

| | | | | | | |
|-----------------------|------|--|------|-----------------------|--|------|
| | | less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. | | | | |
| Condition Criteria 3. | | Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. | Pass | Condition Criteria 7. | There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). | Fail |
| Condition Criteria 4. | | Physical damage is evident in less than 5% of total grassland area. | Pass | | | |
| Condition | Poor | Passes 4 of 7 criteria and fails essential criterion 1. | | | | |
| Distinctiveness | | Low | | | | |

4.1.4 5) Grassland – Modified grassland (P5)

Parcel 5 contained an abundance of rosebay willowherb (*Chamaenerion angustifolium*), common nettle and creeping thistle, with occasional Yorkshire fog, perennial rye grass, bramble, and ribwort plantain.



Photograph 5 – Modified grassland parcel 5

Table 10 – Condition Assessment for Modified Grassland

| UK Hab Classification | Modified Grassland | | | | |
|-----------------------|--|------|-----------------------|---|------|
| Condition Sheet | Grassland (Low) | | | | |
| Condition Criteria 1. | There must be 6-8 species per m2. If a grassland has 9 or more species per m2 it should be classified as a medium distinctiveness grassland habitat type. | Fail | Condition Criteria 5. | Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens). | Pass |
| Condition Criteria 2. | Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities | Pass | Condition Criteria 6. | Cover of bracken less than 20%. | Pass |

| | | | | | | |
|-----------------------|------|--|------|-----------------------|--|------|
| | | for insects, birds and small mammals to live and breed. | | | | |
| Condition Criteria 3. | | Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. | Fail | Condition Criteria 7. | There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). | Pass |
| Condition Criteria 4. | | Physical damage is evident in less than 5% of total grassland area. | Pass | | | |
| Condition | Poor | Passes 5 of 7 criteria and fails essential criterion 1. | | | | |
| Distinctiveness | | Low | | | | |

4.1.5 6) Woodland - Other Woodland; Broadleaved

The north-western corner of the site comprised successional broadleaved woodland, which was an extension of an established area of woodland to the south. Species composition includes occasional ash (*Fraxinus excelsior*), goat willow (*Salix caprea*), wych elm (*Ulmus glabra*), cherry, sycamore (*Acer pseudoplatanus*), crack willow (*Salix fragilis*), and silver birch (*Betula pendula*). The ground layer included frequent bramble and rosebay willowherb and rare Japanese knotweed. This area of woodland was also within the Railway Land Hogshaw LWS, therefore it has been allocated a high strategic significance.



Photograph 6 – Other woodland, broadleaved

Table 11 – Condition Assessment for other woodland, broadleaved

| UK Hab Classification | Other woodland; Broadleaved | | |
|---|--|---|---|
| Condition Sheet | Woodland | | |
| Indicator 1. Age distribution of trees | One age class present (Poor – 1 Point) | Indicator 8. Tree health | Tree mortality less than 10%, no pests or diseases and no crown dieback (Good – 3 Points) |
| Indicator 2. Wild, domestic, and feral herbivore damage | No significant browsing damage evident in woodland (Good – 3 Points) | Indicator 9. Vegetation and ground flora | No recognisable NVC community (Poor – 1 Point) |
| Indicator 3. Invasive plant species | Rhodendron or laurel not present, rosebay willowherb and Japanese knotweed covers <10% (Moderate – 2 Points) | Indicator 10. Woodland vertical structure | One or less storey across all survey plots (Poor – 1 Point) |

| | | | |
|---|--|------------------------------------|--|
| Indicator 4. Number of native tree species | Five or more native tree or shrub species across woodland parcel (Good – 3 Points) | Indicator 11. Veteran trees | No veteran trees present in woodland (Poor – 1 Point) |
| Indicator 5. Cover of native tree and shrub species | >80% of canopy trees and >80% of understory shrubs are native (Good – 3 Points) | Indicator 12. Amount of deadwood | Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps (Moderate – 2 Points) |
| Indicator 6. Open space within woodland | More than 40% of woodland has areas of temporary open space (Poor – 1 Point) | Indicator 13. Woodland disturbance | No nutrient enrichment or damaged ground evident (Good – 3 Points) |
| Indicator 7. Woodland regeneration | No classes or coppice regrowth present in woodland (Poor – 1 Point) | | |
| Condition | Poor | Scores 25 (<26 = Poor) | |
| Distinctiveness | Medium | | |

4.1.6 7) Urban – Urban Trees

Four urban trees were present on the site along the western boundary. Three were early-mature goat willow and one was an early-mature silver birch. All four trees were within the Railway Land Hogshaw LWS, therefore they have been allocated a high strategic significance.

Table 12 – Condition Assessment for Urban Trees

| UK Hab Classification | | Urban tree | | | |
|-----------------------|---|------------------------|-----------------------|--|------|
| Condition Sheet | | Urban tree | | | |
| Condition Criteria 1. | The tree is a native species (or more than 70% within the block are native species). | Pass | Condition Criteria 4. | There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height. | Pass |
| Condition Criteria 2. | The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion). | Pass | Condition Criteria 5. | Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark | Pass |
| Condition Criteria 3. | The tree is mature or veteran (or more than 50% within the block are mature or veteran). | Fail | Condition Criteria 6. | More than 20% of the tree canopy area is oversailing vegetation beneath. | Pass |
| Condition | Good | Passes 5 of 6 criteria | | | |
| Distinctiveness | Medium | | | | |

4.1.7 8) Urban - Artificial Unvegetated, Unsealed Surface

A single footpath runs through parcel 5 of the modified grassland and is comprised of compact gravel substrate that classes as artificial unvegetated, unsealed surface. This is classified as artificial unvegetated, unsealed surface, which has a predetermined condition of **N/A** within the metric.



Photograph 8 – Footpath

4.1.8 9) Urban - Buildings (Developed land; sealed surface)

Two sheds used as chicken coops (photograph 9) were present to the east of the site. Buildings are classified as developed land; sealed surface which has a predetermined condition score of **N/A** within the metric.



Photograph 9 – Buildings used as chicken coops

4.2 Linear Hedgerow Habitats

Four lines of trees are present on site associated with the areas of modified grassland and generally confined to field boundaries.

4.2.1 L1) Line of Trees 1

The first line of trees is present within the north of the site adjacent to the eastern boundary, located in Parcel 1 of the modified grassland. It runs north to south for approximately 120m and is comprised of dominant sycamore with occasional ash and hawthorn (*Crataegus monogyna*). The majority of specimens are mature with some young mature trees also present.



Photograph 10 – Line of Trees 1

Table 13 – Condition Assessment for Line of Trees

| UK Hab Classification | | Line of Trees | | | | |
|-----------------------|----------|---|------|-----------------------|---|------|
| Condition Sheet | | Line of Trees | | | | |
| Condition Criteria 1. | | More than 70% of trees are native species. | Pass | Condition Criteria 4. | There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations. | Fail |
| Condition Criteria 2. | | Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. | Fail | Condition Criteria 5. | At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity. | Pass |
| Condition Criteria 3. | | Includes one or more mature or veteran tree. | Pass | | | |
| Condition | Moderate | Passes 3 of 5 criteria. | | | | |
| Distinctiveness | | Low | | | | |

4.2.2 L2) Line of Trees 2

The second of line of trees is located in the south-western extent of the site adjacent the field boundary between parcel 2 and parcel 4 of modified grassland. It runs north to south for approximately 35m and is comprised of dominant silver birch and occasional cherry. This line of trees fell within the Railway Land Hogshaw LWS, therefore it has been allocated a high strategic significance.



Photograph 11 – Line of Trees 2

Table 14 – Condition Assessment for Line of Trees

| UK Hab Classification | | Line of Trees | | | |
|-----------------------|---|-------------------------|-----------------------|---|------|
| Condition Sheet | | Line of Trees | | | |
| Condition Criteria 1. | More than 70% of trees are native species. | Pass | Condition Criteria 4. | There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations. | Fail |
| Condition Criteria 2. | Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. | Pass | Condition Criteria 5. | At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity. | Pass |
| Condition Criteria 3. | Includes one or more mature or veteran tree. | Pass | | | |
| Condition | Moderate | Passes 4 of 5 criteria. | | | |
| Distinctiveness | | Low | | | |

4.2.3 L3) Line of Trees 3

The third line of trees is located just south of the second line of trees on site and is approximately 20m in length. This line of trees is exclusively comprised of sycamore. This line of trees fell within the Railway Land Hogshaw LWS, therefore it has been allocated a high strategic significance.



Photograph 12 – Line of Trees 3

Table 15 – Condition Assessment for Line of Trees

| UK Hab Classification | | Line of Trees | | | |
|-----------------------|---|-------------------------|-----------------------|---|------|
| Condition Sheet | | Line of Trees | | | |
| Condition Criteria 1. | More than 70% of trees are native species. | Pass | Condition Criteria 4. | There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations. | Fail |
| Condition Criteria 2. | Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. | Pass | Condition Criteria 5. | At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity. | Pass |
| Condition Criteria 3. | Includes one or more mature or veteran tree. | Pass | | | |
| Condition | Moderate | Passes 4 of 5 criteria. | | | |
| Distinctiveness | | Low | | | |

4.2.4 L4) Line of Trees 4

The fourth line of trees is located in the central extent of the site adjacent the eastern boundary. It runs north to south for approximately 50m and is comprised exclusively of sycamore.



Photograph 13 – Line of Trees 4

Table 16 – Condition Assessment for Line of Trees

| UK Hab Classification | | Line of Trees | | | | |
|-----------------------|----------|---|------|-----------------------|---|------|
| Condition Sheet | | Line of Trees | | | | |
| Condition Criteria 1. | | More than 70% of trees are native species. | Pass | Condition Criteria 4. | There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations. | Fail |
| Condition Criteria 2. | | Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. | Fail | Condition Criteria 5. | At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity. | Pass |
| Condition Criteria 3. | | Includes one or more mature or veteran tree. | Pass | | | |
| Condition | Moderate | Passes 3 of 5 criteria. | | | | |
| Distinctiveness | | Low | | | | |

4.2.5 5) Built linear features

Various built linear features were present on site that form the site boundary and separate the different parcels on site. The features comprise fence lines and dry-stone walls. These features are classified as built linear features, which have a predetermined condition of **N/A** within the metric.



Photograph 14 – Dry-stone wall



Photograph 15 – Fence line

4.3 Linear River Habitats

4.3.1 1) Other rivers and streams (Nun Brook)

Nun Brook is present on site within the south-western extent and the woodland detailed in Section 4.1.6. The brook is culverted through the majority of the woodland and comes to the surface in its southern extent and extends further to the south of the site.

At the time of survey, the water levels within the brook were high and lots of silt was being carried within the brook. Vegetation was present on the embankments either side and within the brook itself comprising occasional pendulous sedge (*Carex pendula*), cock's foot, Yorkshire fog, creeping buttercup, and curly dock. Nun Brook also fell within the Railway Land Hogshaw LWS, therefore it has been allocated a high strategic significance.



Photograph 16 – Nun Brook, culvert



Photograph 17 – Nun Brook

Table 17 – Condition Assessment for Other Rivers and Streams

| Name | | Nun Brook | |
|-----------------------|-------|-------------------------------|---------------|
| UK Hab Classification | | Other Rivers and Streams Type | |
| Condition Assessment | | River MoRPH Survey | |
| River Category | Other | Reach Valley Gradient | 0.011 |
| Braiding Index | 1 | Bedrock Reach | No |
| Sinuosity Index | 1.04 | Coarsest Bed Material | Gravel-Pebble |

| | | | |
|------------------------------------|------------|----------------------|----------|
| Anabranching Index | 1 | Average Bed Material | Cobble |
| Level of Confinement | Unconfined | Condition Score | Moderate |
| | | | |
| Condition Score | | Fairly Poor | |
| Distinctiveness | | High | |
| Extent of watercourse encroachment | | Minor | |
| Extent of riparian encroachment | | No encroachment | |

5 Retained Habitats

Using the Biodiversity Metric 3.1, the habitat units of the pre-development habitats to be retained were calculated.

5.1 Linear Hedgerow Habitats

All of the existing lines of trees will be retained. Table 18 shows a summary of the linear hedgerow habitats to be retained on site, their corresponding length (km) and unit score to be retained on site.

Table 18 – Retained Linear Hedgerow Habitat Units

| Habitat | Total Length (km) | Total Units | Length Retained (km) | Units Retained |
|---------------------|-------------------|-------------|----------------------|----------------|
| L1) Line of Trees 1 | 0.11 | 0.44 | 0.11 | 0.44 |
| L2) Line of Trees 2 | 0.039 | 0.18 | 0.039 | 0.18 |
| L3) Line of Trees 3 | 0.023 | 0.11 | 0.023 | 0.11 |
| L4) Line of Trees 4 | 0.046 | 0.18 | 0.046 | 0.18 |
| Total | 0.22 | 0.91 | 0.22 | 0.91 |

5.2 Linear River Habitats

The section of stream that is within 10m of the red line boundary, in the Hogshaw Railway Land LWS, will remain untouched. Table 19 shows a summary of the linear river habitats to be retained on site, their corresponding length (km) and unit score to be retained.

Table 19 – Linear River Habitat

| Habitat Parcel Reference | Total Length (km) | Total Units | Length Retained (km) | Units Retained |
|--------------------------|-------------------|-------------|----------------------|----------------|
| Other Rivers and Streams | 0.061 | 0.51 | 0.061 | 0.51 |

6 Lost Habitats

Using the Biodiversity Metric 3.1, the habitat units of the pre-development habitats to be lost were calculated.

6.1 Area Habitats

Under the current landscape proposals, all habitats present will be lost. Table 20 shows a summary of the area habitats and their corresponding area (ha) and unit score to be lost on site, along with planned mitigation.

Table 20 – Lost Area Habitats

| Habitat Parcel Reference | Total Area (ha) | Total Units | Area lost (ha) | Units lost | Planned Mitigation |
|---|-----------------|--------------|----------------|--------------|---|
| 1-5) Grassland – Modified Grassland | 5.28 | 10.70 | 5.28 | 10.70 | Overall, this habitat offers limited ecological provision. New areas of wildflower meadow will be created around the periphery of the site and within the public open space which will be more ecologically beneficial. |
| 6) Other woodland; broadleaved | 0.29 | 1.33 | 0.29 | 1.33 | New areas of woodland will be created within the LWS and additional urban trees will be planted on site, however the loss of this habitat will not be fully compensated for. |
| 7) Urban – Urban Trees | 0.049 | 0.67 | 0.049 | 0.67 | All four urban trees currently present on site will be lost, however an additional 217 urban trees will be planted to mitigate for those lost. |
| 8) Artificial Unvegetated, Unsealed Surface | 0.027 | 0 | 0.027 | 0 | This habitat provides no ecological value, therefore no mitigation is necessary. |
| 9) Urban – Developed Land; Sealed Surface (buildings) | 0.003 | 0 | 0.003 | 0 | This habitat provides no ecological value, therefore no mitigation is necessary. |
| Total | 5.65 | 12.71 | 5.65 | 12.71 | |

7 Pre-Development Unit Summary

Using the Biodiversity Metric 3.1, the habitat units of the existing site habitats were calculated; the habitat units to be retained within site development were calculated; and the habitat units that are anticipated to be lost in site development were calculated.

The results of these calculations are presented in Table 21.

Table 22 – Pre-Development Unit Summary

| | On-site baseline | Retained | Lost |
|-----------------------|---------------------|----------|-------|
| Area Habitat Units | 12.71 | - | 12.71 |
| Linear Hedgerow Units | 0.91 | 0.91 | - |
| Linear River Units | 0.67 | 0.67 | - |

8 Habitat Creation

8.1 Area Habitats

8.1.1 1 & 2) Urban – Urban Trees

A total of 275 (123 small and 152 medium) trees will be planted across the site. However, 147 trees are classified within separate new habitats. Thirteen urban trees will be planted within the mixed scrub, 56 trees will form new woodland habitats, 12 trees will become part of a new line of trees (see Sections 8.1.3, 8.1.5, 8.1.6 and 8.2 respectively), and 55 trees are within front gardens and do not contribute to the metric as they are at the homeowner's responsibility (see Section 8.1.10).

The remaining 108 (47 small, 61 medium) urban trees will be planted within the public open space. The mix incorporates both native and non-native species, such as silver birch, bird cherry (*Prunus padus*), pedunculate oak, hornbeam 'Frans Fontaine' (*Carpinus betulus* 'Frans Fontaine'), and field maple 'Streetwise' (*Acer campestre* 'Streetwise').

Twenty (10 small, 10 medium) of the proposed urban trees will be planted within the Railway Land Hogshaw LWS, therefore these trees have been allocated a high strategic significance.

Table 23 – Condition Assessment for Urban Trees

| Classification within Landscape Designs | | Proposed Tree Planting and Proposed Specimen Shrub Planting | | | | |
|---|----------|---|------|-----------------------|--|------|
| UK Hab Classification | | Urban tree | | | | |
| Condition Sheet | | Urban tree | | | | |
| Condition Criteria 1. | | The tree is a native species (or more than 70% within the block are native species). | Fail | Condition Criteria 4. | There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height. | Pass |
| Condition Criteria 2. | | The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion). | Pass | Condition Criteria 5. | Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark | Fail |
| Condition Criteria 3. | | The tree is mature or veteran (or more than 50% within the block are mature or veteran). | Fail | Condition Criteria 6. | More than 20% of the tree canopy area is oversailing vegetation beneath. | Pass |
| Condition | Moderate | Passes 3 of 6 criteria | | | | |
| Distinctiveness | | Medium | | | | |
| Time to Target Condition | | 27 years | | | | |
| Difficulty of Creation | | Low | | | | |

8.1.2 3) Urban – Introduced Shrub

Areas of introduced shrub containing different species mixes will be created within the public space to improve the visual amenity of the area. Within the landscape proposals, the introduced shrub mixes are classified as ‘Proposed Ornamental Shrub and Herbaceous Planting’ and ‘Proposed Semi-native Shrub Planting,’ and include species such as Japanese quince (*Chaenomeles japonica*), creeping willow (*Salix repens*), and spurge-laurel (*Daphne laureola*). Introduced shrub is automatically allocated a condition score of **N/A** by the metric.

8.1.3 4) Heathland and Shrub – Mixed Scrub

Blocks of native mixed scrub habitat will be planted within the areas of wildflower meadows, to the east and west of the site, adding diversity to these habitats. This mix is classified as ‘Proposed Native Shrub Planting’ in the landscape proposals. Species such as dog wood (*Cornus sanguinea*), elder (*Sambucus nigra*), guelder rose (*Viburnum opulus*) and hazel (*Corylus avellana*) will be planted in mixed groups to create these habitats. As mentioned in section 8.1.1, some of the proposed urban trees will be planted within this habitat. Species will include silver birch, bird cherry and rowan (*Sorbus aucuparia*).

Table 24 - Condition Assessment for Mixed Scrub

| Classification within Landscape Designs | | Proposed Native Shrub Planting | | | | |
|---|------|--|------|-----------------------|---|------|
| UK Hab Classification | | Mixed scrub | | | | |
| Condition Sheet | | Scrub | | | | |
| Condition Criteria 1. | | Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover). | Pass | Condition Criteria 4. | The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s). | Fail |
| Condition Criteria 2. | | There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs. | Fail | Condition Criteria 5. | There are clearings, glades or rides present within the scrub, providing sheltered edges. | Fail |
| Condition Criteria 3. | | There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition make up less than 5% of ground cover. | Pass | | | |
| Condition | Poor | Passes 2 of 5 criteria | | | | |
| Distinctiveness | | Medium | | | | |
| Time to Target Condition | | 1 year | | | | |
| Difficulty of Creation | | Low | | | | |

8.1.4 5) Heathland and Shrub – Mixed Scrub

A block of native scrub will be planted around the existing line of trees (L4) to the east of the site. The scrub will be comprised of elder, wild privet (*Ligustrum vulgare*), guelder-rose, hazel and dogwood (*Cornus sanguinea*).

Table 25 - Condition Assessment for Mixed Scrub

| Classification within Landscape Designs | | Proposed Woodland Understory Planting | | | | |
|---|------|--|------|-----------------------|---|------|
| UK Hab Classification | | Mixed scrub | | | | |
| Condition Sheet | | Scrub | | | | |
| Condition Criteria 1. | | Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover). | Pass | Condition Criteria 4. | The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s). | Fail |
| Condition Criteria 2. | | There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs. | Fail | Condition Criteria 5. | There are clearings, glades or rides present within the scrub, providing sheltered edges. | Fail |
| Condition Criteria 3. | | There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition make up less than 5% of ground cover. | Pass | | | |
| Condition | Poor | Passes 2 of 5 criteria | | | | |
| Distinctiveness | | Medium | | | | |
| Time to Target Condition | | 1 year | | | | |
| Difficulty of Creation | | Low | | | | |

8.1.5 6) Woodland - Other Woodland; Broadleaved

A small area of woodland will be created in the south-western corner of the site, comprising the existing line of trees L3, and with additional native tree specimens being added such as silver birch (*Betula pendula*), pedunculate oak and rowan. The understory of this habitat will be planted with scrub species such as elder, dog wood, hazel and wild privet. This habitat is classified as 'Proposed Woodland Understory Planting' within the landscape plans.

This area of proposed woodland will fall within the Railway Land Hogshaw LWS, therefore this habitat has been allocated a high strategic significance.

Table 26 – Condition Assessment for other woodland, broadleaved

| Classification within Landscape Designs | | Proposed Tree Planting and Proposed Woodland Understory Species | |
|---|--|---|--|
| UK Hab Classification | | Other woodland; Broadleaved | |
| Condition Sheet | | Woodland | |
| Indicator 1. Age distribution of trees | Two age classes present (Moderate – 2 Points) | Indicator 8. Tree health | Tree mortality less than 10%, no pests or diseases and no crown dieback (Good – 3 Points) |
| Indicator 2. Wild, domestic, and feral herbivore damage | No significant browsing damage evident in woodland (Good – 3 Points) | Indicator 9. Vegetation and ground flora | No recognisable NVC community (Poor – 1 Point) |
| Indicator 3. Invasive plant species | No invasive species present in woodland (Good – 3 Points) | Indicator 10. Woodland vertical structure | Two storeys across all survey plots (Moderate - 2 Points) |
| Indicator 4. Number of native tree species | Five or more native tree or shrub species across woodland parcel (Good - 3 Points) | Indicator 11. Veteran trees | No veteran trees present in woodland (Poor - 1 Point) |
| Indicator 5. Cover of native tree and shrub species | >80% of canopy trees and >80% of understory shrubs are native (Good – 3 Points) | Indicator 12. Amount of deadwood | Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps (Moderate - 2 Points) |
| Indicator 6. Open space within woodland | 21- 40% of woodland has areas of temporary open space (Moderate - 2 Points) | Indicator 13. Woodland disturbance | No nutrient enrichment or damaged ground evident (Good – 3 Points) |
| Indicator 7. Woodland regeneration | No classes or coppice regrowth present in woodland (Poor – 1 Point) | | |
| Condition | Moderate | Scores = 29 points | |
| Distinctiveness | Medium | | |
| Time to Target Condition | 15 years | | |
| Difficulty of Creation | Low | | |

8.1.6 7 & 8) Woodland - Other Woodland; Broadleaved

A second area of woodland will be created along the northern and upper eastern boundaries, which will contain native tree species such as silver birch, rowan, oak and goat willow, and an understory of scrub species, including elder, hazel, beech, and hawthorn.

A 1164m² section of proposed woodland will fall within the Railway Land Hogshaw LWS, and has been allocated a high strategic significance.

Table 27 – Condition Assessment for other woodland, broadleaved

| Classification within Landscape Designs | | Proposed Tree Planting, Proposed Woodland Understory Planting, and Proposed Woodland Mix Planting | |
|---|----------|---|--|
| UK Hab Classification | | Other Woodland; Broadleaved | |
| Condition Sheet | | Woodland | |
| Indicator 1. Age distribution of trees | | Two age classes present (Moderate – 2 Points) | Indicator 8. Tree health Tree mortality less than 10%, no pests or diseases and no crown dieback (Good – 3 Points) |
| Indicator 2. Wild, domestic, and feral herbivore damage | | No significant browsing damage evident in woodland (Good – 3 Points) | Indicator 9. Vegetation and ground flora No recognisable NVC community (Poor – 1 Point) |
| Indicator 3. Invasive plant species | | No invasive species present in woodland (Good – 3 Points) | Indicator 10. Woodland vertical structure Two storeys across all survey plots (Moderate - 2 Points) |
| Indicator 4. Number of native tree species | | Five or more shrub species across woodland parcel (Good – 3 Points) | Indicator 11. Veteran trees No veteran trees present in woodland (Poor - 1 Point) |
| Indicator 5. Cover of native tree and shrub species | | >80% of canopy trees and >80% of understory shrubs are native (Good – 3 Points) | Indicator 12. Amount of deadwood Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps (Moderate - 2 Points) |
| Indicator 6. Open space within woodland | | 21- 40% of woodland has areas of temporary open space (Moderate - 2 Points) | Indicator 13. Woodland disturbance No nutrient enrichment or damaged ground evident (Good – 3 Points) |
| Indicator 7. Woodland regeneration | | No classes or coppice regrowth present in woodland (Poor – 1 Point) | |
| Condition | Moderate | Scores = 29 points | |
| Distinctiveness | | Medium | |
| Time to Target Condition | | 15 years | |
| Difficulty of Creation | | Low | |

8.1.7 9 & 10) Grassland – Other Neutral Grassland (Wildflower meadow)

Areas of wildflower meadow will be created in public areas along all boundaries of the site, buffering the site from the adjacent woodland and arable land. Meadow habitat will be created by firstly removing all current vegetation, digging over the earth (to at least 15cm), and raking to produce a tilth over 2.5cm deep which is left for 2-3 weeks to allow all weeds in the seed bank to germinate. After 2-3 weeks, any additional weeds will be removed and then ground raked again. Seed sowing must be undertaken immediately with the EM2 standard general purpose meadow mixture (from Emorsgate Seeds) which contains a mix of 85% slow growing grasses and 15% wildflowers. Species within the mix include musk mallow (*Malva moschata*), black medic (*Medicago lupulina*), ribwort plantain (*Plantago lanceolata*), common bent (*Agriostis capillaris*) and crested dogs-tail (*Cynosurus cristatus*).

A 4519m² section of proposed wildflower meadow to the west of the site will fall within the Railway Land Hogshaw LWS, therefore this area has been allocated a high strategic significance.

Table 28 – Condition Assessment for Other Neutral Grassland

| Classification within Landscape Designs | | Proposed Seeded Species Rich Wildflower Meadow | | | |
|---|--|--|-----------------------|---|------|
| UK Hab Classification | | Other Neutral Grassland | | | |
| Condition Sheet | | Grassland (Medium, High & Very High) | | | |
| Condition Criteria 1. | The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. NB - This criterion is essential for achieving moderate condition for non-acid grassland types only. | Pass | Condition Criteria 4. | Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%. | Pass |
| Condition Criteria 2. | Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. | Fail | Condition Criteria 5. | There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of species indicative of sub-optimal condition ¹ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. | Pass |
| Condition Criteria 3. | Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens. | Fail | Condition Criteria 6. | There are greater than 9 species per metre squared. NB - This criterion is essential for achieving good condition (non-acid grassland types only). | Pass |
| Condition | Moderate | Passes 4 of 6 criteria | | | |
| Distinctiveness | | Medium | | | |
| Time to Target Condition | | 10 years | | | |
| Difficulty of Creation | | Low | | | |

8.1.8 11) Grassland – Modified Grassland

Germinal grade A19 grass seed containing 5 grass species, including perennial ryegrass (*Lolium perenne*) and strong creeping red fescue (*Festuca rubra rubra*), will be sown within the residential areas, adjacent

to roads and driveways, forming verges. This grassland is expected to contain a low species richness and be heavily managed by mowing, resulting in a low sward height. It will also buffer the wildflower meadow habitat from the roads.

Table 29 - Condition Assessment for Modified Grassland

| Classification within Landscape Designs | | Proposed Seeded Amenity Grass | | | | |
|---|------|---|------|-----------------------|---|------|
| UK Hab Classification | | Modified Grassland | | | | |
| Condition Sheet | | Grassland (Low) | | | | |
| Condition Criteria 1. | | There must be 6-8 species per m². If a grassland has 9 or more species per m² it should be classified as a medium distinctiveness grassland habitat type. NB - Essential for achieving moderate condition. | Fail | Condition Criteria 5. | Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens). | Pass |
| Condition Criteria 2. | | Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. | Fail | Condition Criteria 6. | Cover of bracken less than 20%. | Pass |
| Condition Criteria 3. | | Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type. | Fail | Condition Criteria 7. | There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). | Pass |
| Condition Criteria 4. | | Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities. | Pass | | | |
| Condition | Poor | Passes 4 of 7 criteria but fails essential criteria 1 | | | | |
| Distinctiveness | | Low | | | | |
| Time to Target Condition | | 1 year | | | | |
| Difficulty of Creation | | Low | | | | |

8.1.9 12) Lakes – Ponds (Non-Priority Habitat)

A non-priority pond will be created to the west of the site and will act as a drainage feature. Native reeds will be planted within this habitat, including species such as lesser pond sedge (*Carex acutiformis*), yellow

iris (*Iris pseudacorus*), and branched bur reed (*Sparganium erectum*). There will also be an area of wet meadow surrounding the pond which is classified within the pond habitat. The wet meadow will be seeded using the Wet Wildflower Meadow Seed mix from Habitat Aid, which contains a mix of 30% native wildflower species and 70% grasses. Wildflower species include yellow rattle (*Rhinanthus minor*), meadow buttercup (*Ranunculus acris*), and red campion (*Silene dioica*), and grass species include meadow foxtail (*Alopecurus pratensis*) and creeping red fescue (*Festuca rubra*).

The pond falls within the Railway Land Hogshaw LWS, therefore this habitat has been allocated a high strategic significance.

Table 30 – Condition Assessment for Pond

| Classification within Landscape Designs | | Pond Water, Native Reeds Mix, and Proposed Wet Meadow | | | | |
|---|----------|---|------|-----------------------|--|------|
| UK Hab Classification | | Pond (Non-Priority Habitat) | | | | |
| Condition Sheet | | Pond | | | | |
| Condition Criteria 1. | | The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock. | Pass | Condition Criteria 6. | There is an absence of non-native plant and animal species | Pass |
| Condition Criteria 2. | | There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge. | Pass | Condition Criteria 7. | The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities | Pass |
| Condition Criteria 3. | | Less than 10% of the pond is covered with duckweed or filamentous algae. | Pass | Condition Criteria 8. | In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds), should cover at least 50% of the pond area that is less than 3 m deep. | Pass |
| Condition Criteria 4. | | The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework. | Fail | Condition Criteria 9. | The surface of non-woodland ponds is no more than 50% shaded by woody bankside species. | Pass |
| Condition Criteria 5. | | Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework. | Pass | | | |
| Condition | Moderate | Passes 8 of 9 criteria | | | | |
| Distinctiveness | | Medium | | | | |
| Time to Target Condition | | 3 years | | | | |
| Difficulty of Creation | | Low | | | | |