

Appendix 1 Site Proposals Plan



- KEY**
- Planning Red Line
 - Existing trees and hedgerow to be retained to BS 5837 with RPA indicated by pink dashed line
 - Existing trees and hedgerow to be removed indicated by red dashed line
 - Existing planting associated with Eastern Gateway (Planning Ref: 172934) and R10/R14 Link Road applications (Planning Ref: 240892)
 - Easement for underground cables
 - Urban Tree**
 - Proposed feature tree planting
 - Proposed tree planting within POS
 - Proposed tree planting to contribute to streetscape
 - Proposed focal tree within streetscape
 - Native Hedgerow**
 - Proposed native species rich hedgerow planting
 - Proposed native species rich hedgerow planting with trees
 - Proposed native hedgerow planting
 - Mixed Scrub**
 - Proposed native shrub planting
 - Lowland Mixed Deciduous Woodland**
 - Proposed woodland planting
 - Proposed woodland edge herbaceous planting
 - Semi-shade tolerant grassland meadow
 - Sustainable Urban Drainage Systems**
 - Proposed native shrub planting tolerant of wetland species
 - Proposed attenuation basin (upper banks to be sown with tussocky grassland and lower slopes and base to be sown with wetland meadow)
 - Proposed wetland scape with marginal planting
 - Urban Ornamental Planting**
 - Entrance feature ornamental planting
 - Other Neutral Grassland**
 - Tussocky grassland
 - Wildflower meadow
 - Proposed bulb planting
 - Modified Grassland
 - Amenity grassland
- Hard Landscaping within Public Open Space Refer to P24-2114_EN_002 Detailed Hard Landscaping Plans for further information**
- Proposed timber steps to basin
 - Proposed boulders within basin
 - Proposed 2m hoggin footpath
 - Proposed no dig path construction through existing RPAs
 - Proposed timber bench
 - Proposed steel frame timber bench
 - Proposed litter bin
 - Proposed dog waste bin
 - Proposed timber knee rail
 - Proposed timber post and rail fence
 - Proposed ball top railing
 - Proposed ball top railing on top of retaining wall
 - Proposed estate railing
- Proposed engineering refer to A1 P drawing package for further details**
- Proposed attenuation crate

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Parcel R10 – Phase 2B South Wokingham Strategic Development Location
Landscape Masterplan



Appendix 2 Components of Biodiversity Quality and Risk Multipliers

Components of Biodiversity Quality

Habitat Distinctiveness

The distinctiveness of a habitat represents its relative quality and importance compared to other habitat types, based on an assessment of the distinguishing features of a habitat, including consideration of species richness, rarity and the degree to which a habitat supports species rarely found in other habitats. The Habitat Distinctiveness scores are automatically assigned by the calculator in accordance with the assessment methodology detailed in the Biodiversity Metric 3.1 Technical Supplement (Panks, et al., 2022).

Habitat Condition

The condition of a habitat represents its relative quality judged against the perceived ecological optimum state for that particular habitat type. Therefore, habitat condition is specific to the habitat type and not comparable between habitat types (unlike Habitat Distinctiveness).

The condition assessment was based on the criteria within the Biodiversity Metric 3.1: Auditing and Accounting for Biodiversity – Condition Assessment Sheets (Natural England, 2019). Some habitat types (for example most agricultural habitats and hardstanding) are not subject to assessment and are assigned default scores by the calculation tool.

For proposed habitat creation, retention and enhancement a 'Target Condition' is assigned, this is the condition that it is proposed the habitat will achieve post-development and is based on the same criteria as the condition assessment.

Strategic Significance

The Strategic Significance multiplier gives additional unit value to habitats that are located in preferred locations for biodiversity and other environmental objectives. Strategic significance is the local significance of the habitat based on its location and habitat type. The strategic significance of an area may change between pre- and post-development scenarios, where the strategic value of the habitat features has changed post-development. For example, newly developed residential units may no longer be strategically significant compared to the pre-development situation, whereas a newly created ecological corridor or buffer may be deemed as more strategically significant if created post-development.

There are three categories of strategic significance.

High (Formally Identified In Local Strategy)

Strategic significance will be high if the habitat location is identified in local plans, strategies or policies. These include Local Nature Recovery Strategies, local biodiversity plans, National Character Areas objectives, Local Planning Authority Local Ecological Networks, Shoreline Management Plans, estuary strategies and green infrastructure strategies.

Medium (Location ecologically desirable but not in local strategy)

Medium strategic significance can be used where professional judgement is applied and the location is deemed ecologically desirable for a particular habitat type, whether recorded in the site baseline, being created or enhanced. Where professional judgement is applied in this way, the decision should be justified, and evidence provided.

Low (Area/compensation not in local strategy/no local strategy)

In the absence of any locally or nationally relevant strategic document indicating areas of significance for biodiversity, or robust ecological justification for a medium score, a low strategic significance score is used by default in all pre- and post-intervention calculations. A low strategic significance score does not penalise a proposal as it results in a multiplier of x1 being applied and the score remaining unchanged.

Risk Multipliers

In addition to the above components, several additional multipliers are assigned to habitats which are proposed to be created or enhanced post-development. These factors take into account the risks associated with attempting to establish new habitats and are detailed below.

Difficulty Risk

This is the risk associated with the delivery of biodiversity creation or enhancement due to uncertainty in the effectiveness of techniques to create or restore a particular habitat type. For some habitat types it is much more difficult to replicate habitat losses because of the unique physical and ecological features of the habitat.

Temporal Risk

For some habitat types, it can take a long time to achieve the Target Condition (see Habitat Condition paragraph above). If there is a significant time lag between initial habitat loss and establishing new habitats of adequate condition to compensate for this loss, there will be lower levels of biodiversity for this period of time. The temporal risk multiplier reflects this temporary reduction in quality.

In addition, where habitat creation is delayed from the initial impact (for example if a landscaping scheme is delivered in the latter stages of a construction program) an additional temporal risk is applied to represent the time delay from the loss of biodiversity through to creation/enhancement of new habitats. Temporal risk can be mitigated by creating habitats in advance of the impact they are intended to offset, where this is undertaken and the time that will be taken to achieve the habitats target condition is reduced, the negative risk multiplier is also reduced.

Spatial Risk

Where habitat creation is being undertaken to offset habitat loss as a result of the proposals, it is beneficial for such offsetting to be delivered in proximity to the original loss, ideally within the site itself, so that the ecosystem services provided by such habitat will benefit receptors that

are affected by the proposals. Where this is not possible, it is considered that locating off-site compensation within the local planning authority area or the same National Character Area represents a minimal risk. For offsetting delivered further afield a negative multiplier is applied.

Appendix 3 Biodiversity Net Gain Good Practice Principles for Development

The principles set out in **Table 3** are taken from (CIEEM, 2016) and set out the best practice principles that projects should adhere to where designing Biodiversity Net Gain and sets out how the principle has been applied in the design of these proposals.

Table 3: Biodiversity Net Gain Good Practice Principles for Development

Principle	Descriptor	Proposal Design
Principle 1. Apply the Mitigation Hierarchy	Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision-makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation, then offset biodiversity losses by gains elsewhere.	It has been necessary for the baseline habitats to be cleared to facilitate the development. The area being cleared comprises entirely habitats of low distinctiveness. The habitats will be compensated with habitats of higher distinctiveness/better condition once the development has been completed.
Principle 2. Avoid losing biodiversity that cannot be offset by gains elsewhere	Avoid impacts on irreplaceable biodiversity - these impacts cannot be offset to achieve No Net Loss or Net Gain.	All biodiversity loss in the scheme have been offset by gains elsewhere in the scheme.
Principle 3. Be inclusive and equitable	Engage stakeholders early, and involve them in designing, implementing, monitoring and evaluating the approach to Net Gain. Achieve Net Gain in partnership with stakeholders where possible and share the benefits fairly among stakeholders.	A BNG assessment was submitted to support the hybrid application and was commented on by Wokingham Borough Council. The council's comments and feedback were accounted for when the metric was resubmitted in Version 3.1, and have also been carried through to this assessment. The final design has been developed in consultation with the Design Team for the project including engineers, arboriculturists and landscape specialists to ensure that all requirements including traffic, amenity, drainage etc., not just ecology, have been considered.
Principle 4. Address risks	Mitigate difficulty, uncertainty and other risks to achieving Net Gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being fully realised.	We have targeted habitats which are realistic and achievable based on the proposed long-term management of the site. These targets were developed in consultation with the landscape specialists on the Design Team (Pegasus).

Principle	Descriptor	Proposal Design
Principle 5. Make a measurable Net Gain contribution	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.	A measurable net gain has been established through this document. The design of the scheme not only achieves net gain, but furthers the objectives of the Thames Valley Natural Character Area and provides enhancements for a range of protected species. Details of species enhancements are detailed in the Ecological Mitigation Strategy (ECOSA, 2025b) and the Landscape and Ecological Management Plan (Pegasus Group, 2025).
Principle 6. Achieve the best outcomes for biodiversity	Achieve the best outcomes for biodiversity by using robust, credible evidence and local knowledge to make clearly-justified choices when: Delivering compensation that is ecologically equivalent in type, amount and condition, and that accounts for the location and timing of biodiversity losses Compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation Achieving Net Gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels Enhancing existing or creating new habitat Enhancing ecological connectivity by creating more bigger, better and joined areas for biodiversity	The scheme design has retained the significant majority of medium distinctiveness habitats and replaced generally very low and low distinctiveness habitats with low to medium distinctiveness habitats, resulting in an overall gain in the diversity and distinctiveness of the habitat composition on site. Newly created hedgerows and woodlands around the site boundaries have been designed to promote the movement of wildlife around to site.
Principle 7. Be additional	Achieve nature conservation outcomes that demonstrably exceed existing obligations (i.e., do not deliver something that would occur anyway).	The scheme has been designed to deliver a range of habitats including grassland, woodland, hedgerows and a Sustainable Drainage feature which will be managed for wildlife. The scheme also enhances the sites' connectivity to the wider surrounds (through creation of hedgerows and woodland on the boundaries of the site).
Principle 8. Create a Net Gain legacy	Ensure Net Gain generates long-term benefits by: Engaging stakeholders and jointly agreeing practical solutions that secure Net Gain in perpetuity Planning for adaptive management and securing dedicated funding for long-term management	The measures set out in the Landscape and Ecological Management Plan will secure the net gain legacy.

Principle	Descriptor	Proposal Design
	Designing Net Gain for biodiversity to be resilient to external factors, especially climate change Mitigating risks from other land uses Avoiding displacing harmful activities from one location to another Supporting local-level management of Net Gain activities	
Principle 9. Optimise sustainability	Prioritise Biodiversity Net Gain and, where possible, optimise the wider environmental benefits for a sustainable society and economy.	The habitat creation measures proposed have been located to not only provide biodiversity gains but also to provide a positive enhancement to both the sites landscape and amenity use.
Principle 10. Be transparent	Communicate all Net Gain activities in a transparent and timely manner, sharing the learning with all stakeholders.	The preparation of this report sets out transparently how biodiversity net gain has been designed at the site.

Appendix 4 Baseline Hedgerow Condition Assessment

Habitat Ref.	H25	
Broad Habitat	Hedgerows and lines of trees (h)	
Habitat Type	Native hedgerow - associated with bank or ditch (h2a6)	
	Indicator	Condition
A1	Height >1.5m average along length	TRUE
A2	Width >1.5m average along length	TRUE
B1	Gap - Hedge Base Gap between ground and base of canopy <0.5m for >90% of length (unless line of trees)	TRUE
B2	Gap - Hedge Canopy Continuity Gaps make up <10% of total length, and no canopy gaps > 5m	FALSE
C1	Undisturbed Ground and Perennial Vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on at least one side of the hedge	TRUE
C2	Undesirable Perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	TRUE
D1	Invasive and neophyte species >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	TRUE
D2	Current Damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	TRUE
Applicable to Hedgerows with Trees only		
E1	Tree Age At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	N/A
E2	Tree Health At least 95% of hedgerow 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.	N/A
Group A Score:		2
Group B Score:		1
Group C Score:		2
Group D Score		2
Group E Score:		N/A
No. of failures:		1
Number of functional groups where both attributes failed:		0
Condition		Good

Habitat Ref.	H26	
Broad Habitat	Hedgerows and lines of trees (h)	
Habitat Type	Native hedgerow (h2a6)	
	Indicator	Condition
A1	Height >1.5m average along length	TRUE
A2	Width >1.5m average along length	TRUE
B1	Gap - Hedge Base Gap between ground and base of canopy <0.5m for >90% of length (unless line of trees)	TRUE
B2	Gap - Hedge Canopy Continuity Gaps make up <10% of total length, and no canopy gaps > 5m	FALSE
C1	Undisturbed Ground and Perennial Vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on at least one side of the hedge	TRUE
C2	Undesirable Perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	TRUE
D1	Invasive and neophyte species >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	TRUE
D2	Current Damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	TRUE
Applicable to Hedgerows with Trees only		
E1	Tree Age At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	N/A
E2	Tree Health At least 95% of hedgerow 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.	N/A
Group A Score:		2
Group B Score:		1
Group C Score:		2
Group D Score		2
Group E Score:		N/A
No. of failures:		1
Number of functional groups where both attributes failed:		0
Condition		Good

Habitat Ref.	H27	
Broad Habitat	Hedgerows and lines of trees (h)	
Habitat Type	Native hedgerow (h2a6)	
	Indicator	Condition
A1	Height >1.5m average along length	TRUE
A2	Width >1.5m average along length	TRUE
B1	Gap - Hedge Base Gap between ground and base of canopy <0.5m for >90% of length (unless line of trees)	TRUE
B2	Gap - Hedge Canopy Continuity Gaps make up <10% of total length, and no canopy gaps > 5m	TRUE
C1	Undisturbed Ground and Perennial Vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on at least one side of the hedge	TRUE
C2	Undesirable Perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	TRUE
D1	Invasive and neophyte species >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	TRUE
D2	Current Damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	TRUE
Applicable to Hedgerows with Trees only		
E1	Tree Age At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	N/A
E2	Tree Health At least 95% of hedgerow 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.	N/A
Group A Score:		2
Group B Score:		2
Group C Score:		2
Group D Score		2
Group E Score:		N/A
No. of failures:		0
Number of functional groups where both attributes failed:		0
Condition		Good

Habitat Ref.	H28	
Broad Habitat	Hedgerows and lines of trees (h)	
Habitat Type	Species-rich native hedgerow (h2a5)	
	Indicator	Condition
A1	Height >1.5m average along length	TRUE
A2	Width >1.5m average along length	TRUE
B1	Gap - Hedge Base Gap between ground and base of canopy <0.5m for >90% of length (unless line of trees)	TRUE
B2	Gap - Hedge Canopy Continuity Gaps make up <10% of total length, and no canopy gaps > 5m	TRUE
C1	Undisturbed Ground and Perennial Vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on at least one side of the hedge	TRUE
C2	Undesirable Perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	TRUE
D1	Invasive and neophyte species >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	TRUE
D2	Current Damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	TRUE
Applicable to Hedgerows with Trees only		
E1	Tree Age At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	N/A
E2	Tree Health At least 95% of hedgerow 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.	N/A
Group A Score:		2
Group B Score:		2
Group C Score:		2
Group D Score		2
Group E Score:		N/A
No. of failures:		0
Number of functional groups where both attributes failed:		0
Condition		Good

Appendix 5 Post-Development Created Habitat Target Condition

Habitat Ref.	11	
Broad Habitat.	Urban (N/A)	
Habitat Type	Urban Tree (32)	
Justification	Trees will be planted within areas of amenity and semi-natural open space as well as within the developed area. Trees within the semi-natural open space comprise native species, while those proposed in the amenity open space and developed areas are primarily cultivars. As the trees will be newly planted, they will not achieve mature or veteran status in the 'time to target condition' (27 years). It is anticipated that trees will be subject to a management regime (set out in the Landscape and Ecological Management Plan) that will maintain trees in good health and won't require regular pruning that removes more than 75% of the expected canopy for the age range and height of the tree. All trees are positioned to predominantly oversail vegetation beneath.	
	Indicator	Condition
1	The tree is a native species (or more than 70% within the block are native species).	TRUE/FALSE
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).	TRUE
3	The tree is mature ² or veteran ³ (or more than 50% within the block are mature ² or veteran ³).	FALSE
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.	TRUE
5	Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark	FALSE
6	More than 20% of the tree canopy area is oversailing vegetation beneath.	TRUE
Total Score		3-4
Condition		Moderate

Habitat Ref.	4	
Broad Habitat	Heathland and shrub (h)	
Habitat Type	Mixed scrub (h3h)	
Justification	The mixed scrub will be planted with a range of native species including field maple <i>Acer campestre</i> , downy birch <i>Carpinus betulus</i> , hazel <i>Corylus avellana</i> , hawthorn <i>Crataegus monogyna</i> , holly <i>Ilex aquifolium</i> , dog rose <i>Rosa canina</i> and guelder rose <i>Viburnum opulus</i> . Therefore it is anticipated that no one species will comprise more than 75% cover. Given the location of the proposed mixed scrub in relatively small areas within the built environment it will not be possible to provide a significant graded edge or create clearings, glades or rides within the scrub. The scrub will be planted in one phase and will require some regular management due to its location, therefore it is unlikely to develop a good age range. However it is anticipated that the scrub can be managed to ensure no invasive non-native plant species are present.	
	Indicator	Condition
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).	TRUE

2	There is a good age range - all of the following are present: seedlings, young shrubs and mature shrubs	FALSE
3	There is an absence of invasive non-native plant species (as listed on Schedule 9 of Wildlife and Countryside Act) and species indicative of sub-optimal condition make up less than 5% of ground cover.	TRUE
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).	FALSE
5	There are clearings, glades or rides present within the scrub, providing sheltered edges.	FALSE
Total Score		2
Condition		Poor

Habitat Ref.	10		
Broad Habitat	Woodland and forest (w)		
Habitat Type	Other woodland; mixed (w1h)		
Justification	The woodland will be planted with a diverse range of native tree species including field maple <i>Acer campestre</i> , downy birch <i>Betula pubescens</i> , hazel <i>Corylus avellana</i> , hawthorn <i>Crataegus monogyna</i> , holly <i>Ilex aquifolium</i> , crab apple <i>Malus sylvestris</i> , wild cherry <i>Prunus avium</i> and goat willow <i>Salix caprea</i> . As the woodland is less than 10 hectares no temporary open space is proposed.		
	Woodland will be newly planted and therefore it is not possible for multiple age classes to have established within the ‘time to target condition’ for moderate condition (15 years) and there will be no veteran trees present. It has also been assumed that naturally occurring deadwood will be limited in this timeframe. The vertical structure is considered likely to comprise a shrub layer and upper layer only and that saplings and seedlings would likely be present in this timeframe. Although a diverse ground flora will be established as part of the woodland flora, it cannot be assumed that a recognisable NVC plant community will establish.		
	It has been conservatively assumed that there may be some browsing damage that cannot be controlled as the nature of the woodland would not allow the level of exclusion measures required to guarantee there is no browsing, however, given the urban nature of the surroundings it is not considered that browsing pressure would be significant. The location		
	It is anticipated that the management regimen put in place under the Landscape and Ecological Management Plan will ensure invasive species are regularly and proactively removed from the woodland if they occur. It is also anticipated that proactive management will reduce the risk of pests and disease, however, as this cannot be ruled out it is assumed that low risk pests may be present and there may be some crown dieback in future.		
	Indicator	Condition	Score
1	Age distribution of trees	One age-class present.	1
2	Wild, domestic and feral herbivore damage	Evidence of significant browsing pressure is present in 40% or less of whole woodland.	2
3	Invasive plant species	No invasive species present in woodland.	3
4	Number of native tree species	Five or more native tree or shrub species found across woodland parcel.	3
5	Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native.	3
6	Open space within woodland	10 - 20% of woodland has areas of temporary open space. Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted.	3
7	Woodland regeneration	One or two classes only present in woodland.	2
8	Tree health	11% to 25% mortality and/or crown dieback or low-risk pest or disease present..	2

9	Vegetation and ground flora	No recognisable woodland NVC plant community at ground layer present.	1
10	Woodland vertical structure	Two storeys across all survey plots.	2
11	Veteran trees	No veteran trees present in woodland.	1
12	Amount of deadwood	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities.	1
13	Woodland disturbance	Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground.	2
Total Score			26
Condition			Moderate

Habitat Ref.	8		
Broad Habitat	Urban (N/A)		
Habitat Type	Sustainable drainage system (SuDS) (848)		
Justification	The SUDS has been designed to incorporate a range of vegetation structures including native shrub planting, tussocky grassland, wetland meadow and marginal planting. These habitats will be planted with a range of native species including wet tolerant shrub planting dogwood <i>Cornus sanguinea</i> , hazel <i>Corylus avellana</i> , hawthorn <i>Crataegus monogyna</i> , alder buckthorn <i>Frangula alnus</i> , goat willow <i>Salix cinerea</i> and guelder-rose <i>Viburnum opulus</i> , marginal planting marsh marigold <i>Caltha palustris</i> , male fern <i>Dryopteris filix-mas</i> , meadowsweet <i>Filipendula ulmaria</i> , yellow flag iris <i>Iris pseudacorus</i> and soft rush <i>Juncus effusus</i> and a native wetland meadow mix for the base of the basins. These will all be beneficial to wildlife. While the wetland scrapes within the SUDS are likely to be wet throughout the year, the remainder of the SUDS will be dry. It is anticipated that the management regimen set out in the Landscape and Ecological Management Plan will ensure that invasive species do not colonise the area.		
	Indicator		Condition
Core Criteria - must be assessed for all urban habitat types			
1	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.		TRUE
2	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.		TRUE
3	Invasive non-native plant species (listed on Schedule 9 of WCA) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of the total vegetated area.		TRUE
	Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).		TRUE
Additional Criterion - must be assessed for Open moasic on previously developed land only			
4a	The parcel shows spatial variation and forms a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate. (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland.		N/A
Additional Criterion - must be assessed for Bioswale and SUDS habitat types only			
4b	The water table is at or near the surface throughout the year. This could be open water or saturation of soil at the surface.		FALSE
Additional Criterion - must be assessed for green roof habitat types			
4c1	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).		N/A

4c2	The roof has a varied depth of 80 – 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers.	N/A
Total Score		3
Criteria Assessed		5
All Essential Criteria Met?		Yes
Condition		Moderate

Habitat Ref.	2, 3	
Broad Habitat	Grassland (g)	
Habitat Type	Other neutral grassland (g3c)	
Description	The other neutral grassland will be planted with a diverse seed mix) giving it a composition that would fall under this UKHab classification, however, given it's location and management it is unlikely to be an optimal example. The grassland is likely to require regular management which will likely ensure there are no significant areas of bare ground or encroachment of bracken, scrub or invasive species, however, it may also impact the diversity of species that can be achieved and restrict how variable the sward height can be.	
	Indicator	Condition
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.	FALSE
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.	FALSE
3	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.	TRUE
4	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	TRUE
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.	TRUE
Additional Criterion - must be assessed for all non-acid grassland types.		
6	There are greater than 9 species per metre squared. NB - This criterion is essential for achieving good condition (non-acid grassland types only). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	FALSE
Total Score		3
All Essential Criteria Met?		No
Additional Criteria Met?		No
Condition		Poor

Habitat Ref.	1	
Broad Habitat	Grassland (g)	
Habitat Type	Modified grassland (g4)	
Justification	The modified grassland will seeded with a native seed mix (Emorsgate EL1 Flowering Lawn Mixture) and will be subject to intensive management in accordance with the Landscape and Ecological Management Plan. While this means that there will be no encroachment of scrub, bracken or invasive species and physical damage will be minimised, there will be limited opportunity to develop a varied sward height and it is considered likely that the sward diversity may not be high enough to achieve 6-8 vascular species per metre squared.	
	Indicator	Condition
A	There are 6-8 vascular plant species per m ² present, including at least 2 forbs. Note - this criterion is essential for achieving Moderate or Good condition. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² , please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	FALSE
B	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.	FALSE
C	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.	TRUE
D	Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	TRUE
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	TRUE
F	Cover of bracken less than 20%.	TRUE
G	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).	TRUE
Total Score		5
All Essential Criteria Met?		No
Condition		Poor

Habitat Ref.	7
Broad Habitat	Urban
Habitat Type	Rain garden (850)
Justification	Although a variety of planting in rain gardens is proposed including trees, shrubs, forbs, ferns and grasses, in some cases one of these options may account for more than 80% of the total habitat area, so it has been conservatively assumed it will not meet this criteria.

	Indicator	Condition
Core Criteria - must be assessed for all urban habitat types		
1	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	FALSE
2	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	FALSE
3	Invasive non-native plant species (listed on Schedule 9 of WCA) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of the total vegetated area.	TRUE
	Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	TRUE
Additional Criterion - must be assessed for Open moasic on previously developed land only		
4a	The parcel shows spatial variation and forms a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate. (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland.	N/A
Additional Criterion - must be assessed for Bioswale and SUDS habitat types only		
4b	The water table is at or near the surface throughout the year. This could be open water or saturaton of soil at the surface.	N/A
Additional Criterion - must be assessed for green roof habitat types		
4c1	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).	N/A
4c2	The roof has a varied depth of 80 – 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers.	N/A
Total Score		1
Criteria Assessed		4
All Essential Criteria Met?		Yes
Condition		Poor

Appendix 6 Post-Development Created Hedgerow Habitats Target Condition

Habitat Ref.	H28, H57	
Broad Habitat	Hedgerows and lines of trees (h)	
Habitat Type	Species-rich native hedgerow (h2a5)	
Justification	Hedgerows within the Public Open Space will be allowed to develop to a height and width of at least 1.5 metres and will be subject to a management regime that ensures canopy continuity and a suitable gap at the hedge base, as well as ensuring that nutrient enrichment is minimised, there is no significant encroachment of invasive and neophyte species and that hedgerows are protected from damage caused by humans. Given the locations of these hedgerows with the Public Open Space, it is reasonable to assume a margin of at least 1m of undisturbed ground will be maintained at the base.	
	Indicator	Condition
A1	Height >1.5m average along length	TRUE
A2	Width >1.5m average along length	TRUE
B1	Gap - Hedge Base Gap between ground and base of canopy <0.5m for >90% of length (unless line of trees)	TRUE
B2	Gap - Hedge Canopy Continuity Gaps make up <10% of total length, and no canopy gaps > 5m	TRUE
C1	Undisturbed Ground and Perennial Vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on at least one side of the hedge	TRUE
C2	Undesirable Perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	TRUE
D1	Invasive and neophyte species >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	TRUE
D2	Current Damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	TRUE
Applicable to Hedgerows with Trees only		
E1	Tree Age At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	N/A
E2	Tree Health At least 95% of hedgerow 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.	N/A
Group A Score:		2
Group B Score:		2

Group C Score:	2
Group D Score	2
Group E Score:	N/A
No. of failures:	0
Number of functional groups where both attributes failed:	0
Condition	Good

Habitat Ref.	H26, HR10_1	
Broad Habitat	Hedgerows and lines of trees (h)	
Habitat Type	Species-rich native hedgerow with trees (h2a5)	
Justification	Hedgerows within the Public Open Space will be allowed to develop to a height and width of at least 1.5 metres and will be subject to a management regime that ensures canopy continuity and a suitable gap at the hedge base, as well as ensuring that nutrient enrichment is minimised, there is no significant encroachment of invasive and neophyte species and that hedgerows are protected from damage caused by humans. Given the locations of these hedgerows with the Public Open Space, it is reasonable to assume a margin of at least 1m of undisturbed ground will be maintained at the base. As trees will be newly planted they are unlikely to reach maturity in the 'time to target condition' however the management regime will ensure that tree health is maintained.	
	Indicator	Condition
A1	Height >1.5m average along length	TRUE
A2	Width >1.5m average along length	TRUE
B1	Gap - Hedge Base Gap between ground and base of canopy <0.5m for >90% of length (unless line of trees)	TRUE
B2	Gap - Hedge Canopy Continuity Gaps make up <10% of total length, and no canopy gaps > 5m	TRUE
C1	Undisturbed Ground and Perennial Vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on at least one side of the hedge	TRUE
C2	Undesireable Perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	TRUE
D1	Invasive and neophyte species >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte speies	TRUE
D2	Current Damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	TRUE
Applicable to Hedgerows with Trees only		
E1	Tree Age At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	FALSE

E2	Tree Health At least 95% of hedgerow 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.	TRUE
Group A Score:		2
Group B Score:		2
Group C Score:		2
Group D Score:		2
Group E Score:		1
No. of failures:		1
Number of functional groups where both attributes failed:		0
Condition		Good

Habitat Ref.	H10-24,h10-25,h10-26	
Broad Habitat	Hedgerows and lines of trees (h)	
Habitat Type	Native hedgerow (h2a6)	
Justification	Native hedgerows are proposed along the edge of car parks in the developed area, due to their location and purpose they are likely to be box cut to a low height and width and will have 'developed land; sealed surface' within 1 metre of their base, potentially on both sides (so this criteria as been conservatively failed). The hedgerows will be subject to will be subject to a management regime that ensures canopy continuity and a suitable gap at the hedge base, as well as ensuring that nutrient enrichment is minimised, there is no significant encroachment of invasive and neophyte species and that hedgerows are protected from damage caused by humans.	
	Indicator	Condition
A1	Height >1.5m average along length	FALSE
A2	Width >1.5m average along length	FALSE
B1	Gap - Hedge Base Gap between ground and base of canopy <0.5m for >90% of length (unless line of trees)	TRUE
B2	Gap - Hedge Canopy Continuity Gaps make up <10% of total length, and no canopy gaps > 5m	TRUE
C1	Undisturbed Ground and Perennial Vegetation >1m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: Measured from outer edge of hedgerow; and Is present on at least one side of the hedge	FALSE
C2	Undesirable Perennial vegetation Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	TRUE
D1	Invasive and neophyte species >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	TRUE

D2	Current Damage >90% of the hedgerow or undisturbed ground is free of damage caused by human activities	FALSE
Applicable to Hedgerows with Trees only		
E1	Tree Age At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	N/A
E2	Tree Health At least 95% of hedgerow 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.	N/A
Group A Score:		0
Group B Score:		2
Group C Score:		1
Group D Score		1
Group E Score:		N/A
No. of failures:		4
Number of functional groups where both attributes failed:		1
Condition		Moderate