Environmental Standard Operating Procedure

ESOP Name	Japanese knotweed control and eradication
ESOP Number	19
Revision Date	22/02/2024
Related ESOPs	2 Biosecurity 15 Herbicide application

Aim

Japanese knotweed was introduced to the UK in the 1800s as an ornamental garden plant. Tall and vigorous, it soon dominates and outcompetes native species. It can regenerate in almost any environment from fragments of rhizome or cut stems as small as 0.7g (10mm in length).

This standard procedure aims to control and eliminate current stands of Japanese knotweed and to prevent the spread of the plants through BA operations.

Standard Methodology

- Japanese Knotweed and its associates are best treated by stem injection in late summer (August/September).
- Allow stems to grow then inject with glyphosate (ProActive 360) before flowering. For plants with small stems, foliar spraying or leaf brushing with glyphosate can be used.

- Some plants in water can be difficult to treat by the above method. Stems can be cut to just below the first node, herbicide dripped into the stem and the stem bunged.

Procedure

Pre-works

- Identify existing areas of Japanese knotweed for control.
- Mark an exclusion area of 10m to the nearest stem, when working in the vicinity of the plant.

Operational

- Control Japanese knotweed by herbicide application from July – September.
- Do not remove cut material from site, material must be left on site.
- Place the cut vegetative material on an impermeable membrane, ensuring all foliage is collected above potential flood height, allow to dry, then burn.
- Carry out at least two checks per season, and re-treat any living stems, as above.
- Continue to check for re-growth and spread, until one whole year after no re-growth is seen.

Consultation

- The Ecologist responsible for invasive species management in the Broads must be made aware of any new patches of Japanese knotweed found so these can be logged and shared with the Norfolk Non-Native Species Initiative – records to be sent to liam.smith2@norfolk.gov.uk as of December 2021.
- Landowner permission must be sought and obtained before work can commence on land not belonging to the BA.
- Environment Agency consent must be obtained via an AquaHerb01 Agreement before herbicide may be used to treat the plants. If herbicide is to be applied in or near a protected site (SAC, SPA, SSSI) Natural England Protected Sites Consent must be obtained.

Risk Assessment

Hazard	Initial Risk			Controls / Safeguards / Precautions	Revised Risk		
	S	L	R		S	L	R
Spreading fragments within the site or to adjacent areas	**4**	**4**	**C**	Control existing stands, no mechanical cutting near water. If cutting used as a control method, all equipment to be checked & cleaned before leaving the immediate area	**4**	**2**	**B**
Existing stands increase in size, outcompeting native species	**4**	**5**	**C**	Control existing stands.	**4**	**2**	**B**
Disturbing the root network, whilst undertaking works, thereby promoting its growth.	**4**	**2**	**B**	Mark an exclusion area around the plant.	**4**	**1**	**B**

Matrix

		LIKELIHOOD				
		Very unlikely	Unlikely	Moderately likely	Likely	Very likely
SEVERITY		1	2	3	4	5
Low (minimal, short-term disturbance levels and negligible damage to native habitats.)	1	A	A	A	A	A
Medium (moderate, short-term disturbance levels, some damage to native habitats/species. Regenerates quickly.)	2	A	A	A	B	B
High (high disturbance levels over a longer period and displacement of species. Damage to native habitats. Significant time to regenerate)	3	A	B	B	C	C
Very High (Long-term disturbance with displacement/death of species. Significant damage to native habitats that takes a significant time to regenerate.	4	B	B	C	C	C

RISK	
A	OK. Work to provisions in risk assessment
B	Proceed with caution. Dynamically review risks.
C	Cancel task. Approach project in a different way.