

BIODIVERSITY ENHANCEMENT MANAGEMENT PLAN

March 2024

Edgehill Park – Phase 4,
Gameriggs Road,
Whitehaven,
CA28 9RA

**U R B A N
G R E E N**



QUALITY MANAGEMENT

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1 Introduction

1.1 Background to the Scheme

Story Homes are proposing to develop land at Edgehill, Gameriggs Road in Whitehaven (hereafter referred to as ‘the site’). The proposals include the development of a residential housing scheme with associated hard and soft landscaping Urban Green have been appointed to provide a Biodiversity Enhancement Management Plan (BEMP) for the site.

The author of the report is Biodiversity Net Gain Consultant Shannon Brady. Shannon has experience providing BNG consulting services for a range of development schemes across the UK, including residential and commercial schemes.

1.2 Site Context

The site is located at National Grid Reference NX 97427 15703 and comprises a total area of approximately 5.86ha (see Figure 1).



Figure 1 – Site Extent

The site is located in a predominantly rural area of Whitehaven, approximately 2.4km south of the town centre. Residential estates are present immediately to the north, east and south of the site. Areas of woodland are also present immediately to the north and south of the site, with a larger area of woodland present approximately 200m to the east. Land immediately to the west of the site is an active construction site for a residential development. Arable fields and pastureland are present in the wider area to the south and west. Saltom Bay is present approximately 1.4km to the north-west of the site.

1.3 Purpose of this Management Plan

The purpose of this management plan is to provide a schedule for the long-term management of habitats on site, ensuring that existing and proposed habitats are suitably maintained and to ensure good establishment and continued improvement of habitat condition. This allows those responsible for the management and maintenance of the site to understand the existing habitats, the development and ongoing management requirements of the site. The management plan does not cover the management and maintenance of private residential areas.

1.4 Aims of this Management Plan

This management plan covers the habitat creation and enhancement on site, as detailed within the Biodiversity Net Gain (BNG) Assessment (Urban Green, 2023). This report assessed the development as scoring a gain of 98.68% in area biodiversity units and 100% in linear habitat units utilising the Biodiversity Metric 3.1.

Appropriate management practices are essential to ensuring that the proposed habitats reach the condition outlined within the Biodiversity Net Gain assessment and that the development achieves the predicted gain in value to the environment. The aim of this management plan is to provide a habitat management plan that:

- Maintains and enhances site biodiversity, through the sustainable management of on-site habitats;
- Promotes the successful establishment and growth of newly created habitats;
- Ensures the health and safety of all site user's post development is protected;
- Outlines a process for the regular monitoring and review of management practices and site habitats; and
- Provide measurable and achievable targets appropriate to each habitat to ensure condition targets are met as set out in Section 5 in accordance with Biodiversity Metric 3.1 habitat condition sheets.

2 Management Considerations

2.1 Management Responsibilities

The implementation of this management plan will be the responsibility of the landowner. Any transference of responsibility of this plan should be undertaken with the appropriate appointment of a competent organisation capable of delivering the management detailed within the document.

The organisation implementing this plan will be a management company with the necessary certificates of competence to implement landscape management operation on site. The managing organisation will ensure that all site management complies with good practice standards and all relevant health and safety procedures. The managing organisation will also ensure that measures outlined to avoid pollution incidents, comply with protected species and habitats legislation, and ensure overall environmental protection are enforced.

A maintenance specification is provided in Section 5. This sets out the detailed maintenance requirements for the habitats onsite, which must be followed at all times. Any deviations from the management plan must be highlighted to the site owners or management company.

2.2 Controlling Authority

The controlling authority, Copeland Borough Council, should be consulted on any matters relating to the approved landscape proposals for the scheme.

2.3 Health and Safety

The site will be managed to comply with all relevant health and safety legislation, approved codes of practice (ACOP) and Health and Safety Executive (HSE) guidance.

As the managing organisation will be the main company involved in on site works, the managing organisation will fulfil the landowner's role and the work manager's role. This places an obligation on the managing company to ensure that any contractor understands and fulfils their health and safety role and any work undertaken on the site will follow the guidelines of the HSE.

2.4 Monitoring and Review

Regular monitoring of the development against measurable targets (as detailed within Section 5.) will be undertaken across all habitats detailed within this management plan. The outcome of this monitoring will form part of a Monitoring and Audit Report to be submitted to the site owner annually to inform the forthcoming year's work. The report will include management operations undertaken, any unexpected changes or declines in habitat condition and any actions required that fall outside those detailed within this report.

A more in-depth habitat assessment of the created habitats on site should also be undertaken between April and September annually by an experienced ecologist. Results should be reported back and feed into a five-year management plan review, to enable assessment of the management prescriptions against the defined objectives for each habitat. Where objectives are not being adequately met, appropriate action will be put in place, with any refinements incorporated into the updated management plan and annual work programme. This review will enable maintenance operations to evolve in accordance with habitat requirements as they establish, and mature and targeted conditions are met.

2.5 General Measures

Habitat creation on site will follow details set out in the Proposed Landscape Design (Urban Green, 2023). The following general measures shall be met to ensure successful habitat creation and succession on site.

- All planting is to follow guidance set out in the relevant British Standard or Horticultural Trades Association documents and carried out by a competent person.
- Planting is to remain undamaged, with healthy and vigorous growth, and is to be planted upright and well balanced. Trees and shrubs are to be of good shape and without elongated shoots, grown in a suitable environment and hardened off before being delivered to the site.
- All planting is to be true to name and free from pests, diseases, discoloration, weeds, fungus, and physiological disorders upon planting.
- If plants/trees are unobtainable alternatives are to be agreed with the Ecologist/Landscape Architect in writing prior to ordering.
- After planting ensure that the full depth of topsoil is wetted. Apply water evenly and without damaging or displacing plants or soil. Continue to water as necessary to ensure the successful establishment and continued thriving of planting.
- Notices will be provided at strategic locations, such as beside footpath entrances and POS areas to encourage self-removal of general litter and dog waste. A general litter pick should be undertaken as appropriate to avoid harm to wildlife or encouragement of pests.
- All tree/shrub/hedgerow works shall be completed outside of nesting bird season (i.e. between October and February inclusive). If works are required within the nesting bird season, a check must be undertaken of all affected trees by a suitably qualified ecologist.
- All tree works shall be carried out by a skilled, qualified and approved Arboricultural Contractor in accordance with BS3998: 2010 'Tree Work – Recommendations'.
- Creation of a SuDS pond will be undertaken by a qualified contractor and ensure construction runoff and waste is adequately managed.

3 Ecological Baseline

The ecological baseline for the site was assessed within the Preliminary Ecological Assessment (EA) (Urban Green, 2022) informed by an extended phase one habitat survey. A summary of notable/protected species and habitats identified on site is provided below though full descriptions are available within the EA. The baseline habitat map for the site can be found in Appendix 1.

Table 1 – Protected/Notable Fauna Species

Species / Species Group	Field Evidence	Considered within Assessment	Rationale for Consideration
Fauna			
Birds (nesting)	None	Yes	The different areas of scrub on site provide potential nesting habitat for notable bird species, and the scrub, grassland and wet habitats provide potential habitat for foraging birds within the site.
Hedgehog (<i>Erinaceus europaeus</i>)	None	Yes	The scrub habitats within the site provide potential habitat for foraging and hibernating hedgehog. The loss of this habitat, given its small extent and disturbed nature of the site, is unlikely to have an impact on hedgehog populations but there may be temporary disturbance during the construction works.
Badger (<i>Meles meles</i>)	None	Yes	Within the data search, one record of badger was returned within 1km of the site. No evidence of badger was recorded during the field survey, however, the area of scrub to the west of the site is on sloping ground which provides appropriate sett constructing habitat. It is also possible that badger could use the site for foraging and commuting.
Aquatic Mammals	None	No	There is no suitable habitat for otter or water vole present within, or within influencing distance of, the site.
Bats (all species)	None	No	There were no buildings or trees on site offering roosting potential for bats, although there was one building adjacent to the site boundary which had moderate potential. The scrub habitat offers community and foraging value but is not connected to other off-site habitats and so the overall site provides low potential for bats.
Reptiles	None	No	The desk study returned no records for reptiles and the habitats available provided limited opportunity for reptiles, given the largest area was low quality grassland. Reptiles were not considered to be on site.

Great crested newt (<i>Triturus cristatus</i>)	None	Yes	No records for great crested newt were returned from the desk study. However, there were 3 ponds on site and 3 ponds within 250m of the site. These ponds were of poor suitability for newts but still offered some habitat value. Consequently, the presence of GCN cannot be discounted. Updated eDNA surveys are to be carried out on all ponds on site and within 250m of the site.
Invertebrates	None	No	9 records of invertebrates were returned within the data search and the aquatic habitats and reed beds on site offer high value to notable invertebrates. However, these habitats are small in size and low quality, therefore the presence of notable invertebrates is discounted.
Common Amphibians	None	Yes	Three ponds exist on site and three within 250m of the site which offer value to common amphibians. The grassland on site lacked a varied sward height which may also provide cover and foraging opportunities. As such, the presence of amphibians must be considered.
Flora			
Protected Plant Species	No	No	The data search returned two records of notable vascular plant species attributed to English bluebell (<i>Hyacinthoides non-scripta</i>). No protected plant species were identified on site during the survey.
Invasive Plant Species	No	No	No invasive, non-native species were present on site at the time of the field survey.

Table 2 – Pre-development Habitats Identified

Uk Hab Classification	Dominant Species / Description	Development Actions and Mitigation
1) Modified grassland	Large area of poor condition grassland which showed evidence of grazing.	Area to be lost and compensated for by creating other areas of modified grassland.
2) Vacant/derelict/bare ground	An active construction site was present along the western boundary of the site and extended into the survey area.	Area to be lost, however, this provides limited habitat value. Any habitat value

		lost will be compensated for by planting urban trees.
3) Other neutral grassland	This habitat is characterised as marshy grassland and two different areas were identified and contained similar plant communities.	These areas are currently in poor condition and will be lost to development. Larger areas of other neutral grassland will be created surrounding the new pond which will contain species suited to wet ground.
4) Lakes – pond (non-priority)	Two areas of standing water were present which were dominated by rushes.	A large SuDS pond will compensate for the loss of wetland areas.
5) Lakes – pond (non-priority)	A construction pond had been created within the area of bare ground and was fenced off. There was limited vegetated around the periphery.	A large SuDS pond will compensate for the loss of wetland areas.
6) Bramble scrub	A small patch of dense scrub was present to the north of the site.	Larger areas of mixed scrub containing a range of native species will be created which will compensate in full for the loss of this habitat.
7) Gorse scrub	One small patch of gorse scrub was present in the centre of the site.	New areas of native mixed scrub will compensate in full for the loss of this habitat.
8) Developed land, sealed surface	An area of hardstanding is present to the east of the site which will form access.	Area to be retained in full

4 Development Proposals

The development covers approximately 5.87ha, comprising a large residential scheme of housing units with associated gardens and hard and soft landscaping. The southern end of the site contains no housing units and will be used as a recreational area and landscaped in the interest of biodiversity. All existing habitats, apart from the small area of hardstanding, will be lost to development and replaced. Newly created habitats include other neutral grassland, mixed scrub, urban trees, rain gardens, modified grassland, a pond and hedgerows.

The development is expected to achieve a 98.68% net gain in area habitat units and a 100% gain in linear hedgerow units. This is above the requirements laid out in national and local planning policy and all habitat creation satisfies the trading rules laid out by the metric.

5 Ecological Strategy

This section summarises the management strategy for each habitat proposed to be introduced within the final design of the scheme. The proposed landscape layout (Urban Green, 2023) found in Appendix 2 displays the final proposed habitats and their location on site.

5.1 Habitat Creation

5.1.1 Urban trees

196 new urban trees will be planted across the site. The trees will be a mix of native and non-native species and will be planted across the whole site. The targeted condition for the urban tree habitat is moderate, with an expected target condition time of 27 years. Detailed management techniques are detailed within Table 3 along with the corresponding condition criteria. Each objective includes a target time for positive assessment provided to enable identification of failing management and trigger early intervention. In order to reach the expected targeted condition of moderate at least 3 of the following criteria are expected to be achieved. As condition criterion 1 is fixed by the landscape design, and individual trees automatically pass criterion 2, these are not assessed. An annual schedule of works is detailed in Table 9.

Table 3: Management objectives for urban trees

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. The tree is a native species	N/A	N/A	N/A
2. The tree canopy is predominantly continuous	N/A	N/A	N/A
3. The tree is mature or veteran	<ul style="list-style-type: none"> Limit the use of damaging management practices e.g., herbicide use After 10-20 years, trees will reach semi-maturity and appropriate corrective surgery may be necessary. Undertake annual arboricultural assessments 	Mature and veteran trees are more effective than young trees at providing air filtration services and sequester carbon. Veteran trees provide additional niches for wildlife	10 years
4. There is little or no evidence of an adverse impact on tree health by anthropogenic activities and no current regular pruning regime so the trees retain >75% of expected canopy	<ul style="list-style-type: none"> Only undertake management activities where necessary Limit use of herbicides around trees Tree works/pruning should be undertaken by a qualified professional Avoid cutting all specimens across the plot in a single period, particularly where this is likely to remove all 	Promotes healthy growth and supports growth to maturity.	From year 1

	flower/fruit interest for wildlife.		
5. Micro-habitats for birds, mammals and insects are present	<ul style="list-style-type: none"> • Leave any micro-habitat features, such as ivy and loose bark, in place • Where it is safe and appropriate, retain standing dead wood • No management activities to take place during nesting season 	Ensures diversity is maintained throughout by allowing the creation of additional habitat niches which can be exploited by wildlife.	By year 5
6. More than 20% of the tree canopy area is overhanging vegetation beneath	<ul style="list-style-type: none"> • Leave a 6m unmown buffer zone around each tree to allow natural succession of surrounding vegetation • Limit the use of herbicides within this zone • Periodic removal of non-native invasive species 	Creates a buffer habitat around trees to allow movement of wildlife and increases diversity of flora	From year 1

5.1.2 Mixed scrub

New areas of mixed scrub are to be created by planting a mix of native shrub species, including hazel (*Corylus avellana*) and hawthorn (*Crataegus monogyna*). The targeted condition for all areas of mixed scrub is moderate, with an expected target condition time of 5 years. In order to reach the expected targeted condition of moderate at least 3 of the following criteria are expected to be achieved. An annual schedule of works is detailed in Table 10.

Table 4: Management objectives for mixed scrub

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. Habitat is representative of UKHab description and there are at least three woody species	<ul style="list-style-type: none"> • Replace lost plants with another of the same species, size and quality to ensure diversity is maintained and one species cannot dominate. 	A wide range of species provides varied foraging, commuting nesting opportunities to birds, invertebrates and small mammals	From year 1
2. There is a good age range	<ul style="list-style-type: none"> • Allow natural seeding of new shrubs • Manage shrubs to promote health and reach full growth • Replace lost shrubs with young plants, according to the landscape plan 	Different life stages provide different foraging and habitat opportunities	From year 4

3. There is an absence of invasive non-native species	<ul style="list-style-type: none"> • Identification and removal of invasive non-native species as soon as possible. • Where possible, do this by hand. If necessary, application of herbicide should be carried out by an experienced contractor. 	Ensure native assemblage of species throughout mixed scrub habitat. Prevents competition from aggressive non-native species.	From year 1
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).	<ul style="list-style-type: none"> • Limit mowing in the immediate habitat surrounding the areas of mixed scrub to allow succession of natural vegetation • Avoid using fertiliser on site to prevent a small number of species dominating 	Creates a gentle habitat gradient to allow movement of fauna and increases diversity around the mixed scrub habitat.	From year 1
5. There are clearings, glades or rides present within the scrub, providing sheltered edges.	<ul style="list-style-type: none"> • Hand removal of large growing species in clearings/rides/glades which would close the open spaces within this habitat 	Creates edge habitat which provides additional foraging and commuting benefits for birds, invertebrates and small mammals	By year 5

5.1.3 Rain garden

Two areas of rain garden will be created along the northern boundary using species adapted to wet habitats such as false fox sedge (*Carex otrubae*) and sweet vernal grass (*Anthoxanthum odoratum*). The targeted condition for all areas of rain garden is moderate, with an expected target condition time of 5 years. In order to reach the expected targeted condition of moderate at least 2 of the following criteria are expected to be achieved.

Table 5: Management objectives for rain garden

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. Vegetation structure is varied	<ul style="list-style-type: none"> • To be encouraged through appropriate selection of species during development • Monitoring to ensure balance of species across habitat areas • Replace any lost plants with plants of the same species, size and quality 	A wide range of species provides varied habitats and foraging opportunities for birds, invertebrates and small mammals	From year 1
2. There is a diverse range of flowering plant	<ul style="list-style-type: none"> • To be encouraged through appropriate selection of 	Different life stages provide different foraging and habitat opportunities	From year 4

species, providing nectar sources for insects	species during development		
3. Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area.	<ul style="list-style-type: none"> • Identification and removal of invasive non-native species as soon as possible. • Where possible, do this by hand. If necessary, application of herbicide should be carried out by an experienced contractor. 	Ensure native assemblage of species throughout rain garden. Prevents competition from aggressive non-native species.	From year 1

5.1.4 Other neutral grassland – wildflower meadows

Two types of wildflower meadow are to be created – one sown with standard general purpose wildflower mixture and another sown with wildflower mixture suitable for wet habitats. Both of these habitats are expected to reach good condition with an expected target condition time of 10 years. In order to reach the expected targeted condition of good the at least 5 of the following criteria are expected to be achieved. Criteria 1 and 6 are dependent on the selection of seed at design stage and therefore have not been assessed. An annual schedule of works is detailed in Table 11.

Table 6: Management objectives for wildflower meadow

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type. Indicator species are clearly visible throughout sward	N/A	N/A	N/A
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)	<ul style="list-style-type: none"> • Mow the meadow in the first year after sowing to encourage growth of perennials and grasses and continue mowing every 2 months over first year summer months • Once established, mow wildflower meadows in spring, summer and autumn to encourage seasonal growth. • Remove grass clippings to keep nutrient levels low 	Varied sward heights provide increased opportunities for commuting and foraging for birds, invertebrates and small mammals	From year 1

	<ul style="list-style-type: none"> Mow different sections of meadow at different times of year to encourage maximum diversity 		
3. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	<ul style="list-style-type: none"> Ensure adequate seeding of bare ground Monitor growth and seed areas of bare ground when seasonally appropriate. 	Ensures widespread cover of meadow assemblages and reduces space for more dominant species to colonise	From year 1
4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	<ul style="list-style-type: none"> Regular inspection of meadow area for bracken and scrub growth Hand removal of bracken and scrub species where the cover is approaching the limit 	Preserves the diverse nature of meadow areas and the specific habitat services they provide	From year 2
5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	<ul style="list-style-type: none"> Identification and removal of invasive non-native species as soon as possible. Where possible, do this by hand. If necessary, application of herbicide should be carried out by an experienced contractor. 	Ensure native assemblage of species throughout rain garden. Prevents competition from aggressive non-native species.	From year 1
6. There are greater than 9 species per metre squared	N/A	N/A	N/A

5.1.5 Other neutral grassland – marginal planting

Two areas of marginal planting will border the SuDS pond and these areas will contain species which thrive in wet habitats, for example, greater pond sedge (*Carex riparia*) and yellow iris (*Iris pseudacorus*). This habitat is expected to reach poor condition, due to failing essential criteria, with an expected target condition time of 10 years. To achieve moderate condition, at least 3 criteria would need to be achieved (including essential criterion 1) or 5 criteria to achieve good condition. Criteria 1 and 6 are dependent on the selection of seed at design stage and therefore have not been assessed.

Table 7: Management objectives for marginal planting

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. The appearance and composition of the vegetation closely matches characteristics of the specific	N/A	N/A	N/A

grassland habitat type. Indicator species are clearly visible throughout sward			
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)	<ul style="list-style-type: none"> Remove any dead plant material as needed Replace any lost plants with plants of the same size and species Avoid the use of fertilisers 	Varied sward heights provide increased opportunities for foraging and provides refuge for amphibious species.	From year 1
3. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	<ul style="list-style-type: none"> Ensure adequate planting of bare ground Monitor growth and replace lost plants with others of the same species and size when seasonally appropriate. 	Ensures widespread cover of wetland vegetation and reduces space for more dominant or terrestrial species to colonise	From year 1
4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	<ul style="list-style-type: none"> Regular inspection of meadow area for bracken and scrub growth Hand removal of bracken and scrub species where the cover is approaching the limit 	Preserves the diversity of wetland habitat and the specific habitat services it provides	From year 2
5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	<ul style="list-style-type: none"> Identification and removal of invasive non-native species as soon as possible. Where possible, do this by hand. If necessary, application of herbicide should be carried out by an experienced contractor. 	Ensure native assemblage of species. Prevents competition from aggressive non-native species.	From year 1
6. There are greater than 9 species per metre squared	N/A	N/A	N/A

5.1.6 Pond (non-priority habitat) – SuDS pond

A SuDS Pond with an area of approximately 0.12ha will be created at the southern end of the site. This pond will provide a valuable aquatic habitat and is surrounded by appropriate vegetation suitable for wet habitats. The targeted condition for the pond is moderate with an expected time to reach target condition of 3 years. In order to reach the expected targeted condition of moderate at least 6 of the following criteria are expected to be achieved. As criteria 2, 4 and 7 are achieved during landscape planning and development, these have not been assessed.

Table 8 – Management objectives for SuDS pond

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution.	<ul style="list-style-type: none"> Ensure marginal habitats are suitably maintained to reduce run-off of sediment into the pond Avoid intensive management activities around the pond edge Remove large litter regularly 	Ensures aquatic vegetation receives adequate light levels	From year 1
2. There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge.	N/A	N/A	N/A
3. Less than 10% of the pond is covered with duckweed or filamentous algae.	<ul style="list-style-type: none"> Remove duckweed and filamentous algae by hand using a pond net or a rake 	Ensures aquatic vegetation receives adequate light levels	From year 1
4. The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework.	N/A	N/A	N/A
5. Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework.	<ul style="list-style-type: none"> The wider landscape should be managed to facilitate natural water movement across site by maintaining habitats in expected condition Clear any obvious channels for water movement of debris and litter 	Allows a range of aquatic and marginal vegetation to grow in the suitable water depths	From year 1
6. There is an absence of non-native plant and animal species.	<ul style="list-style-type: none"> Identification and removal of invasive non-native species as soon as possible. Invasive species to be removed by hand 	Ensure native assemblage of species. Prevents competition from aggressive non-native species.	From year 1

7. The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	N/A	N/A	N/A
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.	<ul style="list-style-type: none"> Naturally occurring aquatic vegetation should be allowed to colonise and spread within the pond Limited, if any, management of pond plants No fertiliser to be used in or around the margins of the pond Removal of invasive non-native species 	Aquatic plants provide natural filtration services and provide refuge for amphibians and aquatic invertebrates	From year 1
9. The surface of non-woodland ponds is no more than 50% shaded by woody bankside species.	<ul style="list-style-type: none"> Maintain the surrounding marginal vegetation and wet meadow in expected condition so scrub cover is low Hand removal of shrub and tree species in habitats where percentage cover is breaching limit as described in 5.1.4 and 5.1.5 	Ensures light levels are kept as high as possible to benefit aquatic and marginal vegetation	From year 4

5.1.7 Urban and Amenity Habitats

The following habitats will also be created as part of the scheme:

- Amenity grassland
- Introduced Shrub
- Bulb planting

Though these habitats have low habitat value and are of poor or undefined condition, they nevertheless perform an important function by providing connectivity through the built environment. The following management principles should be adhered to within the regular maintenance regime:

- **Amenity grassland**
 - Mow according to a regular schedule suitable for the site and the season
 - Mow different compartments of grassland at different times

- Leave a buffer of unmown grassland around the edge of each habitat compartment where possible
- Leaving grass cuttings in-situ will act as a natural fertiliser for the grassland
- **Introduced Shrub**
 - While regular cutting of introduced shrub will help to maintain shape and vigour cutting to promote flowering/fruited and height variation should be encouraged to promote diversity.
 - Avoid cutting all specimens across the plot in a single period, particularly where this is likely to remove all flower/fruit interest for wildlife.
- **Bulb planting**
 - Loosen soil before planting to improve drainage
 - Use natural mulch rather than artificial fertilisers
 - When the growing season is finished and plants are dying back, leave the organic matter in-situ as a natural mulch

5.2 Five Year Work Programme

Table 9 – Five year work programme for urban trees

Habitat	Action	Frequency Notes	Indicative timing of operation											
			J	F	M	A	M	J	J	A	S	O	N	D
Urban trees	Initial and replacement planting	Year 1 then as required to year 5	Green	Green	Green	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	
	Control and removal of non-native species surrounding trees	As required year 1 to 5	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
	Monitoring throughout growing and dormant period to ensure successful establishment and control browsing and other damage	Every three months years 1 to 5	Green	Orange	Orange	Green	Orange	Orange	Green	Orange	Orange	Green	Orange	Orange
	Any required pruning to damaged or diseased trees	As required year 1 to 5	Green	Green	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	

Table 10 – Five year work programme for mixed scrub

Habitat	Action	Frequency Notes	Indicative timing of operation													
			J	F	M	A	M	J	J	A	S	O	N	D		
Mixed scrub	Initial and replacement planting	As required year 1 to 5														
	Visual inspection to assess plant health	At regular intervals every year														
	Control and removal of invasive non-native species	As required year 1 to 5														
	Monitoring throughout growing and dormant period to ensure successful establishment and control browsing and other damage	Every three months years 1 to 5														
	Pruning of plants using appropriate methods.	As required year 1 to 5														

Table 11 – Five year work programme for wildflower meadows

Habitat	Action	Frequency Notes	Indicative timing of operation											
			J	F	M	A	M	J	J	A	S	O	N	D
Wildflower meadow	Initial and replacement planting	Year 1 then as required to year 5	Orange	Orange	Green	Green	Green	Orange	Orange	Green	Green	Green	Orange	Orange
	Control and removal of non-native species	As required year 1 to 5	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Monitoring throughout growing and dormant period to ensure successful establishment and control browsing and other damage	Every three months years 1 to 5	Green	Orange	Orange	Green	Orange	Orange	Green	Orange	Orange	Green	Orange	Orange
	Mowing of meadow areas	Spring, summer and autumn, as appropriate	Orange	Orange	Green	Orange	Orange	Orange	Orange	Green	Orange	Green	Orange	Orange

6 References

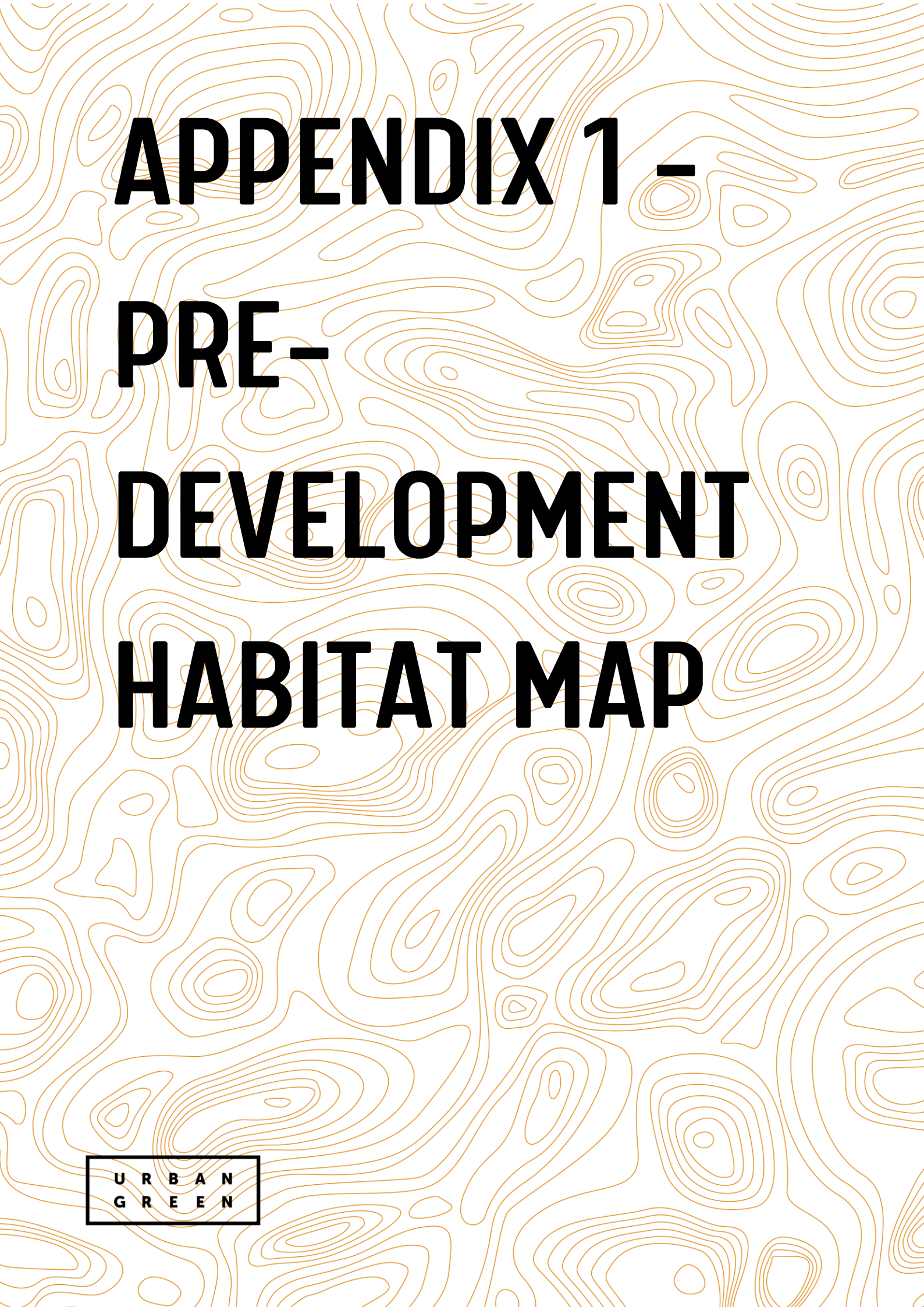
GOV.UK. 2022. *Manage scrub and scrub mosaics*. [online] Available at: <<https://www.gov.uk/guidance/manage-scrub-and-scrub-mosaics#:~:text=Managing%20scrub%20edges&text=Avoid%20topping%20dense%20patches%20of,to%20avoid%20destroying%20seeding%20herbs.>>

Rhs.org.uk. 2022. *How to grow bulbs / RHS Gardening*. [online] Available at: <<https://www.rhs.org.uk/plants/types/bulbs/growing-guide>>.

Rhs.org.uk. 2022. *How to grow bulbs / RHS Gardening*. [online] Available at: <<https://www.rhs.org.uk/plants/types/bulbs/growing-guide>>

Urban Green (2023). UG_1415_ECO_BNG_03

UG1415 (2023). UG1415 MASTERPLAN.

The background of the entire page is a topographic map pattern, consisting of numerous thin, light brown contour lines that create a complex, organic, and somewhat abstract landscape. The lines vary in thickness and spacing, suggesting different elevations and terrain features.

APPENDIX 1 - PRE- DEVELOPMENT HABITAT MAP

The logo for 'URBAN GREEN' is located in the bottom left corner. It consists of the words 'URBAN' and 'GREEN' stacked vertically, with each letter in a bold, black, sans-serif font. The text is enclosed within a thin black rectangular border.

**URBAN
GREEN**

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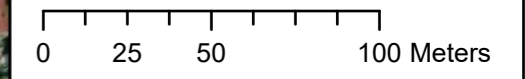
Legend

- Red Line Boundary
- Hardstanding

Target Note

Label

- TN1 - Lack of access, ongoing construction
- TN4 - Land grab from residential property
- Standing Water
- Bare ground
- Marsh/Marshy Grassland
- Dense/Continuous Scrub
- Poor Semi-improved Grassland
- Tall Ruderal



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G R E E N**

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 Deva City Office Park, Trinity Way,
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Client: **Story Homes**

Project: **Edgehill Park Phase 4**

Title: **Habitat Map**

Issue: **01**

Drawn: CL	Checked: MM	Approved: MM
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Project: UG1415	Scale @ A3: 1:2250	Date: 26/01/2022
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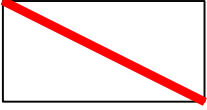
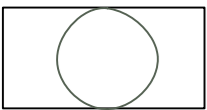

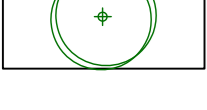

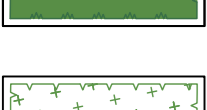


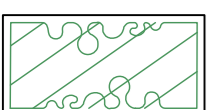
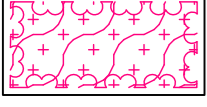


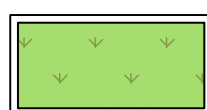
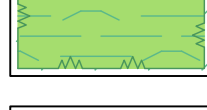

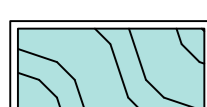
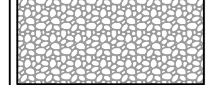



Dwg No: UG1415_ECO_HM_01	Revision: 01
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The background of the entire page is a topographic map with orange contour lines of varying thicknesses, creating a complex, organic pattern of hills and valleys.

APPENDIX 2 - PROPOSED LANDSCAPE PLAN

**U R B A N
G R E E N**

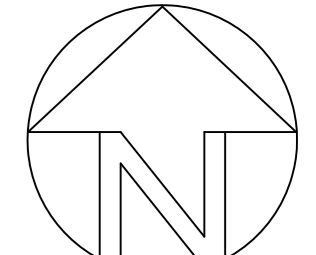
KEY

-  **RED LINE BOUNDARY**
- Soft Works**
-  **EXISTING TREES**
To be retained
-  **TREE PLANTING TO OPEN PUBLIC SPACES**
Refer to planting schedule for further information
-  **TREE PLANTING TO RESIDENTIAL PROPERTIES**
Refer to planting schedule for further information
-  **MULTISTEM TREE PLANTING TO RESIDENTIAL PROPERTIES AND LINEAR PARK**
Refer to planting schedule for further information
-  **HEDGEROW PLANTING**
Refer to planting schedule for further information
-  **PLANTING MIX TO RESIDENTIAL PROPERTIES - TYPE 1**
Refer to planting schedule for further information, section Coastal Ornamental Mix
-  **PLANTING MIX TO RESIDENTIAL PROPERTIES - TYPE 2**
Refer to planting schedule for further information, section Coastal Structural Mix
-  **STREET PLANTING MIX**
Refer to planting schedule for further information, section Coastal Road Mix
-  **WOODLAND PLANTING MIX**
Refer to planting schedule for further information, section Coastal Native Shrub Mix
-  **HERBACEOUS PERENNIAL & GRASS PLANTING MIX**
Refer to planting schedule for further information, section Coastal Herbaceous & Grass Mix
-  **NATIVE TREE AND SHRUB PLANTING MIX**
Refer to planting schedule for further information, section Native Tree and Shrub Planting Mix
-  **SUDS PLANTING MIX**
Refer to planting schedule for further information, section Coastal Rain Garden Planting Mix
-  **TURF GRASS**
-  **AMENITY GRASS**
-  **MEADOW PLANTING**
Refer to planting schedule for further information, section Meadow Mix
-  **WET MEADOW**
Refer to planting schedule for further information, section Wet Meadow Mix
-  **BULB MIX PLANTING**
Refer to planting schedule for further information, section Bulb Mix
-  **MARGINAL PLANTING**
Refer to planting schedule for further information, section Marginals Mix
-  **SUDS POND WITH WETLAND PLANTING**
Refer to planting schedule for further information, section Wetland Mix
-  **PEBBLES**
To Architect specification



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Notes:-



REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P16	29.02.24	Layout amended	SA	MT
P15	06.02.24	Layout amended	TH	SA
P14	01.02.24	Layout amended	TH	SA
P13	02.08.23	Layout amended	KT	AL
P12	29.03.23	Layout amended	KT	SA
P11	28.03.23	Layout amended	KT	SA
P10	09.03.23	Layout amended	TH	KT
P09	07.03.23	Layout amended	TH	KT
P08	07.03.23	Layout amended	TH	KT
P07	06.03.23	Layout amended	TH	KT
P06	04.08.22	Alignment of drainage amended	KT	MT
P05	03.08.22	Minor amendments. Issue for planning	KT	MT
P04	01.08.22	Layout amended. Third issue for planning	KT	MT
P03	13.06.22	Second Issue for planning	KT	MT
P02	20.05.22	First Planning Issue	KT	MT
P01	11.05.22	Preliminary Issue	KT	MT
REV.	DATE	DESCRIPTION	DRAWN	CHK'D



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Client:	Story Homes		
Project:	Edgehill Park, Phase 4		
Title:	General Arrangement Plan		
Issue:	Planning		
Drawn:	KT	Checked:	MT
Approved:	ME		
Project:	UG1415	Scale @ A0:	1:500
Date:	07/03/2022		
Dwg No:	UG_1415_LAN_GA_DRW_01	Revision:	P16