Australian swamp-stonecrop - *Crassula helmsii*

Introduced to Britain in 1911 from Tasmania as an “oxygenating plant” for garden ponds. The plant grows around the damp margins of ponds and in water up to 3m deep and spreads rapidly to form a dense mat of vegetation. It can out-compete other aquatic vegetation. Severe oxygen depletion can occur below dense growths of this plant.

Management Options:

Chemical Treatment

Glyphosate at 6l/ha applied to emergent growth. Best applied as a highly dilute high volume solution of glyphosate at 5ml/l applied at a walking rate of 6 secs/m.

Suitability: Suitable for emergent growth. Efficiency decreases with increasing thickness of mat.

Equipment: Knapsack sprayer. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

Efficiency: Moderate, but ineffective against submerged growth.

Constraints: Requires AqHerb01 approval from the Environment Agency and NPTC PA1 & PA6 qualifications. Potential non-target damage.

Mechanical Dredging

Dispose of material by composting or burning away from water habitats or sensitive areas. Location should be netted with a fine mesh to retain propagules.

Suitability: Only suitable in areas that can be contained. There is a significant risk that this method could increase the problem if it isn't performed with great care.

Equipment: Digger or tractor-mounted weed bucket. Vehicle & trailer if not disposing at site. Suitable fine-meshed net to enclose site. Hand nets to remove propagules. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

Efficiency: Low, unless meticulously performed.

Constraints: This method is highly likely to spread the plant and unlikely to provide long-term management if submerged plants are present. Very high standards of biosecurity are essential for all clothing and equipment used. Avoid damage to the habitats of sensitive species, such as water voles and nesting birds.

Manual Hand-Excavation

Dispose of excavated material by composting or burning away from water habitats. The location should be netted with a fine mesh to retain propagules.

Suitability: Only suitable for small infestations in areas that can be contained. There is a significant risk that this method could increase the problem if it isn't performed with great care.

Equipment: Hand tools, buckets and bags. Vehicle & trailer if not disposing at site. Suitable fine-meshed net to enclose site. Hand nets to remove propagules. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

Efficiency: Low, unless meticulously performed.

Constraints: This method is highly likely to spread the plant and unlikely to provide long-term management if submerged plants are present. Very high standards of biosecurity are essential for all clothing and equipment used.

Plant Suppression

Cover with black polythene or similar for at least 3 months during the growing season.

Suitability: Only suitable for small infestations in areas that can be kept from disturbance.

Equipment: Rolls of black polythene and potential adaptations to boats or vehicles to assist with deployment. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

Efficiency: Moderate, but application limited by sites suitable for this method.

Constraints: Requires a site that is free from obstructions and disturbance. Best deployed on land rather than in submerged situations, where gassing causes the polythene to surface unless heavily weighted. Non-specific, and therefore should not be used where it may harm sensitive species or on sites with protected species.

Time Scale

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Chemical												
Dredging												
Excavation												
Suppression												