

Morgan Sindall

Peak District (East) Visual Impact Provision

Landscape Management and Maintenance Plan

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1 INTRODUCTION

The Visual Impact Provision (VIP) Peak District (East) Project aims to underground 1.8km of existing overhead electricity transmission line which runs through the Peak District National Park.

The following landscape maintenance and management plan has been prepared to support the final Landscape and Ecological Management Plan (LEMP), to be approved by Barnsley Metropolitan Borough Council under planning condition 8. It also provides information for the discharge of planning conditions 17 and 18 relating to details of tree planting and management where land lies within the planning red line boundary. In addition, it provides the basis for successful establishment and development of the landscape scheme for the VIP Peak District (East) Project. As such, the document will be subject to revision and amendment to ensure it remains fit for purpose.

Planned maintenance and management operations are described for the site's various landscape treatments within this Landscape Management and Maintenance Plan.

References to the extent of landscape works illustrated on Morgan Sindall Soft Landscape Drawings are listed below:

- Morgan Sindall: Soft Landscape Design Sheets 1 - 10
  16866-RSK-0608-XX-DR-X-000001
  16866-RSK-0608-XX-DR-X-000002
  16866-RSK-0608-XX-DR-X-000003
  16866-RSK-0608-XX-DR-X-000004
  16866-RSK-0608-XX-DR-X-000005
  16866-RSK-0608-XX-DR-X-000006
  16866-RSK-0608-XX-DR-X-000007
  16866-RSK-0608-XX-DR-X-000008
  16866-RSK-0608-XX-DR-X-000009
  16866-RSK-0608-XX-DR-X-000010

This document should also be read in conjunction with the revised VIP Peak District (East) Project, Landscape and Ecology Management Plan (LEMP), December 2020 16866-RSK-1405-XX-PL-G-030000, Landscape Specification 16866-RSK-0608-XX-SP-X-000001 and Morgan Sindall Peak District East VIP Seed Harvesting Technical Guidance.

1.1 Overall Vision

The overall aim of the landscape scheme is fundamental in seeking to aesthetically integrate the proposed project (including the aim to filter and screen views of the new Sealing End Compound), by reinstating areas of woodland, scrub and grassland and improving existing habitats as well as reinstating physical features such as stone walls, culverts and water features.

Landscape proposals for the scheme have been designed regarding continuity with the wider landscape character. The proposed tree, scrub and grass mixes incorporate species commonly found within Wogden Foot Local Wildlife Site (LWS), woodlands within the Upper Don Valley and fields consistent with the surrounding landscape.

This Landscape Management Plan sets out the details regarding landscape management and how this will be implemented, managed and monitored, particularly in response to the discharge of planning conditions 8, 17 and 18 where land lies within the planning red line boundary.

The measures set out within this Landscape Management Plan expand on the landscape management and mitigation objectives included in the Landscape and Ecological Management Plan (LEMP).

1.2 Landscape Elements

The Proposed Project is split in to six components

- Trans Pennine Trail (TPT) Diversion with bridges
- Cable Corridor running along existing TPT
- Sealing End Compound (SEC) within Wodgen Foot LWS
- Existing SEC
- Pylon and Overhead Line (OHL) Removal area
- Northern Access Route

The landscape proposals across the above six components focus on providing the following habitats:

- **Native woodland:** Approximately 0.71Ha of native broadleaf woodland is proposed at the Existing SEC (which is to be removed), area south of TPT car park, along the east section of TPT and within Wogden Foot LWS and is designed to retain and enhance wooded landscape along the Upper Don Valley.
- **Native woodland edge/scrub:** Approximately 0.23Ha of native shrub and scrub planting is proposed at the Existing SEC (which is to be removed), and within Wogden Foot LWS and is designed to provide habitat for wildlife, replace lost vegetation and create structure and eco-tones.
- **Native Scrub:** Approximately 0.32Ha of native scrub is proposed to replace vegetation lost along the cable route corridor, TPT and Wogden Foot LWS. This mix is selected for suitability of growing near underground cables as well as its ability to provide a habitat corridor for wildlife. The change in vegetation type following construction will allow for a more open and diverse grass sward to develop through less shading.

- **Low Growing Native Scrub (TPT Route)**: Approximately 0.17Ha of native scrub is proposed to replace vegetation lost along the cable route corridor and TPT and around the permanent new bridge east of the Yorkshire Water Facility. This mix is selected for its low growing nature and suitability of growing near underground cables as well as its ability to provide a habitat corridor for wildlife. The change in vegetation type following construction will allow for a more open and diverse grass sward to develop through less shading.
- **Wildflower grassland:** Approximately 1.5Ha of wildflower grassland will be reinstated along the TPT route, including Bridleway, at the Existing SEC (which is to be removed) and will be managed to prevent natural succession.
- **Bespoke grassland with herb:** Approximately 0.2Ha of bespoke grassland with herb will be used around the entrance to TPT and will be managed to prevent natural succession. The mix will closely replicate the grassland, wildflower and herb species composition present during pre-construction botany surveys.
- **Grassland and seed bank harvesting:** Where possible, pre-construction seed harvesting and topsoil stripping will be carried out at Wogden Foot LWS. Seedbank within topsoil and harvested seeds will be used within Wogden Foot LWS to re-establish the landscape character prior to vegetation removal.
- **Wildflower with bespoke acid and neutral grass:** Approximately 0.9Ha within Wogden Foot LWS to be reseeded. If seed obtained from seed harvesting is not sufficient ground cover, ecological stakeholders have advised that this should be left to recolonise naturally. Should this request from stakeholders change a bespoke seed mix aligned with the current botanical composition could be used to compliment Wodgen Foot LWS habitat.
- **Agricultural pasture:** Land will be reinstated to its original condition and specification of grassland shall be discussed with individual landowners by National Grid's land team. Areas include the northern access road, parts of the Trans Pennine Trail Diversion, most areas where pylons will have been removed and their associated temporary access tracks. Pylon 4ZO162 is within moorland habitat of Western Moors Local Wildlife Site and (subject to agreement with the landowner) it is proposed that this habitat is reinstated through natural recolonisation.

2 MANAGEMENT

Management operations are defined as long term cyclical operations over a number of years such as the establishment of a multi-storey canopy structure to planting areas.

Management objectives are focused on achieving objectives described in the overall vision and facilitated by the maintenance operations described below and within 16866-RSK-0608-XX-SP-X-000001 Landscape Specification.

Liaison will be required with Barnsley Council to ensure no conflict with other management practices including grazing, conservation work, LWS management and routine Council maintenance along the TPT.

The management plan consists of three separate management and maintenance schedules.

The 5 Year Landscape Maintenance / Management schedule covers

- Wildflower Grassland (outside Wogden Foot LWS)
- Native Scrub Mix
- Native Scrub Mix (TPT Route)
- Native Woodland Mix planting (including dry and small variants) outside the planning red line boundary
- Native Woodland Edge and Scrub Mix outside the planning red line boundary

The 7 Year Landscape Maintenance / Management schedule covers

- All reinstatement grass seeding at Wogden Foot LWS

The 10 Year Landscape Maintenance / Management schedule covers

- Native Woodland Mix planting (including dry variant) within the planning red line boundary
- Native Woodland Edge and Scrub Mix within the planning red line boundary

The 10 Year Landscape Maintenance / Management schedule is only required within the planning red line boundary. Within the planning red line boundary, woodland planting is only found within Wogden Foot LWS. Refer to Soft Landscape Design Sheets 1 - 10 to see where woodland falls within planning red line boundary.

Management of the reinstated planting will be handed over to individual landowners upon completion of the 5 - 10 year management period. Management of the replanted areas at the new SEC in Wogden Foot LWS will be carried out by National Grid (NG) for a 5-10 year management period in liaison with Barnsley Metropolitan Borough Council and Yorkshire Wildlife Trust.

2.1 General Management Principles

All plant and seeding failures during the 5-year defects liability period shall be replaced to original specification within the next planting season and shall be delivered by the Landscape Contractor commissioned to deliver the work.

2.2 Agricultural Land

2.2.1 Management Objective

Grass seed mixture for pastoral land (areas referred to at 1.2) to be reinstated to its existing condition in agreement with the landowner. Following successful reinstatement to landowner and National Grid satisfaction no other maintenance required. Pylon 4ZO162 is within moorland habitat of Western Moors Local Wildlife Site and (subject to agreement with the landowner) it is proposed that this habitat may be best reinstated through natural re-colonisation. This could be reviewed post construction with the landowner, and alternatively an appropriate heathland seed mix could be applied.

2.3 Native Woodland

2.3.1 Management Objective

Woodland planting is proposed in the locations shown on drawing:

- Morgan Sindall: Soft Landscape Design Sheets
  16866-RSK-0608-XX-DR-X-000002
  16866-RSK-0608-XX-DR-X-000003
  16866-RSK-0608-XX-DR-X-000004
  16866-RSK-0608-XX-DR-X-000008

Woodland planting shall be established to compliment and diversify woodland planting at the Existing SEC and managed to enhance the wooded landscape character along the Upper Don Valley, more specifically within Wogden Foot LWS with a varying height of vegetation and increasing biodiversity by forming eco-tones with the proposed adjacent native woodland edge/scrub planting, low growing native scrub and grassland.

The intention of woodland management is to encourage the development of a varied, layered canopy, utilising a variety of tree and shrub species to quickly establish new planting within the established wooded landscape character of the Upper Don Valley, and to manage woodland to the benefit of wildlife.

2.3.2 Management Operation

Natural planting will be achieved by planting the same species randomly in groups of 5 and 7. A range of plant maturities will be planted, from 1+1 transplants to

standards. This will help achieve natural woodland planting and to develop a varying canopy using a range of heights.

Woodland planting will be established and thinned at Year 5 and 10 allowing more growing space for remaining trees. See 4.4 for 10 year woodland management programme. As growing conditions will vary across site, it may be determined that thinning is not appropriate at year 5, or that some areas require thinning and others do not yet. Suitability will be assessed during the final inspection.

All plants will be protected by a tree shelter or round, mesh shrub guard and stake through the 5-year establishment period. All tree shelters, guards and stakes will be regularly adjusted and removed in year 5 to allow for healthy plant growth.

Specimens will be pit planted in groups at 1m centres in moist, friable and non-waterlogged soil. Planting should take place between November and March.

Fencing to protect planting from livestock may be required in areas subject to future grazing. Definitive locations and types of protection shall be determined through discussion with landowners and client.

Native Woodland mix:

5% Alnus glutinosa

10% Betula pendula

15% Betula pubescens

5% Corylus avellana

5% Crataegus monogyna

8% Fagus sylvatica

5% Ilex aquifolium

4% Pinus sylvestris

2% Populus tremula

2% Prunus padus

2% Prunus spinosa

20% Quercus petraea

5% Salix caprea

5% Sambucus nigra

5% Sorbus aucuparia

2% Viburnum opulus

The species diversity of some areas of woodland planting have been reduced to make them more suitable to the planting location and scale. The core species of

these reduced mixes are the same across the soft landscape scheme. The reduced mixes are in the Soft Landscape Design drawings as:

Native Woodland Mix (Dry)

15% Betula pendula

18% Betula pubescens

8% Corylus avellana

8% Crataegus monogyna

8% Prunus padus

33% Quercus petraea

10% Sorbus aucuparia

Native Woodland Mix (Small)

40% Betula pendula

40% Betula pubescens

20% Corylus avellana

Long-term management, will include the following:

- Check for trees affected by disease, removal and replacement of diseased trees.
- Prevent the encroachment of trees into areas designed to be clear for cable route safety.
- Prevent the encroachment of trees into areas designed to be clear for enhancement of grassland within Wogden Foot LWS.
- Thinning regime to increase light levels by opening the canopy and improve the vertical structure of woodland areas. Thinning is recommended to be carried out every 5 years. Year 5 is included in the programme and would be undertaken by National Grid's appointed Landscape Contractor. Thinning in further years is recommended for year 10 and 15, then at 10-year intervals subject to monitoring, although this is beyond National Grid's period of monitoring and management for this project.

2.4 Native Woodland Edge/Scrub

2.4.1 Management Objective

Native woodland edge/scrub planting is proposed in the locations shown on drawing:

- Morgan Sindall: Soft Landscape Design Sheets
  16866-RSK-0608-XX-DR-X-000002
  16866-RSK-0608-XX-DR-X-000008

Native woodland edge/scrub is proposed at the Existing SEC (which is to be removed) and within Wogden Foot LWS.

Shrub planting will be established to provide varying habitat to wildlife by forming a lower layer of vegetation. It will provide a woodland edge character, increasing biodiversity by forming eco-tones between the adjacent woodland planting and grassland varieties.

2.4.2 Management Operation

Natural planting will be achieved by planting the same species randomly in groups of 5 and 7. On-going pruning of native shrubs will help to maintain the shape and appearance of the plants. Removal and replacement of dead or diseased plants should continue to maintain the appearance and health of the planting scheme.

All shrubs will be protected with a spiral guard secured with a cane, regular monitoring and adjusting of guards required.

Native Woodland Edge/Scrub Mix

15% Alnus glutinosa

2% Betula pendula

3% Betula pubescens

17%Corylus avellana

17% Crataegus monogyna

7% Ilex aquifolium

4% Prunus padus

7% Prunus spinosa

2% Quercus petraea

4% Salix caprea

10% Sambucus nigra

2% Sorbus aucuparia

5% Taxus baccata

5% Viburnum opulus

Long-term management, will consider:

- Regular checks and remove dead, diseased or damaged shrubs and branches; replace removed shrubs with same species.
- Prevent the encroachment of shrubs into areas designed to be clear for cable routes for safety.
- Thinning is recommended to be carried out every 5 years. Year 5 is included in the programme. Thinning in further years would be recommended for year 10 and 15, then at 10-year intervals subject to monitoring although this is beyond National Grid's period of monitoring and management for this project.

2.5 Native Scrub Mix

2.5.1 Management Objective

Low growing native scrub planting is proposed in the locations shown on drawing:

- Morgan Sindall: Soft Landscape Design Sheets
  16866-RSK-0608-XX-DR-X-000003
  16866-RSK-0608-XX-DR-X-000004
  16866-RSK-0608-XX-DR-X-000007

Scrub planting is proposed along the TPT and within Wogden Foot LWS.

Scrub planting should be managed to provide vegetation which will develop into a suitable habitat corridor for wildlife along the TPT and allowing a diverse grass sward to develop without encroachment from scrub. Encroachment of woodland vegetation will be managed to protect underground cable route.

2.5.2 Management Operation

Natural planting will be achieved by planting the same species randomly in groups of 5 and 7. Removal and replacement of dead or diseased plants should continue to maintain the appearance and health of the planting scheme.

All shrubs will be protected with a spiral guard secured with a cane, regular monitoring and adjusting of guards required.

Native Scrub Mix

17% Corylus avellana

20% Crataegus monogyna

15% Lonicera periclymenum

10% Prunus spinosa

16% Sambucus nigra

22% Viburnum opulus

2.6 Low Growing Native Scrub Mix (TPT Route)

2.6.1 Management Objective

Low Growing Native Scrub Mix (TPT Route) has the same management objectives as Native Scrub Mix. Low Growing Native Scrub Mix (TPT Route) planting is proposed in the locations shown on drawing:

- Morgan Sindall: Soft Landscape Design Sheets
  16866-RSK-0608-XX-DR-X-000003
  16866-RSK-0608-XX-DR-X-000004
  16866-RSK-0608-XX-DR-X-000005
  16866-RSK-0608-XX-DR-X-000006

Low Growing Native Scrub Mix (TPT route) is proposed along the TPT where planting is required but would have potential to infringe upon the required 3m offset from the unground cables over time if appropriate long term management is not maintained. Low Growing Native Scrub Mix (TPT route) planting is proposed as a preventative measure ensuring vegetation remains low growing whilst providing a suitable habitat corridor for wildlife along the TPT and will not inhibit grass sward development through increased shading. Low Growing Native Scrub (TPT route) is also proposed around the permanent new bridge east of the Yorkshire Water Facility.

2.6.2 Management Operation

Natural planting will be achieved by planting the same species randomly in groups of 5 and 7. Removal and replacement of dead or diseased plants should continue to maintain the appearance and health of the planting scheme.

All shrubs will be protected with a spiral guard secured with a cane, regular monitoring and adjusting of guards required.

Native Scrub Mix (TPT route)

20% Ilex aquifolium

15% Lonicera periclymenum

15% Prunus spinosa

25% Sambucus nigra

25% Viburnum opulus

2.7 Wildflower Grassland

2.7.1 Management Objective

Areas of wildflower grassland will be established successfully around the entrance to the TPT, along the TPT route, including the bridleway and the restored former SEC site. Locations of wildflower grassland can be found on drawings:

- Morgan Sindall: Soft Landscape Design Sheets
  16866-RSK-0608-XX-DR-X-000002
  16866-RSK-0608-XX-DR-X-000003
  16866-RSK-0608-XX-DR-X-000004
  16866-RSK-0608-XX-DR-X-000005
  16866-RSK-0608-XX-DR-X-000006
  16866-RSK-0608-XX-DR-X-000007
  16866-RSK-0608-XX-DR-X-000008
  16866-RSK-0608-XX-DR-X-000009
  16866-RSK-0608-XX-DR-X-000010

The mix has been selected to act as an establishment crop. The selected mix is a combination of low growing grasses that produce a short, open flower-friendly sward, allowing for natural recolonisation of wildflower and grassland species found in the local area. The mix will reduce bare ground which will also help reduce establishment of annual weeds.

Different grass and wildflower species will establish along the TPT route and throughout the site as the ground conditions, exposure and shade cover fluctuates, helping to develop a diverse habitat for wildlife.

Wildflower grassland will be managed to prevent natural succession to areas close to the cable route, to create eco-tones providing diverse wildflower and grassland habitats for wildlife.

2.7.2 Management Operation

Liaison will be required with Barnsley Council to ensure no conflict with other management practices including conservation work and routine maintenance along the TPT.

Ground will require rotavating prior to sowing seed. In the first year of management, regular mowing will be required to reduce a flush of annual weeds and encourage sown species to establish. Grassland will be cut to a minimum of 40-60mm. Remove cuttings. Regular mowing will reduce the amount of cuttings produced.

In the second and subsequent years grass sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. Subsequent management, grazing and recolonization should lead to sward diversity.

Grazing can occur in spring between March and May, and then again following a summer cut, allowing wildflower seeds to drop, up until October or until signs of poaching occur. Grazing should not occur within the first two years of establishment.

Regular mowing or continuous grazing will produce a short turf or lawn. The sowing can be managed as a meadow allowing the grasses to grow tall, flower and seed from May through to July/August. The grass meadow should be cut back and mowing resumed in late summer. Grassland which is not cut or grazed each year will eventually become coarse and tussocky in character.

Grass swards that do not contain wildflowers can be selectively sprayed to control unwanted weeds such as docks and thistles.

Cutting should be started from one side working across the area, to allow any wildlife to disperse.

Emorsgate EG1:

10% *Agrostis capillaris* (Common Bent)

35% *Cynosurus cristatus* (Crested Dog's-tail)

30% *Festuca rubra* (Slender-creeping Red-fescue)

5% *Phleum bertolonii* (Smaller cat's-tail)

20% *Poa pratensis* (Smooth-Stalked Meadow Grass)

Sowing rate: 5g/m²

2.8 Bespoke Grassland with Herb Mix

2.8.1 Management Objective

Areas of bespoke grassland with herb will be established successfully around the entrance to the TPT. Location of bespoke grassland with herb can be found on drawing:

- Morgan Sindall: Soft Landscape Design Sheet 16866-RSK-0608-XX-DR-X-000003

The bespoke mix has been specially selected to closely replicate the grassland, wildflower and herb species composition present during pre-construction botany surveys and to act as an establishment crop. The mix will reduce bare ground which will also help reduce establishment of annual weeds.

Bespoke grassland with herb mix will be managed to prevent natural succession to areas close to the cable route, to create eco-tones providing diverse wildflower and grassland habitats for wildlife.

2.8.2 Management Operation

Liaison will be required with Barnsley Council, and the progression of TPT car park and picnic area planning application (see drawing P10727-00-0020101-12

General Arrangement Plan) to ensure no conflict with other management practices including conservation work and routine maintenance around the entrance to the TPT.

Ground will require rotavating prior to sowing seed. In the first year of management, regular mowing will be required to reduce a flush of annual weeds and encourage sown species to establish. Grassland will be cut to a minimum of 40-60mm. Remove cuttings. Regular mowing will reduce the amount of cuttings produced.

In the second and subsequent years grass sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland.

Regular mowing will produce a short turf or lawn. The sowing can be managed as a meadow allowing the grasses to grow tall, flower and seed from May through to July/August. The grass meadow should be cut back and mowing resumed in late summer. Grassland which is not cut each year will eventually become coarse and tussocky in character.

Grass swards that do not contain wildflowers can be selectively sprayed to control unwanted weeds such as docks and thistles.

Cutting should be started from one side working across the area, to allow any wildlife to disperse.

Bespoke Grassland with Herb Mix:

20% Wild Flowers

1.25% *Achillea millefolium* (Yarrow)

2.00% *Centaurea nigra* (Common Knapweed)

1.25% *Galium verum* (Lady's Bedstraw)

0.50% *Lathyrus pratensis* (Meadow Vetchling)

2.25% *Leucanthemum vulgare* (Oxeye Daisy)

0.05% *Linum catharticum* (Fairy Flax)

1.25% *Lotus corniculatus* (Birdsfoot Trefoil)

1.50% *Plantago lanceolata* (Ribwort Plantain)

2.25% *Prunella vulgaris* (Selfheal)

2.00% *Ranunculus acris* (Meadow Buttercup)

2.00% *Rhinanthus minor* (Yellow Rattle)

1.50% *Silene flos-cuculi* (Ragged Robin)

1.25% *Trifolium pratense* (Wild Red Clover)

0.95% *Vicia sativa ssp segetalis* (Common Vetch)

80% Grasses

5.00% *Agrostis stolonifera* (Creeping Bent)

7.50% *Anthoxanthum odoratum* (Sweet Vernal-grass)

10.0% *Briza media* (Quaking-grass)

30.0% *Cynosurus cristatus* (Crested Dogstail)

20.0% *Festuca rubra* (Slender Red Fescue)

7.50% *Trisetum flavescens* (Yellow Oat-grass)

Sowing rate:4g/m²

2.9 Grassland and Seed Bank Harvesting

2.9.1 Management Objective

Reinstatement of grassland areas within Wogden LWS is to preferably be achieved through soil translocation and through seeding with seed harvested from within the LWS in advance of the construction works. Where possible, seed harvesting will be carried out during suitable weather windows, to ensure that a range of early and late flowering species can be collected. Typically, seed would be collected in June/July, but, if there is unsuitable seed for harvesting, works may need to be carried out in August/September.

Refer to Morgan Sindall Peak District East VIP Seed Harvesting Technical Guidance for specific detailed information in the seed harvesting for Wogden Foot.

Following seed harvesting, areas to be affected by construction works are to have 40cm of topsoil stripped and stored (dependant on whether soils confirmed as uncontaminated and fit for use). The seedbank within the topsoil comprises wildflower grassland including a mix of acid and neutral grassland.

In locations where it is not possible to place stripped topsoil containing seedbank (for reasons such as not enough topsoil available, or topsoil is present already but requires seeding), it is to be reseeded with harvested seeds.

If the quantity of seeds harvested is not enough to cover the area required for reseeding ecological stakeholders have advised that this should be left to recolonise naturally. Should this request from stakeholders change it would be possible to mix harvested seeds with a grass seed mix, such as Emorsgate EG1 – General Purpose Meadow Grass Mixture, designed to produce a low growing and flower friendly sward. Using this grass seed mix would reduce dominance of annual weeds such as dock, thistle and nettle. It would also be possible to establish what seeds from the harvested mix have taken well following reseeding.

Together, the soil translocation and seeded areas will make up approximately 50% of the reinstatement area. The remaining 50% will consist of woodland and woodland edge/scrub planting.

The objective of using the topsoil seedbank and seeds harvested prior to construction is to assist in preserving the unique grassland that has developed over time.

2.9.2 Management Operation

Topsoil material will be kept in mounds no greater than 1m in height and 5m in width. Machines will not run on topsoil doing soil translocation. Topsoil to be re-laid in two layers, replicating how soil was stripped. Refer to Landscape Specification 16866-RSK-0608-XX-SP-X-000001 for laying of topsoil.

Harvested seeds must first be inspected to make sure they are viable, having been stored at a dedicated facility ran by a company with appropriate expertise.

Areas where membrane was deployed during construction works to be decompacted by subsoiling cultivation, followed by rotavate/power harrow of the topsoil, then reseeded with harvested seeds for additional support in re-establishing suitable ground cover, and preventing weeds from establishing following construction.

In the first year of management, regular mowing will be required to reduce a flush of annual weeds and encourage sown species to establish. Grassland will be cut to a minimum of 40-60mm whilst grass and wildflower seeds re-establish.

Weeds are to be treated with a weed-wiper or are to be hand pulled. No herbicide will be applied through spray treatment to protect desired grassland and wildflower species from drift.

Successful establishment will result in a tussocky grassland type. Tussocky grassland requires minimal maintenance, usually cut every 2-3 years dependant on growth.

Cutting should be started from one side working across the area, to allow any wildlife to disperse.

No grazing is to take place in the first two years of establishment, which will allow the seed bank to establish.

Long-term management, will consider:

- No use of spray herbicides within the LWS.
- Minimal maintenance once grassland has successfully re-established.
- Regular inspections to assess success of species.

EG1 General Purpose Meadow Grass Mix

(As above, this could be mixed with harvested seed if there is insufficient harvested seed available to use alone and agreed with ecological stakeholders):

10% *Agrostis capillaris* (Common Bent)

35% *Cynosurus cristatus* (Crested Dogstail)

30% *Festuca rubra* (Slender-creeping Red-fescue)

5% *Phleum bertolonii* (Smaller Cat's-tail)

20% *Poa pratensis* (Smooth-Stalked Meadow-grass)

Sowing rate: 2-5g/m² dependant on availability of harvested seeds

2.10 Alternative Wildflower with Bespoke Acid and Neutral Grass Mix

2.10.1 Management Objective

Where soil translocation or seed harvesting is not possible, deemed to have failed, and/or natural generation is no longer considered to be the best option, it may be necessary to source a bespoke seed mix based on the existing botanical composition of Wogden Foot LWS (established from harvested seeds and botanical surveys) and provide suitable habitat for flora and fauna associated with the LWS to flourish. A suitable mix would be agreed with ecological stakeholders.

2.10.2 Management Operation

In the first year of management, regular mowing will be required to reduce a flush of annual weeds and encourage sown species to establish. Grassland will be cut to a minimum of 40-60mm.

Following first year establishment, there will be one cut in March, and then no maintenance other than weed management until a hay cut in July or August to 50mm. Cuttings will be rowed and tedded (as many times as required) and then collected between 3-5 days later.

Cutting should be started from one side working across the area, to allow any wildlife to disperse.

Wildflower grassland can be grazed or regularly mown through to late autumn or winter dependant on what wildflower and grassland species establish.

Weeds such as dock and nettle are likely to be develop whilst grass and wildflower seeds re-establish. These weeds can be treated with a weedwiper. No chemical herbicide treatment to be sprayed to protect desired grassland species.

No grazing is to take place in the first two years of establishment, which will allow the seed bank to establish.

Longer-term management should include one cut every 2-3 years between October and February to control the encroachment of scrub.

2.11 Pylon Removal and Restoration Areas

Agricultural land will be reinstated to its original condition (other than within Wogden Foot LWS) as detailed in the table below. Following successful reinstatement to landowner satisfaction no other maintenance required.

In pylon removal locations, it may be necessary to use an establishment crop to reduce dominance of annual weeds. There is approximately 100m^2 of bare earth following pylon removal, and an additional 100m^2 for the crane pad working area.

EG1 seed mix is proposed which creates an open sward structure to allow local grass and wildflower species to re-colonise, without bringing in exotic species that could potentially spread to sensitive habitats nearby.

OHL Removal/Working Area	Reinstatement Proposals
Pylon 4ZO163	Reinstated to semi improved neutral grassland. Establishment crop of EG1 seed mix.
Pylon 4ZO162	Natural re-colonisation of dry heath/acid grassland habitat. Bare earth left to naturally re-colonise, or if this fails, (or is deemed preferable to the landowner) an alternative heathland seed mix could be applied.
Pylon 4ZO161	Reinstated to neutral grassland (improved grassland). Establishment crop of EG1 seed mix.
Pylon 4ZO160	Reinstated to general grazing neutral grassland (improved grassland). Establishment crop of EG1 seed mix.
Pylon 4ZO159	Reinstated to semi improved neutral grassland. Establishment crop of EG1 seed mix.
Pylon 4ZO158	To be reinstated to a mosaic of scrub/grassland/woodland as per Wogden Foot grassland reinstatement.
Pylon 4ZO157	Reinstated to neutral grassland (improved grassland). Establishment crop of EG1 seed mix.

Emorsgate EG1:

10% *Agrostis capillaris* (Common Bent)

35% *Cynosurus cristatus* (Crested Dog's-tail)

30% *Festuca rubra* (Slender-creeping Red-fescue)

5% *Phleum bertolonii* (Smaller cat's-tail)

20% *Poa pratensis* (Smooth-Stalked Meadow Grass)

Sowing rate: 5g/m²

2.12 Monitoring for all Soft Landscape Works

The following details will be recorded for soft landscape works and provided to National Grid within 2 weeks of the activity:

- The date the activity took place.
- Sub-contractor that executed the activity.
- Activity executed.
- Necessary alterations to the programmed activity and why.
- Any disturbance caused.
- Photographic records capable of showing seasonal comparisons of vegetation composition and the success of management taken at designated sites starting from year 0, with photographs taken each year in midwinter and midsummer.
- Review activity carried out to identify appropriate future maintenance operations.

3 MAINTENANCE

Maintenance operations are defined as regular activities required such as grass cutting and weeding. The maintenance operations required to ensure satisfactory reinstatement is achieved in line with this plan are summarised below and are detailed in Soft Landscape Specification.16866-RSK-0608-XX-SP-X-000001.

3.1 General Maintenance Principles

A maintenance programme for a 5-10 year aftercare period (depending on area and planting type) following completion of the soft landscape works is detailed in Appendix 1.

Generally, over the site area:

- Treat pests and diseases within areas that have been landscaped/planted including removal of dead, dying, diseased wood. Control measures to be carried out to a programme that prevents re-occurrence and controls the spread of the problem.
- Watering when deemed necessary to maintain healthy growth.
- Maintain weed free area around each tree and shrub and control weeds in grassland.
- Monitoring and reporting.
- Written approval from the appointed Landscape Clerk of Works shall be obtained before use of any pesticide/herbicide not specified within the management plan or the 16866-RSK-0608-XX-SP-X-000001 Landscape Specification.

3.2 Agricultural Land

Agricultural land (areas referred to at 1.2 and 2.10) and including the OHL removal/working area will be reinstated to its original condition in agreement with the landowner. Following successful reinstatement to landowner and National Grid satisfaction no other maintenance required.

3.3 Native Woodland and Woodland Edge/Scrub

3.3.1 Native Woodland

Management objectives can be achieved through a programme over a 10 year period of thinning operations to remove or coppice dominant trees that are shading out others and weak spindly trees that have not established well. This will allow space for remaining trees and shrubs to grow into, although this action should not act to prevent the long-term ageing of larger tree species, such as oak.

The 10 Year Landscape Maintenance / Management schedule is only required within the planning red line boundary. Within the red line boundary, woodland planting is only found within Wogden Foot LWS. Refer to Soft Landscape

Design Sheets 1 - 10 to see where woodland falls within planning red line boundary.

All woodland planting outside of the planning red line boundary is subject to a 5 Year Landscape Maintenance / Management schedule. It is recommended that Native Woodland planting (including dry and small variants) still receive woodland management in line with 10 year operations to ensure the development of healthy woodland.

3.3.2 Woodland Edge/Scrub

A woodland edge/scrub typology provides a natural transition between woodland and grassland, which is in keeping with the landscape character of the Upper Don Valley. Species which will create a varied canopy have been selected for the ability to be coppiced, form to provide dappled shade, and develop low growing scrubby vegetation. Prescribed maintenance will aid the successful establishment of vegetation with good species diversity, health and once mature, maintenance will be focussed on preventing succession to a woodland typology and encroachment into grassland areas.

The 10 Year Landscape Maintenance / Management schedule is only required within the planning red line boundary. Within the red line boundary, Woodland Edge/Scrub planting is only found within Wogden Foot LWS. Refer to Soft Landscape Design Sheets 1 -10 to see where woodland falls within planning red line boundary.

All Woodland Edge/Scrub planting outside of the planning red line boundary is subject to a 5 Year Landscape Maintenance / Management schedule. It is recommended that Woodland Edge/Scrub planting still receive woodland management in line with 10 year operations to ensure the development of healthy woodland edge/scrub.

3.3.3 Native Scrub and Low Growing Native Scrub (TPT Route)

Management of the low growing native scrub is essential to prevent succession to a woodland edge or woodland typology. Species are selected as they are shallow rooting so pose no threat to underground cables along the TPT. Spread of vegetation must be controlled to prevent encroachment in open grassland sward.

3.3.4 General

In the 5-year period after planting, trees and shrubs will be checked for:

- Damage or disease (Where damage has occurred, necessary pruning, adjustments or replacements should be carried out).
- Ensure they are firmed in.
- Stakes are secure and not rubbing.
- Tree shelters will be adjusted to ensure they are secured and protecting the tree to ground level.
- Mulch mats will be checked every year and secured or replaced as necessary (one visit per year).

- Water trees and shrubs as necessary to maintain healthy growth.
- On removal of stakes, the hole will be backfilled with lightly compacted soil.

Native Woodland and Woodland Edge/Scrub will be managed for ten years to ensure the development of planting in to good, healthy woodland, and that vegetation does not encroach on open grassland sward.

The reinstated grassland at Wogden Foot LWS will be managed for seven years. This will allow for harvested seeds and seeds within the topsoil seedbank to re-establish themselves, and reduce the presence of annual weeds that are likely to appear in the first growing season.

Weed control will be achieved through spot treatment using a weedwiper with an approved glyphosate-based herbicide (i.e. Roundup or equivalent approved), applied in accordance with the manufacturer's recommendations in suitable weather conditions. Care shall be taken to ensure herbicide does not damage trees, shrubs and grassland. Weed control operations shall be carried out by competent operators and in calm conditions to avoid drift of herbicide. Only non-residual herbicides approved for use near water bodies should be used on site.

A tree condition and safety survey will be undertaken in year 4 by a suitably qualified arboricultural consultant. Any remedial works (e.g. pruning or felling) as recommended by the tree condition and safety survey shall be carried out within the timescales recommended by the consultant and before the end of the 5-year establishment period.

All works be carried out in accordance with BS3998 2010 Tree Work.

3.3.5 Native Woodland Coppice and Thinning

Tree and shrub planting within the woodland structure planting will be thinned out initially at year 5. As growing conditions will vary across site, it may be determined that thinning is not appropriate at year 5, or that some areas require thinning and others do not yet.

Thinning would involve the removal of trees and shrubs up to a maximum of 30%. For woodland structure planting within the planning red line boundary this would occur again at year 10.

An approved member of the Arboricultural Association or other approved specialist shall carry out thinning operations and surgery to larger trees. Monitoring of trees for disease should lead to infected trees being removed upon confirmation of the presence of disease to protect other trees on site. Tree remains shall not be left on site. This will reduce the risk of disease spreading. Discovery of introduced exotic species within the re-planted areas such as sycamore, rhododendron and a variety of coniferous species should be removed. The remains of these species should also be removed from the site.

Tree and shrub species such as Corylus avellana, Crataegus monogyna, Prunus padus, Prunus spinosa, Salix caprea, Sambucus nigra, Viburnum opulus, may be selectively coppiced to open up the stand and encourage new growth from the base and to encourage stool to develop. Subsequent thinning should cut back to

previous point of coppicing with cuts positioned outside the branch collar. Commencing at year 5, a 5-year coppice rotation is proposed commencing at the same time as the thinning operations from September to February. This will create open areas within the planting which will develop into a lower storey of vegetation.

Thinning and coppicing operations shall be undertaken on instruction from the appointed Landscape Clerk of Work at the scheduled site inspections.

3.3.6 Woodland Edge/Scrub Coppice and Thinning

Betula pendula and Betula pubescens will be maintained in a way to promote an upright, columnar form so not to create too much shade. If trees are becoming spindly and weak, it will be appropriate to thin the weaker trees.

Shrub species such as Crataegus monogyna, Prunus spinosa, Salix caprea, and Viburnum opulus, may be selectively coppiced to open up the stand and encourage new growth from the base and to encourage stool to develop. Subsequent thinning should cut back to previous point of coppicing with cuts positioned outside the branch collar. Commencing at year 5, a 5-year coppice rotation is proposed commencing at the same time as the thinning operations from September to February. This will create open areas within the planting which will develop into a lower storey of vegetation.

Shrub species suitable for coppicing within the planning red line boundary will be subject to a second phase of coppicing at year 10 from September to February.

Tree species Alnus glutinosa and Corylus avellana respond well to coppicing. Coppicing should be carried out in groups so regrowth is not prevented by dense shading. Trees suitable for coppicing within the planning red line boundary will be subject to, commencing at year 7, a 7-year rotation from September to February. This will be beneficial to plant health, an array of wildlife and maintains the woodland edge structure. If woodland management is continued for a longer term, these trees would then be coppiced again at year 14.

Thinning and coppicing operations shall be undertaken on instruction from the Landscape Clerk of Works at the scheduled site inspections.

3.3.7 Native Scrub Coppice and Thinning

Tree species Corylus avellana responds well to coppicing. Coppicing should be carried out in groups so regrowth is not prevented by dense shading. A seven year rotation is proposed commencing in seventh year of Woodland Edge/Scrub Mix from September to February. Coppicing of Corylus avellana will happen in year five of maintenance within the Native Scrub Mix from September to February. This will be beneficial to plant health, an array of wildlife and maintains the scrub structure.

3.3.8 Pruning Generally

Trees and shrubs will be pruned as necessary to remove dead, dying or diseased wood and suckers and to promote healthy growth and natural shape. Pruning

will be carried out in accordance with BS 8545:2014 Trees from nursery to independence in the landscape and good horticultural and arboricultural practice.

Dead or dying trees and felled timber may be used to create habitat log piles in agreement with National Grid and the landowner and allowed to decay naturally within the woodland providing habitats for insects, newts and other species. ECoW opinion may be sought to determine if dead wood is suitable for potential nesting habitat for willow tit.

Diseased trees are to be taken from site and disposed of. Diseased trees will not be burnt, chipped or used for ecological purposes on site.

No plant replacement is proposed after the 5-year defects period.

- Timing: Do not prune during the late winter / early spring sap flow period.
- Do not prune whips or feathered trees.
- Do not damage or tear the stem of branches to be removed.
- Keep wounds as small as possible and cut cleanly back to sound wood.
- Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on the cut area.
- Prune larger branches using the branch bark ridge as a pruning guide.
- Thin, trim and shape each specimen appropriately to species, location, season and stage of growth, leaving a well-balanced natural appearance.
- Use clean, sharp secateurs, hand saws or other appropriate tools. Ragged edges of bark or wood to be trimmed with a sharp knife.
- Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaries.
- Dead, diseased or dangerous plants should be treated, lopped and/or felled as necessary. The resultant timber and debris should be made available to create log piles for vertebrates or habitat piles for other species. (Please note any diseased wood should be removed from site).
- Trimming of shrub areas with hedge trimmers will not be acceptable, the result will be that the edges of shrub areas will be left with bare branches and greenery limited to the top. If the sides do re-grow, they will need cutting again shortly after which will be a false economy and aesthetically unacceptable.
- General light pruning shall include removal of the oldest, longest, most branched shoots to the base of the plant with secateurs or loppers. Activity should be phased year by year to incrementally achieve the overall effect. Apply this approach to the more vigorous planting at most times of the year to reduce spring pruning load.

Pruning of flowering shrubs:

- Winter flowering shrubs: Spring.
- Shrubs flowering between March and July: Immediately after the flowering period.
- Shrubs flowering between July and October: Back to old wood in winter.

3.4 Fencing

Fencing to protect planting from livestock may be required in any areas subject to future grazing. Definitive locations and types of protection shall be determined through discussion with landowners and client.

3.5 Wildflower Grassland and Bespoke Grassland with Herb Mix

Both Wildflower Grassland and Bespoke Grassland with Herb Mix will both be managed as a traditional hay meadow and following first year maintenance will be subject to the same management regime.

Once established, all areas of seeding will enter a traditional management regime to promote the survival of the wildflowers. Cutting will be carried out annually to a height of 50-150 mm from years 2-5 in late summer (July). Meadows should be cut from the centre outwards or from one side to another so that it allows any resident wildlife to disperse.

Any arising's will be left in situ and/or turned for 3 - 5 days before being removed to allow the sown species an opportunity to set seed. Any arising's will then be removed.

Grazing can occur at designated locations of Wildflower Grassland in spring between March and May, and then again following a summer cut, allowing wildflower seeds to drop and be trodden in to the ground, up until October or until signs of poaching occur. Grazing should not occur within the first two years of establishment.

3.6 Grassland and Seed Bank Harvesting, Wogden Foot LWS

Once species-rich grassland is established, a minimal maintenance regime is required to ensure minimal disturbance to wildlife. Annual cutting is programmed to prevent encroachment from scrub. If preferred by stakeholders responsible for Wogden Foot LWS (Barnsley Council and Yorkshire Wildlife Trust), cutting can be reduced to 2-3 year cycle. Grassland should be cut from the centre outwards or from one side to another so that it allows any resident wildlife to disperse.

3.7 Wildflower with Acid and Neutral Grassland Bespoke Mix (if required), Wogden Foot LWS

Once established, the wildflower meadow will enter a traditional management regime to promote the survival of the wildflowers. Cutting will be carried out annually to a height of 50-150 mm from years 2-5 in late summer (July). The meadow should be cut from the centre outwards or from one side to another so that it allows any resident wildlife to disperse.

Any arising's will be left in situ and/or turned for 3 - 5 days before being removed to allow the sown species an opportunity to set seed. Any arising's will then be removed.

4 APPENDIX 1 LANDSCAPE MAINTENANCE PROGRAMME

4.1 LANDSCAPE MAINTENANCE / MANAGEMENT MATRIX

The soft landscape reinstatement elements across site is split into three management schedules.

The 5 Year Landscape Maintenance / Management schedule covers

- Wildflower Grassland
- Native Scrub Mix
- Native Scrub Mix (TPT Route)
- Native Woodland Mix planting (including small and dry varients)
- Native Woodland Edge and Scrub Mix

The 7 Year Landscape Maintenance / Management schedule covers

- All reinstatement grass seeding at Wogden Foot LWS

The 10 Year Landscape Maintenance / Management schedule covers

- Native Woodland Mix planting (including dry variant)
- Native Woodland Edge and Scrub Mix

Note:

- The 10 year woodland management schedule is a requirement as per planning condition BMBC18.
- The 10 Year Landscape Maintenance / Management schedule is only required within the planning red line boundary. Within the red line boundary, woodland planting is only found within Wogden Foot LWS. Refer to Soft Landscape Design Sheets 1 - 10 to see where woodland falls within planning red line boundary.
- All agricultural land comprising the Trans Pennine Trail Diversion, Northern Access route and pylon and overhead line removal areas are excluded from all Landscape Maintenance / Management schedules.

4.2 5 YEAR LANDSCAPE MAINTENANCE / MANAGEMENT SCHEDULE

The 5 Year Landscape Maintenance / Management schedule covers

- Wildflower Grassland (Outside of Wogden Foot LWS)
- Bespoke Grassland with Herb
- Native Scrub Mix
- Low Growing Native Scrub
- Native Woodland Mix planting (including dry and small variants)

Item of Work	Timing	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Generally						
Plant replacement	December to February	✓	✓	✓	✓	✓
Treat pests and diseases including removal of dead, dying and diseased wood.	As necessary	✓	✓	✓	✓	✓
Removal and replacement of diseased or dead plants	As necessary	✓	✓	✓	✓	✓
General pruning	March and October	✓ 1 visit	✓ 1 visit	✓ 1 visit	✓ 1 visit	✓ 1 visit

All planting areas						
Check, adjust and replace stakes and ties (Remove in year 5)	As necessary	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 1 visit
Water and feed to maintain healthy growth	As necessary	✓	✓	✓	✓	✓
Check plant material is firmly planted and firmed in where required	As necessary	✓	✓	✓	✓	✓
Weed control by hand and herbicidal spot treatment.	March to November (every 6 weeks)	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits

Item of Work	Timing	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Wildflower Grassland and Bespoke Grassland with Herb Mix						
Hay cut to 50mm (arisings to be collected 3-5 days following cut)	Late July	✓	✓	✓	✓	✓
Cut to the height of 50 mm (arisings to be removed from site)	Oct/Nov & March	✓ 2 visits	✓ 2 visits	✓ 2 visits	✓ 2 visits	✓ 2 visits
Weed control by hand and herbicidal spot treatment.	As necessary	✓	✓	✓	✓	✓
Selective removal of dominant grasses	As necessary	✓	✓	✓	✓	✓
* Wildflower Grassland and Bespoke Grassland with Herb Mix are to be managed as a traditional hay meadow, which will promote the establishment of wildflower species.						

Item of Work	Timing	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Low Growing Native Scrub and Native Scrub						
Check, adjust and replace stakes ties and guards (Remove in year 5)	As necessary	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 1 visit
Water and feed to maintain healthy growth	As necessary	✓	✓	✓	✓	✓
Check plant material is firmly planted and firm where required	As necessary and immediately after strong winds	✓	✓	✓	✓	✓
Pruning / remedial plant surgery. All works to be carried out by an Arboricultural association approved contractor in accordance with BS3998 2010 Tree Work.	As necessary	✓	✓	✓	✓	✓
Coppicing. All works to be carried out by an Arboricultural association approved contractor in accordance with BS3998 2010 Tree Work. **(Refer to 3.3.7 for species)**	September to February					✓
Native Woodland						
Pruning / remedial surgery. All works to be carried out by an Arboricultural Association approved contractor in accordance with BS3998 2010 Tree Work.	As necessary	✓	✓	✓	✓	✓
Tree thinning (up to a maximum of 30% of total tree cover)	As necessary					✓
Crown lifting	As necessary					✓
Coppicing. All works to be carried out by an Arboricultural association approved contractor in accordance with BS3998 2010 Tree Work. **(Refer to 3.3.5 for species)**	September to February					✓

Native Woodland Edge/Scrub						
Check, adjust and replace stakes ties and guards (Remove in year 5)	As necessary	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 1 visit
Water and feed to maintain healthy growth	As necessary	✓	✓	✓	✓	✓
Check plant material is firmly planted and firm where required	As necessary and immediately after strong winds	✓	✓	✓	✓	✓
Pruning / remedial plant surgery. All works to be carried out by an Arboricultural association approved contractor in accordance with BS3998 2010 Tree Work.	As necessary	✓	✓	✓	✓	✓
Coppicing. All works to be carried out by an Arboricultural association approved contractor in accordance with BS3998 2010 Tree Work. **(Refer to 3.3.6 for species)**	September to February					✓

4.3 7 YEAR LANDSCAPE MAINTENANCE / MANAGEMENT SCHEDULE

The 7 Year Landscape Maintenance / Management schedule covers

- All reinstatement grass seeding at Wogden Foot LWS

Item of Work	Timing	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Grassland and Seed Bank Harvesting								
Grass cut to the height of 50 mm (arisings to be removed from site)	When necessary		✓		✓		✓	
Weed control by hand and herbicidal spot treatment.	As necessary	✓	✓	✓	✓	✓	✓	✓
Selective removal of dominant grasses	As necessary	✓	✓	✓	✓	✓	✓	✓
Wildflower Grassland and Bespoke Grassland with Herb Mix								
Hay cut to 50mm (arisings to be collected 3-5 days following cut)	Late July	✓	✓	✓	✓	✓	✓	✓
Cut to the height of 50 mm (arisings to be removed from site)	Oct/Nov & March	✓ 2 visits	✓ 2 visits	✓ 2 visits	✓ 2 visits	✓ 2 visits	✓ 2 visits	✓ 2 visits
Weed control by hand and herbicidal spot treatment.	As necessary	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits
Selective removal of dominant grasses	As necessary	✓	✓	✓	✓	✓	✓	✓

4.4 10 YEAR LANDSCAPE MAINTENANCE / MANAGEMENT SCHEDULE (for woodland planting within planning red line boundary)

The 10 Year Landscape Maintenance / Management schedule covers

- Native Woodland Mix planting (including dry and small variants)
- Native Woodland Edge and Scrub Mix

Note:

- The 10 year woodland management schedule is a requirement as per planning condition BMBC18.
- The 10 Year Landscape Maintenance / Management schedule is only required within the planning red line boundary. Within the red line boundary, woodland planting is only found within Wogden Foot LWS. Refer to Soft Landscape Design Sheets 1 - 10 to see where woodland falls within planning red line boundary.
- All other woodland and woodland edge/scrub planting outside of the planning red line boundary is subject to a 5 year landscape maintenance / management schedule.

Item of Work	Timing	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
All planting areas											
Check, adjust and replace stakes and ties (remove in year 5)	As necessary	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 1 visit					
Water and feed to maintain healthy growth	As necessary	✓	✓	✓	✓	✓					
Check plant material is firmly planted and firmed in where required	As necessary	✓	✓	✓	✓	✓					
Weed control by hand and herbicidal spot treatment.	March to November (every 6 weeks)	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 2 visits	✓ 2 visits	✓ 2 visits			
Native Woodland											
Pruning / remedial surgery. All works to be carried out by an Arboricultural Association approved contractor in accordance with BS3998 2010 Tree Work.	As necessary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Tree thinning (up to a maximum of 30% of total tree cover at one time)	As necessary					✓					✓
Crown lifting	As necessary					✓					✓
Coppicing. All works to be carried out by an Arboricultural association approved contractor in accordance with BS3998 2010 Tree Work. **(Refer to 3.3.5 for species)**						✓		✓			✓

Item of Work	Timing	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
Native Woodland Edge/Scrub											
Check, adjust and replace stakes ties and guards (Remove in year 5)	As necessary	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 3 visits	✓ 1 visit					
Water and feed to maintain healthy growth	As necessary	✓	✓	✓	✓	✓					
Check plant material is firmly planted and firm where required	As necessary and immediately after strong winds	✓	✓	✓	✓	✓					
Pruning / remedial plant surgery. All works to be carried out by an Arboricultural association approved contractor in accordance with BS3998 2010 Tree Work.	As necessary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coppicing. All works to be carried out by an Arboricultural association approved contractor in accordance with BS3998 2010 Tree Work. **(Refer to 3.3.6 for species)**						✓		✓			✓