denoted as JK1-JK8, HB1-HB4 and HT1, respectively, on drawing JK25-0499-01 Rev A, enclosed within Appendix 2. Additional areas containing Japanese knotweed, Himalayan balsam and horsetail were recorded on immediate surrounding land to the south.

To reduce the viability and control the spread of the recorded invasive plant species, an initial herbicide treatment visit was completed by JKSL on 6th August 2025.

Site development

It is JKSL's understanding that the proposals include the erection of a residential development for 61 dwellings (to include 2 no. Use Class C2 residential care dwellings for children), access, landscaping, open space, SUDs, and associated works. The proposed site layout is included within Appendix 3.

It is important that JKSL are provided with up-to-date information about site plans, including accurate site drawings and details of any additional planned works, particularly in any contaminated area. Invasive plants can easily spread and even tiny fragments can cause new infestations if they are moved out of a contaminated area. It is important to implement a Clean Site Policy (includes biosecurity control measures) and Management Plan as soon as practically possible.

Any activity on site which has the potential to cause cross-contamination can significantly increase the remediation costs for invasive plant species and any warranty or guarantee offered may be invalidated if works are undertaken which cause cross-contamination on site.

Survey results

JKSL surveyed the proposed development site on 22nd January 2026.

Weather conditions were mainly cloudy, an easterly/south-easterly gentle breeze. There was no precipitation, and visibility was good.

The survey was undertaken by Jonathan Harris who is a certified surveyor in Japanese knotweed (CSJK) and has over 11 years experience in dealing specifically with invasive plant species.

The results as summarised below should be read in conjunction with drawing JK25-0499-03 (enclosed within Appendix 4) which shows the approximate location and extents of recorded Japanese knotweed, Himalayan balsam, Variegated yellow archangel and horsetail.

Japanese knotweed

9 no. areas containing Japanese knotweed were recorded within the development boundary. Table 1 below provides a summary of these areas. Additional Japanese knotweed was recorded on neighbouring land to the south east, denoted as JK10-JK17 on drawing JK25-0499-03 (the nearest area, JK13, is situated circa 8m from the development boundary. As mentioned within the General Information section (enclosed within Appendix 7) Japanese knotweed is classed an invasive non-native plant species and is also a Schedule 9 plant under Section 14 of the Wildlife and Countryside Act 1981.

Table 1. Summary of recorded Japanese knotweed

Location reference number	Location (includes proximity to boundary)	Proximity to built structures or hard-landscaped areas (m)	Area and size of infestation <i>Scales -</i> <i>Very small: 1m² or less</i> <i>Small: 1m² to 4m²</i> <i>Medium: 4m² to 25m²</i> <i>Large: 25m² to 100m²</i> <i>Extensive: greater than 100m²</i>	Height of growth	Description of growth (includes maturity and condition)	Notes
JK1	Located in the eastern section site of site, circa 0.5m from the development boundary.	Situated adjacent to an existing footpath (in good condition). Potential rhizome could extend beneath the footpath.	Surface growth amounted to circa 0.4sqm Size of infestation is considered very small.	Up to circa 0.3m	Sporadic, isolated, less mature and less established infestation. Due to time of year, the surface growth was dead.	Due to proximity to the development boundary, associated rhizome may extend beyond the development boundary. Surrounding area appeared as though it had been previously disturbed, As mentioned earlier in this report, JK1 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025.
JK2	Located in the eastern section site of site, circa 2.0m from the development boundary.	Situated adjacent to an existing footpath (in good condition). Potential rhizome could extend beneath the footpath.	Surface growth amounted to circa 0.25sqm Size of infestation is considered very small.	Up to circa 0.25m	Sporadic, isolated, less mature and less established infestation. Due to time of year, the surface growth was dead.	Due to proximity to the development boundary, associated rhizome may extend beyond the development boundary. Surrounding area appeared as though it had been previously disturbed. JK2 was situated on the edge of an existing stockpile (which contains other invasive plants).

						Due to close proximities, JK2 could potentially share same rhizome as JK3. As mentioned earlier in this report, JK2 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025.
JK3	Located in the eastern section of site, circa 5.5m from the boundary.	Situated circa 5m from an existing footpath (in good condition).	Surface growth amounted to circa 0.7qm Size of infestation is considered very small	Up to circa 0.4m	Sporadic, isolated, less mature and less established infestation. Due to time of year, the surface growth was dead.	Surrounding area appeared as though it had been previously disturbed. JK3 was situated on an existing stockpile (which contains other invasive plants). Due to close proximities, JK3 could potentially share same rhizome as JK2 and JK4. As mentioned earlier in this report, JK3 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025..
JK4	Located in the eastern section of site, circa 6.5m from the boundary.		Surface growth amounted to circa 0.25sqm Size of infestation is considered very small.	Up to circa 0.4m	Sporadic, isolated, less mature and less established infestation. Due to time of year, the surface growth was dead.	Surrounding area appeared as though it had been previously disturbed. JK4 was situated on an existing stockpile (which contains other invasive plants). Due to close proximities, JK4 could potentially share same rhizome as JK3 and JK5. As mentioned earlier in this report, JK4 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025.
JK5	Located in the eastern section of site, circa 6.5m from the boundary.		Surface growth amounted to circa 1.5sqm Size of infestation is considered small.	Up to circa 0.7m	Sporadic, isolated, less mature and less established infestation. Due to time of year, the surface growth was dead.	Surrounding area appeared as though it had been previously disturbed. JK5 was situated on the edge of an existing stockpile (which contains other invasive plants). Due to close proximities, JK5 could potentially share same rhizome as JK4 and JK6. As mentioned earlier in this report, JK5 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025.
JK6	Located in the eastern section of site, circa 3.5m from the boundary.	Situated adjacent to an existing footpath (in good condition). Potential rhizome could extend beneath the footpath.	Surface growth amounted to circa 1sqm Size of infestation is considered small.	Up to circa 0.8m	Sporadic, isolated, less mature and less established infestation. Due to time of year, the surface growth was dead.	Surrounding area appeared as though it had been previously disturbed. JK6 was situated on the edge of an existing stockpile (which contains other invasive plants). Due to close proximities, JK6 could potentially share same rhizome as JK5, JK7 and JK8. As mentioned earlier in this report, JK6 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025.

JK7	Located in the eastern section of site, circa 3m from the boundary.	Situated adjacent circa 1.5m from existing footpath (in good condition). Potential rhizome could extend beneath the footpath.	Surface growth amounted to circa 0.2sqm Size of infestation is considered very small.	Up to circa 0.6m	Sporadic, isolated, less mature and less established infestation. Due to time of year, the surface growth was dead.	Surrounding area appeared as though it had been previously disturbed. JK7 was situated on the edge of an existing stockpile (which contains other invasive plants). Due to close proximities, JK7 could potentially share same rhizome as JK6 and JK8. As mentioned earlier in this report, JK7 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025.
JK8	Located in the eastern section of site, circa 4m from the boundary.	Situated adjacent circa 2.5m from existing footpath (in good condition). Potential rhizome could extend beneath the footpath.	Surface growth amounted to circa 1.5sqm, Size of infestation is considered large.	Up to circa 1.6m	Sporadic, isolated, less mature and less established infestation. Due to time of year, the surface growth was dead.	Surrounding area appeared as though it had been previously disturbed. JK8 was situated on the edge of an existing stockpile (which contains other invasive plants). Due to close proximities, JK8 could potentially share same rhizome as JK6 and JK7. As mentioned earlier in this report, JK7 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025.
JK9	Located in the northern section of site, circa 10m from the boundary.		Surface growth amounted to circa 47sqm, Size of infestation is considered small.	Up to circa 2.4m	Mature and established infestation. Due to time of year, the surface growth was dead.	Situated within existing woodland area. (was not included during August 2025 treatment visit)

Himalayan balsam

12 no areas containing Himalayan balsam were recorded within the development boundary. Table 2 below provides a summary of these areas. Additional areas containing Himalayan balsam were also present on neighbouring land, denoted as HB13-HB22 on drawing JK25-0499-03. Due to the presence of dense vegetation and also period of the year, additional areas containing Himalayan balsam could be present which JKSL are currently unaware of. As mentioned within the General Information section (enclosed within Appendix 7) Himalayan balsam

Table 2. Summary of recorded Himalayan balsam

Location reference number	Location (includes proximity to boundary)	Area and size of infestation <i>Scales - Very small: 1m² or less Small: 1m² to 4m² Medium: 4m² to 25m² Large: 25m² to 100m² Extensive: greater than 100m²</i>	Description of growth	Notes
HB1	Located in the eastern section of site, adjacent to the development boundary.	Surface growth amounted to circa 39sqm Size of infestation is considered large.	Viable, mature and well established surface growth. Due to time of year, the surface growth was dead.	As mentioned earlier in this report, HB1 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025. Surrounding area appeared as though it had been previously disturbed.

				Due to proximity to the development boundary it is possible that associated seeds could disperse onto neighbouring land.
HB2	Located in the eastern section of site, adjacent to the development boundary.	Surface growth amounted to circa 120sqm Size of infestation is considered extensive.	Viable, mature and well established surface growth. Due to time of year, the surface growth was dead.	As mentioned earlier in this report, HB2 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025. Surrounding area appeared as though it had been previously disturbed. Due to proximity to the development boundary it is possible that associated seeds could disperse onto neighbouring land.
HB3	Located in the eastern section of site, circa 7.5m from the development boundary.	Surface growth amounted to <1sqm Size of infestation is considered very small.	Isolated-sporadic, viable, less mature and less established surface growth. Due to time of year, the surface growth was dead.	As mentioned earlier in this report, HB3 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025. Surrounding area appeared as though it had been previously disturbed. Due to proximity to the development boundary it is possible that associated seeds could disperse onto neighbouring land.
HB4	Located in the eastern section of site, circa 4m from the development boundary.	Surface growth amounted to <1sqm Size of infestation is considered very small.	Isolated-sporadic, viable, less mature and less established surface growth. Due to time of year, the surface growth was dead.	As mentioned earlier in this report, HB4 was chemically treated by JKSL in August 2025. The surface growth was viable when surveyed in July 2025. Surrounding area appeared as though it had been previously disturbed. Due to proximity to the development boundary it is possible that associated seeds could disperse onto neighbouring land.
HB5	Located in the south-eastern section of site, circa 10m from the development boundary.	Surface growth amounted to 6sqm Size of infestation is considered medium.	Mature and established dead surface growth. Due to time of year, the surface growth was dead.	Horses have access into/through HB5.
HB6	Located in the south-eastern section of site, circa 3.5m from the development boundary.	Surface growth amounted to 35sqm Size of infestation is considered medium.	Mature and established dead surface growth. Due to time of year, the surface growth was dead.	Horses have access into/through HB5. An existing pond / accumulated surface water is located circa 3m west of HB6.
HB7	Located in northern section and extending in a south-eastern direction along an existing drainage ditch. Encroaches up to development boundary, and then extends onto neighbouring land to the north.	Surface growth amounted to 4,314sqm Size of infestation is considered extensive.	Mature and established dead surface growth. Due to time of year, the surface growth was dead.	Drainage ditch / running water coursing through HB7. Horses have access into/through the periphery of HB7. Presence of dense vegetation restricted viewing and access
HB8	Located in central area of site.	Surface growth amounted to 80sqm. Size of infestation is considered large.	Mature and established dead surface growth. Due to time of year, the surface growth was dead.	HB8 is situated next to an existing pond / accumulated surface water. Horses have access into/through the periphery of HB8.

				Presence of dense vegetation restricted viewing and access
HB9	Located in south-eastern area of site. Encroaches up to the development boundary, and then extends onto neighbouring land to the east,	Surface growth amounted to 471sqm. Size of infestation is considered extensive.	Mature and established dead surface growth. Due to time of year, the surface growth was dead.	HB9 extends onto neighbouring land, where there is a large stockpile of manure. It is unclear at this stage, whether Himalayan balsam is present all through the stockpile of manure or just on the surface. Horses have access into/through the periphery of HB9.
HB10	Located in south-eastern area of site. Encroaches up to the development boundary.	Surface growth amounted to 6.5sqm. Size of infestation is considered medium.	Mature and established dead surface growth. Due to time of year, the surface growth was dead.	Due to proximities to the development boundary, associated seeds could potentially disperse onto neighbouring land. Horses have access into/through the periphery of HB9.
HB11	Located in north-eastern area of site, circa 10.5m from the development boundary.	Surface growth amounted to 5.0sqm. Size of infestation is considered medium.	Mature and established dead surface growth. Due to time of year, the surface growth was dead.	Presence of dense vegetation restricted viewing and access
HB12	Located in northern area of site. Encroaches up to the development boundary, and is also present on neighbouring land.	Surface growth amounted to 67sqm. Size of infestation is considered large.	Mature and established dead surface growth. Due to time of year, the surface growth was dead.	Presence of dense vegetation restricted viewing and access

Variegated Yellow Archangel

3 no areas containing Variegated Yellow Archangel were recorded within the development boundary. Table 3 below provides a summary of these areas. As mentioned within the General Information section (enclosed within Appendix 7) Variegated Yellow Archangel is classed an invasive non-native plant species and is also a Schedule 9 plant under Section 14 of the Wildlife and Countryside Act 1981.

Table 3. Summary of recorded Variegated Yellow Archangel

Location reference number	Location (includes proximity to boundary)	Area and size of infestation <i>Scales -</i> <i>Very small: 1m² or less</i> <i>Small: 1m² to 4m²</i> <i>Medium: 4m² to 25m²</i> <i>Large: 25m² to 100m²</i> <i>Extensive: greater than 100m²</i>	Description of growth	Notes
VYA1	Situated in eastern section of site, encroaching up to the development boundary.	Surface growth amounted to 67sqm. Size of infestation is considered large.	Established, mature and viable surface growth	Situated in/around area that appears to have been previously disturbed. VYA1 extends onto an existing stockpile which contains other invasive plants species. Due to proximity to the development boundary, associated propagules may extend onto neighbouring land
VYA2	Situated in western area of site, encroaching up to the development boundary.	Surface growth amounted to 172sqm. Size of infestation is considered extensive.	Established, mature and viable surface growth	VYA2 extends down the slope, encroaching slightly into the paddock currently grazed by horses. Surrounding dense vegetation restricted access/viewing

VYA3	Situated in western area of site, encroaching up to and extending beyond the development boundary.	Surface growth amounted to 21sqm. Size of infestation is considered medium.	Established, mature and viable surface growth	Surrounding dense vegetation restricted access/viewing
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Horsetail

1 no areas containing horsetail was recorded within the development boundary. Table 4 below provides a summary of this area. An additional area containing horsetail was recorded beyond the development boundary to the south, denoted as HT2 on enclosed drawing JK25-0499-03.

Horsetail is a native plant in the UK, and therefore is not listed on Schedule 9, under Section 14 of the Wildlife and Countryside Act 1981 or on the European list of Species of Special Concern (and covered by the Invasive Alien Species Order 2019) as an invasive non-native plant species, however is still considered to be invasive and can potentially cause defects such as damage to hard standing areas (in particular tarmacadam surfaces), thus it is wise to deal with it, particularly in areas where there are a high number of plants.

Table 4. Summary of recorded horsetail

Location reference number	Location (includes proximity to boundary)	Area and size of infestation <i>Scales -</i> <i>Very small: 1m² or less</i> <i>Small: 1m² to 4m²</i> <i>Medium: 4m² to 25m²</i> <i>Large: 25m² to 100m²</i> <i>Extensive: greater than 100m²</i>	Description of growth	Notes
HT1	Situated in eastern section of site, encroaching up to the development boundary.	Surface growth amounted to 17.5sqm. Size of infestation is considered medium	Established, mature and surface growth. Surface growth was dead due to period of year survey was undertaken.	Situated in/around area that appears to have been previously disturbed. Due to proximity to the development boundary, associated propagules/rhizome may extend onto neighbouring land

Additional information

The visible extent of an infestation may not accurately indicate the full extent of the area affected; concealed growth below ground level could be more extensive.

The presence of dense vegetation restricted access and viewing during the survey. Additional areas of infestation could be present which JKSL are currently unaware of.

As mentioned above, there was evidence of previous disturbance during the survey, particularly within the eastern area of site; this may have resulted in propagules being spread around site. New areas containing invasive plant species may emerge in the future.

January is a suboptimal period of the year for assessing invasive plant species which tend to die back over the winter period. Ideally the development site should be re-surveyed during the growing season.

Due to the presence of the drainage ditch containing running water, and also the presence of existing ponds/sections of site containing accumulated surface water, there is a risk that floating propagules could be transferred around site.

During the survey, there was visible evidence of demolition-fill material within the makeup of the ground within the northern section of site.

Appendix 7 provides more general information about the individual invasive plant species recorded on site.

Site photographs

Japanese Knotweed	
JK1	No Photo
JK2	
JK3, JK4, JK5	
JK6	
JK7+JK8	
JK9	

Himalayan balsam

HB1 - HB4



HB5 - HB6



HB7



Himalayan balsam



HB8



HB9



HB10



Himalayan balsam

HB11



Variegated Yellow Archangel

VYA1



VYA2



VYA3



Variegated Yellow Archangel

VYA3



Horsetail

HT1



Contamination Pathways

“Contamination Pathways” are routes by which a contaminant can spread into or out of a site – for the recorded invasive plant species, this could include movement of soils or other plant materials. JKSL’s surveyor has identified the following current contamination pathways in the course of the survey.

Pathway	Notes
Propagule Spread (outward)	Due to the location of areas containing infestations situated near the boundaries, associated propagules could potentially migrate onto neighbouring land from the development site should an appropriate remediation strategy not be implemented.
Propagule Spread (inward)	Due to the location of areas containing infestations situated near the boundaries, associated propagules could potentially migrate into the development site from neighbouring land should an appropriate remediation strategy not be implemented.
Disturbance	Previous disturbance activities, and also the presence of grazing horses and members of public being able to access sections of site results in there being a higher risk of propagules being spread around site.
Drainage ditch containing running water, and also the presence of existing ponds/sections of site containing accumulated surface water	The presence of the drainage ditch containing running water, and also the presence of existing ponds/sections of site containing accumulated surface water, could result in floating propagules (in particular Himalayan balsam seeds) spreading into surrounding areas.
Made ground	There is a risk that propagules have been brought into site, and that buried propagules could also be present on site, particularly within areas containing made ground-demolition rubble.
Level change	Infestations present on embankment areas / steep slopes

Invasive Species Risk Assessment

Based on the survey results, this section of the report outlines the risk factors and level of risk of cross-contamination via the contamination pathways identified. The risk assessment was used in the process of devising the Recommended Remediation Option.

The table below outlines potential negative consequences associated with the recorded invasive plant species, and how they could spread in and out of the site. A "Risk Level" of "Low / Mid / High" has been included to quantify each risk factor's likelihood of cause damage or cross-contamination on site. A "Low" risk might not cause problems in the short term even if the plant is not treated, a "Mid" risk is likely to cause problems without treatment and a "High" risk is very likely to cause problems. The "Distance" specifies how far the risk factor is from the nearest surface growth. Because of the plant's extensive root system, anything within 7m could potentially be at risk. Anything that is less than an unobstructed 4m away from mature plants is likely to be inside the root network.

We strongly urge that the recommended treatment is started as soon as possible, as this will minimise the spread of the plant. Implementing an invasive plant species management plan immediately (and communicating it to all contractors on site) will reduce the chance of cross contamination during other works on site.

Risk Factor	Distance	Risk Level	Description
Disturbance activities	0m	High	Previous disturbance activities, and also the presence of grazing horses and members of public being able to access sections of site results in there being a higher risk of propagules being spread around site. Biosecurity control measures are recommended to be implemented to minimise this risk.
Infestations near site boundary (on site)	0m	High	The infestations on site are at risk of spreading to neighbouring land. Having a Management Plan in place is an important part of preventing the invasive plants from spreading.
Infestations near site boundary (off-site)	0m / on boundary / immediate neighbouring land	High	The site is at risk of being infested from immediate neighbouring land. It is important to take action to prevent your site being infested – you can use this report or ask us for help with what you should say to your neighbour. Unfortunately, we can't contact anyone on your behalf.
Ground disturbance during construction phase associated with the future re-development (future risk)	0m	High	Should no appropriate remediation-treatment strategy and/or control measures be implemented, future ground disturbance activities during the construction phase of the proposal where operatives, and machineries moving in and out of the contaminated areas, are likely to cause propagules to be spread around site (and potentially off-site), thus exacerbating the infestation problem further.
Other/ongoing human activity	0m	High	Ongoing grounds maintenance or other works where people move in and out of the contaminated areas can cause the plant to spread.

Risk Factor	Distance	Risk Level	Description
Proposed hard standing associated with the re-development of the site	0m	High	Should no appropriate treatment and/or control measures be implemented, future development could be at risk, whereby associated Japanese knotweed rhizome could potentially exploit cracks and weaknesses within proposed hardstanding/building structures.
Made ground / imported material	0m	High	There is a risk that buried propagules could be present on site, particularly within areas containing made ground.
Drainage ditch containing running water, and also the presence of existing ponds/sections of site containing accumulated surface water	0m	high	Increased risk of floating propagules (mainly includes Himalayan balsam seeds) spreading into surrounding areas.
Level change	0m	high	It is possible for pieces of plant material or soils to fall downhill and to make new growth where they land.

Impacts on the development

Enclosed drawing JK25-0499-04 (included within Appendix 5) shows the impacts of the recorded invasive plant species on the proposed development plan/illustrative masterplan.

As shown on the drawing JK25-0499-04, proposed access roads, individual plots and landscaping areas will directly affect the areas of recorded invasive plant species (includes areas Japanese knotweed areas JK1-JK9, Himalayan balsam areas HB1-HB12, Variegated Yellow Archangel VYA1-VYA3, and horsetail area HT1).

Construction activities (includes ground disturbance works) will likely exacerbate the infestation problems further, and there is a high risk that this will then cause the spread of propagules around site, and potentially off-site, should an appropriate remediation-treatment strategy not be implemented.

It is important that JKSL are provided with up-to-date information about site plans, including accurate site drawings and details of any additional planned works, particularly in any contaminated area. It is important to implement a biosecurity control measures and have a Management Plan in place as soon as practically possible.

JKSL should be informed at the earliest opportunity of any planned works carried out in or near the contaminated areas, due to the potential for cross-contamination; we can supply staff on a watching brief to ensure that legislation is not contravened and best practice is implemented, in order to reduce the risk of cross contamination on site, which could potentially cause significant increases in remediation costs.

Remediation-Treatment Options

Recommended options (to be implemented)

Based on the site layout and proposal plans for the site, and taking in to account the survey results, contamination pathways and invasive species risk assessment, below is a summary of the recommended remediation and treatment option.

Due to the proposed development directly affecting areas of infestation, ground disturbance / construction related activities will likely exacerbate the infestation problems further, unless an appropriate remediation strategy is implemented whereby the associated impacted materials are excavated/removed. Where Japanese knotweed extends beyond the boundary, a vertical root barrier will be installed along the boundary. to aid in preventing off-site Japanese knotweed migrating back into the remediated area.

The mechanical remediation strategy should be implemented prior to other ground disturbance works commencing.

Enclosed drawing JK25-0499-05 (included within Appendix 6) shows the anticipated extents of excavation (and vertical root barrier). Due to the presence of trees to remain in-situ, situated in the northern area of site, excavation extents could be restricted due to the presence of tree root protection areas.

Subject to factors such as depth of groundwater, suitability of receptor location for burial, other potential contaminants within the impacted soils which may otherwise pose a risk to groundwater, the excavated impacted materials will be buried within a designated area on site / worked back into the development. At this stage, a suitable location for burial will be in the proposed POS area, situated within the north-eastern area of site. The burial of Himalayan balsam, Japanese knotweed and Variegated Yellow Archangel impacted materials would need to be buried in accordance with Environment Agency's Regulatory Position Statement 178 (Treatment and disposal of invasive non-native plants: RPS 178 - GOV.UK); even though there is no guidance on the burial specific to horsetail, we would also advise that the associated impacted materials are buried in the same manner. The pros and cons for the burial option include –

- Pros - Does not require a set-a-side area for control; Work can continue on site immediately after burial.; Quickly removes the invasive plant materials from an undesirable area

- Cons - Restrictions may remain on the site, e.g. in some instances other deep excavation (e.g. drainage) may interfere with the buried invasive plant material; The use of the area above burial site is limited (would require appropriate long term land use above it); Typically requires a large hole to receive the invasive material, so it may not be possible if soil is shallow or water table is high (the depth of groundworker could potentially be an issue on site, tbc); The appropriate environment agency must be notified; Plant material can be accidentally spread during movement (biosecurity control measures should be implemented during the works to reduce the risk of this happening. Due to the amount of invasive non-native plant species (other than Japanese knotweed) impacted materials being buried being greater than 1000 tonnes, an additional permit/approvals from the Environment Agency will likely be required.

As mentioned above, due to the amount of invasive non-native plant species (other than Japanese knotweed) impacted materials being buried being greater than 1000 tonnes, an additional permit/approvals from the Environment Agency will likely be required.

As part of good working practice, the completed excavation areas should be monitored for a minimum of two consecutive growing seasons.

Due to the nature of horsetail (spreads via both very fine rhizomes and spores) it is very difficult to guarantee full removal in relation to horsetail mechanical remediation and treatment works. As a belt and brace approach (to reduce the risk of potential future defects occurring) an appropriate horizontal barrier can be installed within the footprint of proposed hardstanding areas (e.g. beneath tarmac surfaces), which are more vulnerable to potential defects resulting from potential horsetail re-growth.

To reduce the viability and control the spread of Japanese knotweed situated just beyond the vertical root barrier, an ongoing 5 yr monitoring and treatment programme will be implemented, whereby associated surface growth is chemically treated in-situ with a Glyphosate based herbicide. This type of herbicide is non-selective and broad spectrum so may cause localised damage to surrounding vegetation. Application will be via knapsack sprayer. Site operatives will do their utmost to aid in reducing chemical drift affecting surrounding vegetation. 8 treatment visits will be undertaken over a 5 year period; upon completion of the 5 year period the situation will be re-assessed. There should be two consecutive growing seasons without re-growth to demonstrate that control has been achieved. It is recommended that Japanese knotweed present on neighbouring land is also managed in-situ, reduce the viability and control the spread of the associated infestation. Discussions with the relevant landowners will be required to facilitate this.

Just to re-iterate that there are restrictions as to what can be done within the treatment area which contains the Japanese Knotweed as the plant thrives on disturbance, even after the completion of a successful herbicide treatment programme. Rhizome can stay dormant for 20 years or more, which may result in potential re-growth emerging should any associated impacted ground material containing viable / dormant rhizome be disturbed. It is recommended that the area of infestation is left undisturbed in-situ (includes a 3-4m buffer zone), unless excavated-removed as well. The appearance of the treatment area can be significantly improved (e.g. by cutting back surface weed plants), however it is important that the ground material is not disturbed and a clean site policy (includes bio-security control measures) is implemented.

An ongoing 3 year programme will be implemented to aid in reducing the viability and controlling the spread of Himalayan balsam (includes HB18-HB21) and horsetail (HT2) situated directly south of the proposed access road, and residual Variegated Yellow Archangel (VYA2 and VYA3) situated along the western boundary / on immediate neighbouring land. The Himalayan balsam and Variegated Yellow Archangel surface growth will be chemically treated in-situ with a Glyphosate based herbicide. The horsetail will be treated with a more selective based herbicide; this type of herbicide will potentially result in localised damage to more broad leaf plant species, but should not affect grass-like species. Application will be via knapsack sprayer. 6 no. treatment visits will be undertaken over a 3 year period. Upon completion of the 3 year period the situation will be re-assessed to determine whether additional monitoring and treatment is required. Ideally there should be two consecutive growing seasons without re-growth to demonstrate successful control. As mentioned above, excavation extents could be restricted within the northern section of site, where existing trees are to be retained; should there be residual Himalayan balsam situated within this section of site upon completion of the mechanical remediation works, it is recommended that this area of Himalayan balsam is also included as part of the ongoing monitoring and treatment programme. Depending on when the excavation-removal works are undertaken, all of the areas of infestation could be included as part of the first treatment visit to reduce the viability of the underlying infestation. The pros and cons of in-situ herbicide treatment include:

- Pros – Normally is more cost effective. Treatment can be carried out in situ without risk of spreading the plant further. Quickly reduces the capacity of the plant to spread on/off site. Quickly eliminates the capacity of the plant to impact built structures. Normally easy to administer herbicide. Can be more practical to treat in-situ than to mechanically remove.
- Cons - Can take many years to achieve acceptable results, especially where stands are mature. Management plans that rely solely on herbicide treatment should include at least 2 years of monitoring after all evidence of growth has ceased. Herbicide treatment alone should not be recommended on sites with future development plans that involve the soil being dug and

disturbed. Construction works cannot continue in areas still containing the plant and the risks associated with landscaping treated soils, e.g. stimulating regrowth, should be made clear to the client and mitigated for. The use of some herbicides is restricted near waterbodies and desired vegetation. Some herbicides can persist in the soil. If soil is disturbed at a later date, regrowth can occur. Effective control requires expert knowledge of herbicide treatment of Japanese Knotweed. Soil which contains Japanese Knotweed that has been treated with herbicide is still classed as controlled waste if it enters the waste stream. Herbicide treatment can induce temporary dormancy

At this stage, due to how extensive the off-site Himalayan balsam is associated with areas HB7, HB9, HB13, HB14, HB15, HB16 and HB17, it is recommended that the relevant landowners are made aware of these infestations present in their ownership and for them to manage appropriately.

Just to reiterate that there are restrictions as to what can be done within the location where the areas of recorded invasive plant species are being monitored and treated in-situ. Disturbance within an area of infestation could result in the infestation problem being exacerbated further and could also affect the success of the treatment programme. It is recommended that the treatment area (includes relevant buffer zones around the associated surface growth, where applicable) are not disturbed, unless excavated and removed. The appearance of the treatment areas can be significantly improved (e.g. by cutting back other surface weed plants), however it is important that the ground material / invasive plants are not disturbed and bio-security control measures are implemented.

All of the above proposed works will be undertaken in-house by JKSL qualified and experienced operatives.

During all works biosecurity control measure should be implemented to aid in preventing propagules being spread around site (and potentially "off-site"). Appendix 8 includes a more detailed list of biosecurity control measures that JKSL would typically implement on site, however it is important that JKSL are provided with up-to-date information about site plans, including accurate site drawings and details of any additional planned works, particularly in any contaminated area; additional / more specific biosecurity control measures could then be recommended to be implemented.

In the meantime, it is recommended that the areas of infestation are not disturbed, includes the following approximate buffer zones around the associated recorded surface growth –

- 3-4m around areas containing Japanese knotweed and Himalayan balsam
- 2-3m around areas containing horsetail and Variegated Yellow Archangel

Appendix 12 includes the method statement / safe system of works associated with the excavation-burial works, and in-situ treatment.

Alternative options

Another potential feasible mechanical remediation option would be to dispose the excavated impacted materials off-site at an appropriate licenced facility. Materials being disposed as waste from site containing invasive plant propagules should be appropriately described to the receiving disposal facility to ensure that the correct level of duty of care is being implemented as per the Environmental Protection Act 1990. The pros and cons for the off-site disposal option include –

- Pros - Quickly removes the invasive plant materials from an undesirable area; should be no restrictions left onsite (does not require a set-a-side area for control); Work can normally continue immediately after removal; Fast and efficient
- Cons - Relatively expensive; Disposal to landfill reduces valuable landfill capacity and needs haulage (which damages the environment and increases the risk of propagule spread).

Evaluating success of control methods

Mechanical remediation works

Upon completion of excavation/removal of an area of infestation, the remediated ground will be inspected by JKSL's foreman prior to sign off.

A completion report should be issued detailing a description of completed mechanical remediation works, photographs of the completed works, copy of the completed excavation drawing, confirmation of duration and period of works.

Due to the nature of horsetail (spreads via both very fine rhizomes and spores) it is very difficult to guarantee full removal in relation to horsetail mechanical remediation and treatment works. As a belt and brace approach (to reduce the risk of potential future defects occurring) an appropriate horizontal barrier can be installed within the footprint of proposed hardstanding areas (e.g. beneath tarmac surfaces), which are more vulnerable to potential defects resulting from potential horsetail re-growth.

It is recommended that there are 2 no. consecutive growing seasons (normally upon completion of the works and/or upon completion of the development) that show no evidence of re-growth within a remediated area to demonstrate that the remediation works have been successful.

Ongoing treatment programme

During future monitoring/treatment visits, for areas containing invasive plant species which are being left in-situ, it is recommended that inspection reports are issued (to include such as the maturity and density of re-growth recorded on site, weather conditions encountered during the visit, other information such as evidence of cross-contamination, or potential new areas of infestation). Upon completion of a final monitoring visit, the situation will be re-assessed to determine whether additional monitoring/treatment is required. It is recommended that there are 2 no. consecutive growing seasons that show no evidence of re-growth within an affected area to demonstrate that the programme has been successful.

Schedule of works

Mechanical remediation works

It is recommended that the proposed excavation-removal works are undertaken prior to any other significant ground disturbance works commencing, to minimise the risk of cross-contamination occurring. The programme of works is to be confirmed by the client/main contractor.

Ongoing monitoring and herbicide treatment

Japanese knotweed

Where Japanese knotweed is being left in-situ (as mentioned above), 8 no. monitoring and treatment visits will be undertaken over a 5 year period as follows (precise dates of visits subject to variables such as growth patterns, weather conditions).

- Visit 1. Completed on 6th August 2025
- Visit 2. May/June 2026 (PENDING)
- Visit 3. Aug-Oct 2026 (PENDING)
- Visit 4. May/June 2027 (PENDING)
- Visit 5. Aug-Oct 2027 (PENDING)
- Visit 6. May/June 2028 (PENDING)
- Visit 7. Aug-Oct 2028 (PENDING)
- Visit 8. Aug-Oct 2029 (PENDING)

Upon completion of the final visit, the situation will be re-assessed to determine whether additional monitoring/treatment is required. Ideally there should be two consecutive growing seasons without re-growth to demonstrate successful control.

Himalayan balsam

Where Himalayan balsam is being left in-situ (as mentioned above), 6 no. monitoring and treatment visits will be undertaken over a 3 year period as follows (precise dates of visits subject to variables such as growth patterns, weather conditions).

- Visit 1. Completed on 6th August 2025
- Visit 2. May/June 2026 (PENDING)
- Visit 3. July 2026 (PENDING)
- Visit 4. May/June 2027 (PENDING)

- Visit 3. July 2027 (PENDING)
- Visit 4. May/June 2028 (PENDING)

Upon completion of the final visit, the situation will be re-assessed to determine whether additional monitoring/treatment is required. Ideally there should be two consecutive growing seasons without re-growth to demonstrate successful control.

Variegated Yellow Archangel

Where Variegated Yellow Archangel is being left in-situ (as mentioned above), 6 no. monitoring and treatment visits will be undertaken over a 3 year period as follows (precise dates of visits subject to variables such as growth patterns, weather conditions).

- Visit 1. April/May 2026 (PENDING)
- Visit 2. July-August 2026 (PENDING)
- Visit 3. April/May 2027 (PENDING)
- Visit 4. July-August 2027 (PENDING)
- Visit 5. April/May 2028 (PENDING)
- Visit 6. July-August 2029 (PENDING)

Upon completion of the final visit, the situation will be re-assessed to determine whether additional monitoring/treatment is required. Ideally there should be two consecutive growing seasons without re-growth to demonstrate successful control.

Horsetail

Where horsetail is being left in-situ (as mentioned above), 6 no. monitoring and treatment visits will be undertaken over a 3 year period as follows (precise dates of visits subject to variables such as growth patterns, weather conditions).

- Visit 1. Completed on 6th August 2025
- Visit 2. June 2026 (PENDING)
- Visit 3. August-October 2026 (PENDING)
- Visit 2. June 2027 (PENDING)
- Visit 3. August-October 2027 (PENDING)
- Visit 2. June 2028 (PENDING)

Upon completion of the final visit, the situation will be re-assessed to determine whether additional monitoring/treatment is required. Ideally there should be two consecutive growing seasons without re-growth to demonstrate successful control.

Depending on when the mechanical remediation works are undertaken, it will be beneficial to treat the areas of infestation which are to be excavated-removed, prior to their removal (to reduce the viability and control the spread of the associated surface growth/propagules during the interim period).

Insurance Backed Guarantee

While there is no guarantee against Japanese knotweed recurring on site, while no treatment can be certified as 100% effective and while your site could be vulnerable to uncontrollable threats, JKSL can offer further protection in the form of ongoing monitoring (based on repeated site inspections) and guarantees (including insurance backed guarantees or IBGs).

As JKSL is a member of an appropriate trade body (both PCA and INNSA) for specialists who specifically deal with Japanese knotweed, an insurance backed guarantee/IBG product to cover the remediated-treatment areas (Japanese knotweed only). Additional information can be provided on this, if required.

Appendix 1. Site location plan



Appendix 2. Drawing JK25-0499-01



DISCLAIMER -
SURVEY BASED ON VISUAL INSPECTION OF SURFACE GROWTH. JKS, HBLS AND
HRS ARE NOT IDENTIFIED IN VISUAL INSPECTION MODE. CONTINUED MONITORING OF SITE IS RECOMMENDED.

- Development boundary
- Approximate extents of survey area
- Area of recorded Japanese knotweed surface growth
- 3m risk zone
- Area of recorded Himalayan balsam surface growth
- Likely possible extents of Himalayan balsam seed dispersal
- Area of recorded horsetail surface growth
- Likely possible extents of horsetail rhizome
- Existing stockpile



Rev Description Date By

Client
Russell Homes (UK) Limited

Contract
Stubby Meadows, Dearnley Avenue, OL15 8HW

Drawing
Invasive plant species location plan (eastern section only surveyed in July 2025)

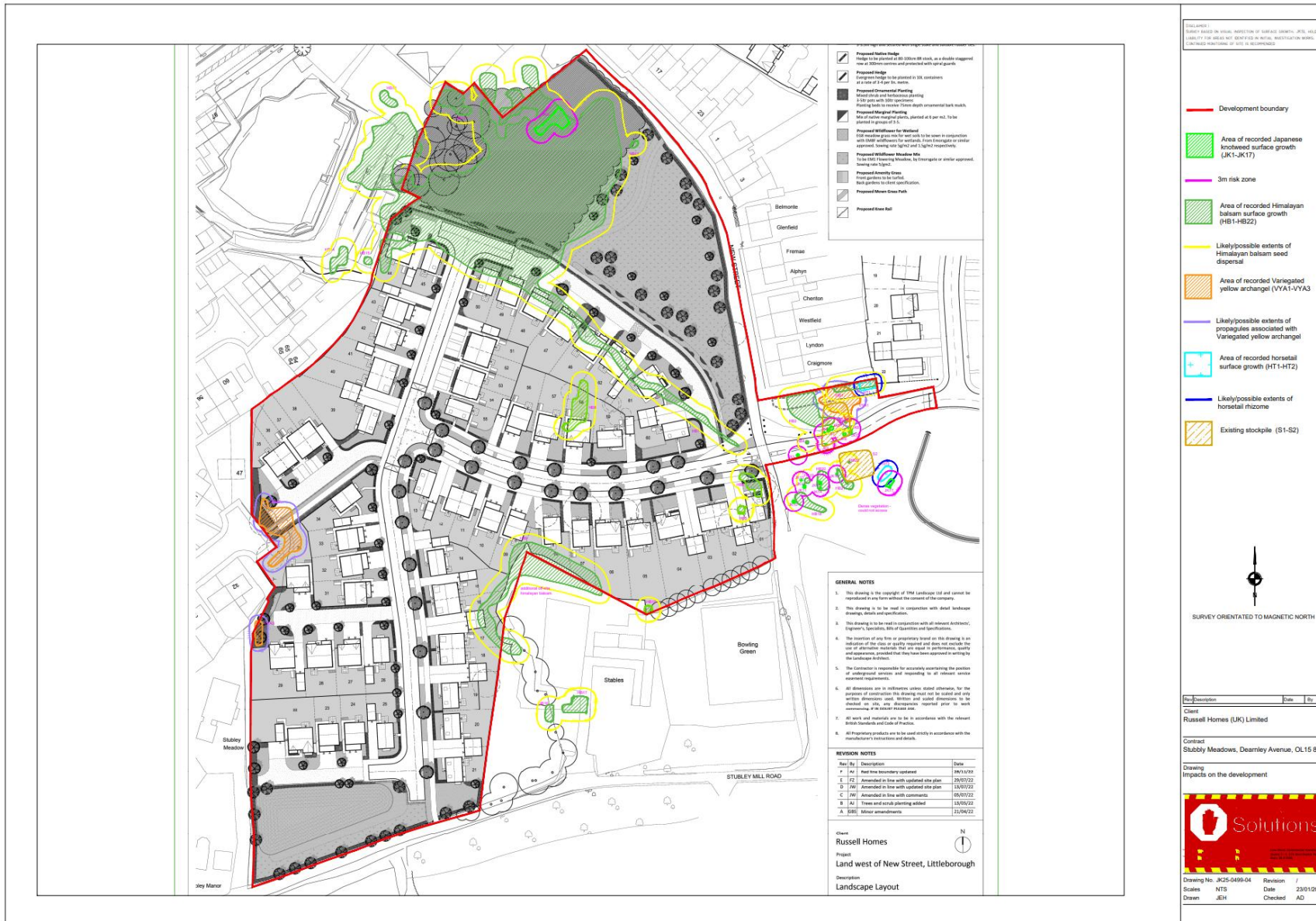


Drawing No. JK25-0499-01 Revision Rev A
Scale: NTS Date 15/07/2025
Drawn: JEH Checked: AD

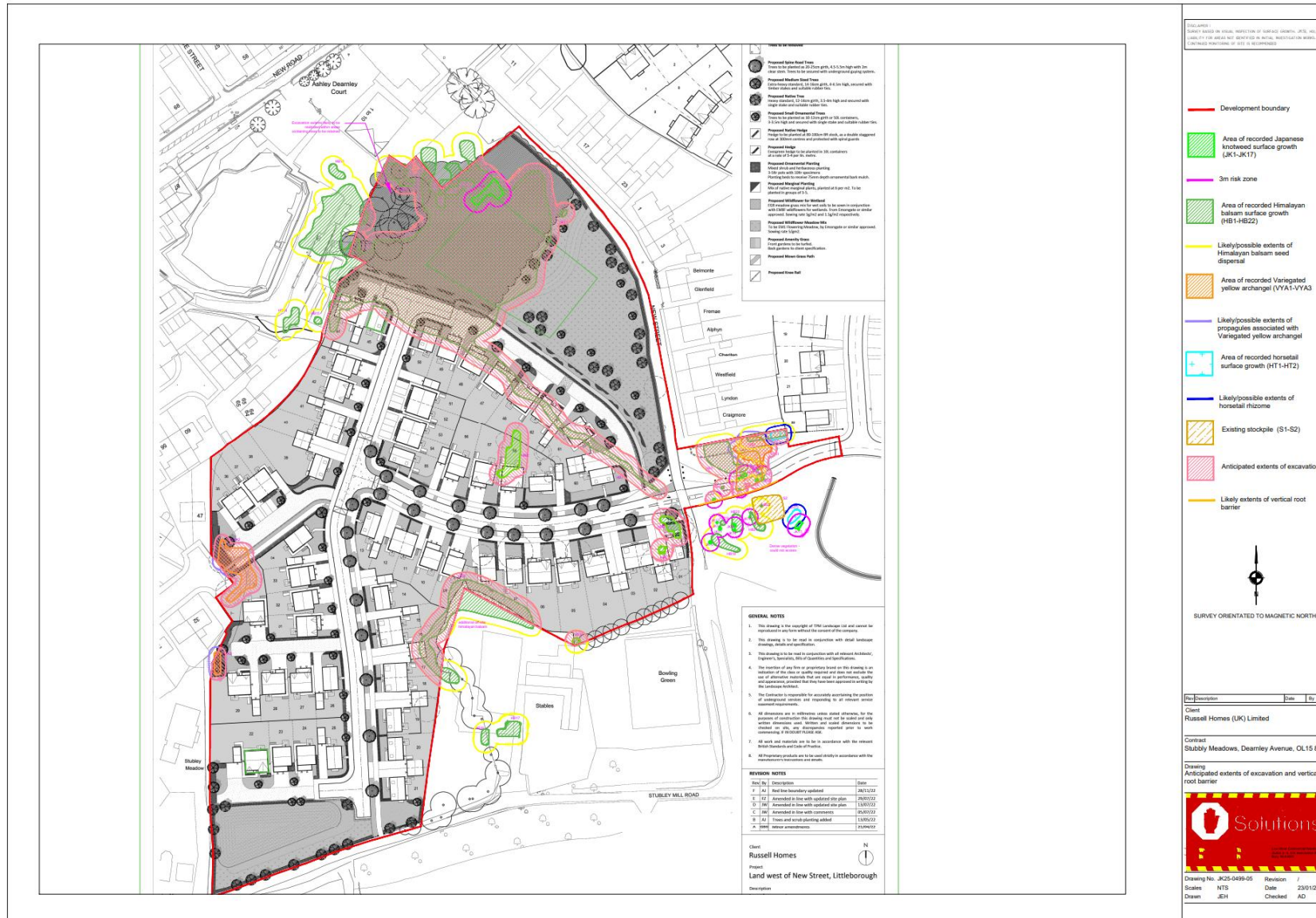
Appendix 4. Drawing JK25-0499-03 (Invasive plant species location plan)



Appendix 5. Drawing JK25-0499-03 (Impacts on development)



Appendix 6. Drawing JK25-0499-04 (Anticipated extents of excavation)



Appendix 7.

Japanese Knotweed (General information)

Japanese knotweed (*Reynoutria japonica*), a rhizomatous perennial was introduced from Asia to Europe in the mid-nineteenth century as an ornamental and fodder plant. It is an impressive species which grows to a height of 2-3 metres, with bamboo like stems, arching branches and clusters of creamy white flowers appearing late in the season. The orange to brown coloured, woody, dead stems persist erect throughout the winter and new shoots, produced from the extensive rhizome system, grow up amongst these the following spring to form dense thickets. The dead stems and leaf litter decompose very slowly and form a deep organic layer, which prevents native seeds from germinating.

There are several species of knotweed in the UK in addition to Japanese knotweed. Four of the most prevalent are giant knotweed (*Reynoutria sachalinensis*), Himalayan knotweed (*Persicaria wallichii*), dwarf Japanese knotweed (*Reynoutria japonica* var. 'Compacta') and lesser knotweed (*Persicaria campanulata*). Also there are several hybrid (or cross breed) species, with the most significant knotweed hybrid known as Bohemian knotweed (*Reynoutria japonica x bohemica*) formed by the interaction between Japanese knotweed and giant knotweed.

Once present at a site, Japanese knotweed increases in area very rapidly and soon forms monoculture stands (a stand of Japanese knotweed is a term normally used to describe a collection of stems/canes arising in a group and which have a continuous foliar canopy when mature). Unless otherwise managed, Japanese knotweed will usually suppress native flora, establishing itself as a dominant feature.

Reproduction is primarily by vegetative regeneration of rhizomes (underground stem system – a regenerative part of the plant) and fresh / viable (above ground) stems; it does not normally spread via seeds in the UK. Generally, in most situations the associated rhizome network (i.e. rhizosphere) from the parent plant will typically spread laterally up to circa 3m and vertically down up to a depth of 1m to 2m (based on latest research and consensus), however extents of the associated rhizosphere can also be more than this in some situations.

Japanese knotweed thrives on disturbance and has been spread by both natural means and by human activity. In riparian areas, high water flows disperse fragments of the plant downstream where new colonies form. In the past, fly tipping and transportation of soil containing rhizome fragments have been a major cause of spread, particularly in the urban environment.

Japanese knotweed is known to have significant impacts on development and infrastructure. While damage to structures, particularly existing buildings, is uncommon (particularly where substantial foundations are present), it is known to occur and is much more likely when the structures are built on top of areas where Japanese knotweed is already present or where soils containing Japanese knotweed are imported during the development process. Damage to hard surfaces, landscaping and retaining walls (where foundations are less significant) is common and growth within buildings and infrastructure damage have all been recorded on sites / properties which JKSL have investigated.

Japanese knotweed is classed an invasive non-native plant species and is also a Schedule 9 plant under Section 14 of the Wildlife and Countryside Act 1981.

Soil/materials containing Japanese knotweed propagules are regarded as 'controlled' waste and should be disposed of at an appropriate licenced facility if taken off-site. Associated impacted materials should not be reused in further construction or landscaping without an appropriate remediation strategy being implemented.

Himalayan Balsam (General information)

Himalayan Balsam (*Impatiens glandulifera*) is a large succulent annual introduced by the Victorians in 1839 as an ornamental greenhouse species. It escaped from gardens into the wild and has rapidly colonised our river banks and other areas of bare ground.

It is an annual plant which grows to approximately 2m in height with purplish pink, slipper shaped flowers in June – October. When the seed pods are mature they explode when touched, scattering the seed up to 5 metres from the parent plant. Waterborne seeds will survive and often flow downstream to create additional infestations along the river bank.

Himalayan Balsam forms dense stands, which suppress the growth of grasses and native British plants, leaving the banks bare of vegetation in autumn and winter and liable to erosion. Expected spread, based on current data, would be in the region of 5-10m in all directions per annum.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] to ensure that the correct level of duty of care is being implemented as per the Environmental Protection Act 1990.

It is recommended that Himalayan balsam impacted materials should not be reused in further construction or landscaping without an appropriate remediation-treatment strategy being implemented.

Variegated yellow archangel (General Information)

Japanese rose (*Rosa Rugosa*) is a non-native plant species which readily forms dense thickets that can outcompete native species.

It is a woody perennial shrub, has distinctive corrugated appearance, with upright stems covered in numerous straight thorns.

It produces white to pink flowers followed by large, orange or red fruit (hips) that are present from autumn (and are attractive to birds). It has entered the wild through establishment from seed (which are distributed by birds and mammals) and through garden material being thrown out. It spreads outwards from the main stand quickly by using creeping rhizomes which suckers will arise.

Japanese rose is classed an invasive non-native plant species and is also a Schedule 9 plant under Section 14 of the Wildlife and Countryside Act 1981.

Soil/materials containing Japanese rose propagules are regarded as 'controlled' waste and should be disposed of at an appropriate licenced facility if taken off-site. Associated impacted materials should not be reused in further construction or landscaping without an appropriate remediation strategy being implemented.

Horsetail (General information)

Horsetail is one of the oldest living plants, with a variety of species dating back millions of years. It has continued to spread by both spores and rhizome fragments and can be found all over the world. It is a perennial plant which begins to grow in April. The plant grows upwards and produces a large cone, whereby spores are produced. The hollow, fir tree-like stems have high silica content with black flecks around the nodes. Later on in the growing season, once the spores have been released, very thin, light green leaves appear.

Horsetail quickly establishes itself into dense stands of foliage, which can suppress the growth of grasses and native British plants, leaving the ground bare of vegetation in late autumn/winter and liable to erosion.

Left untreated the plant can rapidly colonised and cause damage to hard-landscaping surfaces. Horsetail is a native plant in the UK, and therefore is not listed on Schedule 9, under Section 14 of the Wildlife and Countryside Act 1981 or on the European list of Species of Special Concern (and covered by the Invasive Alien Species Order 2019) as an invasive non-native plant species, however is still considered to be invasive and can potentially cause defects such as damage to hard standing areas (in particular tarmacadam surfaces), thus it is wise to deal with it, particularly in areas where there are a high number of plants.

Materials being disposed as waste from site containing horsetail propagules should be appropriately described to the receiving disposal facility to ensure that the correct level of duty of care is being implemented as per the Environmental Protection Act 1990.

It is recommended that horsetail impacted materials should not be reused in further construction or landscaping without an appropriate remediation-treatment strategy being implemented.

Appendix 8. Biosecurity control measures

The following biosecurity control measures should be implemented on site:

- Brief all operatives on the locations of known areas containing invasive plant species. All groundwork sub-contractors should be able to identify the relevant invasive plant species and are made aware of the requirement in the control and preventing the spread of these invasive plant species. Should any additional areas of infestation be identified, then the client (and JKSL) are notified immediately, and works stopped immediately in that area.
- Appropriate buffer zones should be implemented around the associated recorded surface growth, including
 - 3-4m around areas containing Japanese knotweed and Himalayan balsam
 - 2-3m around areas containing horsetail and Variegated Yellow Archangel
- Where the risk of disturbance is considered high, signage and/or the installation of a physical barrier to prevent unauthorised entry are recommended.
- All vehicles and machinery arriving at site should be inspected before proceeding to undertaking the relevant works.
- Photographs of the works should be undertaken and saved in the project file to prove that the works have been undertaken correctly if necessary.

Should works be undertaken within an area of infestation, operatives should implement the following procedures (undertaken by / with an invasive plant species specialist in attendance):

- Operatives to clean/decontaminate footwear with dedicated foot wash facilities when leaving an area impacted by an invasive plant species.
- Clean/decontaminate off all hand tools (e.g. saws, chainsaws) which could into contact with the affected materials before leaving an area impacted by an invasive plant species.
- Clean/decontaminate machinery (includes tracked chippers, other machinery) when leaving an area impacted by an invasive plant species using a hard brush, spade and water ensuring tyre tracks, buckets etc. are free from soil and plant material.
- Materials being disposed as waste from site containing invasive plant species propagules should be appropriately described to the receiving disposal facility to ensure that the correct level of duty of care is being implemented as per the Environmental Protection Act 1990.

It is important that JKSL are provided with up-to-date information about site plans, including accurate site drawings and details of any additional planned works, particularly in any contaminated area; additional / more specific biosecurity control measures could be recommended to be implemented.

Appendix 9. Legislation

The management of invasive non-native plants should be carried out in accordance with any relevant legislation in that geographic region.

In England, Wales, and Northern Ireland it is an offence to plant, or otherwise cause to grow in the wild (including allowing to spread) any invasive non-native plant species as listed on Schedule 9 within Section 14 of The Wildlife and Countryside Act 1981. In Scotland, the legislation makes it an offence to plant, or otherwise cause to grow any plant in the wild outside its native range.

In the UK, it's an offence under the Invasive Alien Species (IAS) Order 2019 (transposing EU regulations) to intentionally import, keep, breed, transport, sell, grow/cultivate or permit to reproduce, or release invasive non-native plant species as included on the list of "Species of Special Concern".

Plant material (including propagules) and soil impacted with invasive non-native plant species (as included on the Wildlife and Countryside Act and/or on the European list of Species of Special Concern / covered by the Invasive Alien Species Order 2019) are defined as controlled waste under the Environmental Protection Act 1990 **when removed from a site**, placing a legal duty of care on anyone producing, handling, or disposing of the associated impacted materials.

As of November 2014, 'ASBO's' or Community Protection notices can now be issued to land owners with Japanese knotweed and other non-native invasive plants. The Anti-social Behaviour, Crime and Policing Act 2014 notice can be used to require someone to control or prevent the growth of Japanese knotweed or other plants that are capable of causing serious problems to communities. The test is that the conduct of the individual or body is having a detrimental effect of a persistent or continuing nature on the quality of life of those in the locality, and that the conduct is unreasonable. Under section 57 of the Act, "conduct" includes "a failure to act".

If charged with committing an offence, the defendant would be required to prove that all reasonable steps were taken and all due diligence exercised in attempting to avoid committing the offence. As such, landowners are encouraged to have a management plan in place for the invasive non-native plant(s) on their property and be able to demonstrate that it is being followed.

Appendix 10. Completion and sign-off sample certificate

COMPLETION CERTIFICATE



THIS DOCUMENT CERTIFIES THE COMPLETION OF THE FOLLOWING JAPANESE KNOTWEED TREATMENT WORKS:

CLIENT:

JOB NUMBER:

PROPERTY / SITE ADDRESS:

TREATMENT METHOD:

COMPLETION DATE:

Work carried out and covered by this completion certificate to control Japanese knotweed (*Fallopia japonica*).

Signature:

(For and on behalf of the Company)

Date:

A handwritten signature in black ink, appearing to read "Mike Clough", is written over a white rectangular background.

MIKE CLOUGH (CHIEF EXECUTIVE OFFICER)

Japanese Knotweed Solutions Limited
Low Wood Commercial Warehouse, Suites 3, 4 & 5, 574 Manchester Road, Bury, BL9 9SW
T: 0161 723 2000 E: jk@sltd.co.uk

Appendix 11. Contractors Member's Guarantee sample certificate

PCA CONTRACTORS MEMBER'S GUARANTEE



This document (the Guarantee) is issued by:

Japanese knotweed Solutions Limited (the Company)

Client:

Job No:

Property/Site address:

Survey Sign Off Date:

Date work started:

Date work completed:

Guarantee Period: 10 Years from the date of completion of works

Work carried out and covered this company guarantee to control the following invasive weeds - **Japanese knotweed (Fallopia japonica)**

TERMS OF GUARANTEE

1. Japanese Knotweed Solutions Limited, 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 TEN YEARS from the date of completion of the work of:

(i) 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, upon 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 at issue 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 full the inspection fee paid.

3. This Guarantee does not cover any loss (including consequential loss see 9 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:

(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 a claim could, with the exercise of reasonable diligence by a continuous occupier of the affected premises, have been discovered;

PCA CONTRACTORS MEMBER'S GUARANTEE



(b) where all Works advised or 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 six 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 by invasive weeds.

(e) where any recommendation 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 or 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 barriers 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 by tipping or the uncontrolled propagation from adjacent land.

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 Client's 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.

6. In the event of disposal of the property, being the 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.

7. For the purposes of this Guarantee and the 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.

8. 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. Furthermore, 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

PCA CONTRACTORS MEMBER'S GUARANTEE



**JAPANESE KNOTWEED
SOLUTIONS**

to the benefit of the rights conferred by this Guarantee and that furthermore, neither the Client, nor 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 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 costs and expenses of any redecoration, repainting or retiling work, the costs and expenses of removing and/or replacing any cupboards, carpets or 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 losses and/or damages;

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

- (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 the claim) will be deducted and the balance will be refunded.

12. 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.

Signature:

(For and on behalf of the Company)

Date:

MIKE CLOUGH (CHIEF EXECUTIVE OFFICER)

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Appendix 12. Method Statements/Safe System of Works



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SAFE SYSTEM OF WORK: **Excavation, preparation and filling of borrow pit**

LAST REVIEW / UPDATE: **08/04/2025** **REVIEWED BY: Chris Oliver**

NEXT REVIEW BEFORE: **01/05/2026**

INTRODUCTION

Borrow pits are (usually large) excavations, used for burying contaminated materials. For invasive weeds, the pits are normally encapsulated and/or sealed using geotextile membranes. For certain invasive plants (particularly Japanese knotweed), restrictions apply, including the Environment Agency's RPS178. Clean Site Policy should be implemented to reduce the risk of cross-contamination and suitable records must be kept.

Heavy plant including excavators from 0.5-21 tonnes will be used to dig a borrow pit and dumpers from 1-21 tonnes will be used to relocate the original materials and to import the materials to be buried.

This document covers only the excavation of a borrow pit and does not cover the excavation and relocation of soils, any fencing, decontamination, (hand-)screening or any other operations not explicitly outlined in the "OPERATIONS" sections below. JKSL do not operate wagons (for delivery or removal of aggregates or soils) or deliver any plant heavier than a micro-digger carried on a trailer, so any such operations must be covered by the supplier's RAMS. This document does not cover the use of specialised excavator attachments e.g. a pecker (or flail).

Lining of the pit is covered by the safe system of work for installation of root barriers.

HEALTH AND SAFETY

This document covers the task and should be read with JKSL's Health and Safety manual as well as site-specific Method Statement (SSMS) and relevant Risk Assessments (RAs).

Also see separate risk assessments for vibration, noise and manual handling. Manual handling (including installation of barrier membranes) must be carried out in a planned way, and only as approved by the Site Foreman.

COSHH assessments will be provided for any hazardous substance (including diesel). Fuels will be stored in approved containers only. When refuelling plant (or any equipment), the relevant RAMS will be followed, and plant nappy and spill kits in place.

Only competent, qualified (CPCS or NPORS) operators are permitted to operate plant. All plant must be used in line with operator's training and JKSL's vibration risk assessment. All operators using plant and operatives working near to plant must wear hearing protection if this is required by JKSL's noise risk assessment.

Unless otherwise agreed, excavations made by JKSL will be made and maintained by JKSL up until the completion of JKSL's works, at which point they will be handed back to the control of the client. Unless agreed with JKSL's Project Manager, backfilling will not be carried out and fencing (or other safety measures) will not be left in place. For the duration



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of JKSL's works, daily inspections of the excavation(s) will be carried out by a competent member of JKSL staff, using the checklist provided.

Excavations will always be made in such a way as to avoid the need for sheeting, propping or shoring – excavations will be wide, open and graded or battered to a suitable angle to minimise the possibility of collapse.

Suitable safety measures must be in place at all times when significant excavations are present on site. Fencing (e.g. Heras fencing) outside the borrow pit is recommended. JKSL Site Foreman must contact JKSL Project Manager if they feel additional measures (e.g. fencing, stop blocks etc.) are required in order for excavations on site to be safe for all groups identified in the RA.

Any specific safety measures required by the client or site owner (including those highlighted in their RA) will only be implemented by JKSL where agreed with JKSL's Project Manager – otherwise, these will be the responsibility of the client.

It should be ensured that deeper pits are suitably ventilated to prevent the buildup of carbon monoxide, carbon dioxide or other harmful gases (particularly from machine exhausts). Generators or other similar equipment should not be sited in the pit if it can be avoided and operatives must leave the pit immediately if they feel lightheaded or faint.

EQUIPMENT

The following equipment will be used for this task:

- Excavator(s) – as specified in the SSMS
- Dumper(s) – as specified in the SSMS, if required
- CAT scan and generator
- Fuel bowser, diesel and AdBlue may be required for longer projects
- Line marker spray
- Footwash, brushes, shovels and spades may be required for decontamination
- (Fencing materials, root barrier etc. will be specified in separate RAMS)

The site-specific RAMS (and/or client's site rules) will specify what PPE is to be used, but the minimum PPE required for this task is:

- footwear with protective toe and mid-sole [EN ISO:20345],
- high-visibility vest, coat or tabard [EN ISO:20471]
- hard hat [EN397] is mandatory on sites where plant is present – unless you are in the cab of an excavator with FOPS (falling object protection system)
- eye protection [EN166 or EN16321] is mandatory for dumper drivers

The following PPE may be required for this task:

- hearing protection [EN352] may be required for plant operators or operatives
- gloves [EN388] are recommended but optional unless handling soils
- eye protection [EN166 or EN16321] is recommended but optional for general works
- high-visibility trousers [EN ISO:20471] are recommended but optional

JKSL will check that inspection (and LOLER paperwork for excavators) are provided with all plant delivered to site. Plant will be inspected daily by a competent person, using the checklist provided. Plant will be secured when not in use, with the keys removed and must be left (shuttered, if provided) in a suitable location (as agreed) at the end of each day.



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SITE TRAFFIC

The site-specific RAMS (and client's site induction, where applicable) should address the access routes and parking locations for road vehicles, the approved routes for site plant and the pedestrian routes on site.

Competent banksmen must be present to guide vehicles in the following circumstances:

- Any vehicle reversing, except road vehicles under 3.5 tonne GTW
- Any vehicle entering site, except road vehicles under 3.5 tonne GTW
- Any plant, 8-wheeler or grab wagon moving around site
- Any plant or vehicle entering or leaving a loading area
- Any vehicle towing on site (including road vehicles)

PREPARATION

Before starting work, implement Clean Site Policy, if the works require one. Implement either the client's or JKSL's Permit to Dig system before breaking ground.

Ideally, the location for the borrow pit should be marked by the client's engineer. If not, JKSL's site foreman will mark this in consultation with the client's site manager and/or JKSL's Project Manager. It is important to account for the top of the pit being significantly wider than the bottom – allow 2 metre wider in each dimension for each metre of depth.

Before starting work, JKSL's Site Foreman will walk and inspect the following areas:

- The excavation area(s) for the borrow pit,
- any haul routes along which materials will be transferred,
- loading area(s), stockpiles or other areas used to store soil and excavated materials

The foreman will check the proposed burial pit, stockpile areas and haul routes for obstructions, trees, rocks, other hazards or anything that would interfere with the work; they will also look for overhead services and signs of underground services (manhole covers, lamp posts etc.). On-site risk assessment will be used and additional control measures (such as goalposts on haul routes) should be put in place if required. Site Foreman should inform JKSL office of any additional controls and Ops will update the RAMS accordingly.

Haul routes, loading and/or storage and WMAs will be marked as appropriate. Loading areas and stockpiles should be marked either using cones or using line marker and signage. Marked loading areas are recommended (but not required) for loading dumpers.

JKSL will CAT scan any and all areas where ground is to be broken before starting works – this will be done by a trained, competent operative only. Service drawing(s) and UXO (unexploded ordnance) survey for the site should be requested from the client and checked before CAT scanning. If these are not available, proceed on the basis that there are active services in all excavation areas. Re-scanning will be carried out at every 300mm of depth (or more regularly if specified by the client or JKSL's Project Manager).

All suspected services will be appropriately marked before digging, and discussed with the machine operator, if this is not the person doing the CAT scanning.



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If diesel or petrol are stored on site, an impermeable bund must be in place, measuring at least 110% of the storage capacity of the largest vessel or 25% of the total storage capacity, whichever is the greater. JKSL will put this in place as required.

JKSL's Site Foreman will give a briefing to the team, to include:

- which members of staff will be doing which task(s)
- location of storage area(s) for fuel, plant etc.
- location of the proposed borrow pit
- routes for moving around site (pedestrian, plant and other vehicles)
- any relevant hazards (asbestos, overhead services, slip/trip/fall and fall-from-height)
- any site-specific information (from RAMS, on-site RA, service drawing etc.)
- areas to avoid, including 500mm radius from any suspected services

OPERATIONS – EXCAVATION OF THE PIT

At any time, if services are found within the proposed borrow pit, the first consideration should be whether the pit can be relocated elsewhere – as it's unlikely that the services can be accommodated within a burial cell. If services are detected (or suspected) JKSL's Site Foreman must contact JKSL Project Manager and the client's Site Manager to discuss the way forward and works may not proceed until new RAMS have been produced or a new location for the borrow pit has been determined.

Within 500mm (laterally in any direction) of any suspected or detected underground services, digging will be carried out by hand using shock shovels. In all other areas, use the mechanical excavator. Exposed solid pipes must not be undermined, and cables should not be left hanging – Adequate means of support should be discussed with the client's site engineer before digging under any services found on site.

JKSL will excavate materials as outlined by the client's site engineer / JKSL Project Manager / client's Site Manager. The footprint of the borrow pit should be excavated with materials stockpiled far enough outside the footprint that they do not pose an additional risk of collapse (or hauled by dumper to a stockpile elsewhere on site).

During works, the pit should have a walkover at least once per day before starting works, inspecting first from the top then from the bottom of the pit, checking all areas, particularly the side walls to ensure it is in good condition and not at risk of collapse. Daily checks should be recorded on the "Excavation Daily Check Sheet". If the pit is not safe, works must stop and the borrow pit be cleared of all personnel until it can be made safe. Additional checks are required in heavy weather, after any heavy plant movements or other incidents which may affect the stability of the pit.

Once the pit has been dug to a suitable depth and the walls weathered, battered compacted or otherwise made safe, the process of lining the pit can begin as per the RAMS for the task.

Excavators will be positioned giving consideration first to safety (including prevention of collapse of the excavation) and then to the most efficient approach to removing the material and loading dumpers – including the sequence of digging, if multiple areas are required to be excavated.



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The excavation should proceed in roughly 300mm layers, with the edges of the excavation being graded or battered where possible to remove any steep drops. The area should be re-CAT-scanned every 300mm (depth) of excavation. The machine driver must switch off the machine before operative CAT scan within the swing of the machine.

On reaching 1m of depth, one metre of horizontal distance from each excavated face should be marked using marker spray or similar, in order to ensure that the sides of the excavation are stable. JKSL's Site Foreman should take other measures to assess the stability of the excavation and step or batter back at a greater angle of repose if this is required.

Most burial pits will require a suitable ramp for dumpers to enter and exit the pit. The ramps may be best constructed running parallel and adjacent to the (longest edge) of the pit, so that they can be made at the shallowest possible angle.

The excavated material will be loaded directly into dumpers or onto a (temporary) WMA, as outlined in the SSMS.

OPERATIONS – TRANSFER OF CONTAMINATED MATERIALS

Dumpers must stop outside the swing of the machine (and any other exclusion zone) when they approach the loading area (which may be outside the pit while the excavation is shallow but is likely to be in the pit as the excavation grows).

On flat ground, dumper drivers should drive face-on into the loading area. Dumpers will be permitted to enter down a graded slope if the route in to the excavation is in good condition, suitably graded and free from obstructions. When moving down a slope, dumpers should drive directly down the slope (not sideways or at an angle). A forward-tipping dumper should be driven forward down a slope if it is empty, and should be reversed down a slope if it is loaded. When driving up a slope, a forward-tipping dumper should be driven forward if it is loaded, and reversed if it is empty. Once safely on flat ground, the dumper should manoeuvre to face the appropriate direction of travel.

During loading, dumper drivers must switch off the vehicle, remove the keys and walk outside of the swing of the excavator before loading starts. A competent banksman (ideally the dumper driver) should signal the excavator driver when to start and stop loading. Dumpers unloading should unload on flat ground only, and will approach the unloading area slowly, and confirm that the area is clear before emptying the bucket. Stop blocks can be put in place to assist with correct positioning, if required.

OPERATIONS – MAKING AND MANAGING STOCKPILES

Excavators may also be used to move and transfer materials deposited to form them into bunds, stockpiles or other formations or to backfill earlier excavations.

When backfilling or loading materials into a borrow-pit (e.g. for burials) the position of the excavator may be included in the SSRA but will often need to be determined on site, because of considerations about protecting the root barrier membrane. A machine driver may track over a backfilled excavation in order to compress the materials, but only when it is safe.



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Forming stockpiles is normally done from adjacent to a small stockpile but may be done from adjacent to or on top of the stockpile depending on considerations of stability and avoiding collapse or cross-contamination. For very large stockpiles, driving onto the stockpile be required.

Stockpiles will be arranged to minimise the risk of collapse, while also minimising the height. Stockpiles should have a suitable profile – generally at least as wide as they are tall, with an additional fringe, graded to a ratio of 1:1 or similar (depending on the properties of the soils or material used), which should be graded and weathered. Stockpiles should be assessed after heavy rain, snow or other events likely to affect them, in order to ensure that they are still in good condition and risk of collapse is minimised.

Dumpers should not drive on to a stockpile. Excavators should only be on a stockpile in order to load or grade it – they should not be left on a stockpile overnight. Operatives should not stand close to stockpiles (within 5m) and should not enter this area or stand on to the stockpile unless there is no other way to complete the task they are doing.



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SAFE SYSTEM OF WORKS: Decontamination of Plant, Equipment and Personnel

LAST REVIEW / UPDATE: 08/04/2025 REVIEWED BY: Chris Oliver

NEXT REVIEW BEFORE: 01/05/2026

INTRODUCTION

In order to prevent cross-contamination, plant, tools, other equipment and personnel (particularly boots) should be decontaminated when working with invasive plant species. Other objects or materials such as building materials, made surfaces and tree stumps, may also need to be decontaminated. This document covers the activity of decontamination by hand, without the aid of a jet wash. It does not cover any other activities.

HEALTH AND SAFETY

This document covers the task and should be read with JKSL's Health and Safety documents, including the contractor's Risk Assessment and Method Statement (RAMS) where relevant. Separate RAMS must be provided for the other operations on site.

Where these works are to take place on a construction/development site, JKSL personnel will attend a briefing or induction from the Principal Contractor and will follow all site procedures.

JKSL's Site Foreman should report any health and safety concerns on site to the client's Site Manager at the earliest opportunity, as well as reporting concerns to the JKSL office.

Manual handling risk associated with this task are expected to be significant but not severe. This is addressed in JKSL's Manual Handling Risk Assessment, and the task-specific RA. Risks of twisting and bending can be minimised by an ergonomic layout of working areas. The use of plant to remove the need for manual handling, is encouraged where this is safe, and plant is used as intended.

Where decontamination works involve plant, it is important to ensure that operatives work safely around plant, and that all plant is switched off and cool, with the keys given to the decontamination team to ensure the plant is not operated accidentally.

The potential to disturb asbestos containing materials during this operation is relatively high, and staff carrying out these works should have asbestos awareness training.

EQUIPMENT

The following equipment is required for the task:

- Hand tools – usually a stiff brush, a spade or shovel and potentially a foot wash

Depending on the job, temporary fencing and signage may be installed and root barrier membrane "decontamination area" may be put in place to prevent cross-contamination. This will be outlined in the Clean Site Policy and additional task-specific RAMS.



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The site-specific RAMS will specify what PPE is to be used, but the minimum PPE required for this task is:

- footwear with protective toe and mid-sole [EN ISO:20345],
- high-visibility vest, coat or tabard [EN ISO:20471]
- hard hat [EN397]
- eye protection [EN166 or EN16321]
- knee pads [EN 14404] if works will be done kneeling down
- gloves [EN 388] (Gloves are optional, if using spade or other hand tools, but site rules must be followed at all times)

PREPARATION

JKSL's Site Foreman will make sure all JKSL staff get an induction or site briefing from the client or contractor before starting works.

Foot wash will be placed at a suitable location and used by any person when leaving the contaminated area. Decontamination team can advise foot wash users on correct use. Tools and other equipment must be inspected before starting works and all plant and powered tools must be left to cool down before starting works.

All works will be undertaken in line with JKSL's Clean Site Policy, the requirements of which will be specified in that document, including what to do with contaminated materials.

DECONTAMINATION OF TOOLS AND EQUIPMENT

Once contaminated equipment is ready to be removed from working areas (including being switched off and cool), visually inspect it for soils or viable Japanese knotweed material visually. Remove all potentially-contaminated materials hand or using brush shovels and/or spades. Work from the top of plant to the bottom.

Plant may need to be operated to e.g. rotate the wheels or tracks. This must be done by agreement between the team and the plant operator at the end of the decontamination process, using hand signals (e.g. thumbs-up rule).

Other materials to be decontaminated should be dealt with appropriately, for example pieces of tarmac can be brushed off, tree stumps may be more complicated and require cutting with hand-tools (if this is the case, a separate RAMS to be provided). The materials should not be removed from the contaminated area until fully clean.

TRANSFERRING CONTAINERS / REMOVAL OF MATERIALS FROM SITE

Any potentially-contaminated material should be disposed of as specified in the Clean Site Policy, e.g. left on the geotextile membrane or deposited into buckets or ton bags located nearby for the purpose. Bags or buckets will be replaced when they are filled to a level suitable for carrying by the available team.

All transfer of containers must be carried out in a planned way, in line with manual handling best practice, including e.g. transferring these using vehicles or dumpers where this is appropriate and allowed within the Clean Site Policy. Do not over-fill containers and unload some material into another container if required to make carrying safe.



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SAFE SYSTEM OF WORK: Herbicide spray, injection (or other application by hand)

CREATED: 05/06/2020 **BY:** Chris Oliver
LAST REVIEW / UPDATE: 08/04/2025 **REVIEWED BY:** Chris Oliver
NEXT REVIEW BEFORE: 01/05/2026

INTRODUCTION

Herbicide application must (by law) be carried out by **certified** operatives using only approved products, approved equipment and suitable PPE. When following the measures in JKSL's risk assessments (RAs) and COSHH assessments, risks to health and safety are low.

JKSL's herbicides can be applied by a variety of methods, depending on the approvals on the product label, including: spraying, stem injection and leaf wiping. Spraying is generally the preferred method. Chemical injection and leaf wiping are mostly used to minimise damage to other desirable plant species or contamination of water.

HEALTH AND SAFETY

This Safe System of Work covers herbicide application and should be read with the relevant RAs, COSHH assessment(s) and other JKSL health and safety documents.

The works may involve significant manual handling, depending on the amount of spray works to be undertaken. Battery-powered spray equipment is available, which can be set on the ground to minimise manual handling. Also see JKSL's manual handling RA.

Other significant areas of concern include **the following, which should be covered in the RA for any site where spray works take place:**

- Overhead services (particularly when using extendible lance)
- **Works on uneven ground including embankments and slopes**
- **Working near to watercourses**
- **Working in watercourses – which always needs approval and a specific RA**

EQUIPMENT

The following equipment may be used for the task:

- Manual knapsack sprayer
- Battery powered sprayer
- Short (1m), long (2m) or extendible (e.g. 3.6-5.0m) spray lances
- Herbicide injection gun
- Leaf wiper, disposable wipes, paintbrush

The following potentially-harmful substances may be used (see COSHH for details):

- Any UK-approved herbicide (see site-specific MS for which)
- Any UK-approved adjuvant (see site-specific MS)
- Line marker spray



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The site-specific RAMS will specify what PPE is to be used, but the minimum PPE required for this task is:

- Chemical-resistant wellington boots to ISO 20345 and EN13832-3
- Chemical resistant gloves to EN ISO 374
- Cat III Type 5+6 spray suit to ISO 13982-1 and ISO 13034
- Both goggles and visor to EN166 or EN16321
- In addition, for mixing, an EN 14605 apron is required.

PREPARATION

Only operatives certified with a [specified certificate](#) are permitted to apply herbicide, other than the case where such an operative may directly supervise a single trainee for spraying, so long as they are in sight and sound contact at all times and the certified operative ensures that all legal requirements are followed.

JKSL site foreman must undertake a visual survey of the area before starting work, to check for slip/trip/fall hazards, watercourses, and overhead power cables as well as other hazards including sharps and asbestos-containing materials. Any significant hazards should be reported to JKSL's Project Manager before starting works.

If appropriate, the areas for application should be marked before starting application.

Clean Site Policy should be implemented if there are invasive species present.

If the areas are accessible to the public, a spotter should be nominated, and signals agreed for stopping and re-starting works and any other important instructions.

Before use, all equipment must be checked, adjusted and (where necessary) calibrated. Separate check-sheets are provided for this.

WATER QUALITY MANAGEMENT

Spraying near to watercourses is not permitted without approval from the local authorising agency (e.g. Environment Agency, SEPA, Natural Resources Wales, etc.). The prohibited distance and conditions for approval vary between agencies and approval will be subject to certain conditions which may vary from site to site and year to year.

In England, spraying may be carried out up to 1m from the top of the bank (the first break in slope) of any watercourse without seeking approval; within 1m, EA approval is required.

In Scotland, mixing must not be carried out within 10m of any watercourse. Additionally, application within 1m of the top of the bank of any watercourse is prohibited during rain; high wind; within 50m of any spring, well or borehole (unless it is capped to prevent such ingress), 250m upstream of any water abstraction intended for human consumption (or 250m from such on a lake or wetland). In line with the above conditions and additional conditions outlined by SEPA, application within 1m of the top of the bank does not need approval if it is for treatment of invasive species using a pesticide approved for use near water and provided no herbicide enters the water. Otherwise, SEPA approval is required.

In Wales, herbicide applications may be made in line with NRW conditions if herbicide is used within 250m of water but not actually on or in water and/or within 1500m but not



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actually in a designated site and/or not within 1km of a drinking water abstraction point or 500m of any other type of water abstraction point. For other activities, a permit is needed.

JKSL must request permission in writing **unless an exemption is in place**. Approval will include a number of conditions and is not guaranteed so there is no guarantee that herbicide application can proceed as planned. If a previously unidentified watercourse is found on site, works in the protected area will not proceed, JKSL may charge **the client** for seeking permission and further applications may be required in these areas at a later date.

MIXING AND PREPARATION FOR APPLICATION

JKSL will comply with relevant legislation, any relevant code of practice issued by DEFRA and the conditions outlined on the product label(s) at all times, during applications. Spray operatives (or a person directly supervising them one-to-one) will hold a valid, current sprayer certificate, (e.g. NPTC PA1 and PA6a) including e.g. PA6w for working near water.

Mixing of herbicides must be carried out in a suitable location, away from any watercourses, and in an area where there is no significant risk of any spillage running off into drains or watercourses. Only mix enough herbicide for the job (or mix small batches). Empty containers will be put in the chemical storage as soon as they are used and removed from site for disposal.

Any water taken from a watercourse must be taken out using a clean container which has never been used to carry pesticides or other environmentally harmful materials. The water must be transferred into an intermediate container or spraying equipment in such a way that no herbicide (concentrated or dilute) can come in to contact with it.

SPRAYING

Spraying must only be carried out in appropriate weather conditions. Spraying must not go ahead in excessive wind and/or precipitation, low light levels or other adverse weather conditions. Where wind or precipitation make spray works unsuitable, leaf wiping or stem injection can potentially be used as an alternative for some species but this may not be practical or may require additional costs, particularly if the application areas are large.

Spraying will either be a ground-level blanket spray or will be targeted and directed to specific species only (as per the MS for site). For foliar-acting herbicides, spray must only be applied to active weed growth. JKSL operatives will take measures to minimise spray drift onto other areas of the site, land adjoining the site and any non-target plant species.

Some diluted herbicide is likely to remain in the tank when you finish spraying; spray these residues out over a suitable area of waste ground, then rinse the knapsack with a small volume of water and spray the washings out over a suitable area and repeat twice more.

Any application along a flowing watercourse (whether it is spraying or any other method) must proceed against the direction of flow of the watercourse – that is to say, moving upstream at all times. This approach reduces the concentration of any herbicide which enters the watercourse.



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STEM INJECTION

Injection is approved for limited specific uses (mostly applying glyphosate to mature Japanese knotweed). Injection will be used if it is appropriate and necessary to ensure effective treatment in adverse weather conditions or to protect surrounding plant species.

Once the equipment has been tested and filled with herbicide as per the product label, insert the gun into the stem of the plant (for JK, between the first two internodes) and apply the herbicide with a single press of the trigger. If the herbicide leaks out of either side of the stem after the press of the trigger, then the application should be repeated.

In large stands, paint or marker spray can be applied to each treated stem to prevent stems from being missed or treated more than once.

LEAF WIPING

A dedicated leaf wiper can be filled with (dilute) herbicide as directed on the product label and the wick used to liberally wet the leaves of the target plants.

A dedicated paintbrush (for one product only) can be used to apply dilute herbicide from a suitable container. Care should be taken to avoid over-wetting the brush, causing dripping.

Wipes may be used; a small amount (1-2ml) of concentrated herbicide can be applied to each wipe and the contents transferred to the plant by wiping on to the leaves. Used wipes should be placed into a sealable, water-tight container immediately after use, and should be removed from the site upon leaving the area.

Leaf wiping shall not be carried out adjacent to water unless the equipment can be prepared away from the watercourse and kept in a sealed, water-tight bag before and after use. No concentrated herbicide is to be taken into the watercourse or on to the banks.

Appendix 13. Reference Documents

This document is deliberately concise but if you need more information, JKSL will be happy to help. JKSL also provide online documents to assist our clients. Below is a selection of links to information on the work we do, our products and services, and what we use to do the job.

More about us – Japanese Knotweed Solutions Limited

- Website – [Japanese Knotweed Specialists | Knotweed Removal Services](#)
- [Contact Us - JKSL](#)
- [About JKSL - JKSL](#)

Codes of Practice

- [INNSA-Code-of-Practice-2.pdf](#)
- <https://www.property-care.org/media/canltsdn/managementofjapaneseknotweed-nov2023-codeofpractice.pdf>
- [Code of Practice for Invasive Non-Native Plants ROSIE FINAL EDIT](#)
- [managementofjapaneseknotweed-nov2023-codeofpractice.pdf](#)
- [Japanese Knotweed - Guidance for Professional Valuers and Surveyors](#)

Guidance notes

- [Key Legislation - Invasive Weeds](#)
- [managementofgiantthogweed-nov2023-technicaldoc.pdf](#)
- [Herbicide Treatments and Japanese knotweed - PCA Guidance Note](#)
- [Non-Native Invasive Plant Species Listed in Various UK and EU Acts and Regulations](#)
- [managementofhimalayanbalsam-nov2023-technicaldoc.pdf](#)

ID information

- ID_Fallopia_japonica_(Japanese_knotweed)
- ID_Impatiens_glandulifera_(Himalayan_Balsam) |