

20 year site management plan

Completion & Year 1	
	1. Compliance audit of all mitigation and enhancement features (including EPS audit and close-out) 2. Issue of Appendix F of BREEAM 3. Mowing of raised earth banks to be undertaken only between July and March, not exceeding fortnightly and with mower blades above 100mm. 4. All thinning removed from earth banks or composted in a purpose-built facility (as illustrated left) 5. Rough grassland (tall herb vegetation) to be cut on a 3-year cycle, with the thinning raked off and removed.
Year 2	
<u>Extant species</u> • Soft rush (<i>Juncus effusus</i>) • Sharp rush (<i>Juncus acutiflorus</i>) • Cyperus sedge (<i>Carex pseudocyperus</i>) • Marsh willowherb (<i>Epilobium palustre</i>) • Floating sweet grass (<i>Glyceria fluitans</i>) • Amphibious bistort (<i>Polygonum amphibia</i>) • Clustered dock (<i>Rumex conglomeratus</i>) • Marsh woundwort (<i>Stachys palustre</i>) • Marsh ragwort (<i>Senecio eruscifolius</i>) • Reed Canary grass (<i>Phalaris arundinacea</i>) <u>Introduced species</u> • Marsh marigold (<i>Caltha palustris</i>); • Greater spearwort (<i>Ranunculus lingua</i>); • Water mint (<i>Mentha aquatica</i>); • Skullcap (<i>Scutellaria galericulata</i>); • Flowering rush (<i>Butomus umbellatus</i>) • Broad-leaved pondweed (<i>Potamogeton natans</i>); • Curled Pondweed (<i>P. crispus</i>); • Spiked water milfoil (<i>Myriophyllum spicatum</i>); • Water lily (<i>Nymphaea</i> sp.)	1. Site visit by SQE to undertake Phase II survey & monitoring of created habitat where seed mix appropriating to RE1 was used, to determine evolution to Mesotrophic Grassland MG5a ('Haymeadow') 2. Survey of pond to determine: • Colonisation by amphibians (including great crested newt) using torch search and bottle trap by appointed SQE; • Colonisation by aquatic & marginal planting using the checklist of extant and introduced planting illustrated left. Reedmace (<i>Typha latifolia</i>) and willow (<i>Salix cinerea</i>) must be removed as these species are invasive and will rapidly colonise the pond, reducing its functionality. • Absence of fish 3. Walkover by SQE in May-June to assess population of dinky skipper and effectiveness of management of existing and recreated habitats. 4. Mowing of raised earth banks to be undertaken only between July and March, not exceeding fortnightly and with mower blades above 100mm.

Year 3	
	1. Appointed SQE to check all bird and bat boxes from October to February for integrity and evidence of use. Damaged boxes must be replaced. 2. Walkover by SQE in May-June to assess population of dingy skipper and small heath butterfly. Assess effectiveness of management of existing and recreated habitats. Survey technique to follow the method used in Butterfly Conservation's Butterfly Monitoring Scheme, which is available at http://www.ukbms.org/Methods.aspx 3. Amend grassland management as required for individual species, particularly on earth banks to ensure the minimum standard of no 'net loss' 4. Mowing of raised earth banks to be undertaken only between July and March, not exceeding fortnightly and with mower blades above 100mm. 5. Rough grassland (tall herb vegetation) to be cut on a 3-year cycle, with the thinning raked off and removed.
Year 4	
	1. Pond management from October to February to clear excessive weed growth and prevent encroachment. Use rake to remove excessive aquatic growth. Leave thinning on dry bank to enable aquatic species (including larvae of great crested & other newt species) to return to water. Remove all Reedmace (<i>Typha latifolia</i>) and seedlings/saplings of willow (<i>Salix cinerea</i>). 2. Audit of planting, including repeat of Phase II and checking/replacement of planted trees and shrubs as required. Shrub density not to exceed 20% of site. 3. Mowing of raised earth banks to be undertaken only between July and March, not exceeding fortnightly and with mower blades above 100mm.
Year 5	



1. Bat & breeding bird survey against baseline from 'Llay Industrial Estate & Former Sharp Site: *Ecological Survey & Report*' (**July 2015** Capita). The aim is to achieve a minimum of no net loss in breeding bird diversity on site and an increase in number and activity of bats.
2. Check all bird and bat boxes from October to February for evidence of use.
3. Undertake water quality monitoring using the PSYM methodology & recording sheet (see Appendix A7 of '*Method Statement to accompany a Great Crested Newt Licence*' January 2016 Capita), including ratio of open water to vegetation.
4. Undertake 'spot survey' of created habitats and compare grassland composition with the sown RE1 (or equivalent) seed mix. Monitor spread of bee orchid (*Ophrys apifera*) and Common Twayblade (*Listera ovata* illustrated left) – two of the orchid species most affected by development and a nominated indicator species for success of vegetation management.
5. Mowing of raised earth banks to be undertaken only between July and March, not exceeding fortnightly and with mower blades above 100mm (management subject to review pending the 'spot check' of habitat quality).
6. Rough grassland (tall herb vegetation) to be cut on a 3-year cycle, with the thinning raked off and removed.

Year 6

1. Pond management from October to February to clear excessive weed growth and prevent encroachment.
2. Survey of pond to determine colonisation by amphibians (including great crested newt) using torch search and bottle trap by appointed SQE;
3. Mowing of raised earth banks to be undertaken only between July and March, not exceeding fortnightly and with mower blades above 100mm.

Year 7



1. Ongoing management of scrub and grassland to ensure stable or increasing population of dingy skipper and small heath butterfly (illustrated left).
2. Mowing of raised earth banks to be undertaken only between July and March, not exceeding fortnightly and with mower blades above 100mm (management subject to review pending the 'spot check' of habitat quality).

Year 8

1. Ongoing management of scrub and grassland to ensure stable or increasing population of dingy skipper and small heath butterfly.
2. Monitor populations of rabbit and determine whether rabbit grazing has beneficial effects on habitat quality. Review mowing policy accordingly.
3. Mowing of raised earth banks to be undertaken only between July and March, not exceeding fortnightly and with mower blades above 100mm (management subject to review pending the 'spot check' of habitat quality).

Year 9

1. Mowing of raised earth banks to be undertaken only between July and March, not exceeding fortnightly and with mower blades above 100mm (management subject to review pending the 'spot check' of habitat quality).
2. Rough grassland (tall herb vegetation) to be cut on a 3-year cycle, with the thinning raked off and removed. Scrub (including willow carr & bramble) to be reduced to no more than 20% of site.

Year 10

1. All planting to be reviewed for success rate and replace as necessary;
2. Monitor populations of dingy skipper and small heath butterfly;

	3. Repeat methodology for years 5-10 up to year 15. Review targets specified in year 2, and if requirements of no net loss for pond quality, amphibians, MG5 grassland, breeding birds and butterflies have been met, repeat to year 20.