Environmental Standard Operating Procedure

ESOP Name	Himalayan Balsam Control and Eradication
ESOP Number	17
Revision Date	22/02/2023
Related ESOPs	2 Biosecurity 15 Herbicide application

Aim

Himalayan balsam forms dense stands which suppress the growth of native species. These stands die back in the winter and can leave river banks bare of vegetation in the autumn and winter, making them much more vulnerable to sediment erosion. It is an offence under the Wildlife and Countryside Act 1981, Part II Schedule 9, to plant Himalayan balsam or allow it to spread.

This standard procedure aims to provide a best practice framework for the eradication or control Himalayan balsam, and prevention of further spread.

Standard Methodology

- Control through hand-pulling or cutting should be undertaken to prevent flowering. This is best carried out before June but may continue when seedpods have formed in July.
- Multiple pulling sessions spaced 3-6 weeks apart from May to the end of July to control re-growth.
- Controlled areas to be revisited for at least 3 years and regrowth monitored.

- Extra care taken near water to avoid seed dispersal.

Procedure

Pre-works

- Survey and monitoring to be undertaken and location information for any new clumps of Himalayan balsam must be logged and passed on the responsible Ecologist for collation.

Operational

- Hand-pull all individual plants in an area ensuring whole plant, including the root system, is removed.
- Pull or cut ideally before June, when the plant will start setting seed.
- Cut/strim all plants in area ensuring plants are cut below lowest node to avoid re-flowering.
- Plants to be piled on biodegradable geotextile mats and left in situ to decay.
- **DO NOT PULL OR CUT** once seedpods are ripe and popping. NB seeds present from July to October.
- Define access to Himalayan balsam stands to avoid trampling of native vegetation.
- Place disposal mats on freshly cleared areas to minimise disturbance of native vegetation.
- Ensure identification training is provided to ensure only Himalayan Balsam is removed.
- Ensure that all equipment and PPE is cleaned in line with the 'Check, Clean, Dry' biosecurity protocol to avoid spreading between sites

Consultation

- The Ecologist responsible for invasive species management in the Broads must be made aware of any new patches of Himalayan balsam 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 seeds	**4**	**4**	**C**	No works to be undertaken once the plants start setting seed, from June onwards. Arisings must be placed on geotextile mats to compost.	**4**	**2**	**B**
Removal of native plant species	**3**	**4**	**C**	Training on plant identification and ID sheets to be distributed to operatives.	**3**	**2**	**A**
Trampling native vegetation	**4**	**5**	**C**	Define access and ensure selective pulling	**4**	**1**	**B**
Disturbance of ground nesting birds	**4**	**2**	**B**	Pre-survey of area by an Ecologist to ensure no breeding birds present. If breeding birds are found, work may not commence until the Ecologist has confirmed that the nesting attempt has reached a natural conclusion (see ESOP 14 *Breeding Bird Mitigation).*	**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.