Site Report & Management Plan

Site address:
Queen Court Farm, ME13 8UA

Client:
Shepherd Neame Ltd, The Faversham Brewery,
17 Court Street, Faversham, Kent ME13 7AX

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1.0 Introduction & Scope of works

1.1 JHD Ecological LLP (JHD) were commissioned by Shepherd Neame Ltd in October 2018 to conduct a treatment schedule of the site following the excavation of Japanese knotweed – JK (*Reynoutria japonica)* also carried out that year. No previous treatment records were available of any INNS (Invasive Non Native Species) prior to the works/survey but it is known multiple visits have been conducted since by IWC.

1.2 The scope/limitations of works are as follows; The site was assessed from the ground by means of a visual walkover of the accessible areas at the time, the stands/locations were known to JHD/IWC from the previous excavation works, the walkover was to specifically identify JK. It does not allow for any unknown works or movement of soils/controlled materials undertaken. It is not known if any other stands of historic or presently unknown INNS that have previously been treated or cut back exist on site. Any JK or other INNS on site that are not visible above ground will therefore not be known at this time.

1.3 Japanese knotweed is an invasive non-native species to the UK. The species is listed as a Schedule 9 species under the Wildlife and Countryside Act 1981, meaning all arisings or waste must be treated as 'controlled waste' and labelled as such, to further limit its spread. Japanese knotweed is a tall, vigorous, hardy perennial plant. It is an invasive non-native plant pest and is considered one of the most problematic plant species in the UK and Ireland. JK has an underground root structure called rhizomes. These creeping rhizomes may go down as deep as 3m below the surface and spread out laterally as far as 7m but usually 4m. This enables the plant to spread through regular growth or soil disturbance/movement.

1.4 Japanese knotweed that has previously been treated can appear dead and potentially have no visible signs above ground at all, however it is highly likely to be alive and viable. The rhizome will still be able to spread and can lay dormant for 20+years. Due to this attribute all JK stands including historical should still be monitored and considered alive until the stand is known to be dead. The best way to check the stand is dead is by means of excavation and rhizome inspection carried out by a suitably qualified company.

Site Description

1.5 Queen Court farm (Site) is located in Ospringe, Kent, ME13 8UA. Former farmland used for hops production, now empty. The site consists of fields, outbuildings and a large Grade II listed farmhouse. The site is potentially going to be developed.

1.7 An accurate location plan was issued to JHD on commission of the works (appendix 1)

2.0 Findings

2.1 The first walkover survey was conducted on 21/11/2018. Two stands of Japanese knotweed were identified within the site boundary (*see appendix 1)*. Later that year both stands were excavated and processed to remove as much of the JK rhizomes as practicable. All works were supervised by IWC Ltd.

The following working method was carried out.

-The works consisted of a complete excavation of two areas of JK and underground rhizome system, as identified in the initial survey and management plan. All material was processed through a Maximus aggregate screener to separate rhizomes, fine soils and larger debris.

-Before the excavation began a stockpile area was created and lined with an approved JK-resistant geotextile. The fine soils collected during the process were transferred to this area for future monitoring. The soil was distributed to ensure that the depth did not exceed one metre. This will allow any remaining rhizomes to produce growth which can be chemically treated, rather than becoming dormant in the soil.

-A team of workers were stationed on the rhizomes belt to pick out all rhizome pieces. These rhizomes were temporarily stored on an area of hard standing, awaiting disposal to a licensed landfill facility.

-Larger debris was collected and inspected for contamination. Clean loads were recycled back into the excavation area as backfill material.

-The larger knotweed infestation was in an area that had previously been used for landfill. In some areas the rhizomes were chased out to a depth of approximately 5 metres and appeared to originate from within the landfill material, as opposed to growing down from the surface.

-The smaller knotweed infestation was more typical and proceeded to a maximum depth of approximately 2 metres. A section of disused barn was deconstructed and removed in order to chase out the rhizome system completely.

2.3 Since the above works multiple yearly visits to site were conducted by IWC, with the last being in Oct 2021. Following three years of no growth, IWC deemed the JK to be "controlled".

Best practice has since changed from when the bund was created. It is now recommended that bunds should not exceed 50cm in depth and ideally be no greater than 30cm. This helps with ensuring any JK can get to the surface promptly and be treated using herbicides.

2.4 In December 2023 multiple small stands of JK were recorded on the lined bund. JHD has attended site marked each location and will treat accordingly. To enable this JHD conducted vegetation clearance on the bund. As the bund is lined the JK is unable to spread. The JK identified was immature and will be particularly susceptible to herbicide treatments.

2.5 JHD is instructed to monitor and treat any resulting JK on the bund and original two stand locations until 2028.

3.0 Recommendations for 2024 -2028

Herbicidal treatment with potential excavation of bund

Biosecurity measures should be put into place before any works start and remain until completion. See 5.0

All works should be carried out by an experienced INNS contractor and at the very least be done under the full supervision of suitably trained ECoW (Ecological Clerk of Works) of the JHD team.

3.1 All current INNS should remain clearly marked, with signs denoting the species and risks at each location. To undertake this; vegetation clearance will be required. This can be reviewed on yearly basis. Veg clearance should be done during the winter months to prevent disturbance of nesting birds, if vegetation clearance needs to be undertaken during nesting bird season then checks should be conducted prior and during the works. The lead ecologist should be consulted on this prior to any vegetation clearance taking place, this will ensure no other vulnerable species are impacted.

Anywhere fencing and signage is not feasible; All operatives that are to work within 20m of any known INNS should undertake a tool box talk in the prevention of spread.

3.2 It is recommended that all JK on site is treated using herbicides (as per current PCA best practice), towards the end of the growing season, likely September or October.

If any stand is to be excavated or cell burial; EA/PCA best practice techniques should be used. Please contact JHD for this information and pricing for supervision.

3.4 If the client wishes to remove the bund or repurpose the materials elsewhere on site, it must ensure that the soils undergo a full monitoring and management plan. The soils are to be classed as contaminated indefinitely.

3.5 If JK continues to grow on the bund post 2025, an alternative approach should be considered. This method would have the bund "worked over" with an excavator to encourage growth, with the option of spreading out the material in thinner layers. This will speed up the exhaustion of the rhizomes. If this method is used, it should be used in conjunction with a suitable JK barrier membrane, in line with current best practice. Please note this would not be included within JHD's original remit.

4.0 Methodology – Herbicide application

- Implement biosecurity measures to ensure no contaminated material is spread further around site or into the wider environment via vehicles, tools, footwear etc. Toolbox talks for all worker on site.
- Gain any permission from landowner or the Environment Agency if near watercourses
- Carry out veg clearance, treatments or pulling
- Record all use of herbicides
- Keep accurate records of all locations and stages or growth.
- Monitor all current and historical works the client indicated. A minimum of two herbicide treatments per year in the growing season for JK with 3 recommended for GH. Once regrowth has ceased the site will be monitored once per year until two years of no regrowth is confirmed. A completion certificate will be issued to the landowner at the end of this period.

Methodology – Herbicide application and excavation

- Implement biosecurity measures to ensure no contaminated material is spread further around site or into the wider environment via vehicles, tools, footwear etc. Toolbox talks for all worker on site.
- Gain any permission from landowner or the Environment Agency if near watercourses
- Carry out veg clearance, treatments or pulling
- Record all use of herbicides
- Keep accurate records of all locations and stages or growth.
- Wait at least 3 weeks for herbicides to take full affect
- Transport routes will be marked out. On-site plant will only use these routes to transport contaminated material off site. The routes will be routinely inspected for any escaped materials and cleaned.
- The hauliers to be used should be fully licensed and not over fill loads. It is recommended that all loads are slightly underfilled to help prevent spillage.
- All hauliers to cover loads for transportation.
- Each load should be watched to ensure no spillage of contaminated soils occur. In the event they do, the spillage should be cleaned up immediately and the lorry prevented from moving until this has occurred.
- Systematic walking of the loading area & routes should occur to ensure they are free from spillage.
- All plant to be cleaned prior to working with clean material.
- Excavations to be backfilled with clean soil following JK removal.
- Monitor all current and historical works the client indicated. A minimum of two herbicide treatments per year in the growing season for JK with 3 recommended for GH. Once regrowth has ceased the site will be monitored once per year until two years of no regrowth is confirmed. A completion certificate will be issued to the landowner at the end of this period.

5.0 Contaminated working areas: Biosecurity measures

See Appendix 3 for site layout of biosecurity.

Site security:

- Any site in an active area should be suitably fenced off to prevent people or vehicles encroaching onto the contaminated area and transporting soil or plant material off site. Warning signage should be displayed in public areas.
- Entry and exit from a contaminated site should be from one access point only, where a cleaning station for boots, tools and vehicles as applicable will be present and must be used.
- All arisings from the cleaning area should be collected and stored within the on-site disposal/stockpile area. Alternatively, arrange disposal to a licenced waste facility.
- People entering the contaminated area should be kept to a minimum. No unauthorised personnel should enter. Toolbox talks should be given to all on site affected by the works.

Ground workers:

- A toolbox talk should be given to inform workers on the risks associated with the invasive species present. Procedures should be outlined on how to manage infested soil, the cleaning policy for equipment etc. Familiarise workers with the invasive plant on site if possible.
- Workers should only enter a contaminated area if suitable measures to clean boots and tools are available. At a minimum this should include stiff cleaning brushes and boot scrapers within a contained tank located at the site access point. Ensure all arisings are bagged and disposed of within the contaminated area in the specified location. Boot covers can be used if disposed of along with arisings.

Vehicles:

- Only authorised vehicles should enter a contaminated area. There will be designated transport routes on site, which vehicles must adhere to.
- Vehicles will remain in the contaminated area until works are completed. On completion each vehicle will be cleaned of any potential contaminates and disinfected within the cleaning area before leaving site.
- If vehicles are to be cleaned, this must be done either within the contaminated works area or on hard standing/over a barrier membrane which can contain the washed off material for collection and disposal.
- The hauliers to be used should be fully licensed to carry such waste.

- Hauliers must not over fill loads. It is recommended that all loads are slightly underfilled to help prevent spillage.
- All hauliers to cover loads for transportation.
- All transport vehicles to be thoroughly cleaned on completion of transportation of controlled waste.
- Transport routes will be marked out. On-site plant will only use these routes to transport contaminated material off site. The routes will be routinely inspected for any escaped materials and cleaned.
- Each load should be watched to ensure no spillage of contaminated soils occur. In the event they do, the spillage should be cleaned up immediately and the lorry prevented from moving until this has occurred.
- Systematic walking of the loading & routes should occur to ensure they are free from spillage, To be carried out by the on site clerk of works.

6.0 Pathways

6.1 The origin of the JK is currently unknown, however it is likely they were historically buried or burned in the larger stands original location, then accidentally spread onto the second stand.

6.2 Prevention of the spread of JK should be of the upmost priority, it is a legal offence to facilitate the spread of any schedule 9 species, therefore a number of measures should be adopted to aid this prevention (see recommendation 3.1).

7.0 Japanese Knotweed and INNS Risk Assessment including RICS.

The RICS for BRL is Category 3. See below.

Risk Assessment

LIKELIHOOD (L)	SEVERITY (S)		
	Personal	Property	Environmental
1 The Likelihood is remote 2 Harm will seldom occur 3 Harm will occur infrequently 4 Harm will occur frequently 5 Certain that harm will occur	1 Accident 2 Minor injury 3 Major Injury 4 Fatality 5 Multiple fatality	1 No damage 2 Minor damage 3 Major damage 4 Total loss 5 Multiple total loss	1 No env. damage 2 Minor, containable 3 Major, containable 4 Major, uncontainable 5 Env. catastrophe

Key to Risk Rating		Severity (S)				
		1	2	3	4	5
Likelihood	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15

	4	4	8	12	16	20
	5	5	10	15	20	25

	Green	This level of risk is workable with care and attention.
	Amber	This level of risk may be workable with care and attention, but the company and the operator shall strive to find and implement further controls.
	Red	This level of risk is not acceptable. Work must not commence until further controls have been put in place.

Activity	Hazard	Control measures	Degree of Risk		
			L	S	RR
Reducing the spread Japanese knotweed	Further spread of Jk	- Fence of areas of Jk to limit/restrict ingress. - Install warning signage - Carry out toolbox talks with all on site. - Follow biosecurity plan - Initiate clean and dirt zones - Check boots and tools/equipment are clean before exiting. - Remove the Jk as per management plan.	3	3	9
Reducing the spread Himalayan Balsam	Further spread of HB	- Fence of areas of HB to limit/restrict ingress. - Install warning signage - Carry out toolbox talks with all on site. - Follow biosecurity plan - Initiate clean and dirt zones - Check boots and tools/equipment are clean before exiting. - Remove the HB as per management plan.	2	4	8
Reducing the spread Giant Hogweed	Further spread of GH	- Fence of areas of GH to limit/restrict ingress. - Install warning signage - Carry out toolbox talks with all on site. - Follow biosecurity plan - Initiate clean and dirt zones - Check boots and tools/equipment are clean before exiting. - Remove the GH as per management plan.	2	3	6

Treatment of Giant Hogweed	Injury / burning of skin	- Wear appropriate PPE - Avoid cutting/clearance of the plant - Conduct treatment when the plant is smaller - Carry out toolbox talks with all on site.	2	5	10

The RICS risk assessment of Japanese Knotweed as taken from RICS Professional Information, UK. Japanese Knotweed and residential property, 1st addition[1]

- This risk assessment takes into account the real risk to a property and addresses some of the concerns of the lenders and insurance companies. A number of definitions may be helpful.
- The term 'habitable space' refers to those parts of the subject property associated with daily living (including conservatories) and not ancillary spaces (such as outbuildings and/or garages).
- The term 'serious damage' refers to a level of damage described in 3.21 and costed in 4.6
- According to the Environmental Agency's The Knotweed Code of Practice, Japanese Knotweed rhizomes can extend up to seven metres horizontally and three metres vertically from the last sign of visible surface growth. This has been used as the minimum distance in the assessment process.

Category 4: Japanese Knotweed is within 7 metres of a habitable space, conservatory and/or garage, either within the boundaries of this property or in a neighbouring property or space; and/or Japanese Knotweed is causing serious damage to outbuildings, associated structures, drains, paths, boundary walls and fences and so on. Further investigations by an appropriately qualified and/or experienced person are required

Category 3: Although Japanese Knotweed is present within the boundaries of the property, it is more than 7 metres from a habitable space, conservatory, and/or garage. If there is damage to outbuildings, associated structures, paths and boundary walls and fences, it is minor. Further investigations by an appropriately qualified and/or experienced person are required.

Category 2: Japanese Knotweed was not seen within the boundaries of this property, but it was seen on a neighbouring property or land. Here, it was within 7 metres of the boundary, but more than 7 metres away from habitable spaces, conservatory and/or garage of the subject property.

Category 1: Japanese Knotweed was not seen on this property, but it can be seen on a neighbouring property or land where it was more than 7 metres away from the boundary.

8.0 Legislation

Key legislation relevant to the management of Japanese Knotweed		
Legislation	**Region**	**Relevance**
Wildlife and Countryside Act 1981 (as amended)	England Wales	You must not facilitate the spread of Japanese Knotweed in the wild.
Wildlife and Natural Environment Act 2011	Scotland	
Wildlife Order 1985	Northern Ireland	
Statutory Instrument No.477		
European Communities (Birds and Natural Habitats) Regulations 2011	Republic of Ireland	
Environmental Protection Act 1990	England Wales Scotland	Waste containing Japanese Knotweed is classified as 'controlled waste'. As such, you must observe the appropriate duty of care for its proper handling and disposal. Also see Section 15.
The Duty of Care Regulations 1991		
Waste and Contaminated Land (NI) Order 1997	Northern Ireland	
Waste Management Licensing (NI) Regulations 2003		
Waste (Duty of Care) Regulations 2002		
Irish Waste Management Acts 1996-2003.	Republic of Ireland	The situation is evolving. The National Parks and Wildlife Service should be contacted. It is likely that you will require a licence for transport and disposal and authorisation for onsite[a] waste management.
Waste Management (Facility Permit and Registration) Regulations		
Control of Pesticides Regulations 1986	England Wales Scotland	Any person using pesticides must take all reasonable precautions to protect the health of people and wildlife, hold a certificate of competence, only apply pesticides to target areas and, in applicable locations, ensure the amount of pesticide used and the frequency of application are as low as reasonably practicable. Approval from the relevant statutory agency must[b] be obtained prior to use of pesticides in or near water (see section 9.5 for further details).
Control of Pesticides (Amendment) Regulations (Northern Ireland) 1997	Northern Ireland	
Statutory Instruments No. 155/2012 European Communities (Sustainable Use Of Pesticides) Regulations 2012	Republic of Ireland	
European Communities Plant Protection Products (Sustainable Use) Regulations 2012	EU	
Other legislation relevant to the management of invasive non-native species		
Legislation	**Region**	**Relevance**
EU Invasive Alien Species Regulation 1143/2014	EU	This regulation imposes additional Union wide restrictions on species of animals and plants listed as 'Invasive Alien Species of Union Concern'. Japanese Knotweed is not on this list.
Infrastructure Act 2015	England Wales	Environmental authorities may issue control orders under which landowners can be obligated to carry out species control operations for invasive non-native animal and plant species. It is highly unlikely that such an order would be issued with respect to Japanese Knotweed.
Wildlife and Natural Environment Act 2011	Scotland	
Anti-social Behaviour, Crime and Policing Act 2014	England Wales	The Anti-social Behaviour, Crime and Policing Act 2014 does not specifically mention invasive plants; however, guidance has been released by the Home Office providing information on how Community Protection Notices can be applied to Japanese Knotweed. In effect, the updated legislation means that if a neighbour 'fails to act' regarding controlling, or preventing the growth of Japanese Knotweed, then, providing certain criteria are met, a Community Protection Notice could be issued requiring action to be taken. Breach of any requirement of a Community Protection Notice, without reasonable excuse, would be a criminal offence, subject to a fixed penalty or prosecution.
Common Law	England Wales	Under common law, with respect to private nuisance, an offence may have been committed where the actions of a land owner are causing a substantial and unreasonable interference with another person's land or his/her use or enjoyment of that land. Where reasonable action is not being taken to remediate nuisance caused by Japanese Knotweed, common law may apply.

Table 1: Summary of legislation relevant to Japanese Knotweed

a) If proposed amendments to Waste Management (Facility Permit and Registration) Regulations are adopted, this would allow for on-site disposal/ remediation options to be carried out without going through the authorisation process for these activities.

b) In Wales approval is only required in high risk areas

The above table is is taken from the PCA Code Of Practice April 2018.[2]

8.0 References

1- RICS Professional Information, UK. Japanese Knotweed and residential property, 1st addition

2- Property Care Association April 2018. Management of Japanese Knotweed Code of Practice

Appendix 1


KEY:
SITE BOUNDARY
AMENITY PLANTING
RECOLONISING GROUND
SCRUB
TALL RUDERAL
AMENITY GRASSLAND
SEMI-IMPROVED GRASSLAND
WOODLAND
COMPOST HEAP
HARDSTANDING
BUILDINGS
AREA SUBJECT TO JK MONITORING
HEDGEROW
TREE
TREE WITH BAT POTENTIAL
CONIFEROUS TREE
POND
JK CONTAMINATED BUND
N
ecology solutions
6956: QUEEN COURT FARM, OSPRINGE, FAVERSHAM, KENT
PLAN ECO2: ECOLOGICAL FEATURES

Appendix 2
Images taken 18/01/24
Original location of the larger stand. Showing no signs of JK.

Demarked small stand of JK within the contained bund.

Bund undergoing vegetation clearance.

Bund post vegetation clearance.