METHOD STATEMENT & RISK ASSESSMENT FOR JAPANESE KNOTWEED ROOTS RESET WORKS

Specialist Contractor:	**Japanese Knotweed Specialists** **63 Bellsdyke Road,** **Airdrie** **Lanarkshire** **ML6 9DU**
Telephone:	**01236 620252**

Project Ref / Contract No :	**2226**
Client Name :	**Soilwise / Dŵr Cymru**
Site Location :	**Stori Brymbo**

JKS
JAPANESE KNOTWEED SPECIALISTS

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1. SIGN OFF SHEETS

1.1. Risk Assessment, Method Statement & COSHH

By signing below you confirm that you have read this risk assessment and method statement and you will work in accordance to the method and are aware of the risks inherent to this site and the operations that you undertake.

DATE	NAME	COMPANY	Signature

1.2. Pre-Start Machine Checks

By signing below you confirm that you have undertaken a visual check of the machine prior to use, to satisfy yourself to the best of your ability (with consideration to the limitations of visual checking only) that the machine is in good working order.

DATE	MACHINE	SUPPLIER	NAME (Signature)

2. GENERAL NOTES

Please refer to our Health & Safety Manual for Risk Assessment
and COSHH information for equipment and materials to be used.

The operatives will have received the Health and Safety Manual and this Method Statement. It is the intention of the company to ensure that all safety and welfare measures required are strictly complied with.

2.1. General

Works to be carried out by a crew of 7 opertives. All operatives have been issued with and will wear a safety hat, safety footwear and Hi-visibility orange clothing and safety gloves at all times on site. Light eye protections will also be worn at all times. Care should be taken whilst walking around the site and it is advisable to remain within the allocated working area.

Welfare arrangements are available on site.

2.2. Chemicals and Gasses

The COSHH assessment has been provided. Each worker will be issued with proper personal protection for safe handling of these materials. In event of spillage First Aid kit is available on site and JKS will supply a 15 litre spill kit. Where herbicides are applied, a certified NPTC operative will undertake this work using Roundup Pro Vantage.

2.3. Working Area

All working areas to be agreed with client prior to commencement of works and in accordance with any relevant drawings.

2.4. Site Procedure

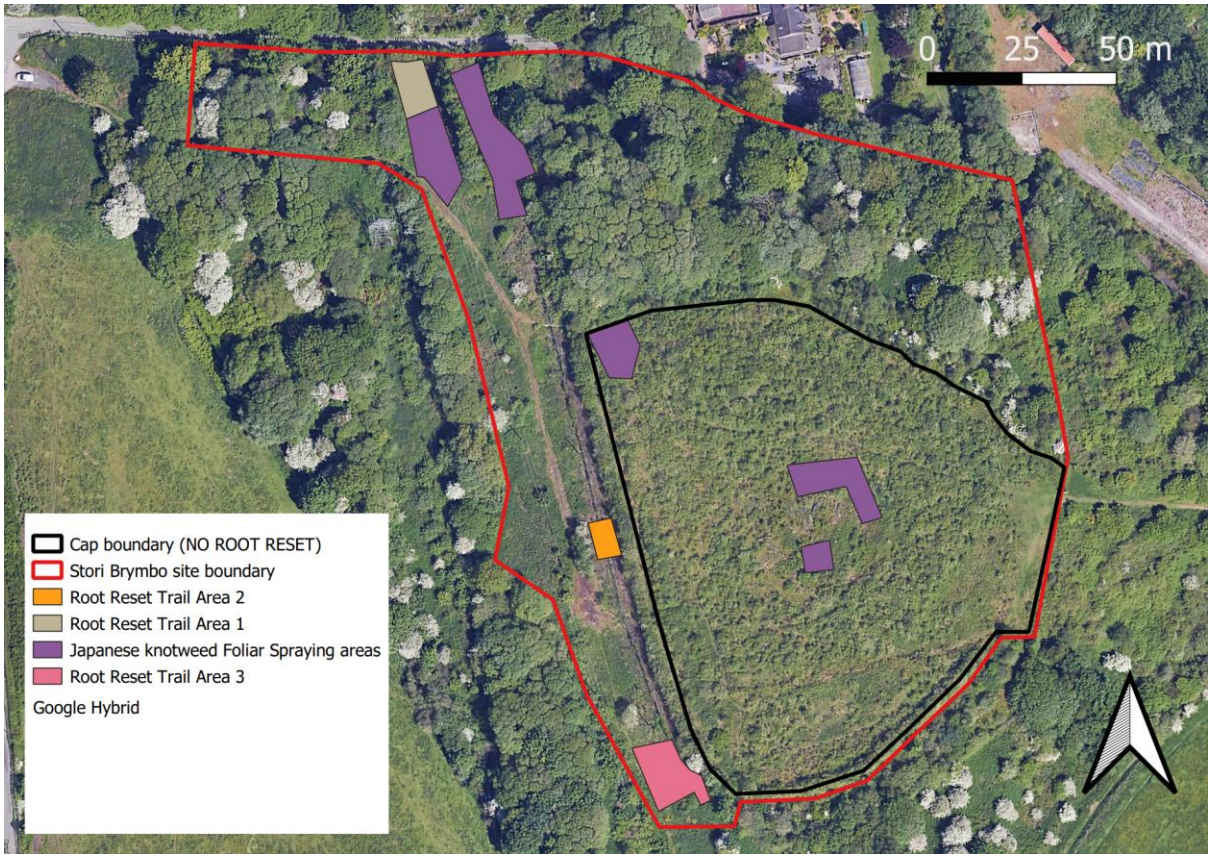
All Japanese Knotweed Specialists staff will have been safety inducted.

All operations will comply with the following legislation (where appropriate):

2.4.1. Health and Safety At Work Act 1974
2.4.2. Control of Substances Hazardous to Health Regulations (COSHH) 2002
2.4.3. Personal Protective Equipment at Work Regulations 1992
2.4.4 Manual Handling Operations Regulations 1992
2.4.5 Provision and use of Work Equipment Regulations (PUWER) 1998

2.5 Summary of works:
Japanese Knotweed Specialists are implementing the roots reset biological treatment method on behalf of Soilwise . There are three areas onsite requiring treatment of roots reset with five other areas requiring herbicide treatment.

Distribution map of Japanese Knotweed below:



1. SITE SETUP

Our Working Supervisor will monitor our routes of access, and working areas and any perceived hazard or risk will be addressed (i.e. restricted work space, overhead wires, access etc.) .

1.1. Site Procedure

Japanese Knotweed Specialists staff will be safety inducted. All operations will comply with "The Knotweed Code of Practice (Managing Japanese knotweed on development sites)" issued by the Property Care Association (PCA) in 2018 as well as the following legislation (where appropriate):

- Wildlife and Countryside Act (as amended) 1981
- Environmental Protection Act (as amended) 1990
- Environmental Protection (Duty of Care) Regulations 1991
- Food and Environment Protection Act (FEPA) Part III 1985
- Control of Pesticides Regulations (as amended) 1986
- Plant Protection Products Regulations 2005
- Plant Protection Products (Basic Conditions) Regulations 1997
- Health and Safety At Work Act 1974
- Control of Substances Hazardous to Health Regulations (COSHH) 2002
- Personal Protective Equipment at Work Regulations 1992
- Manual Handling Operations Regulations 1992
- Construction (Design and Management) Regulations 2015
- Provision and use of Work Equipment Regulations (PUWER) 1998

Welfare arrangements / First Aid will be provided by site personnel.

1.2. Materials

Where necessary sites will be protected / fenced off using safety mesh fencing.

2.1. Herbicide treatment:

2.1.2. Transport Vehicle
2.1.3. Herbicide Injector Gun / Knapsack

2.1.4 Knotweed roots reset treatment:

2.1.5. Transport Vehicle
2.1.6. 5 tonne 360 tracked excavators x 2 with operatives
2.1.7 8 wheel grab lorries
2.1.8 6 Tonne forward tipping dumper
2.1.9 150HP Tractor with water wagon / bowser
2.1.10 4 x 1 Tonne Big Bags with trailer

2.1.9 Root Barrier Insertion:

2.1.10. Root Barrier C3
2.1.11. Butyl Tape

2.2. Machinery and Equipment **Maintenance and General Usage**

All tools and machinery to be used on site will be in good working order, all guards, silencers, shields as necessary will be in place. Protective clothing adequate for the operation must be worn. All operatives will be inducted as required in equipment use.

3 Emergency Phone Numbers

Wales & West Utilities: 0800 111 999
BT: 0800 400 400
Dŵr Cymru: 0800 052 0130
SPEN: 0800 001 5400
Wrexham Maelor Hospital, Croesnewydd Road, Wrexham, LL13 7TD, Tel: 01978291100
Distance from site 2.5 miles
Emergency: 999
Key personnel:
Kevin Callaghan (CSJK) (CSCS) (CPCS) (SSSTS) (PA1 & PA6AW) (First Aid) Mobile: 07900082338 Matthew Wainwright (CSCS) (CPCS) (PA1 & PA6AW) Mobile: 07828524465
Martin Callaghan (CPCS) (PA1 & PA6AW)

4. METHOD OF WORKS: SUMMARY

4.1. Japanese knotweed

The purpose of this operation is to treat all three Japanese knotweed infested areas using roots reset

5. METHOD OF WORKS: ROOTS RESET

5.1. Program of Works

5.1.1. Operation to be conducted by a team of 3-4 operatives.
5.1.2. Anticipated Start Time: 14/07/25
5.1.3. Estimated Duration: 3-5 working days

5.2. General

5.2.1. It is the intention of Japanese Knotweed Specialists to ensure all Safety and Welfare measures are strictly complied with. Care must be taken whilst moving around the site and it is advisable to remain within the allocated working area. There are many obstacles, including excavations, holes and machinery. Access to most parts of the site is probably by foot and crossing paths with machinery is unavoidable. Accordingly all operatives should take care. Orange Hi-visibility clothing should be worn at all times.

5.3. Sequence of Operations

5.3.1 Arrive on site, including taking delivery of plant machinery.
5.3.2 'Toolbox talk' to ensure all operatives understand the specifics of works to be carried out.
5.3.3 Use Cable Avoidance Tool to locate any underground cables in work areas.
5.3.4 Clear site of scrub and waste if necessary.
5.3.5. Milling roots via milling machine behind tractor

5.3.6 Spreading CleaRoot granulate by excavator and manually with buckets.
5.3.7. Mixing in CleaRoot granulate at a depth of 0.5m using a combination of milling machine and excavator.
5.3.8 Moistening of treatment sites using water bowser with powerful, large spray head for sufficient capacity.
5.3.9 Dig trenches all around with “banana” bucket (trenches should be dug as narrow as possible), at 0.5m depth. Caution! As safety margins outside growing areas cannot be maintained, the soil from the trenches should be grouted within the rest of the area to be treated, so that this (contaminated) soil can also be treated with it. Subsequently, these trenches should be backfilled with clean soil after cloths/foils have been placed in them.
5.3.10 Placing root barrier in trench, Placing root cloth + oxygen-tight film + root cloth.
5.3.11 Cover top layer of root canvas with thin layer of clean soil (approx. 10cm).
5.3.12 All machinery to be visually inspected and manually cleaned down with a spade / brush at completion of operation daily to ensure no rhizome material is transported off site (which would contravene Section 14 of the Wildlife and Countryside Act 1981 and Sections 33 and 34 of the Environment Protection Act 1990 / Duty of Care Regulations 1991.) If longer than one day, all personnel (particularly footwear) to be visually inspected & manually cleaned of any rhizome material at the end of each working day.

5.4. Risk Assessment

5.4.1. HAZARD – Cutting unknown services during excavation

5.4.1.1. RISK
Personal Injury

5.4.1.2. CONTROL
Full site services drawings if available will have been issued by the employer. The whole area will be CAT scanned. We will excavate with care and by hand using insulated spade if required. Permit to break ground required.

5.4.2. HAZARD – Risk to operatives from moving machinery

5.4.2.1. RISK
Injury to unsupervised personnel

5.4.2.2. CONTROL JKS Site supervisor to control movement of machinery.

6 METHOD OF WORKS: ROOT BARRIER INSERTION

6.1. Program of Works
6.1.1. Operation to be conducted by a team of 2-3 operatives.
6.1.2. Anticipated Start Time: 15/07/25
6.1.3. Estimated Duration: 1 day

6.2. General

6.2.1. It is the intention of Japanese Knotweed Specialists to ensure all Safety and Welfare measures are strictly complied with. Care must be taken whilst moving around the site and it is advisable to remain within the allocated working area. There are many obstacles, including excavations, holes and machinery. Access to most parts of the site is probably by foot and crossing paths with machinery is unavoidable. Accordingly all operatives should take care. A traffic marshal should be used when moving / positioning plant. Hi-visibility clothing should be worn at all times.
Any knotweed contaminated ground which is not (*for planned or unplanned reasons*) excavated to full depth of rhizome can be capped off with specialist horizontal root barrier to prevent re-emergence. Any knotweed material present on, under or past the site boundary which cannot be excavated will be secured and contained using specialist vertical root barrier, returned to above ground level.

6.3. Sequence of Operations

6.3.1. Arrive on site, including taking delivery of plant machinery.

6.3.2. 'Toolbox talk' to ensure all operatives understand the specifics of works to be carried out.

6.3.3. Insert the non-permeable root barrier membrane vertically to the cut of the excavation areas where knotweed rhizome remains beyond. The root barrier (where appropriate) is to be overlapped and taped using butyl tape to sides / surface of excavation.

6.3.4. Any machinery or equipment likely to be contaminated by contact with knotweed material to be cleaned down at completion of operation to ensure no rhizome material is transported off site (which would contravene Section 14 of the Wildlife and Countryside Act 1981 and Sections 33 and 34 of the Environment Protection Act 1990 / Duty of Care Regulations 1991.) If longer than one-day operation, all personnel (particularly footwear) to be cleaned at the end of each working day

7. METHOD OF WORKS: SPRAYING PROCEDURE (HERBICIDE)

7.1. Program of Works

7.1.1. Operation to be conducted by 2-3 operatives.

7.1.2. Anticipated Date of Operation: 15/07/25

7.2. General

7.2.1. Check and agree areas to be treated with client agent or in accordance with plan/drawing.

7.2.2. Spray to avoid drift onto adjacent plants and protect health of humans and the canal watercourse. Ideal spraying conditions are 4-8 mph and JKS will not spray in wind greater the 10 mph this will be measured with using an anemometer.

7.2.3. Sprays to be applied by trained NPTC operatives using equipment properly calibrated to apply chemicals at correct rate.

7.2.4. The application of herbicides in accordance with both the product label and the best practice outlined in DEFRA's Code of Practice for using Plant Protection Products (January 2006) should ensure the procedure will not pose a significant risk to the health of people outside the treatment area.

7.2.5. Any incident involving people and herbicides should be reported to the local HSE office (number can be found by contacting the HSE Information Line on 0845 345 0055

7.3. Sequence of Operations

7.3.1. Arrive on site.
7.3.2. Assess weather conditions. Erect signage (If required).
7.3.3. 'Toolbox talk' to ensure all site personnel (as appropriate) understand specifics of works to be carried out.
7.3.4. Ensure no unauthorised personnel in spraying area. Spraying to cease immediately if any unauthorised personnel enters the spraying area until such time as the area is clear.
7.3.5. Full PPE to be worn to reduce risk of contact by the skin, eyes, or stomach from the herbicide being used.
7.3.6. Mix herbicide to dilution rate as recommended on the product label. Fill Knapsack Sprayer and ensure properly calibrated.
7.3.7. Spray as agreed to avoid unnecessary spray drift.
7.3.8 Use non residual glyphosate based herbicide with aquatic approval in & around watercourses
7.3.9 Around waterways and onsite we will carry herbicide only in secure containers
7.3.10 We will mix chemicals & rinse equipment well away from the waterway
7.3.11 We will direct herbicide spray away from the waterway if at all possible
7.3.12 Long lance sprayers may be used in accurate application to plants growing in inaccessible areas
7.3.13 On completion, wash out sprayer. Any leftover mix and washings out can be added to treatment area (there is no risk of affecting any non-target plants).
7.3.14 Leave site, removing all signage.

8. METHOD OF WORKS: STEM INJECTION PROCEDURE

8.1. Program of Works

8.1.1. Operation to be conducted by 2-3 operatives.
8.1.2. Anticipated Date of Operation: 16/07/25

8.2. General

8.2.1. Check and agree areas to be treated with client agent or in accordance with plan/drawing.
8.2.2. Herbicides to be applied by trained operative using equipment properly calibrated to apply chemicals at correct rate.
8.2.3. The application of herbicides in accordance with both the product label and the best practice outlined in DEFRA's Code of Practice for using Plant Protection Products (January 2006) should ensure the procedure will not pose a significant risk to the health of people outside the treatment area.
8.2.4. Any incident involving people and herbicides should be reported to the local HSE office (number can be found by contacting the HSE Information Line on 0845 345 0055.)

8.3. Sequence of Operations

Stem injecting Japanese knotweed using the patented JK100 is controlled and specific to target species. Stem injection works by injecting a small measured dose of herbicide into each cane of the Japanese knotweed infestation which allows the herbicide to translocate through the roots and rhizome of the plant. On healthy vibrant plants one correctly applied treatment can be sufficient to eradicate the infestation. Compared to stem injection there are many drawbacks to traditional methods of chemical treatments. Foliar application for example is time consuming, less effective, risks damage to native plant species and is a potential threat to the environment. As stem injection is specific to the target species the treatment can be carried out in all weather conditions and near water with the relevant applicator licences.

8.3.1. Arrive on site.
8.3.2. Erect signage if required.
8.3.3. 'Toolbox talk' to ensure all site personnel (as appropriate) understand specifics of works to be carried out.
8.3.4. Ensure no unauthorised personnel in treatment area, though risk of contact with herbicide is minimal when using Injector Gun.
8.3.5. Full PPE to be worn to reduce risk of contact by the skin, eyes, throat, stomach or lungs from the herbicide being used.
8.3.6. Mix herbicide to dilution rate as recommended on the product label. Fill herbicide container and screw onto back of Injector Gun. Ensure Gun is properly calibrated and select correct needle for application.
8.3.7. Inject knotweed stems just above first node. For areas over 200m² it is acceptable practice to inject one in three stems on knotweed stand.
8.3.8. On completion, wash out all parts of gun. Any leftover mix and washings out can be added to treatment area (but only if there is no risk of affecting any non-target plants).
8.3.9. Leave site, removing all signage, empty chemical containers as appropriate.

9. COMPLETION OF WORKS

Remove debris, excess materials, all equipment from site (or to a secure area if being used again on-site), sweep and clean up to complete operations.

Where works are ongoing, the Competent Designated Person shall ensure the area is left safe, secured and free from trip hazards at the end of each day.
Carry out regular visits to the site, to inspect for the growth of Japanese knotweed throughout the site. Apply suitable herbicide using FEPA certified operatives.

10. GENERAL – HEALTH AND SAFETY

The operatives will have received the Health and Safety Manual and this Method Statement. It is the intention of the company to ensure that all safety and welfare measures required are strictly complied with.

10.1. Appointment of Competent Designated Persons

The operatives will have received the Health and Safety Manual and this Method Statement. It is the intention of the company to ensure that all safety and welfare measures required are strictly complied with.
The nominated competent person for Japanese Knotweed Specialists is Kevin Callaghan. His appointment is made to meet the requirements of Regulation 7 of the Management of Health and Safety at Work Regulations 1999.
The role of the competent person being to supervise works on site and to assist Japanese Knotweed Specialists in undertaking the measures required to comply with the requirements and prohibitions imposed upon them by or under the relevant statutory provisions. It is recognised that the competent person must have the experience or knowledge and other qualities, including the ability to recognise their own limitations and the willingness to call upon other assistance where necessary, to enable them to properly assist in undertaking the measures referred to above.
The functions to be performed by the competent person will include:

- Identifying Health and Safety problems
- Assessing the need for action
- Designing and developing strategies and plans
- Implementing strategies and plans
- Evaluating the effectiveness of strategies and plans

10.2. Accident Investigation and Reporting

It is the responsibility of employees to ensure that all accidents (including cases of work-related ill-health), incidents ('near -miss' accidents), injuries, fires and dangerous occurrences, however, trivial they may appear, are reported. Details of all accidents must be recorded by the person named in Section (i) above.

10.3. Appointed Persons

When trained first aiders are not available, it is a legal requirement to have an 'appointed person' whose main duty is to take charge of a situation if a serious injury or illness occurs, e.g. calling an ambulance in an emergency. This will be another duty of the person named in Section (i) above.

10.4. Reporting Of Injuries Diseases and Dangerous Occurrences Regulations (R.I.D.D.O.R.)

These Regulations cover any Person injured from any undertakings. Failure to report a reportable injury or dangerous occurrence as defined in the regulations is an offence, which may lead to a fine. If there is an accident connected with work to an employee or self-employed person working on site who is killed or suffers a major injury (including physical violence), or a member of the public is killed or taken to hospital the enforcing authority MUST be informed without delay. Within ten days this must be followed up with a completed accident report form (F2508).

10.5. R.I.D.D.O.R. – General Definitions

Major Injuries

• Any fracture, other than to the fingers, thumb or toes
• Any amputation
• Dislocation of the hip knee or spine
• Loss of sight (whether temporary or permanent)
• A chemical or hot metal burn to the eye or any penetrating injury to the eye
• Any injury resulting from an electric shock or electrical burn (including any electrical burn caused by arcing or arcing products) leading to unconsciousness or requiring resuscitation or admittance to hospital for more than 24 hours

Any Other Injury

• Leading to hypothermia, heat induced illness or to unconsciousness
• Requiring resuscitation
• Requiring admittance to hospital for more than 24 hours
• Loss of consciousness caused by asphyxia or by exposure to a harmful substance or biological agent.
• Either of the following conditions, which result from the absorption of any substance by inhalation, ingestion or through the skin:
Acute illness requiring medical treatment, Loss of consciousness.
• Acute illness which requires medical treatment where there is reason to believe that this resulted from exposure to a biological agent or its toxins or infected material.

Dangerous Occurrences

• Lifting machinery etc.
• The collapse of, the overturning of, or the failure of any load bearing part of any:
Lift or hoist, Crane or derrick, Mobile powered access platform, Access cradle or window cleaning cradle, Excavator, Pile driving frame or rig, Lift truck
• The failure of any pressure system
• The failure of any freight container
• Any unintentional incident in which plant or equipment comes into contact with uninsulated overhead power lines
• Electrical short circuit or overload attended by fire or explosion
• The unintentional explosion or ignition of explosives
• The collapse of scaffolding.

10.6. Control of Substances Hazardous to Health

These Regulations cover any Person injured from any undertakings. Failure to report a reportable injury or dangerous occurrence as defined in the regulations is an offence, which may lead to a fine. If there is an accident connected with work to an employee or self-employed person working on site who is killed or suffers a major injury (including physical violence), or a member of the public is killed or taken to hospital the enforcing authority MUST be informed without delay. Within ten days.

10.7. Personal Protection Equipment

Where assessments identify that personal protective equipment is required in order that certain activities can be performed safely and without risk to health, then Japanese Knotweed Specialists will provide that equipment to staff members free of charge. Employees are then required to look after the equipment, use it when necessary and report any defect or loss immediately.
The organisation undertakes to meet its obligations under the Personal Protective Equipment Regulations 1992. All operatives have been issued with, or will possess, hard hat, faceguard, gloves, spray suit, steel toe-capped boots, high visibility clothing and waterproof clothing, light eye protection. It should be noted however that personal protective equipment is the last measure to be resorted to in the 'hierarchy of controls' and, wherever it is reasonable to do so, the organisation will attempt to reduce risks in other ways

10.8. Personal Protection Equipment

Where assessments identify that personal protective equipment is required in order that certain activities can be performed safely and without risk to health, then Japanese Knotweed Specialists will provide that equipment to staff members free of charge. Employees are then required to look after the equipment, use it when necessary.

10.9. Managing Contractors

Where contractors are engaged upon Japanese Knotweed Specialists behalf, then the following procedure will be adopted to ensure the health and safety of employees, contractor's employees and any other person who may be affected:

• Selection of suitable contractors, given the level of assessed risk. This may involve scrutiny of safety policies, risk assessments, method statements, evidence of satisfactory completion of similar work and training profiles of employees and subcontractors.
• Identification of unusual hazards and provision of information about these hazards to contractors at the pre-tender stage.
• Monitoring to ensure contractors are working as agreed and posing no risk to health and safety of Japanese Knotweed Specialists employees and others.
• Where the work involved falls under the requirements of the Construction (Design and Management) Regulations 2015, Japanese Knotweed specialists shall ensure that its obligations under these Regulations are met.
All visitors and maintenance contractors will be required to act and work in a safe manner and to accept and abide by the procedures required by Japanese Knotweed Specialists and to comply with all current Health and Safety legislation.

10.10. On-Site Issues - General

Access must be assessed prior to commencement of works. The implementation of any operation has to consider other trades and the congestion likely to arise during the operation. Care should be taken at all times to avoid damage to other work. All operatives will receive or have access to the Health and Safety Manual and this Method Statement.

11. RISK ASSESSMENTS

11.1 MECHANICAL EXCAVATORS AND ATTACHMENTS

EXPLANATORY NOTE

These machines are commonly used for excavating holes and trenches, and for clearing out ditches. Excavation is by means of a hydraulically powered arm with bucket attached. Information contained herein covers JCB-type excavator / loaders, 360° excavators, tractor-mounted machines, trenches and small mini-diggers, whether owned or hired from plant hire firms.

RECOMMENDATIONS

The 1m safety distance and the provision of a clerk of works are fundamental to achieve a safe place of work. Hazard when slewing will not always be appreciated by workforce if there are not suitable briefings and comprehensive safe systems at work. Warning posts and marked routes are essential. Sloping sides to excavations.

PHYSICAL HAZARDS ARISING

- Contact with underground electrical, gas, water or sewer services
- Contact with, or arcing between machine and overhead power cables
- Overturning (e.g. due to unstable or soft ground)
- Sliding or falling into an excavation, trench, or ditch (e.g. due to ground collapse, or soft ground)
- Entanglement or crushing when attaching or detaching the implement
- Struck by debris falling from bucket or grab
- Struck by moving / swinging machinery
- Entanglement with PTO shafts (tractor-mounted machinery) or other rotating shafts
- Crushing between machinery and fixed objects
- Collision with fixed objects or structures, moving vehicles or pedestrians
- Injuries from oil under pressure as a result of burst hydraulic hoses
- Fire / explosion during refuelling
- Explosion from contact with unexploded ordnance.

HEALTH HAZARDS ARISING

- High noise levels
- Exposure to exhaust fumes in confined areas
- Dermatitis from contact with oils, greases, etc.
- Chemical or biological hazards from the working environment
- Dust.

PERSONS AT RISK

- Operator
- Staff
- Contractor

- Public in the vicinity

HIRED PLANT DRIVERS

When hiring plant (as opposed to engaging a sub-contractor), the 'hirer' must meet all the hirer's responsibilities for safety as set out in the conditions of hire for the machine concerned. Hired drivers must demonstrate possession of a Certificate of Competence, and be competent for the task on which they are engaged. Under standard conditions of hire, hired drivers are usually considered to be under the direction and control of the hirer - the Contractor remains responsible for ensuring that there is a safe place of work and a safe system of work for the hired driver.

PRE-START CHECKS

- Tyre pressures and damage to tyres
- The effectiveness of the brakes and steering
- The operation of the horn and lights
- The hydraulic system for leaks
- Fuel, water, oil and fluid levels

OPERATION

- The machine should only be used for the purposes for which it is designed
- Outriggers and stabilisers should be used in accordance with the manufacturers' instructions
- Excavators should not be positioned on the edge of, or across, existing excavation or trenches
- Adequate clearances should be established to ensure that structures and scaffolding are not undermined or damaged by the excavation work or the movement of the excavator arm
- When backfilling, ensure the trench is consolidated to its full depth to prevent future collapse
- Use a clerk of works where necessary to guide the driver
- Work should be stopped if unauthorised persons approach within 10 metres
- Warning signs and barriers should be posted in areas to which the public have access, and tape, barriers or fencing used to exclude unauthorised persons
- When leaving the machine, even for short periods, the hand-brake must be applied, the vehicle left in neutral, and the bucket lowered to the ground
- On completion of the work, the engine should be switched off, the machine immobilised, and the keys removed to a safe place

RISK ASSESSMENT

Hazards	Risk Level	Action Needed	Risk Level After Action
Noise	High	• Levels are stencilled on the side of the machine. • Operators briefed on hazard. • All operators issued with hearing protection.	Low
Contact with counterweight / machine when slewing	High	• Operator training and briefing. • Others to be briefed on hazard and advised that the engine note does not change. Minimum 1m safety distance from furthest point any part of the machine may reach to adjacent obstructions. • Use 360 mirror on cab to aid in manoeuvring	Medium
Lifting / load falling onto others	High	• Load to be controlled from safe place by use of the control rope attached to the load. • Hard hats and high visibility vests to be worn.	Medium
Caving in of excavations	High	• Operator training and briefing. • Provision of stop blocks and fencing possibly required to pits and excavated knotweed, excavate sloping (battered) sides.	Medium
Fire or irritant from fuel or other oils.	High	▪ Use correct fuel containers and replace all filler caps after use. ▪ Follow regulations on the transport of fuel. ▪ Do not spill onto outside of machine. ▪ Keep away from sources of ignition. ▪ Allow two minutes for the engine to cool before refuelling. ▪ Ensure spill kit available on site.	Medium/Low

PROTECTION

Personal Protective Equipment to include:
- Steel toe-capped and steel mid-sole boots / wellies
- Ear defenders for continuous operation
- Safety helmet
- Hi-vis orange clothing

11.2 DUMPTRUCK

PHYSICAL HAZARDS ARISING

- Overturning
- Collapse of unstable ground
- Driving over edges or into excavations
- Collision with other vehicles, objects or pedestrians
- Falling from the vehicle, particularly when driving over rough ground
- Contact or entanglement with moving parts
- Trapping between the dumper (or dumper skip) and a fixed object
- Kickback from the starting handle or steering wheel
- Injuries from oil under pressure as a result of burst hydraulic hoses
- Strains from manual handling, starting, or travel over rough ground

HEALTH HAZARDS ARISING

- High noise levels
- Exhaust fumes in confined areas
- Dermatitis from contact with oils, greases, etc
- Dust

PE**RSONS AT RISK**

- Driver
- Staff
- Contractors working in the vicinity
- General public in the vicinity

PRE-START CHECKS

- Tyre pressures and damage to tyres
- Brakes and steering
- The hydraulic system
- Fuel, water, oil and fluid levels

OPERATION

- Passengers should not be carried under any circumstances
- Dumpers should not be driven at excessive speed on site
- Steep slopes, and turning across gradients, should be avoided
- The driver should remain seated at all times when the vehicle is moving
- Where practicable on site, traffic routes should be designated, with vehicles and pedestrians separated
- In areas restricted for space, consideration should be given to the use of a trained banksman to assist the driver in manoeuvring
- Turning areas should be designated to avoid operators having to drive excessive distances in reverse
- When leaving the dumper, even for short periods, the hand-brake must be applied and the vehicle left in neutral
- On completion of the work, the engine should be switched off, the vehicle immobilised, and the keys removed to a safe place

LOADING AND UNLOADING

- The load carrying capacity should be clearly marked, and should not be exceeded
- All loads should be stowed safely, and secured or netted if necessary - uncontained liquids (other than water) should not be carried in the skip
- Loads should not obscure the drivers' vision
- The hand-brake should be applied when loading or unloading
- The driver should not remain on the vehicle while it is being loaded by crane, excavator or similar
- The contents of the skip should not be discharged while the vehicle is moving

WORK NEAR EXCAVATION

• Dumpers should not be driven or parked close to the edge of excavations, in case of ground collapse
• If the dumper is to be used to tip material into an excavation, or over the edge of any embankment, precautions (e.g. timber baulks) should be taken to prevent the vehicle over-running the edge

RISK ASSESSMENT

Hazards	Risk Level	Action Needed	Risk Level After Action
Noise	High	• Levels stencilled on the side of the machine. • All operators briefed on hazard. • All operators issued with hearing protection.	Low
Uneven/ Unstable Ground	High	• Driver training. • Speed limitation depending on terrain. • Briefing on nature of ground (compacted or soft)	Medium
Slopes	High	• Driver training and briefing. • No operating across a steep slope. • Avoid sloping banks.	Medium
Caving In	High	• Driver training and briefing. • Provision of stop blocks and fencing.	Medium

PROTECTION
Personal Protective Equipment to include:
• Steel toe-capped and steel mid-sole boots
• Ear defenders for continuous operation
• Safety helmet
• Hi-vis orange clothing

11.3. CHEMICALS AND GASSES

Each worker has been issued with proper personal protection for safe handling of these materials. In event of spillage First Aid kit is available on site and in the vehicle. Where herbicides are applied, a certified NPTC operative will undertake this work using Glyphosate (Roundup Pro-Vantage). Application of chemicals will be as manufacturer's recommendations and herbicides will be applied using a knapsack sprayer (hand application). Where knapsack sprayers are utilised, operatives will work systematically across the area spraying at low level to avoid drift.

Spraying Works

Risks

1. Product – see chemical safety data sheet, personal safety.
2. Public safety.
3. Environment.

4. Wind speed.

Control

1. Operatives are all trained and hold current certificates for Herbicide application. They are provided with protective clothing and are in possession of the product data sheets. Operatives will inspect all equipment being used to ensure it is in good working order.
2. While the operation and the chemicals used are of low risk to the public, operatives will require any unauthorised people to keep clear of the area at the time of application.
3. On contact with soil or vegetation Roundup Pro-Vantage has little or no known adverse effect to the environment. Weather and wind conditions will be assessed primarily to ensure application is made to limit possible drift if wind is forecast over 8 mph or is higher than 8mph on wind compass app spraying works will not commence. Roundup Pro Vantage can be used near waterways.
4. Use anemometer to make sure spraying doesn't take place in winds greater than 10mph

11.4. KNAPSACK SPRAYERS

PERSONS AT RISK

• Operator.
• Other persons within close proximity.

PRE-START CHECKS

• Check chemical is being used at correct dosage and for appropriate use.
• Check sprayer has been properly cleaned if chemical is different from last use.
• Check that appropriate nozzle is used (for hydraulic nozzle sprayers).
• Check the efficiency of operation.

PROTECTION

Personal Protective Equipment to include:

• Full hooded delta plus disposable coveralls with yellow hi viz

• Dunlop purofort + waterproof steel toe capped wellington boots.

• Rubberex super nitrile gloves.

• Face visor / safety googles

• Hard hat

• No respiratory equipment is required (RPE)

• Light eye protection

11.5. HERBICIDE INJECTOR GUN

RECOMMENDATIONS

The Injector Gun should be used solely for the purpose of injecting herbicide into hollow stem weeds, such as Japanese knotweed. It must be used with extreme caution, as the injector system is sharp and can puncture or cut skin if used improperly. If the skin is punctured the herbicide may cause poisoning to the body resulting in serious injury, death or other damage. Urgent medical attention must be sought by any user or third party who receives such injury. The Injector Gun should be calibrated to the herbicide manufacturer's guidelines and checked before each application.

PERSONS AT RISK

• Operator.

• Other persons within close proximity.

PRE-START CHECKS

• Check chemical is being used at correct dosage and for appropriate use.

• Check Injector Gun has been properly cleaned and calibrated.

• Check that appropriate needle is used (dependant on size of stem, whether injecting into stem or crown, etc.).

• Check the efficiency of operation.

RISK ASSESSMENT

	Hazards	Risk level	Action needed	Risk Level after action
Situation	Leakage.	Medium/ High	▪ Use only by staff with a relevant National Proficiency Tests Council spraying certificate. ▪ Check regularly for leaks. ▪ Carry out a COSHH assessment before working. ▪ Have spill kit available on site.	Low
Machine	Contact with spray from leaks.	Medium/ High	▪ Use only by trained operatives. ▪ Ensure pre-use checks are completed. ▪ Do not use where bystanders will come into contact with spray. ▪ Ensure maintenance schedule is completed.	Medium/Low
People	Contact with chemicals during mixing and filling.	High	▪ Wear personal protective equipment. ▪ Follow chemical manufacturer's directions. ▪ Do not use near people – exclude people from the area of operation and warn people on neighbouring land of the planned use. ▪ Have an emergency procedure in place for those who come into contact with the chemical.	Medium

PROTECTION

Personal Protective Equipment to include:

- Full hooded delta plus disposable coveralls and orange high viz
- Dunlop purofort + steel toe capped waterproof wellington boots.
- Rubberex super nitrile gloves.
- Face visor.
- Hard hat
- No respiratory equipment is required (RPE)
- Light eye protection

12 Control of Substances Hazardous to Health Regulations (COSHH)

12.1 FUELS

This assessment is conducted in accordance with The Control of Substances Hazardous to Health Regulations (COSHH) 2002, as amended. In line with this legislation all hazardous materials used during the above operation will be identified and the risk to all parties evaluated.

Re-Fuelling

Re-fuelling tracked excavators & dumpers should be done in a designated area where spillages can be easily cleaned using a plant nappy / fuel spillage kits which must be carried in the operative's vehicles.

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Hazardous Material: Diesel				
HAZARD	**WHO MIGHT BE HARMED?**	**LEVEL OF RISK**	**CONTROL MEASURES**	**LEVEL OF RISK (After Control Measures)**
Irritant – contact with skin or eyes	Operator / Site Personnel	Medium	• Wear personnel protective equipment • Use correct pouring vessel to eliminate splashing • If contact is made with eyes or skin, wash immediately with water	Low
Flammable	Operator / Site Personnel / Members of Public	High	• Keep away from naked flame and heat • If combustion is unavoidable contact the Fire Brigade immediately	Medium
Inhalation	Operator / Site Personnel	High	• Avoid exposure in confined places • Use face mask or respiratory equipment if exposure is prolonged and intensive • If affected by fumes, remove to fresh air immediately	Medium/Low

Hazardous Material: Petrol				
HAZARD	**WHO MIGHT BE HARMED?**	**LEVEL OF RISK**	**CONTROL MEASURES**	**LEVEL OF RISK (After Control Measures)**
Irritant – contact with skin or eyes, possible dermatitis	Operator / Site Personnel	Medium	• Wear personnel protective equipment • Use correct pouring vessel to eliminate splashing • If contact is made with eyes or skin, wash immediately with water	Low
Flammable	Operator / Site Personnel / Members of Public	High	• Keep away from naked flame and heat • If combustion is unavoidable contact the Fire Brigade immediately	Medium
Inhalation	Operator / Site Personnel	High	• Avoid exposure in confined places • Use face mask or respiratory equipment if exposure is prolonged and intensive • If affected by fumes, remove to fresh air immediately	Medium/Low

Hazardous Material: Hydraulic Oil				
HAZARD	**WHO MIGHT BE HARMED?**	**LEVEL OF RISK**	**CONTROL MEASURES**	**LEVEL OF RISK (After Control Measures)**
Irritant – contact with skin or eyes, damage to skin	Operator / Site Personnel	Medium	• Wear personnel protective equipment • Use correct pouring vessel to eliminate splashing • If contact is made with eyes or skin, wash immediately with water	Low
Flammable	Operator / Site Personnel / Members of Public	High	• Keep away from naked flame and heat • If combustion is unavoidable contact the Fire Brigade immediately	Medium
Inhalation	Operator / Site Personnel	Medium	• Avoid exposure in confined places • Use face mask or respiratory equipment if exposure is prolonged and intensive • If affected by fumes, remove to fresh air immediately	Low
Slippage	Operator / Site Personnel	High	• Spill kit to be fully stocked and kept close to hand	Low
Split Pipe – oil under pressure	Operator / Site Personnel	High	• Maintain safe working distance (minimum 1m) • Ensure all plant machinery undergoes regular maintenance and servicing • Spill kit to be fully stocked and kept close to hand	Medium

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	COSHH Assessment	Date: Review Date:	
Substance used:	**Roundup**		
Manufacturer:	Monsanto		
Description of product:	Liquid weedkiller		
Emergency telephone number	Belgium +32 (0)3 568 51 23		
Location of process			
Activity being carried out?			

Identify the persons at risk:	Employees *(including trainees)*	Contractors	Public
	x	x	x
Describe the activity or work process. *(Include how long and how often this is carried out and the quantity of substance used.*			

Classification under CHIP/CLP

								
Corrosive	**Environment Hazard**	**Explosive**	**Flammable**	**Long Term Hazard**	**Harmful/ irritant**	**Oxidising**	**Toxic**	**Pressurised Container**

Hazard Type

Gas	Vapour	Mist	Fume	Dust	Liquid	Solid	Other

Route of Exposure

Inhalation	Absorption	Ingestion	Injection

Workplace Exposure Limits (WELs) *please indicate n/a where not applicable*

n/a	

State the Risks to Health from Identified Hazards

Likely routes of exposure: Skin contact, eye contact, inhalation
Eye contact: Short term not expected to produce significant adverse effects when recommended use instructions are followed.
Skin contact: Short term not expected to produce significant adverse effects when recommended use instructions are followed.
Inhalation: Short term not expected to produce significant adverse effects when recommended use instructions are followed.

Control Measures: *(for example extraction, ventilation, training, supervision). Take account of those substances that are produced from activities undertaken by another employer's employees.*

PERSONAL PROTECTIVE EQUIPMENT

			If repeated or prolonged contact, wear chemical resistant gloves
	Wear tightly sealed goggles if spray back is likely.		
			Ventilation

First Aid Measures

Eye contact: Immediately flush with plenty of water. If easy to do, remove contact lenses.
Skin contact: Take off contaminated clothing, wristwatch, jewellery. Wash affected skin with plenty of water. Wash clothes and clean shoes before re-use.
Inhalation: Remove to fresh air.
Ingestion: Immediately offer water to drink. Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed by medical personnel. If symptoms occur, get medical attention.

Storage & Handling

Good industrial practice in housekeeping and personal hygiene should be followed.
Handling:
When using do not eat, drink or smoke.
Wash hands thoroughly after handling or contact.
Wash contaminated clothing before re-use.
Thoroughly clean equipment after use.
Do not contaminate drains, sewers and water ways when disposing of equipment rinse water.
Refer to section 13 of the safety data sheet for disposal of rinse water.
Emptied containers retain vapour and product residue.
FOLLOW LABELLED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.
Storage
Minimum storage temperature: 0 °C Maximum storage temperature: 45 °C Compatible materials for storage: stainless steel, fibreglass, plastic, glass lining Incompatible materials for storage: galvanised steel, unlined mild steel, see section 10. Keep out of reach of children. Keep away from food, drink and animal feed. Keep only in the original container. Partial crystallization may occur on prolonged storage below the minimum storage temperature. If frozen, place in warm room and shake frequently to put back into solution.

Disposal of Substances & Contaminated Containers

Product Recycle if appropriate facilities/equipment available. Send to special chemical waste disposal facility. Dispose of as hazardous industrial waste. Keep out of drains, sewers, ditches and water ways. Follow all local/regional/national/international regulations. Container Empty packaging completely. Store for collection by approved waste disposal service. Dispose of as non-hazardous industrial waste. Do NOT re-use containers. Follow all local/regional/national/international regulations.

Fire Fighting Measures

Recommended: Water, foam, dry chemical, carbon dioxide (CO_2)

Water	X	**AAAF**	X	**CO_2**		**Dry Powder**	X				

This assessment must be shown to all operatives working with this substance

First Aid Boxes and Eyewash Kits are available onsite and in all Japanese Knotweed Specialists vehicles

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13. CLOSING NOTE

All operatives are asked to consider the risk that each operation presents to others who in this case will be at close proximity to most of our work. Please take care and adhere to all the Health and Safety responsibilities that we have.

A full copy of our Health and Safety Policy can be sent on request.

360° Excavator Pre use Inspection & Testing Checklist

Machine No:……..…… **Week commencing:……**

All checks must be carried out in line with Specific Manufacturer's instructions		Monday	Tuesday	Wednesday	Thurs	Friday	Saturday	Sunday
VISUAL & OPERATIONAL CHECKS	Bucket/Pins							
	Boom/Dipper arm/Dozer Blade							
	Attachments							
	Swing boom reservoir							
	Mirrors/Windows/Wipers							
	Hydraulics/Pipework/Controls/ Decals							
	Radiator/Belts							
	Tracks/Running Gear							
	Gauges/Instrumentation							
	ROPS/FOPS/ Bodywork/Access							
	Operating Position/Seat/Belt							
	Lights/Beacons							
	Audible Warnings/Alarms							
	Battery levels/Condition							
	Fluid levels All/Greasing							
	Control function isolation lever							
	Operators Manual							
	Lifting Equipment /accessories (Current LOLER Status)							
	Rated Capacity Plate/Readable							
Checks carried out by: M Callaghan								

Defects identified:

Reported to/action taken:

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Dumper Pre use Inspection Checklist

Machine No:…….……. Week commencing:……

All checks must be carried out in line with Specific Manufacturer's instructions		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
VISUAL & OPERATIONAL CHECKS	Skip/Body Security							
	Drop Box							
	Steps/Handrails							
	General Cleanliness							
	Steering/Braking/Handbrake							
	Hydraulics/Pipework/Controls/ Decals							
	Radiator/Belts							
	Tracks/Running Gear/Wheels/Tyres							
	Gauges/Instrumentation							
	ROPS/FOPS/ Bodywork							
	Operating Position/Seat/Belt							
	Lights/Beacons							
	Audible Warnings/Alarms							
	Battery levels/Condition							
	Fluid levels All/Greasing							
	Turntable function							
	Operators Manual							
	Transmission							
	Rated Capacity Plate/Readable							
Checks carried out by:								

Defects identified:

Reported to/action taken:

Prepared by: Kevin Callaghan IOSH Managing Safely **Date: 02/07/2025**

Signed: