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Ecological Consultants  
Environmental and Rural Chartered Surveyors

## **Invasive Non-native Species Protocol**

### **Former North Bierley Waste Water Treatment Works**

**Cliff Hollins Lane, Oakenshaw, BD12 7ET**

**Planning application 2021/60/94208/E - Condition 30**



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## ACCURACY OF REPORT

This protocol has been compiled from the planning documents, the July 2021 invasive species survey and the guidance listed in Section 12. Invasive plants can spread, regress or remain undetected between surveys. The mapped extents are therefore a baseline and must be checked by a suitably experienced invasive species specialist before the relevant development phase begins.

All contractors acting on this protocol must exercise due diligence. If Japanese knotweed, Himalayan balsam or another suspected invasive non-native species is found outside a marked area, work must stop locally, the area must be isolated and the appointed invasive species specialist must be contacted before work resumes.

### ***Quality and Environmental Assurance***

This report has been prepared as part of Envirotech NW Ltd's commitment to the ISO 9001 Quality Assurance and ISO 14001 Environmental Assurance standards. Envirotech has been awarded the Gold standard by the Cumbria Business Environmental Network for its environmental management systems.

| Item                                         | Details                                                                                   |
|----------------------------------------------|-------------------------------------------------------------------------------------------|
| Project Name                                 | North Bierley Phase 2 - redevelopment of former waste water treatment works               |
| Site Location                                | Former North Bierley Waste Water Treatment Works, Cliff Hollins Lane, Oakenshaw, BD12 7ET |
| Planning Reference                           | 2021/60/94208/E                                                                           |
| Condition                                    | Condition 30 - Invasive non-native species protocol                                       |
| Applicant (outline permission)               | KeyLand Developments Ltd                                                                  |
| Current scheme client shown on 2026 drawings | Bond It Group                                                                             |
| Ecological Consultant                        | Envirotech NW Ltd                                                                         |
| Report Reference                             | 2021-94208/INNSP                                                                          |
| Version / Status                             | 2.0 - For condition discharge                                                             |
| Date                                         | 29.09.2026                                                                                |
| Responsible Parties                          | Developer, Principal Contractor and appointed INNS specialist - see Section 5             |
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## 1. NON-TECHNICAL SUMMARY

This protocol has been prepared to discharge Condition 30 of planning permission 2021/60/94208/E. It sets out the containment, control and removal measures for Japanese knotweed (*Fallopia japonica*) and Himalayan balsam (*Impatiens glandulifera*) at the former North Bierley Waste Water Treatment Works.

The July 2021 survey recorded one mature Japanese knotweed stand within the site on the north-eastern bank of Hunsworth Beck (JKW1), a second smaller stand immediately outside the red line beside an outfall (JKW2), and dense and scattered Himalayan balsam throughout the beck corridor and adjoining damp scrub. The distribution must be updated before development commences because the baseline is now five years old and both species can change in extent.

The preferred approach for Japanese knotweed is to retain the affected ground undisturbed and undertake controlled foliar herbicide treatment followed by monitoring. Where an infestation or potentially contaminated soil must be cleared immediately to enable an approved work area, either excavation and disposal at an appropriately permitted off-site facility or excavation to a controlled on-site treatment bund may be used. The method will be selected at a formal hold point by the Principal Contractor with the appointed INNS specialist, subject to the safeguards and regulatory tests in this protocol.

1. No soil stripping, excavation, trafficking, cutting or vegetation clearance may enter a marked INNS exclusion area before the method-selection hold point is signed off.
2. All herbicide work must use an approved product, a competent operator and a COSHH assessment; Environment Agency agreement is required before herbicide is used in or near Hunsworth Beck.
3. Japanese knotweed or contaminated soil taken off site must be contained, carried by a registered waste carrier and accepted by a facility permitted to receive it.
4. A treatment bund is only permissible in a mapped, secured and otherwise suitable area on the site of origin, with an appropriate membrane, active treatment and long-term records.
5. Himalayan balsam must be controlled before seed set, with repeat treatment and monitoring because reinvasion from the wider beck corridor is possible.

## 2. INTRODUCTION

### 2.1 Site and approved development

Kirklees Council granted outline planning permission on 16 October 2023 for redevelopment of the former waste water treatment works, including demolition of existing structures and employment uses within Use Classes E(g)(ii), E(g)(iii), B2 and B8. Current drawings show an industrial development with access, servicing, parking, silos, landscaping and an attenuation basin. Hunsworth Beck and its wooded/scrub corridor lie along the northern part of the wider site.

### 2.2 Condition 30

**Condition 30:** Prior to development commencing, an “invasive non-native species protocol” shall be submitted to, and approved in writing by, the Local Planning Authority. The protocol shall detail the containment, control, and removal of invasive non-native species, including the identified Japanese knotweed (*Reynoutria japonica*) and Himalayan Balsam (*Impatiens glandulifera*) species on site. Thereafter the development shall be undertaken in accordance with the approved strategy.

The stated reason is to prevent the spread of invasive non-native species and safeguard and enhance the function of the site in accordance with Kirklees Local Plan Policy LP30 and Chapter 15 of the National Planning Policy Framework.

### 2.3 Purpose and status of this protocol

This document is the site protocol required by Condition 30. It intentionally provides three compliant Japanese knotweed pathways so the final method can respond to the approved construction sequence, updated plant distribution, programme, available treatment area and waste capacity. Selection between Options A, B and C is permitted only where the relevant tests and hold points in this protocol are satisfied. A method outside this protocol, or a material change to its safeguards, must be referred to the Local Planning Authority before implementation.

### 2.4 Source documents

| Document                                                     | Author / date                                                              | Use in this protocol                                                       |
|--------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Decision Notice 2021/60/94208/E                              | Kirklees Council, 16 October 2023                                          | Condition wording, approved development and site address.                  |
| Invasive Species Survey, North Bierley Phase 2, R-EE-5613-01 | Ecological Estates Ltd, July 2021                                          | Mapped baseline, patch references, areas, photographs and risk assessment. |
| Ecological Impact Assessment, North Bierley Phase 2          | Brooks Ecological Ltd, 1 November 2021                                     | Requirement for an INNS plan and an update survey before commencement.     |
| 2002 Rev P1 PROPOSED SITE PLAN (ICB-KPP-ZZ-DR-A-GA)          | KPP Architects Ltd, September 2026                                         | Current proposed scheme layout supplied for this submission.               |
| GOV.UK invasive plant and Japanese knotweed guidance         | Defra, Natural England and Environment Agency; current at 3 September 2026 | Current legal and operational headline requirements.                       |

| Document                                                                       | Author / date                                              | Use in this protocol                                                                                              |
|--------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| RPS 178 - Treatment and disposal of invasive non-native plants                 | Environment Agency, updated 4 September 2025               | Current regulatory position for qualifying on-site treatment, reuse and burial.                                   |
| Managing Japanese knotweed on development sites: the knotweed code of practice | Environment Agency, version 3 amended 2013; withdrawn 2016 | Legacy technical detail only for bund layout, segregation and biosecurity; not relied upon as current regulation. |

### 3. BASELINE DISTRIBUTION AND CONSTRAINTS

#### 3.1 July 2021 survey results

| Reference    | 2021 finding                                                                                                                                                                                 | Development constraint                                                                                                                                                          |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JKW1         | Mature dense Japanese or hybrid knotweed stand on the north-eastern bank of Hunsworth Beck. Several crowns had merged into a continuous patch. Approx. 98 m <sup>2</sup> ; E418178, N427142. | Within the red line. Do not disturb the visible stand or potentially affected ground until the updated survey and method-selection hold point are complete.                     |
| JKW2         | Smaller stand beside an outfall to Hunsworth Beck, comprising about six crowns and juvenile growth. Approx. 21 m <sup>2</sup> ; E418143, N427183.                                            | Reported outside the red line, but close enough for rhizome to extend into land affected by access or engineering works. Treat the site-side precautionary zone as constrained. |
| HB dense     | Dense Himalayan balsam in damp open scrub/grassland north-east of the stream corridor and on locally shaded banks.                                                                           | Prevent flowering/seed release and avoid moving seed-bearing soil or vegetation into clean areas.                                                                               |
| HB scattered | Scattered throughout the stream corridor, adjacent unmanaged scrub and along the north-eastern boundary by Hanging Wood.                                                                     | Repeated control and monitoring are required; adjoining land can act as a continuing source of seed.                                                                            |

The 2021 survey adopted a 7m precautionary buffer around visible Japanese knotweed as a potential rhizome zone. This is a conservative operational exclusion zone, not proof that rhizome extends throughout it. Where approved works cannot avoid the zone, supervised investigation may refine the excavation extent, but the outer exclusion fencing must remain until the specialist has documented the revised boundary.

#### 3.2 Mandatory pre-commencement update

- Before any relevant phase begins, appoint an INNS specialist to undertake an updated walkover of the red-line site, access routes, working easements and adjoining Hunsworth Beck corridor where visible from the site.
- Undertake the update in the growing season when both species can be identified reliably. If enabling works are proposed in winter, review dead stems and prior

mapping, retain all precautionary exclusions and revisit during the next growing season before constrained soils are disturbed.

8. Map each stand, assign a unique reference, photograph it from fixed points and show visible growth plus the provisional 7m Japanese knotweed precautionary zone on the construction constraints plan.
9. Overlay the update on the final earthworks, drainage, access, landscape and compound plans. Identify every interface where works enter an INNS area or precautionary zone.
10. Issue the updated plan to the Principal Designer, Principal Contractor, earthworks contractor, landscape contractor and all personnel responsible for plant movements or waste.

#### **4. OBJECTIVES AND METHOD HIERARCHY**

11. Prevent Japanese knotweed rhizome, stems and contaminated soil, and Himalayan balsam seed or plant material, from spreading within or beyond the site.
12. Keep contaminated ground undisturbed wherever this is compatible with the approved development.
13. Prefer in-situ herbicide treatment and monitoring for Japanese knotweed where the ground can remain protected for the treatment period.
14. Where immediate clearance is essential, remove the constraint by controlled excavation to an authorised off-site facility or to a compliant on-site treatment bund.
15. Control Himalayan balsam before seed set, repeat control until the local seed bank is exhausted, and re-establish competitive native vegetation where ground is left bare.
16. Maintain an auditable record of survey extents, method selection, treatments, waste movements, clean-down, monitoring and any residual on-site constraint.

## 5. RESPONSIBILITIES AND HOLD POINTS

| Role                             | Minimum responsibility                                                                                                                                                                     |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Developer / Applicant            | Secure approval of this protocol; appoint competent contractors; provide programme and resources; retain records and ensure any future landowner receives residual constraint information. |
| Principal Contractor             | Incorporate the live INNS plan into the Construction Phase Plan, establish fencing and haul routes, enforce hold points, maintain inductions and coordinate waste documentation.           |
| Appointed INNS Specialist / ECoW | Update the survey, mark areas, advise method selection, supervise invasive plant excavation, inspect clean-down and monitoring, and sign release records.                                  |
| Herbicide Contractor             | Hold the relevant certificate of competence, prepare COSHH and spray records, use only approved products in accordance with their labels and obtain/comply with EA agreement near water.   |
| Earthworks / Waste Contractor    | Use the approved excavation limits and routes, segregate material, prevent loss, use registered carriers and authorised facilities, and provide transfer/consignment evidence.             |
| All site personnel               | Attend induction, obey exclusion fencing, do not cut or move suspect material, and stop/report unexpected growth.                                                                          |

### 5.1 Mandatory hold points

| Hold point                 | Release requirement                                                                                                                               | Released by                              |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| HP1 - site set-up          | Updated survey and live constraints plan issued; exclusion areas fenced and signed; induction completed.                                          | INNS specialist and Site Manager         |
| HP2 - method selection     | Each affected work area assigned Option A, B or C using Section 7; permits/agreements, facility acceptance and bund area confirmed as applicable. | INNS specialist and Principal Contractor |
| HP3 - constrained works    | Written task briefing issued; clean/dirty routes and clean-down station operational; specialist present for excavation.                           | Site Manager                             |
| HP4 - release / completion | Treatment or excavation record complete; area inspected; monitoring and residual constraints transferred to the site register.                    | INNS specialist                          |

## **6. CONTAINMENT AND BIOSECURITY**

### **6.1 Exclusion and access control**

17. Install robust fencing and “Invasive species - restricted access” signs before vegetation clearance or earthworks. For Japanese knotweed, fence the mapped stand and the provisional 7 m precautionary zone unless the specialist has documented a refined boundary.
18. Within an exclusion area, prohibit excavation, soil stripping, stockpiling, mowing, strimming, flailing, tracked-plant movements, temporary services and storage unless expressly authorised by the selected method statement.
19. Mark Himalayan balsam control areas separately. Avoid walking or driving through mature seed-bearing stands because ripe capsules can disperse seed.
20. Keep clean soil, imported soil, landscape materials and topsoil stockpiles outside dirty areas and up-gradient/upwind where practicable.

### **6.2 Plant, haul routes and clean-down**

21. Use dedicated, clearly marked dirty-area plant where practicable. Avoid machines with complex tracked undercarriages where a simpler excavator/vehicle can undertake the work.
22. Line and protect any clean haul route crossed by contaminated plant. Keep movements to the shortest designated route and do not route contaminated material beside drains or Hunsworth Beck.
23. Before plant leaves a dirty area, remove soil and plant fragments over a sealed membrane or hardstanding that drains to a contained collection point. Clean wheel arches, tyres/tracks, buckets, blades and recesses using brushes and, where necessary, controlled pressure washing.
24. Collect all arisings and wash-down solids as contaminated material. Do not allow wash water or fragments to enter surface water, sewers, ditches or clean ground.
25. The INNS specialist or trained competent person must inspect and record plant as clean before it returns to general site duties or leaves site.

### **6.3 Unexpected finds and incidents**

26. Stop work locally and prevent further personnel or plant movement through the suspect area.
27. Fence the area and any material already moved. Do not attempt identification by pulling, cutting or excavating the plant.
28. Contact the INNS specialist for confirmation, mapping and a revised task briefing.
29. If material has escaped or been tracked, isolate the route, recover fragments/soil, clean plant and record the incident and corrective action.
30. Resume only after the INNS specialist and Site Manager have released the hold point.

## 7. JAPANESE KNOTWEED METHOD SELECTION

The selected option must be recorded separately for JKW1, the site-side influence of JKW2 and any newly found stand. The decision is based on the final work footprint and programme, not solely on the 2021 plan.

| Option                                                     | Use when                                                                                                                                                 | Preconditions                                                                                                                                                             |
|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A - In-situ herbicide treatment and monitoring (preferred) | The stand and potentially affected soil can remain undisturbed and protected through the treatment and monitoring period.                                | Exclusion fencing retained; competent herbicide contractor; approved product; COSHH assessment; EA agreement for use in or near water.                                    |
| B - Excavate and dispose off site                          | Immediate removal from a work area is necessary and no suitable on-site treatment area is available, or the programme requires a definitive waste route. | Specialist-supervised excavation; prior written acceptance by authorised facility; registered carrier; contained loading/transport; full duty-of-care records.            |
| C - Excavate to controlled on-site treatment bund          | Immediate release of the original work area is needed and a suitable, secure, low-value and long-term undisturbed area exists within the site of origin. | Bund location/design approved by specialist and relevant project disciplines; regulatory basis confirmed; membrane, fencing, access, treatment and final fate documented. |

**Method-selection rule:** Option A is the default. Option B or C may be used where the Principal Contractor demonstrates that the affected ground must be released for approved works and all applicable safeguards are in place. Material must never be moved merely for convenience.

## 8. JAPANESE KNOTWEED CONTROL METHODS

### 8.1 Option A - in-situ spray and monitor (preferred)

31. Retain the mapped stand and potentially affected ground undisturbed behind fencing. Cut or disturb neither live nor dead canes unless the herbicide treatment specification requires it.
32. Prepare a site-specific COSHH and application risk assessment. Select an herbicide currently approved for the intended amenity/aquatic situation and use it strictly in accordance with the product label.
33. Obtain Environment Agency agreement before any herbicide is used in or near Hunsworth Beck. Check for any additional protected-site consent before treatment.
34. Apply a controlled foliar spray to actively growing leaf area, normally in late summer/early autumn before senescence, using low-drift equipment and weather limits that prevent drift or run-off. Where spray presents an unacceptable risk, the competent contractor may use stem injection or wiping with an appropriately approved product.
35. Record the product, approval number, concentration, area, date, operator, weather, water-protection measures and photographs. Repeat treatment as required. Current GOV.UK guidance states that treatment usually takes at least three years.
36. Inspect twice during each growing season until no live growth is found for three consecutive growing seasons. Any regrowth restarts the no-growth monitoring period.

### 8.2 Option B - excavation and authorised off-site disposal

37. Before excavation, confirm the disposal facility is permitted and willing to accept Japanese knotweed waste; confirm classification, analytical requirements, packaging and notice period. Establish the carrier and transfer documentation.
38. Where programme and product restrictions allow, undertake pre-excavation herbicide treatment to weaken growth. Do not rely on treatment as evidence that soil is clean.
39. Under direct supervision of the INNS specialist, excavate the visible crown/rhizome and affected soil progressively. Segregate cleaner subsoil from rhizome-rich material and inspect each face; extend excavation wherever viable rhizome is found.
40. Load only in the dirty area. Use lined, enclosed or securely sheeted containers so no material can escape. Do not mix Japanese knotweed soil with general surplus soil and do not sell or transfer it as topsoil.
41. Transport using a registered waste carrier to the pre-authorised facility. The waste description must identify Japanese knotweed and any herbicide contamination. Retain weighbridge tickets and waste transfer/consignment records.
42. Clean and inspect all plant and the haul route. Backfill only with verified clean material. Monitor the excavation footprint, margins and haul route for at least five growing seasons; treat any regrowth immediately.

### 8.3 Option C - controlled on-site treatment bund

A bund is a temporary treatment area, not an uncontrolled spoil heap. The technical arrangement below draws on the withdrawn Environment Agency knotweed code, while its regulatory acceptability must be established against the current RPS 178 and any permit requirements at the time of the work.

43. Locate the bund within the site from which the material originates, on low-habitat-value land that can remain secured and undisturbed. It must be more than 7 m from an adjoining landowner. Avoid watercourses and trees; the legacy code advises at least 50 m from a watercourse. If this cannot be achieved at North Bierley, do not use a bund unless the Environment Agency and project drainage/ecology specialists confirm an acceptable arrangement.
44. Confirm that the material contains no other pollutant that could threaten groundwater. Provide a level formation, an undamaged knotweed-resistant root barrier membrane

beneath the bund on previously clean ground, sealed joints, edge upstands and protection against puncture.

45. Construct no more than 1 m deep and preferably about 0.5 m deep. Place relatively clean subsoil at the base and concentrate crowns and rhizome-rich topsoil at or near the surface to encourage regrowth that can be treated.
46. Fence and sign the bund, prevent trafficking and surface-water run-off, show it on the constraints plan and keep an access route for inspection and treatment.
47. Start active treatment within the period allowed by the current regulatory position; RPS 178 prohibits storing material for more than 12 months before it is treated or buried. Treat emerging growth using the Option A controls and disturb/rake only under specialist supervision to expose dormant rhizome without spreading it.
48. Define the final fate before the bund is created: continued contained treatment; restricted reuse on the site of origin after specialist verification and only where current RPS conditions allow; compliant on-site burial; or removal to an authorised off-site facility.
49. Do not reuse screened or treated soil across the site. Under current RPS 178 it must remain in a restricted area and must not be reused within 50 m of a watercourse, on boundaries, amenity areas or places used by people or livestock.
50. If burial is selected, comply with current minimum depths and membrane standards, record the exact location and notify the Environment Agency within the lead time stated by current guidance (allow at least one month unless the Environment Agency confirms otherwise). Preserve the burial constraint in the permanent site record.

#### **8.4 Japanese knotweed success criteria**

51. No spread beyond the mapped treatment or excavation area.
52. For in-situ or bund treatment: no live growth for three consecutive growing seasons following the last treatment/regrowth, subject to continued inspection of any retained/reused material.
53. For off-site excavation: authorised disposal evidence complete and no regrowth in the excavation footprint, margins or haul route during five growing seasons.
54. All residual on-site constraints, membranes, burial cells or restricted reuse areas accurately surveyed, recorded and transferred to the landowner/facilities management file.

## **9. HIMALAYAN BALSAM CONTROL**

### **9.1 Containment and treatment**

Himalayan balsam is an annual that spreads by seed. The immediate objective is to prevent seed production and spread during construction; repeated annual control is required to exhaust the local seed bank. Complete catchment-scale eradication cannot be guaranteed because the 2021 survey recorded extensive populations along Hunsworth Beck and adjoining land.

55. Map and mark dense and scattered stands during the pre-commencement survey. The 2021 report treated soils within up to 6 m of plants and up to 500 mm depth as potentially seed-bearing; use this as a precaution where such soils are disturbed unless the specialist refines the extent.
56. Hand-pull or dig plants before flowers develop viable seed. Remove the whole root and break the stem below the lowest node so it cannot re-root. Repeat visits later in the season for missed or late-germinating plants.
57. For extensive stands, cutting/trimming below the lowest node before flowering or controlled herbicide treatment may be used. Herbicide must meet the same competence, approval, COSHH, drift and Environment Agency near-water requirements as Section 8.1.
58. Do not pull, cut or traffic through mature plants with ripe seed capsules unless the area is contained and the specialist directs the work. Bag seed-bearing plants at the point of removal; do not drag them through clean areas.
59. Non-seeding pulled material may only be left to desiccate within a controlled infested area where it cannot wash into Hunsworth Beck or re-root. Seed-bearing material and potentially contaminated soil must be contained and handled through an authorised waste route or another route demonstrably compliant with current guidance.
60. Revegetate bare banks/soil promptly with an agreed native mix or planting appropriate to the landscape/ecological scheme, avoiding soil disturbance that would spread Japanese knotweed.

### **9.2 Monitoring and success criteria**

61. Inspect once in spring/early summer and again before expected seed set each year during construction and for at least three growing seasons after the last plant is removed.
62. Remove/treat every plant found before viable seed is produced and record the mapped extent and abundance.
63. Success is three consecutive growing seasons with no Himalayan balsam producing seed within the site treatment area. Continue proportionate surveillance of the beck corridor because upstream/off-site reinvasion may occur.
64. Where practicable, coordinate control timing with adjoining land managers so untreated upstream or boundary stands do not immediately reseed the site.

## **10. WASTE, SOIL AND MATERIAL MANAGEMENT**

### **10.1 Headline current GOV.UK requirements**

65. Do not plant invasive non-native plants in the wild or cause them to grow in the wild; moving contaminated soil, cuttings, rhizome or seed can amount to causing spread.
66. Treatment/disposal must not endanger human health or the environment. Re-establish native vegetation after treatment to reduce erosion and competition gaps.
67. Use only approved herbicides; the operator must hold the relevant certificate of competence or be directly supervised by a certificate holder; complete a COSHH assessment and obtain Environment Agency agreement for use in or near water.

- 68. Plant material or soil containing seeds, rhizomes or viable fragments may be controlled waste. Off-site disposal requires a registered waste carrier and an authorised facility that has agreed to accept the material.
- 69. Japanese knotweed must not be mixed with general surplus soil, sold as topsoil or reused on another site. Vehicles/containers must be enclosed or covered and cleaned/inspected after transfer.
- 70. RPS 178 does not remove the legal requirement for a permit or exemption. It records circumstances in which the Environment Agency will not normally take enforcement action, provided every RPS condition is met and there is no pollution, harm or nuisance.
- 71. For on-site treatment/burial under RPS 178: keep a management plan; keep the material on the site of origin; use low-value, undisturbed land more than 7 m from adjoining ownership; protect groundwater; observe depth/membrane and notification rules; and retain compliance records for at least two years after the last use of the RPS.

## **10.2 Records**

The Principal Contractor will maintain an INNS file containing the approved protocol, updated plans, method-selection records, permits/agreements, competence and COSHH records, application logs, photographs, waste classifications, carrier/facility checks, transfer/consignment notes, weighbridge tickets, plant clean-down records, monitoring results, incident reports and the final residual constraints plan. RPS records must be retained for at least two years; project records and residual land constraints should be retained permanently with the site information.

## 11. MONITORING, REPORTING AND REMEDIAL ACTION

| Stage                         | Inspection / evidence                                                                                                    | Trigger for action                                                                                       |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Before each development phase | Updated INNS walkover, mapped constraints, fixed photographs and signed HP1/HP2.                                         | Any changed extent or new species: revise the constraints plan and method-selection record before work.  |
| Active construction           | Monthly inspection of fencing, dirty routes and adjacent clean ground; inspection during each constrained soil movement. | Fence breach, tracked soil, escaped fragment or new growth: stop locally, contain, clean, map and treat. |
| Japanese knotweed treatment   | At least two growing-season visits annually; treatment and photo log.                                                    | Regrowth: retreat and restart the no-growth period.                                                      |
| Himalayan balsam control      | Spring/early-summer and pre-seed-set visits; abundance and seed status recorded.                                         | Any flowering/seed-producing plant: immediate controlled removal/treatment and review visit frequency.   |
| Completion / handover         | Specialist completion statement, waste evidence, monitoring schedule and residual constraints plan.                      | Incomplete evidence or unresolved growth: keep area constrained and continue treatment.                  |

### 11.1 Method-selection record

| Field                                    | Entry required                                                                    |
|------------------------------------------|-----------------------------------------------------------------------------------|
| Area / patch reference                   | JKW1, JKW2 influence area, HB area or new reference                               |
| Date and survey drawing revision         |                                                                                   |
| Development activity requiring interface |                                                                                   |
| Selected option and reason               | A / B / C; demonstrate why preferred avoidance/treatment is or is not practicable |
| Permit/agreement/waste route             |                                                                                   |
| Bund location/final fate (if applicable) |                                                                                   |
| Specialist approval                      | Name, signature and date                                                          |
| Principal Contractor approval            | Name, signature and date                                                          |

### 11.2 Treatment and monitoring log

| Date | Patch species / | Action product / | Operator / weather | Waste / clean-down evidence | Result / next visit |
|------|-----------------|------------------|--------------------|-----------------------------|---------------------|
|      |                 |                  |                    |                             |                     |
|      |                 |                  |                    |                             |                     |
|      |                 |                  |                    |                             |                     |
|      |                 |                  |                    |                             |                     |



## 12. REFERENCES AND LIVE LINKS

72. [How to stop invasive non-native plants from spreading \(GOV.UK; updated 12 February 2026\)](#)
73. [How to stop Japanese knotweed from spreading \(GOV.UK; updated 12 February 2026\)](#)
74. [Treatment and disposal of invasive non-native plants: RPS 178 \(Environment Agency; updated 4 September 2025\)](#)
75. [Apply for an environmental permit / herbicide agreement \(GOV.UK\)](#)
76. [Wildlife and Countryside Act 1981, section 14 \(legislation.gov.uk\)](#)
77. [Environment Agency public register \(waste carriers and permitted facilities\)](#)

**Current-guidance check:** The appointed INNS specialist and Principal Contractor must re-check the live GOV.UK pages and RPS 178 before treatment, burial, reuse or off-site disposal. If guidance or the regulatory position has changed, the current requirement takes precedence and any material change to this approved protocol must be referred to the Local Planning Authority.

## APPENDIX A - SITE AND INVASIVE SPECIES PLANS

The first drawing is the proposed site plan supplied for the current submission. The second is the July 2021 INNS baseline. A new survey overlay is required under Section 3.2 before works commence.

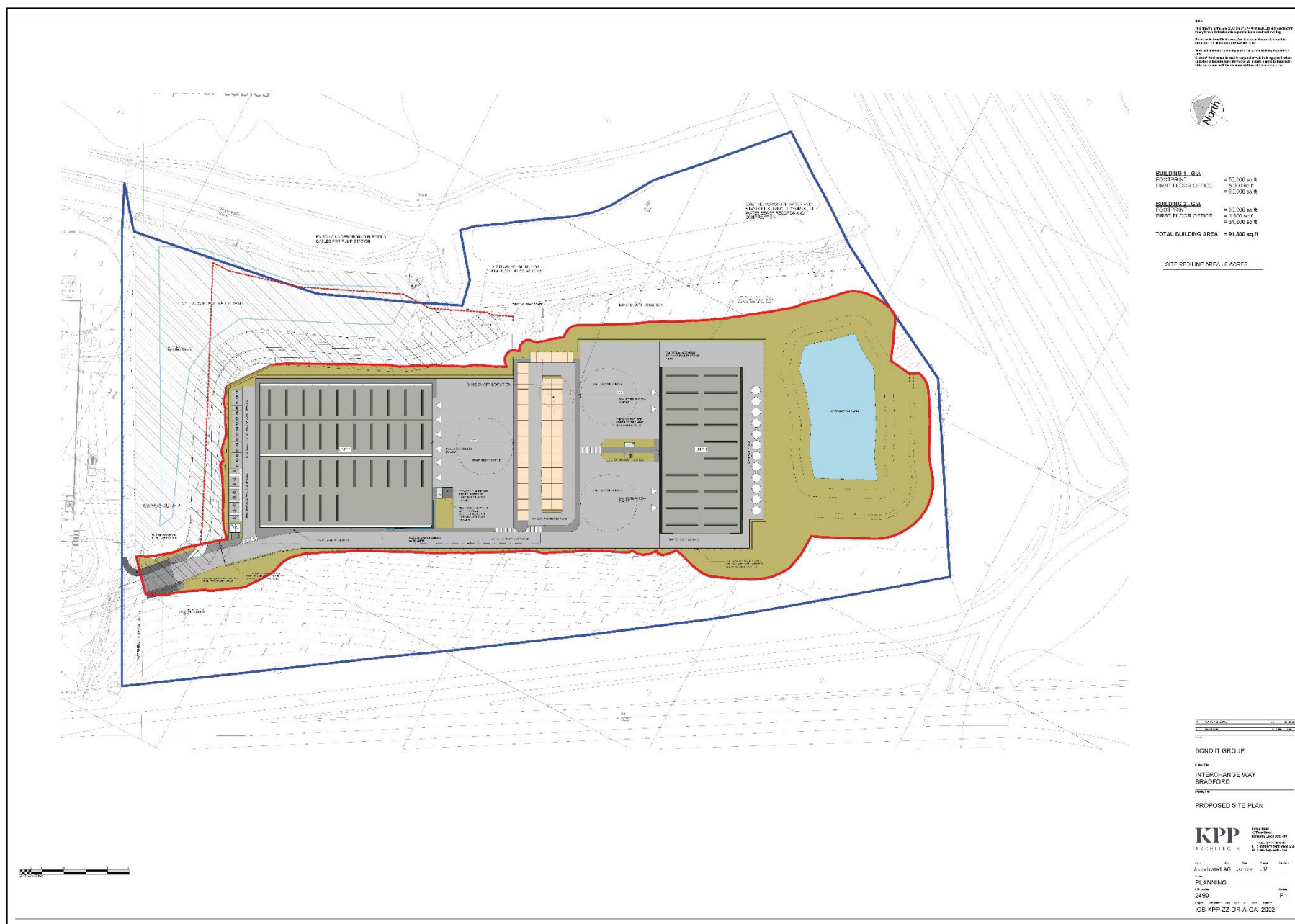




**Figure 2**  
INNS stands identified through current  
survey in July 2021

Invasive species  
 Japanese / hybrid knotweed  
 Himalayan Balsam - dense  
 Himalayan balsam - scattered

| Species | Ref_Number | Area (sqm) | Easting | Northing |
|---------|------------|------------|---------|----------|
| JKW     | 2          | 21         | 418143  | 427183   |
| JKW     | 1          | 98         | 418178  | 427142   |

Figure 2. July 2021 INNS baseline: JKW1, JKW2 and dense/scattered Himalayan balsam (Ecological Estates Ltd, R-EE-5613-01).

## APPENDIX B - NNSS JAPANESE KNOTWEED IDENTIFICATION SHEET

GB Non-native Species Secretariat identification sheet supplied with this commission. Use for site induction; the appointed INNS specialist must confirm suspected plants.



[www.nonnativespecies.org](http://www.nonnativespecies.org)

Produced by Olaf Booy, Max Wade and Vicky White of RPS

# Japanese Knotweed

## Species Description

**Scientific name:** *Fallopia japonica*

**AKA:** Japanese Bamboo, Pysen saethwr (Welsh),

*Polygonum cuspidatum*, *Reynoutria japonica*

**Native to:** Japan, Taiwan, northern China

**Habitat:** Common in urban areas, particularly on waste land, railways, road sides and river banks

Tall herbaceous perennial with bamboo like stems. Often grows into dense thickets. Characteristic leaves and stems, persistence of last year's dead canes and distinctive rhizome (underground root-like stems) enables year round identification.

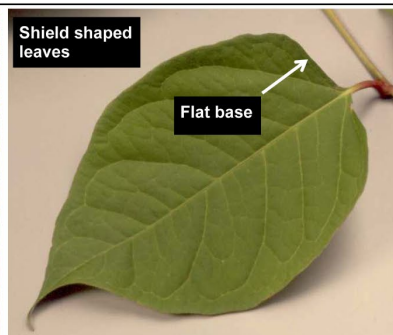
Introduced in the early 19<sup>th</sup> century as an ornamental plant. Now common and widespread across the UK. Spreads rapidly in the wild by natural means and as a result of spread by humans. Spread is solely by vegetative means, either fragments of rhizome or stem. Does not produce seed in the UK. Negative impacts include outcompeting native flora, contributing to river bank erosion and increasing the likelihood of flooding. Can also cause significant delays and cost to development as well as structural damage (it can grow through asphalt and some other surfaces).

Japanese Knotweed is listed under Schedule 9 to the Wildlife and Countryside Act 1981 with respect to England, Wales and Scotland. As such it is an offence to plant or otherwise cause Japanese knotweed to grow in the wild. Under the Environmental Protection Act 1990, Japanese Knotweed is classified as controlled waste.

For details of legislation go to [www.nonnativespecies.org/legislation](http://www.nonnativespecies.org/legislation).



## Key ID Features



## APPENDIX C - NNSS HIMALAYAN BALSAM IDENTIFICATION SHEET

GB Non-native Species Secretariat identification sheet supplied with this commission. Use for site induction; the appointed INNS specialist must confirm suspected plants.



[www.nonnativespecies.org](http://www.nonnativespecies.org)

Sightings of this species can be reported to: <https://irecord.org.uk/>

# Himalayan balsam

**Scientific name:** *Impatiens glandulifera*

**Also known as:** Policeman's Helmet, Indian Balsam, Jac y Neidiwr (Welsh)

**Native to:** West and central Himalayas

**Habitat:** found mostly on riverbanks and in damp woodland, can grow in other damp habitat.

A tall, attractive, annual herb with explosive seed heads. Introduced as a garden plant in the early 19th century and first recorded in the wild in 1855. Now widespread in the UK.

Forms dense stands, often on riverbanks, which out-compete native species and increase the flood risk by blocking water flow during high rainfall. When the stands die back over winter, riverbanks can be left bare and exposed to erosion.

It is illegal to buy, sell, grow or cultivate (including seeds or cuttings) Himalayan balsam in GB. For details refer to: <https://www.gov.uk/guidance/invasive-non-native-alien-plant-species-rules-in-england-and-wales>.



## Key ID Features



Flowers are pink (rarely white) often with spots and markings inside, sweetly scented, and trumpet-shaped with wide petals



Stem hollow, sappy, fleshy and brittle

Leaves and branches arise from stem joints



Stem is green to red early in the year, pink to red in summer



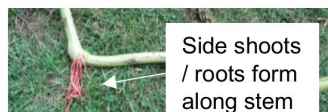
Seed capsules approx. 2.5 cm long, hang on red stalks, and explode on touch when ripe



Leaves may have a reddish mid-rib and are opposite, or in whorls of 3-5.



Leaves are slender to elliptical, with finely serrated edges



Side shoots / roots form along stem

Roots are short with a distinctive structure

## Identification throughout the year

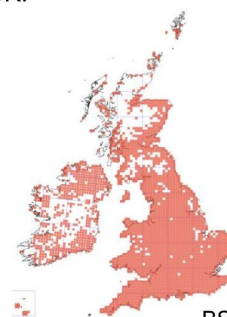
Can be identified at most times of the year:

- **March to June** by its seedlings, stem and leaf shape,
- **July to September** by its stem, leaf shape and flowers.
- **October to February**, more difficult to identify, but look for hay-like remains and distinctive root structure.



## Distribution

Widespread and common across the UK.



BSBI 2026

<https://bsbi.org/taxa/2cd4p9h.18x/impatiens-glandulifera>

## Similar Species

Himalayan balsam may be confused with orange balsam (*Impatiens capensis*), another non-native species.

### Orange balsam

Non-native  
(*Impatiens capensis*)

Flowers slightly earlier, June to August

Flower is similar in shape to Himalayan balsam, but orange in colour



Smaller than Himalayan balsam (growing to a height of 1.2 m) and much less aggressive, forming smaller, less dense stands.

Leaves are smaller, with fewer serrations on the edge



## Further information:

- <https://www.nonnativespecies.org/non-native-species/information-portal/view/1810>
- Blamey, M, Fitter, R and Fitter, A (2003) "The Wild Flowers of Britain and Ireland. The Complete Guide to the British and Irish Flora." A & C Black
- Preston, C D, Pearman D A and Dines, T A (editors) (2002) "New Atlas of the British and Irish Flora". Oxford University Press
- Stace, C (1999) "Field Flora of the British Isles". Cambridge University Press

Originally produced by Olaf Booy, Max Wade and Vicky White of RPS.  
Photos from Olaf Booy, Mike Harris, Max Wade.