

Illustrative costings and routine maintenance schedule

The purpose of this section is to provide information on indicative costs and a schedule of routine operations. This will help inform management decisions, for the creation and maintenance of grassland features as well as protected trees.

The following tables provide a summary of costs and a schedule of site visits in relation to the creation, routine maintenance and inspection of the different habitat types.

These costs are indicative and are based on Spon's External Works and Landscape Price Book 2021.

Assumptions

The following assumptions have been made in preparing these indicative costs:

- All figures are based on current (2021) costs and do not allow for inflation;
- Costs have been rounded up or down to the nearest £500;
- All figures require additional uplift for works in London;
- The figures are based on the anticipated cost per year of new and existing habitat over 20-year life cycles;
- Weather conditions will be checked before visiting site;
- 1/8 mile figures are based on 200m x 20m = 40,000m²;
- Total quantity of visits (either maintenance or inspections) can be reduced by combining activities.
- Indicative costs can be reduced by combining 1/8mile stretches.

Exclusions

The following costs for implementation and routine maintenance have been excluded from the indicative costs' tables:

- Preliminary costs, such as providing site welfare;
- Securing the site (diverting trains etc);
- Clearing the track of debris (e.g. leaf litter);
- Bringing equipment and materials to the rail side;
- Obtaining and maintaining access to the site;
- Ensuring biosecurity measures;
- Earthworks or reinforcements;
- Effects of embankment or land instability;
- Structural works;
- Maintaining drainage features;
- Health and safety requirements (unless specified);
- Site inspections not included within the routine maintenance costs

- Soil testing/analysis; and
- Ecological assessment or watching briefs in relation to protected species and habitats.

Grassland Costs:

Table 1: Grassland Rates Summary: anticipated costs per 1/8 mile

Grassland creation (all UK Hab Level 3 grassland types)	
Costs	
Site investigation / analysis	£4,500
Creation (commercial seed)	£7,500
Routine Maintenance	£23,000
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	14
Management	57
Inspection	8 (individual inspections to be combined)

Table 2: Alternative methods or grassland creation: anticipated implementation costs per 1/8 mile

Grassland creation methods:	
Costs	
Hay spreading	£1,000 more than commercial seed (assumed 70% of the site)
Hydroseeding	£6,500 more than commercial seed (assumed all of the site)
Turf	£13,500 more than commercial seed (assumed all of the site)

Table 3: Additional enhancement measures anticipated implementation costs per 1/8 mile

Addition biodiversity enhancement measures:	
Costs	
Bulb planting	£1,000 (assumed 10% site coverage)
Plug planting	£3,500 (assumed 30% site coverage)
Topsoil stripping	£1,000 (assumed 100% site coverage)

Table 4: Management intervention measures anticipated implementation costs per 1/8 mile

Cutting and removing grass	
Costs	
Cutting grass (annually)	£18,000
Removing arisings (after 7 days of cut)	£2,000
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	Up to 2
Management	40
Inspection	8 (individual inspections to be combined)

Heathland and Shrub Costs:**Table 5: Heathland and Shrub Rates Summary: anticipated costs per 1/8 mile**

Heathland shrub creation	
Costs	
Site investigation / analysis	£2,000
Creation (commercial seed)	£10,000
Routine Maintenance	£4,500
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	9
Management	38
Inspection	10 (individual inspections to be combined)

Table 6: Additional enhancement measures anticipated implementation costs per 1/8 mile

Addition heathland shrub biodiversity enhancement measures:	
Costs	
Deep ploughing	£2,000 (assumed 100% site coverage)
Topsoil stripping	£1,000 (assumed 100% site coverage)
Adding chemical additives to achieve target pH	£500 (assumed 100% site coverage)
Spreading heather brash	£500 (assumed 50% site coverage)

Table 7: Heathland and Shrub Rates Summary: anticipated costs per 1/8 mile

Hedgerow creation	
Costs	
Site investigation / analysis	£2,000
Creation (transplants)	£6,500
Routine Maintenance	£5,500

Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	13
Management	56
Inspection	10 (individual inspections to be combined)

Table 8: Alternative methods or hedgerow creation: anticipated implementation costs per 1/8 mile

Creation methods:	
Costs	
Container grown	£1,500 more than transplants
Seed	£2000 less than transplants

Table 9: Hedgerow restoration activities / features

Restoration activities / features:	
Costs	
Hedge laying	£1,500 (assumed 100% site length)
Gapping up	£500 (assumed 25% site length)
Coppicing	£1000 (assumed 100% site length)
Specimen tree	£500 (priced individually)

Table 10: Heathland and Shrub Rates Summary: anticipated costs per 1/8 mile

Scrub creation (hand sown, plug planting and transplants)	
Costs	
Site investigation / analysis	£2,000
Creation (hand sown, plug planting and transplants)	£5,000
Routine Maintenance	£7,500
Schedule (number of site visits)	Total number of visits over 20-year life cycle

Creation (year 1)	15
Management	48
Inspection	10 (individual inspections to be combined)

Table 11: Alternative methods for scrub creation: anticipated implementation costs per 1/8 mile

Creation methods:	
Costs	
Mechanical seeding species rich grassland	£500 more than hand sown (assumed 10% of the site)
Container grown plants	£500 more than transplants (assumed 25% of the site)

Table 12: Scrub restoration activities costs per 1/8 mile:

Restoration activities:	
Costs	
Herbicide treatment	£1,500 (assumed 100% of the site)
Coppicing	£500 (assumed 25% of the site)
Rotational cutting of mature shrub	£500 (assumed 25% of the site)

Wetland Costs:**Table 13: Wetland Rates Summary: anticipated costs per 1/8 mile**

Reedbed (F2e) and Other Swamps creation (F2f)	
Costs	
Site investigation / analysis	£2,500
Creation	£9,500
Routine Maintenance	£11,500
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	12
Management	60
Inspection	10 (individual inspections to be combined)

Table 14: Wetland Rates Summary: anticipated costs per 1/8 mile

Aquatic marginal vegetation creation (F2d)	
Costs	
Site investigation / analysis	£2,500
Creation	£7,500
Routine Maintenance	£9,500
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	10
Management	28
Inspection	10 (individual inspections to be combined)

Table 15: Wetland Rates Summary: anticipated costs per 1/8 mile

Eutrophic standing water 'Ponds' creation (R1a)	
Costs	
Site investigation / analysis	£2,500
Creation	£9,000
Routine Maintenance	£8,000
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	14
Management	32
Inspection	15 (individual inspections to be combined)

Table 16: Wetland Rates Summary: anticipated costs per 1/8 mile

Attenuation pond creation	
Costs	
Site investigation / analysis	£2,500
Creation	£9,000
Routine Maintenance	£10,500
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	14
Management	37
Inspection	10 (individual inspections to be combined)

Table 17: Wetland Rates Summary: anticipated costs per 1/8 mile

Semi-natural wetland creation	
Costs	
Site investigation / analysis	£2,500
Creation	£4,000

Routine Maintenance	£6,500
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	12
Management	26
Inspection	10 (individual inspections to be combined)

Table 18: Wetland features / enhancements: anticipated implementation costs per 1/8 mile

Wetland features:	
Costs	
Revetments	£500 (assumed 2.8m length)
Varied shelving	£500 (assumed 50m ²)
Shallow exit slopes	£500 (assumed 50m ²)
Chemical additives to achieve target pH	£500 (assumed 100% of wetland)

Table 19: Wetland planting types: anticipated implementation costs per 1/8 mile

Wetland planting types:	
Costs	
Planting in nets / baskets or trays	£1,500 (approx. 1000 plants)
Planting coir rolls and mats	£1,500 (assumed 10m ²)
Seeding from local wetland source	£500 (assumed 50% of site)
Translocating rhizomes	£500 (assumed 50% of the site)
Willow brush matting	£500 (assumed 2.8m ²)

Urban and Brownfield Costs:**Table 20: Urban and Brownfield Rates Summary: anticipated costs per 1/8 mile**

Urban Grassland creation	
Costs	
Site investigation / analysis	£1,500
Creation (commercial seed)	£9,000
Routine Maintenance	£19,000
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	16
Management	69
Inspection	10 (individual inspections to be combined)

Table 20: Urban and Brownfield Rates Summary: anticipated costs per 1/8 mile

Urban Woodland creation	
Costs	
Site investigation / analysis	£1,500
Creation	£11,500
Routine Maintenance	£14,000
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	22
Management	72
Inspection	10 (individual inspections to be combined)

Table 21: Urban and Brownfield Rates Summary: anticipated costs per 1/8 mile

Urban Heathland shrub creation	
Costs	
Site investigation / analysis	£1,500
Creation (commercial seed)	£5,000
Routine Maintenance	£9,000
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	17
Management	58
Inspection	10 (individual inspections to be combined)

Table 22: Urban and Brownfield Rates Summary: anticipated costs per 1/8 mile

Urban Hedgerow creation	
Costs	
Site investigation / analysis	£1,500
Creation (transplants)	£5,500
Routine Maintenance	£15,000
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	18
Management	70
Inspection	10 (individual inspections to be combined)

Table 23: Urban and Brownfield Rates Summary: anticipated costs per 1/8 mile

Urban Scrub creation (hand sown, plug planting and transplants)	
Costs	
Site investigation / analysis	£1,500
Creation (hand sown, plug planting and transplants)	£6,000
Routine Maintenance	£14,000
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	20
Management	52
Inspection	10 (individual inspections to be combined)

Table 24: Urban and Brownfield Rates Summary: anticipated costs per 1/8 mile

Brownfield creation	
Costs	
Site investigation / analysis	£1,500
Creation	£8,000
Routine Maintenance	£18,500
Schedule (number of site visits)	Total number of visits over 20-year life cycle
Creation (year 1)	24
Management	105
Inspection	10 (individual inspections to be combined)

Table 25: Urban and Brownfield Rates Summary: anticipated costs per 1/8 mile

Brownfield features:	
Costs	
Ballast mounds	£3,000 (assumed 10% of the site)
Crushed concrete mounds	£1,500 (assumed 10% of the site)
Crushed brick mounds	£1,500 (assumed 10% of the site)
Gabion baskets	£500 (assumed 10% of the site)
Scrapes	£2,000 (assumed 10% of the site)
Sharp sand mounds	£3,000 (assumed 10% of the site)