tir collective
LANDSCAPE ARCHITECTS

Crymlyn Parc, Skewen
Green Infrastructure Statement

September 2025 (version 6)

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Based on the development proposals designed by:

spring design

On behalf of:

Hale

With input from:

HAWKESWOOD ECOLOGY

ArbTS

Document Control:

Client:	Hale Group		
Project:	Crymlyn Parc, Skewen		
Job number:	TC24246		
Document title:	Green Infrastructure Statement & Play Strategy		

Revision:	Version 5	Status:	Planning
Date:	March 2025		
Prepared by:	Nick Russell		
Checked by:	Lee Morris		

Revision:	Version 3	Status:	Draft
Date:	November 2024		
Prepared by:	Chris Binnington and Nick Russell		
Checked by:	Lee Morris	Planning	

Revision:	Version 6	Status:	Planning
Date:	September 2025		
Prepared by:	Nick Russell		
Checked by:	Lee Morris		

Revision:	Version 4	Status:	Planning
Date:	January 2025		
Prepared by:	Nick Russell		
Checked by:	Lee Morris	Planning	

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01 Introduction

Tir Collective is instructed by **Hale Group** to prepare this **Green Infrastructure Statement** along with a **Play Strategy**, which relates to a proposal for a residential development in Skewen, Neath Port Talbot. The site is located within Crymlyn Park, south of the M4, and east of Pentwyn Farm with established residential streets to the south and east of the Site.

The site slopes down towards the north where there is a thicket of mature trees and vegetation which screens the existing railway line and the M4. The Site features consist of three grazed field parcels defined by treelines and sparse individual mature trees.

To the south of the Site boundary is an existing play area and public open space which features a public footpath which connects the existing surrounding areas of development to the east and south. Access to the Site will utilise and link into the existing road infrastructure which borders the Site to the east and south.

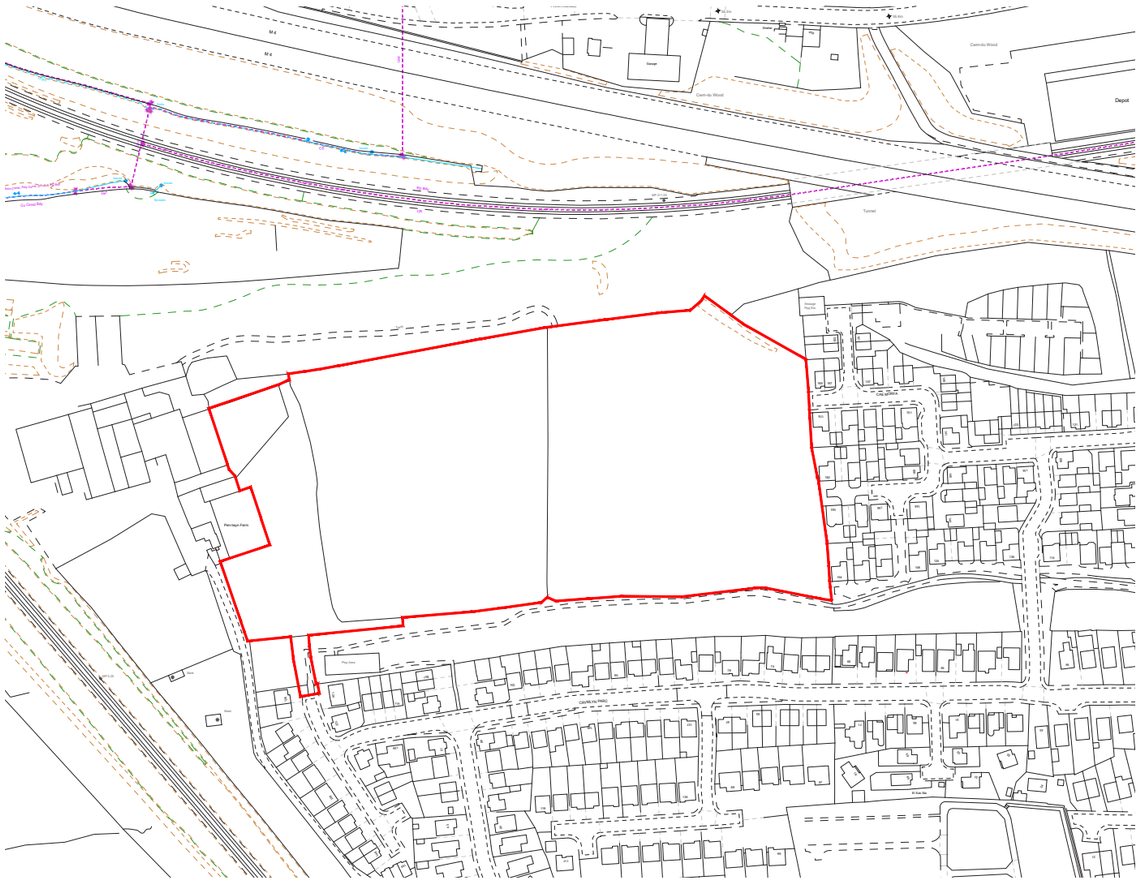


Figure 1: Location plan (Location plan provided by Spring Design)



Figure 2: Aerial photograph showing site boundary

02 Policy Context

Wales Legislation

Well-being of Future Generations (Wales) Act 2015: The Act requires public bodies to carry out **sustainable development**. Sustainable development principle is *"the process of improving the economic, social, environmental and cultural well-being of Wales."* The principle is made up of five ways of working, including **looking to the long-term**; taking an **integrated approach**; involving a **diversity** of the population; **working collaboratively**; and **preventing issues**.

It sets out seven well-being goals including resilience and being globally responsible.

Environment (Wales) Act 2016: The Act is intended to work alongside the Well-being of Future Generations Act. It included a new biodiversity duty to **reverse the decline of biodiversity and to secure long-term resilience**.

Section 6 states *"A public authority **must seek to maintain and enhance biodiversity... and in so doing promote the resilience of ecosystems**". In relation to resilience of ecosystems, the following "must be taken into account:*

(a) diversity between and within ecosystems;

(b) the connections between and within ecosystems;

(c) the scale of ecosystems;

(d) the condition of ecosystems (including their structure and functioning);

(e) the adaptability of ecosystems."



The seven well-being goals from Well-being of Future Generations (Wales) Act, 2015

National Planning Policy

Future Wales: The National Plan: The plan provides a strategy for addressing key national priorities through the planning system, including achieving climate-resilience, developing strong ecosystems and improving the health and well-being of our communities. It also embeds the principles of the Well-being of Future Generations (Wales) Act 2015.

The key policy in relation biodiversity and green infrastructure is **Policy 9 – Resilient Ecological Networks and Green Infrastructure**. It states, "*action towards securing the maintenance and enhancement of biodiversity (to provide a net benefit), the resilience of ecosystems and green infrastructure assets must be demonstrated as part of development proposals through innovative, nature-based approaches to site planning and the design of the built environment.*"

Planning policy Wales (PPW)

PPW aims to contribute towards the delivery of sustainable development, embedding the principles of the Well-being of Future Generations (Wales) Act 2015. PPW ingrains Placemaking Wales Charter and how sustainable development can be achieved through implementing placemaking.

Section 6.2 sets out **green infrastructure** should be given early consideration in development proposals and how it should be integrated into developments.

- **Paragraph 6.2.12** states " A **green infrastructure statement should be submitted with all planning applications**. This will be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal... The green infrastructure statement will be an effective way of demonstrating **positive multi-functional outcomes** which are appropriate to the site in question and must be used for demonstrating how the **step-wise approach has been applied**."
- **Paragraph 6.2.14** states "Development proposals should be informed by the priorities identified in green infrastructure assessments and locally based planning guidance. The **Building with Nature standards** represent good practice and are an effective prompt for developers to **improve the quality of their schemes and demonstrate the sustainable management of natural resources**."

Section 6.4 describes **biodiversity and ecological networks** and provides a summary of the **Step-Wise Approach** and how it should be used to "**maintain and enhance biodiversity, build resilient ecological networks and deliver net benefits for biodiversity** by ensuring that any adverse environmental effects are firstly avoided, then minimised, mitigated, and as a last resort compensated for."[1] **Paragraph 6.4.12** states "providing evidence in the Green Infrastructure Statement that the step-wise approach has been followed, a scheme of enhancements must be provided to ensure a **net benefit for biodiversity**."

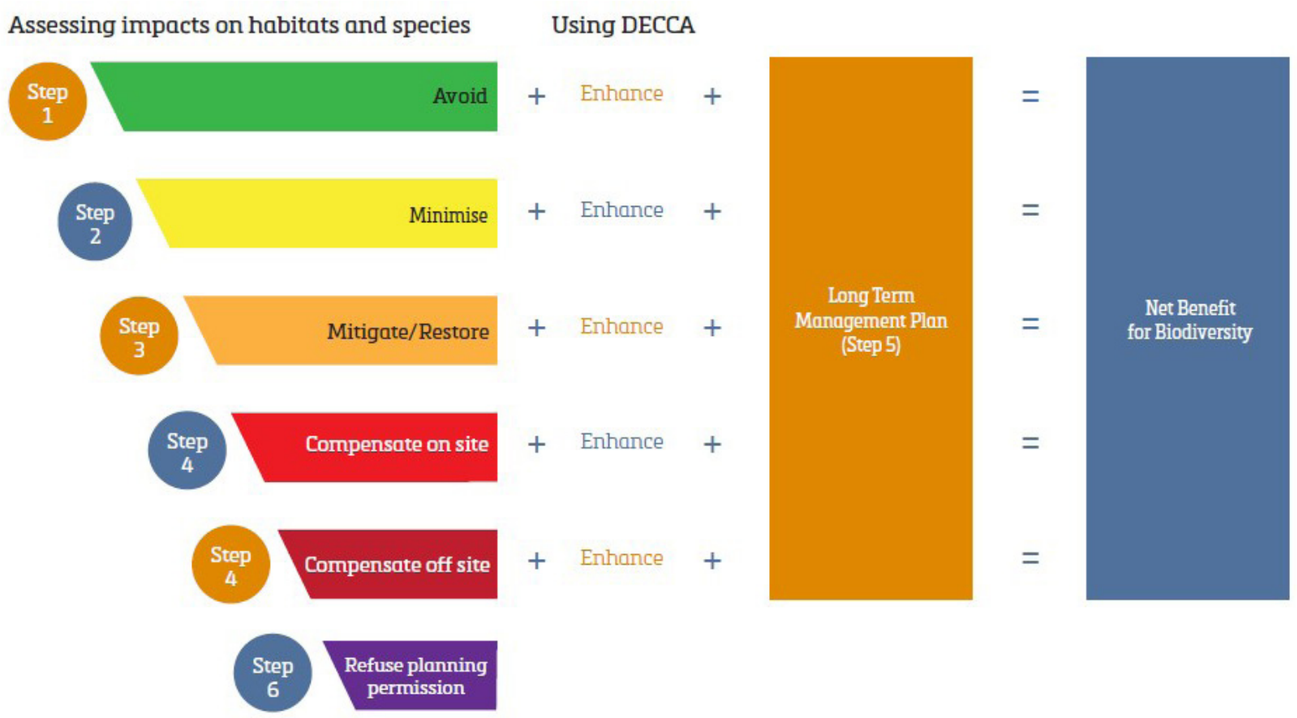
In relation to **trees, woodland and hedgerows, paragraph 6.4.37** sets out their importance for biodiversity and "connecting habitats for resilient ecological networks and make an essential wider contribution to landscape character, culture, heritage and sense of place…"

The **planting of new trees, hedgerows, groups of trees and areas of woodland** should be promoted as part of new development. Existing trees/ groups of trees, hedgerows and areas of woodland must be protected "where they have ecological value, contribute to the character or amenity of a particular locality, or perform a beneficial green infrastructure function."[2]

In relation to the permanent removal of trees, woodland and hedgerows, it "will only be permitted where it would achieve significant and clearly defined public benefits."[3] The step-wise approach must also be followed. Where loss is unavoidable, PPW sets out the requirements of replacement planting, which "shall be at a ratio equivalent to the quality, environmental and ecological importance of the tree(s) lost and this must be preferably on site, or immediately adjacent to the site, and at a minimum ratio of at least 3 trees of a similar type and compensatory size planted for every 1 lost."[4]

Finally, in relation to **SuDS,** paragraph 6.6.18 states "The provision of SuDS must be considered as an **integral part of the design of new development** and considered at the earliest possible stage when formulating proposals for new development." Paragraph 6.6.19 goes on to state "Design for multiple benefits and green infrastructure should be secured wherever possible…"[5]

1 Paragraph 6.4.11, Planning Policy Wales Edition 12, February 2024
2 Paragraph 6.4.39 Planning Policy Wales Edition 12, February 2024
3 Paragraph 6.4.42 Planning Policy Wales Edition 12, February 2024
4 Paragraph 6.4.42 Planning Policy Wales Edition 12, February 2024
5 Paragraph 6.6.19 Planning Policy Wales Edition 12, February 2024



The Step-Wise Approach from PPW Edition 12, Chapter 6

02 Policy Context

Local Planning Policy

Neath Port Talbot Local Development Plan (2011-2026)

The Neath Port Talbot Local Development Plan was adopted on the 27th of January 2016. **Policy SP 10: Open Space** requires that new developments address the need for provision of, and access to, adequate open space in order to address inequalities in open space provision and providing more opportunities for more active lifestyles.

Policy EN 7: Important Natural Features states that any proposed development that would adversely affect features deemed visually or ecologically important (examples being trees, hedgerows/field boundaries, watercourses, or ponds) would only be permitted if;

- A full account of relevant features have been taken into account within the development and measures put in place to retain and protect these features where possible;
- The relevant features biodiversity value and role has been considered, and where removal is unavoidable, mitigation measures are agreed.

Point 5.3.37 goes on to emphasise that other local features that provide a benefit to biodiversity can serve as corridors, connecting areas of biodiverse importance allowing for movement of species. These features can be multi-functional, acting as footpaths, cycle routes, recreational open space, etc, and should be retained and enhanced where possible.

Policy SP 16: Environmental Protection requires that air, water, and ground quality and the environment will generally be protected and improved where feasible by ensuring proposals have no significant adverse effects on people or landscape which would significantly increase pollution levels. This is to ensure that proposed developments will not increase the number of people exposed to significant levels of pollution.

In relation to Green Infrastructure and biodiversity, **Policy BE 1: Design** states that proposals will only be permitted if the development can 'demonstrate high quality design which fully takes into account the natural, historic, and built environmental context and contributes to the creation of attractive sustainable places' and satisfies the criteria highlighted. Criteria relative to this proposal relating to green infrastructure and biodiversity have been listed below;

- Materials used as part of the development will be appropriate to it's surroundings, incorporating hard and soft landscaping and screening where appropriate;
- Important local features (buildings, amenity areas, green spaces and green infrastructure, biodiversity and ecological connectivity) are retained and enhanced as far as possible;
- Drainage systems as part of the proposals are designed to limit surface water run-off, flood risk, and prevent pollution.

Neath Port Talbot Local Development Plan (2011-2026) – Biodiversity and Geodiversity SPG (May 2018)

The Biodiversity and Geodiversity SPG highlights in **Point 2.4.2** that "*Green infrastructure assets are often multi-functional and can deliver a great number of benefits to society, including green space*". This point emphasises the economic value generated by safeguarding, enhancing green infrastructure and biodiversity assets, this includes SuDS.

Point 5.1.4 highlights that sufficient information regarding existing green infrastructure assets within the Site and surrounding must be collected and considered in the design proposals, taking into account any potential direct and indirect impacts upon on-site and off-site biodiversity/geodiversity and their significance.

The document sets out a 'Stepwise approach' to maintaining and enhancing biodiversity. This approach serves the general principles for Biodiversity and geodiversity in planning and development which are set out below:

- Anticipate all potential biodiversity impacts of a development proposal as early as possible in the planning process;
- Protect designated sites, protected species, priority/S7 habitats and species;
- Ensure development does not lead to net loss of biodiversity;
- Identify opportunities for a development to contribute towards a net gain for biodiversity and protection of geodiversity;
- Take account of indirect and cumulative impacts;
- Recognise the importance of, and protect wildlife corridors and stepping stones;
- Prevent and aim to reverse habitat fragmentation and species population isolation.

The Stepwise approach is an six-step process, comprising the following:

- **Identify** and safeguard any existing, or potential, important habitat/species and ecological connectivity.
- **Avoid** loss of any existing or potential important habitats or species; or fragmentation of ecological connectivity.
- **Design** biodiversity into applications/projects (e.g. landscaping, SUDs, site layout, living roofs and facades etc).
- **Mitigate** for any unavoidable harm or loss to important habitat/species or fragmentation of ecological connectivity.
- **Compensate** for any unmitigatable habitat/species losses that can be justified.
- **Enhance** and increase the biodiversity of the site or off-site, if on-site cannot accommodate such requirements.
- **Monitoring** to ensure compliance with agreed biodiversity/ geodiveristy obligations/conditions.
- **Management** to maintain the quality of the biodiversity/ geodiversity for the long term.

Enhancement Opportunities have also been mentioned in the SPG, stating that "*All development proposals, whether or not there is a need to incorporate mitigation or compensation measures, should seek to provide additional benefits or 'enhancement' opportunities for biodiversity and/or geodiversity.*" Recommendations of some general potential enhancement opportunities that would benefit biodiversity and could be applicable to this Site have also been listed in the SPG and are stated below:

- Areas of new habitat, such as woodland, scrub, grassland or ponds;
- New open space and landscaping to create wildlife corridors;
- Nesting or roosting opportunities on new buildings;
- Green/brown roofs and facades to create habitats of biodiversity value;
- Inclusion of SuDS schemes based on reedbeds and ponds;

Within the SPG, **point 5.1.20** emphasises what biodiversity impacts a development should avoid to ensure important habitats, species, and geological features are protected. The specifics emphasised are:

- Avoiding impacts on statutory and non-statutory designated sites (including SINCS and RIGS) and protected species;
- Avoid adverse impacts to priority habitats and species identified in the LBAP and under S7 Environment (Wales) Act 2016.
- Retain existing habitat, species and features of biodiversity or geodiversity conservation significance in the site layout and design of the development.
- Avoid isolating existing habitats and species within the development by providing links to adjacent habitats (i.e. wildlife corridors). These could include hedgerows, stepping stones or suitable habitats for more mobile species.
- Carefully design drainage so as not to impact on hydrologically-sensitive habitats, such as wet woodland, bogs and marshy grasslands.
- Retain and build in key green infrastructure assets into the development design to maintain functionality of the on-site and wider environment green infrastructure.

The SPG states under **point 5.1.23** that compensation of biodiversity loss will only be agreed, and should only be implemented, as a last resort if loss of biodiversity is unavoidable despite mitigation. Compensation will only be considered by the LPA if the development can demonstrate that all avoidance and mitigation measures have been investigated.

Point 5.4.3 states that "*Where measures to protect, mitigate, compensate, or enhance biodiversity and/or geodiveristy have been set out as part of a planning permission, developers are also likely to be required to provide for their monitoring and management during and post-construction to ensure biodiversity/geodiversity objectives are fulfilled.*"

Guidance

Placemaking Wales Charter

The Placemaking Wales Charter has been developed by Welsh Government and the Design Commission for Wales (DCfW) in collaboration with the Placemaking Wales Partnership. The Charter outlines six placemaking principles that cover the range of considerations that contribute to establishing and maintaining good places.

Landscape Institute Green Infrastructure: An integrated Approach, 2013

The document defines **Green Infrastructure** (GI) as "*the **network of natural and semi-natural features, green spaces**, rivers and lakes… It is a natural, service-providing infrastructure that is often more cost-effective, **more resilient and more capable of meeting** social, **environmental** and economic **objectives**…*"

The Landscape Institute recommends "*local authorities ensure that GI is a core requirement in their policy documents" and "developers be aware of an area's strategic GI goals and appreciate how those goals contribute to mitigating the environmental impacts of new development and creating beautiful places*." The **Placemaking Wales Charter** has been developed by Welsh Government and the Design Commission for Wales in collaboration with the Placemaking Wales Partnership. The charter outlines six placemaking principles that cover the range of considerations that contribute to establishing and maintaining good places.

Well designed, maintained and connected green infrastructure is an essential component of good placemaking. The design of the proposed development should focus on well connected GI with multi-functionality to maximise the benefits to residents and the environment.

Building with Nature Standards

The **Building with Nature Standards** Framework 2.0 involves twelve Standards, arranged across four groups. There are six Core Standards and three themes, Wellbeing, Water and Wildlife, containing two Standards in each.

The six Core Standards underpin the delivery of high-quality green infrastructure through design, planning and development. The Standards in the Wellbeing, Water and Wildlife themes build on this to target specific aspects:

CORE Standards

Standard 1 Optimises Multi functionality and Connectivity
Standard 2 Positively Responds to the Climate Emergency
Standard 3 Maximises Environmental Net Gains
Standard 4 Champions a Context Driven Approach
Standard 5 Creates Distinctive Places
Standard 6 Secures Effective Place-keeping

WELLBEING Standards

Standard 7 Brings Nature Closer to People
Standard 8 Supports Equitable and Inclusive Places

WATER Standards

Standard 9 Delivers Climate Resilient Water Management
Standard 10 Brings Water Closer to People

WILDLIFE Standards

Standard 11 Delivers Wildlife Enhancement
Standard 12 Underpins Nature's Recovery











03 Existing Green Infrastructure

The elements that are considered to form the existing green infrastructure of the site and surrounding context are as follows:

- Trees and hedgerows within the site
- Habitat of ecological value
- Trees and hedgerows outside of the Site

The GI elements are described in the following sections, identifying and assessing existing or potentially important habitats or species and ecological connectivity corridors. This has been informed by the desktop studies, field surveys and specialist surveys / reports. It provides the first stage of our approach which is to **Identify and Assess** existing green infrastructure.

Trees and hedgerows within the site

A Tree Survey was carried out by ArbTS on the 17th of January 2025. The tree categorisation within the tree quality assessment forms followed the methodology as set out in the British Standard 5837:2012.

The survey identified:

- **Category A trees:** Groups G1, G2, identified as Sycamores (Acer pseudoplatanus) and individual trees T5, T14, T15, T16 which are all Oak (*Quercus robur*). Category A due to their size and prominent locations in the landscape and general good health and condition with a life expectancy above 40 years.
- **Category B trees:** Individual trees T1, T4, T7, and T12 are all Oak (*Quercus robur*), and trees T3 and T10 are Silver birch (*Betula pendula*). These are large and prominent in the locality and in general good health and condition with some minor defects and a life expectancy of 20-40 years.
- **Category C trees:** Groups G3 and G4, along with all hedgerows (except for H2 and H11), and individual trees T2, T6, T8, T9, T11, T13, and T17. These are of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. See tree survey for more information of species.

The remaining trees are not considered to be of any arboricultural or visual merit, are below the threshold of 75-mm diameter when measured at 1.5 metres above ground level or in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. These are category U.

The tree and hedge species on site are predominantly native species, below is an extensive list of the tree species present:

- Cotoneaster (Cotoneaster frigidus)
- Elder (Sambucus nigra)
- Goat Willow (Salix caprea)
- Hawthorn (Crataegus monogyna)
- Holly (Ilex aquifolium)
- Oak (Quercus robur)
- Sycamore (Acer pseudoplatanus)
- Silver Birch (Betula pendula)

The Tree Constraints Plan shown at **Figure 3**.

BS5837:2012 Quality Category	Total Number of Individual Trees Surveyed	Total Number of Tree Groups Surveyed	Total Number of Tree Areas Surveyed	Total Number of Woodland Areas Surveyed	Total Number of Hedgerows Surveyed	Total
A (High - Most desirable for retention)	4	2	0	0	0	6
B (Moderate - Desirable for retention)	6	0	0	0	0	6
C (Low - Optional for retention)	7	2	0	0	15	24
U (Poor - Unsuitable for retention)	0	0	0	0	2	2
Total A,B,C,U	17	4	0	0	17	38

Table 1: Extracted from ArbTS Tree Survey Report (August 2024)

Habitat of ecological value

The Application Site has been subject a Preliminary Ecology Appraisal Phase 1 habitat survey and Tree Bat Roost Potential Assessment with the most recent survey produced by Hawkeswood Ecology in September 2024 to incorporate boundary changes. The initial survey was conducted by Soltys Brewster Ecology in 2013, with Hawkeswood Ecology providing an update to the PEA in March 2021 and a Protected Species Survey in February 2022 which involved a reptile presence survey being conducted in September 2021 and the Tree Preliminary Roost Assessment survey in August 2021.

The main habitat types identified are: agriculturally modified grazed pasture grassland, and derelict and gappy former hedgerows consisting of a small number of trees, over-mature shrubs. Invasive planting species were also discovered within the wider area as part of the desktop assessment, this included Japanese knotweed, Himalayan balsam, Crocosmia Species, rhododendron, Spanish bluebell and cotoneaster species which would need to be managed/removed if found on, or locally to the Site.

The majority of the Site is made up of agriculturally modified grazed pasture, consisting of species poor grass, with perennial Rye-Grass and White Clover in abundance amongst other frequently occurring species. These fields are defined by derelict field boundary lines which are made up of occasional occurring mature trees and over-mature shrubs, with some species of note being Sycamore, Common Oak, Rowan, Hawthorn, Hazel, and Holly. Further to the north, a section of the hedgerow is dominated by common gorse and dense bramble, with the most frequent species being Sheep's Sorrel and Common Bent.

The field boundary to the north is demarked by an old railway boundary fenceline where a number of unmanaged, self-set, semi-mature trees have developed and consist of occasionally occurring Goat Willow and Sycamore and rarely occurring Common Gorse and Buddleia.



Figure 3: Tree Constraints Plan (Prepared by ArbTS, September 2024)

The boundaries to the south and west are lined by former and derelict hedgerows which now consist of a few trees and shrubs. Most are situated on banks and are unmanaged apart from the hedgerow to the south, which is managed to keep growth clear of an existing overhead powerline. The trees present along the southern boundary are Sycamore, Common Oak with occasional Holly and Hawthorn. To the west, the hedgerow consists of mature Holly and Hawthorn with no trees present.

Mitigation proposals were suggested within the various ecology surveys:

- Plant species should be native where possible and reflect existing species present locally to Site, they should also be locally sourced;
- Any close board fencing used as a boundary treatment will have either an opening of 15x15cm minimum opening at the bottom, or be raised to provide a 15cm gap from ground level to allow for movement of hedgehogs;
- No vegetation clearance should take place during the bird breeding season, i.e. March 1st – August 31st. If an active nest is discovered then a buffer zone should be placed until the nest is no longer in use;
- Japanese Knotweed, an invasive species, was discovered on Site. Any soil movements within or off the site could spread this species. A control programme will be required prior to site works with restrictions on access into that off-site area implemented during construction;
- Some opportunity may exist to provide biodiversity gain by incorporating the provision of dedicated artificial bat roost features, particularly adjacent to the northern boundary of the Site, and bird boxes throughout the development;
- The adoption of a sympathetic lighting regime designed to avoid light spill should be required (see protected species survey for further details);
- Mature trees and scrub should be retained wherever possible enhanced to allow continued commuting and foraging of bats around the site;

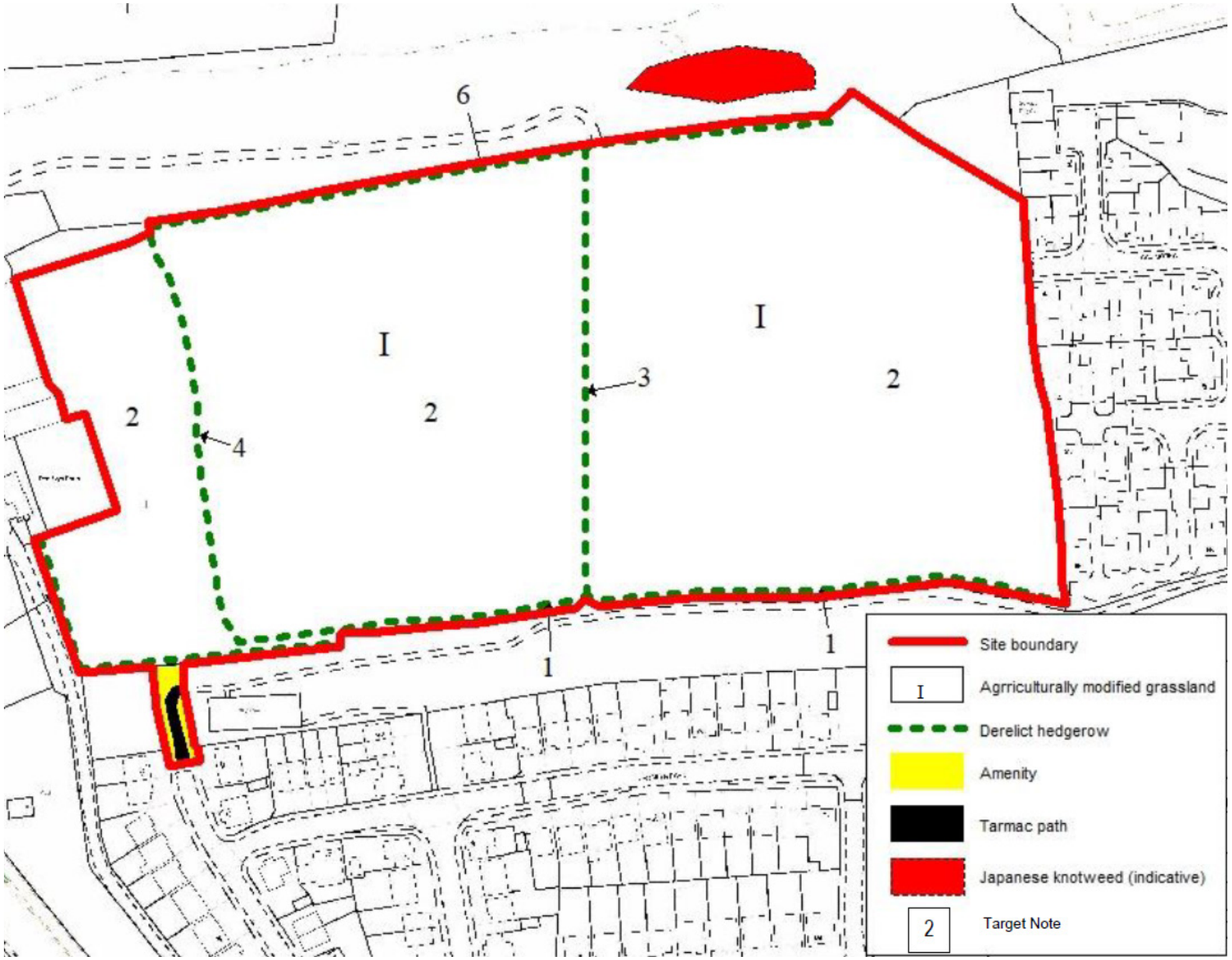


Figure 4: Phase 1 Habitat Survey Map (Prepared by Hawkeswood Ecology, September 2024)

- Prior to commencement of works, trees identified as having potential for bat roosts within the ecology report should be inspected for bat use prior to any tree works. A pre-commencement survey of the Site and suitable adjacent areas should also be conduced to assess the presence of badger setts;
- Any clearance of the proposed SuDS area be required should follow the clearance instructions set out in point 8.7 of the Protected Species Report;
- Prior to construction, a CEMP (construction environmental management plan) should be produced to prevent contamination of adjacent habitats. This will also incorporate tree protection measures complying with BS5837 - Trees in relation to design demolition, and construction.

Trees and Hedgerows Outside of the Site

Within the Preliminary Ecology Appraisal Phase 1 habitat survey and Tree Bat Roost Potential Assessment, areas surrounding the Site are also highlighted. Bordering the site to the south is a strip of Public Open Space (POS) that features an equipped play area, and a footpath that connects the existing developments which surround the site to the east and south. Green infrastructure within the POS is partially managed as formal amenity grassland, with species poor areas which are unmanaged to promote use by pollinators.

To the north of the Site, the Fishway Railway Line, a registered SINC (Site of Importance for Nature Conservation), is located 172m away from the Site, with the M4 corridor SINC beyond that. The PEA report highlights the opportunity to enhance biodiversity connectivity by linking the POS and areas to the north together.





Site Photographs:

1

1- View from south east into site taken along public footpath.

2

2- View from south into site taken along public footpath.

3

3- View from southwest into site taken from Site boundary.



04 Landscape Strategy

The Design Vision for the project has been developed by **Spring Design** with input from the project team of specialists in planning, ecology, transport and landscape. The vision is to promote a highly sustainable development in Skewen which is focused around green infrastructure, sustainable drainage, and access to public open space.

The vision for the proposed development focuses on creating a green and sustainable, landscape led development. The concept has developed around the desire for well connected green corridors, fostering community cohesion and encourage active travel, landscape based exercise, and play.

The Landscape Concept for the proposed development is guided by the following **five concept themes** which are illustrated over the following pages. These are:

- Connected Landscape
- Biodiverse Landscape
- Sustainable Landscape
- Hands on Landscape
- Active Landscape

The landscape concept themes have defined the approach to the green infrastructure and open space strategy, which follows the **six placemaking principles** from the Wales Placemaking Charter through a landscape strategy to:

- Respond to the character of the site;
- Create an attractive place with a focus on planting with bold and dramatic effects to create beautiful spaces with year round interest;
- Create a distinctive place with a unified public realm and landscape design with clear boundary definition.

Theme	Aim
	• Development to be connected to existing neighbourhoods, providing opportunities for social interaction and civic participation • Strengthening routes to open space, play opportunities and other community assets • Connect networks of green and blue infrastructure
	• Working with nature • Landscape to create green streets and spaces that protect and enrich habitats and biodiversity • Wildlife friendly neighbourhoods • Streets should be people places, highly vegetated and attractive
	• Resilient to a changing climate • Landscape strategy to be delivered using low-carbon materials and build methods • SuDS to be an integral part of the design • Promote walking and cycling
	• Opportunities for food growing or foraging should be explored with fruit trees planted on site. • Residents should feel valued and proud of neighbourhoods. • Support people's health and wellbeing by bringing them into contact with the natural environment.
	• Child friendly neighbourhoods • Provide opportunities for formal and incidental play • Support people's health and wellbeing by bringing them into contact with the natural environment

Multi-functionality

- Connect networks of green and blue infrastructure, including ancient woodland to provide a better setting for walking routes (**Active Landscape**), SuDS (**Sustainable Landscape**), and improve biodiversity (**Biodiverse Landscape**)
- Improved connectivity offers opportunities for social interaction (**Hands on Landscape**)





- A nature focused landscape strategy will be easier to maintain and require less resources to do so (**Sustainable Landscape**).
- More biodiversity will improve the connection between residents and nature (**Active Landscape**), (**Hands on Landscape**)





- A nature focused landscape strategy will be easier to maintain and require less resources to do so (**Biodiverse Landscape**).
- Increasing green infrastructure will create more opportunities for nature (**Biodiverse Landscape**) and edible landscape (**Hands on Landscape**)



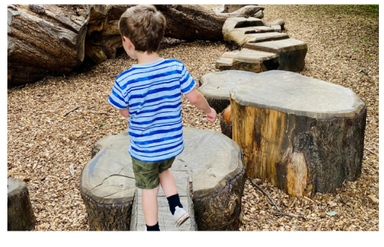



- Opportunities for foraging and growing food encourage movement and exercise (**Active Landscape**) while reducing food miles (**Sustainable Landscape**).
- Local involvement in conservation and landscape maintenance can provide a local focus on biodiversity (**Biodiverse Landscape**)






- Connect networks of green and blue infrastructure to provide a better setting for walking routes (**Active Landscape**), SuDS (**Sustainable Landscape**), and improve biodiversity (**Biodiverse Landscape**)
- Increasing interaction with the landscape through play/ exercise/growing food/ relaxation will foster community responsibility for the landscape (**Hands on Landscape**)



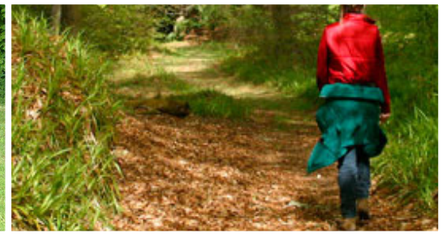




Figure 5: Landscape Strategy

Key

- Site boundary
- Existing trees to be retained. Root protection area shown as orange dash.
- Existing tree/hedge canopy to be removed shown as red dash; No. 1 Category B and No. 2 Category C to be removed
- Tree planting; No. 63 proposed
- Shrubs and herbaceous planting; See LA.2 for plant mixes and specification
- Specimen shrubs; See LA.2 for species
- Hazel coppices and native shrubs
- Landscape-based play
- Formal single species hedges; See LA.2 for species
- Mixed native hedge; See LA.2 for species
- Attenuation pond
- Rain gardens; See LA.2 for plant species and specification
- Back gardens
- Species-rich grass kept short. Seeded with Emorsgate EL1 Flowering Lawn Mixture or similar
- Species-rich grass kept long. Seeded with Emorsgate EM1 Basic General Purpose Meadow Mixture or similar
- Existing path to south of site boundary

0 5 10 20 30 40 60 metres

Scale 1:750 @ A1

North



Figure 6: Planting Strategy

Key

Site boundary

Existing trees to be retained. Root protection area shown as orange dash

Existing tree/hedge canopy to be removed. Shown as red dash

Proposed Trees: *Parotia persica* 'Vanessa', *Sorbus aucparia* 'Sheerwater Seedling', *Acer campestre* 'Elsrijk', *Magnolia kobus, Sorbus aria* 'Majestica'

Specimen shrubs: *Syringa microphylla* 'Superba', *Hamamelis* 'Brevipetala', *Hydrangea macrophylla, Edgeworthia chrysantha, Cornus florida rubra, Garrya elliptica* 'James Roof', *Hibiscus syriacus* 'Blue Bird', *Magnolia stellata*

Hazel coppices and native shrubs: *Viburnum opulus, Salix caprea, Cornus sanguinea*

Formal single species hedge: *Potentilla fruticosa* and *Escallonia* 'Apple Blossom'

Mixed native hedge: *Acer campestre, Corylus avellana, Sambucus nigra, Sorbus aucuparia, Crataegus monogyna, Prunus spinosa, Rosa canina*

Attenuation pond. Seeded with Emorsgate EM8 Meadow Mixture for Wetlands or similar

Rain gardens. Planted with SuDS Mix

Species-rich grass kept short. Seeded with Emorsgate EL1 Flowering Lawn Mixture or similar

Species-rich grass kept long. Seeded with Emorsgate EM1 Basic General Purpose Meadow Mixture or similar

Plant mixes

Shade Mix

Garden Mix 1

Garden Mix 2

SuDS Mix

0 5 10 20 30 40 60 metres

Scale 1:750 @ A1

North

The planting strategy includes a variety of flowering and fruiting species which will provide contrast and year-round interest. Planting will include a combination of trees grasses, herbaceous plants and shrubs, located to define front gardens and along footpaths. There are four different shrub and perennial planting mixes, each with a different combination of structure, texture and colour to provide interest.

Shrub, perennial, and grasses species



Specimen Shrubs

- Syringa microphylla 'Superba'
- Hamamelis 'Brevipetala'
- Hydrangea macrophylla
- Edgeworthia chrysantha
- Cornus florida rubra
- Garrya elliptica 'James Roof'
- Hibiscus syriacus 'Blue Bird'
- Magnolia stellata

SuDS Mix

- Amsonia tabernaemontana salicifolia
- Calamagrostis brachytricha
- Libertia formosa
- Molinia caerulea 'Moorhexe'
- Gaura lindheimeri
- Iris pseudacorus
- Sanguisorba officinalis 'Tanna'
- Verbena bonariensis
- Rudbeckia fulgida
- Lythrum salicaria
- Filipendula ulmaria
- Hypericum 'Hidcote'

Shade Mix

- Pachysandra terminalis
- Viburnum davidii
- Sarcococca humilis
- Epimedium x youngianum 'Niveum'
- Viburnum opulus 'compactum'
- Asplenium scolopendrium
- Tellima grandiflora
- Liriope muscari
- Carex pendula
- Polystichum setiferum
- Luzula sylvatica

Garden Mix 1

- Deschampsia cespitosa
- Geranium 'Johnson Blue'
- Amsonia tabernaemontana salicifolia
- Lavandula 'Rosea'
- Molinia caerulea 'Moorhexe'
- Hydrangea 'Little Lime'
- Cistus 'Grayswood Pink'
- Skimmia 'Kew Green'
- Lychnis coronaria
- Aster frikartii 'Monch'
- Abelia grandiflora
- Hypericum 'Hidcote'

Garden Mix 2

- Persicaria affinis 'Superba'
- Pennisetum
- Achillea Terracotta'
- Artemisia ludoviciana 'Valerie Finnis'
- Geranium macrorhizum Album
- Viburnum opulus 'compatum'
- Libertia formosa
- Euonymus Emerald gaiety
- Malva moschata
- Briza media
- Potentilla 'Katherine Dykes'
- Perovskia 'Blue Spire'

Grass Seed Mixes

Emorsgate EL1 Flowering Lawn Mixture or equal equivalent, to be applied to gardens.



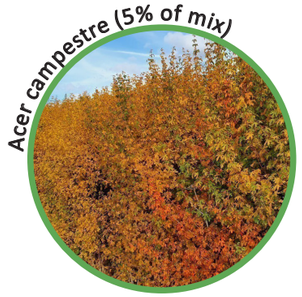
Emorsgate EM1 Basic General Purpose Meadow Mixture or equal equivalent for PoS and LAP areas.



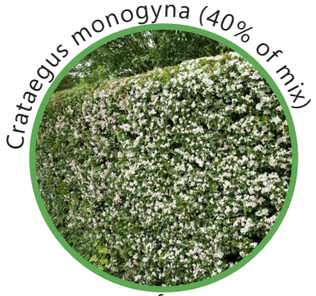
Emorsgate EM8 Meadow Mixture for Wetlands or equal equivalent for SuDS and swale areas.



Native Hedgerow Mix















Ornamental Hedgerow





Proposed Trees











Within the rain gardens the planting will include species which can withstand short term inundation and long periods of drought, whilst also providing seasonal interest. Robust plants with bright colours will line the SuDS adjacent to the road. In contrast, the SuDS basin and swale that runs through along the north of the Site and through the POS will be sown with a damp wildflower seed mix for the larger areas (EM8: Meadow Mixture for Wetlands (by Emorsgate).

Grassland areas within the site will be species diverse, based on Emorsgate EM1 General Purpose Meadow Mixture which will be used in the open spaces, and EL1 Flowering Lawn Mixture which will be used within garden areas. If there are local suppliers of wildflower seed, gathered locally then this would be preferable.

The planting strategy includes native and non-invasive ornamental species throughout. Native species are used to create and enhance existing boundary hedgerows, whilst ornamental non-native hedgerows create, and screen boundary treatments. The native species chosen provide fruiting and flowering and also offer interest due to foliage colour.

Where plant material is used of native species, there is a preference for local provenance plants, which in this case would be seed source zone 303 or 304, as defined Forest Practice Note No. 8, titled Using Local Seed Sources for Planting Native Trees and Shrubs, Forestry Commission (1999).

05 Play Strategy

The play strategy for the site is for landscape-based play using natural elements arranged through the green spaces. It is proposed that the green spaces within the site will connect to the existing green space to the south, where there is an equipped play area. With the green spaces there will be:

1. Wildflower and species rich grass - to reinforce contact with nature. These areas will provide habitats for pollinators and add colour throughout the seasons.

2. Natural Play Areas - based on the use of natural elements such as logs, boulders, and landform to climb on and explore, encouraging imaginative play.

3. Picnic Spots - space for people to relax and enjoy the natural setting which encourages people to enjoy the outdoors while encouraging biodiversity and community engagement.

4. Meandering Paths - the paths will meander through the green spaces, encourage exploration and contact with nature.

5. Seating Areas - a variety of seating opportunities to encourage social interaction. Benches to be provided and informal seating using natural materials like fallen branches and stones for people to enjoy nature.

6. Habitat mosaic - Include a diverse range of habitats, complemented by the SuDS features, including small areas of shrubs, hedges, wildflower meadows and trees. Bug hotels could also be included to support local wildlife.











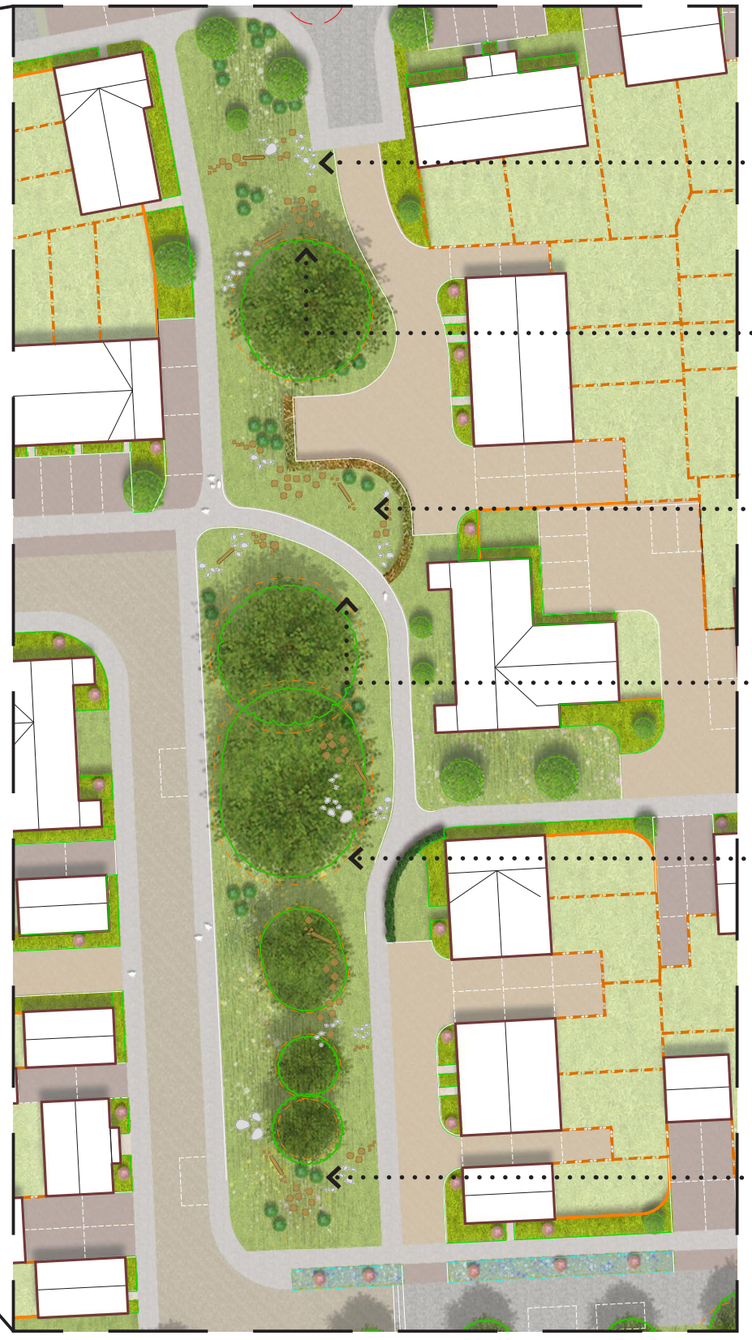






Figure 7: Play Strategy







Stepping stones



hang-out space



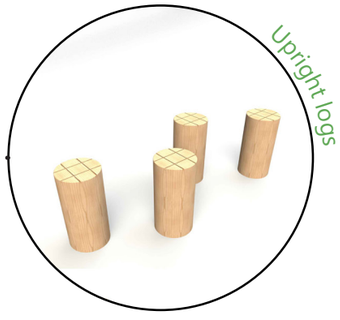
Timber play



Raingardens/swales used for informal play



Boulders



Upright logs

Key

Pedestrian links between play spaces

Informal play spaces, landscape-based play

06 Green Infrastructure Statement

This statement provides a description of the effects of mitigation of the individual green infrastructure components, which forms the **Stepwise Step 3: Mitigate / Restore**, with a view to minimising any negative impacts on biodiversity as far as possible. The proposals result in enhancements over and above mitigation for loss.

Trees and hedgerows within the site

Existing trees and hedgerows at the site boundary will be retained where possible and will continue to make an important contribution to landscape character. They are also important GI elements for their biodiversity and habitat value. The retention of GI was a priority wherever possible, in accordance with the **Stepwise Approach Step 1: Avoid** and **Step 2: Minimise**.

In a number of locations access routes and pedestrians routes have resulted in the need to remove trees and sections of hedgerows. All 'category A' trees identified by the Tree Survey are retained, however T1, a moderate quality tree (Category B) has been highlighted for removal to facilitate the main access road into the Site.

2no Low quality (C Category) individual trees are to be removed to facilitate the development, these are T6, and T11, crown reduction tree work will also need to be conducted on tree T2. Pruning back of trees and hedgerows will also be required on tree group G3, and G4. Hedgerows H3, H7, H8, H9, H13, and H17, will also require pruning along with the removal of 17 linear meters of hedgerow H1 and the complete removal (15 linear meters) of H4 in order to facilitate the development.

A number of hedgerows that are not considered to be of any arboricultural or visual merit (category U) are also proposed to be removed. These are H2 and H11.

To address the loss of trees and scrub, the green infrastructure proposals follow **Stepwise Step 3: Mitigate / Restore, Step E4 : Compensate** and by considering Enhancement at each stage in accordance with the **DECCA Framework**. A total of 57 trees are proposed, comprising of native and ornamental species, with a proportion that are also fruiting and flowering species.

The tree planting strategy achieves the 3 for 1 replacement ratio as set out by PPW. Mitigation for tree loss is also provided through an increase in species diversity and the climate resilience of the trees on site. The greater species diversity will add seasonal and biodiversity interest.

Tree loss in relation to the development focuses primarily on the removal of low quality trees and hedgerows, with one moderate tree being removed. Clearance works are predominantly on the fringes of the site, mainly to create the site access, internal roads and parking. The existing tree belts along the boundaries of the site are retained with minor pruning to be conducted and where possible enhanced with further planting, minimising any wider landscape impacts.

Habitat of ecological value

The Application Site has been subject to a Preliminary Ecology Appraisal Phase 1 habitat survey and Tree Bat Roost Potential Assessment with the most recent survey conducted by Hawkeswood Ecology on 15th July 2024 to incorporate boundary changes. The initial survey was conducted by Soltys Brewster Ecology in 2013, with Hawkeswood Ecology providing an update to the PEA in March 2021 and a Protected Species Survey in February 2022 which involved a reptile presence survey being conducted in September 2021 and the Tree Preliminary Roost Assessment survey in August 2021.

Mitigation proposals were suggested within the various ecology surveys:

- Plant species should be native where possible and reflect existing species present locally to Site, they should also be locally sourced;

  Native species are specified wherever practicable based on available space and the plants will be of local provenance - seed source zone 303 or 304.

- Any close board fencing used as a boundary treatment will have either an opening of 15x15cm minimum opening at the bottom, or be raised to provide a 15cm gap from ground level to allow for movement of hedgehogs;

  The rear garden fences will include hedgehog gaps to allow movement of small animals across the site.

- No vegetation clearance should take place during the bird breeding season, i.e. March 1st – August 31st. If an active nest is discovered then a buffer zone should be placed until the nest is no longer in use;

  Noted

- Japanese Knotweed, an invasive species, was discovered on Site. Any soil movements within or off the site could spread this species. A control programme will be required prior to site works with restrictions on access into that off-site area implemented during construction;

  Noted

- Some opportunity may exist to provide biodiversity gain by incorporating the provision of dedicated artificial bat roost features, particularly adjacent to the northern boundary of the Site, and bird boxes throughout the development;

  Bird boxes are proposed using nest box, stretcher bond brick fronted bird bricks, the Sparrow Terrace Box and Swift Eco Habitats. Proposed planting will provide habitat connectivity for birds using the bird boxes.

- The adoption of a sympathetic lighting regime designed to avoid light spill should be required (see protected species survey for further details);

  Noted

- Mature trees and scrub should be retained wherever possible enhanced to allow continued commuting and foraging of bats around the site;

  All 'category A' trees identified by the Tree Survey are retained, however T1, a moderate quality tree (Category B) has been highlighted for removal to facilitate the main access road into the Site. The tree planting strategy achieves the 3 for 1 replacement ratio as set out by PPW.

  Prior to commencement of works, trees identified as having potential for bat roosts within the ecology report should be inspected for bat use prior to any tree works. A pre-commencement survey of the Site and suitable adjacent areas should also be conduced to assess the presence of badger setts;

  Noted

- Prior to construction, a CEMP (construction environmental management plan) should be produced to prevent contamination of adjacent habitats. This will also incorporate tree protection measures complying with BS5837 - Trees in relation to design demolition, and construction.

Noted

Opportunities to increase biodiversity value was also included within the report which have been listed below and incorporated within the development.

- Enhancement of existing fields boundaries by bolstering native hedge planting using trees and shrubs already present and of local province;

Native scrub and tree planting is specified and the plants will be of local provenance - seed source zone 303 or 304.

- Use of suitable wildflower and grass seed mixes which are favourable to pollinators throughout areas of the Site. Areas highlighted for opportunity are SuDs areas, POS and along the northern hedgerow boundary;

Wildflower seed mixes are proposed from a commercial supplier - Emorsgate EL1 Flowering Lawn Mixture, Emorsgate EM1 Basic General Purpose Meadow and Emorsgate EM8 Meadow Mixture for Wetlands. An alternative local supplier would be used where possible.

- Planting included should be native in species where possible, local in province, and be of biodiversity benefit to foraging birds and bats. Species specified should also be varying in height and spread, providing a benefit to fauna of all types;

Native scrub and tree planting is specified with a diverse range of species and the plants will be of local provenance - seed source zone 303 or 304.

- Ensuring that all habitats retained are enhanced where feasible to bolster connections between wider off-site areas, such as the existing POS to the vegetated areas surrounding the motorway and rail network to the north.

The arrangement of GI across the site creates connections with offsite GI.

All recommendations and opportunities contained within the PEA and Tree Bat Roost Potential Assessment survey has been reflected and included within the proposed green infrastructure strategy for the site, reflecting the **Stepwise Step 3: Mitigate / Restore, Step E4 : Compensate** and by considering Enhancement at each stage in accordance with the **DECCA Framework**.



NPT Bee Friendly area within POS area south of Site.



Existing field boundary treatments separating southwest fields within the Site (ref: Hawkswood Ecology)



Taken from northern boundary looking into Site (ref: Hawkswood Ecology)

Multi-functionality of Green and Blue Infrastructure

This section identifies the multi-functionality of each green infrastructure element: Trees and hedgerows, ecology, public rights of way, public open space, and residential gardens. These elements reflect the over arching principle of the Stepwise Approach to green infrastructure with enhancement at each stage of the design in accordance with the **DECCA Framework**. The design approach also applies the principles of good placemaking and green infrastructure.

The multi-functionality of green infrastructure is described as “GI functions are the roles that assets can play if planned, designed and managed in a way that is sensitive to, and includes provision for, natural features and ecosystem services. They may have obvious primary functions, but each asset can perform different functions simultaneously”.

The Strategy aims are listed on pages 14 and 15, and the GBI functions and benefits of the proposals are listed in **Figure 8**, against the list below:

- Contribution to Placemaking
- Flood Mitigation
- Cooling and Shade
- Food
- Exercise
- Health and Wellbeing
- Calming and Inspiring
- Nutrient Cycling
- Wildlife Habitat
- Cleaning Water and Air

Resilience of Ecosystems

The Environment (Wales) Act 2016 provides a duty upon public bodies such as Neath Port Talbot Council to promote the **resilience of ecosystems**. The proposed green infrastructure strategy comprises a range of species, both native and non-native species to enhance biodiversity and botanical diversity. The species selected are adaptable to wet and dry conditions, including lengthy dry spells. The range of both tree and plant species proposed would enhance the biodiversity, increase species diversity, the age diversity of vegetation and improve habitat resilience to climate change.

The proposed green infrastructure strategy has considered the existing green infrastructure features within and beyond the site boundary, as recommended by the Stepwise approach. The proposed features would increase the biodiversity, species diversity, and habitat structure on the site whilst contributing to the multi-functionality of the green infrastructure elements.

Landscape asset	Green infrastructure element	Functions	Building with Nature Standards
Retained treelines and hedgerows	Trees / hedgerows	• **Wildlife Habitat** • Contribution to Placemaking • Cooling and Shade • Calming and Inspiring • Health and Wellbeing • Nutrient Cycling • Wind break • Cleaning Water and Air	• 2 - Positively Responds to the Climate Emergency • 4 - Champions a Context Driven Approach • 5 - Creates Distinctive Places • 6 - Secures Effective Place-keeping • 7 - Brings Nature Closer to People
New tree and hedgerow planting	Trees / hedgerows	• **Wildlife Habitat** • Contribution to Placemaking • Cooling and Shade • Food • Calming and Inspiring • Health and Wellbeing • Nutrient Cycling • Wind break • Cleaning Water and Air	• 1 - Optimises Multi functionality and Connectivity • 2 - Positively Responds to the Climate Emergency • 3 - Maximises Environmental Net Gains • 5 - Creates Distinctive Places • 7 - Brings Nature Closer to People • 11 - Delivers Wildlife Enhancement • 12 - Underpins Nature's Recovery
Proposed shrub planting	Trees / vegetation	• **Contribution to Placemaking** • Food • Calming and Inspiring	• 1 - Optimises Multi functionality and Connectivity • 2 - Positively Responds to the Climate Emergency • 3 - Maximises Environmental Net Gains • 7 - Brings Nature Closer to People
Proposed SuDS features	Sustainable Drainage	• **Cleaning Water and Air** • Flood Mitigation • Contribution to Placemaking • Calming and Inspiring • Nutrient Cycling	• 1 - Optimises Multi functionality and Connectivity • 2 - Positively Responds to the Climate Emergency • 5 - Creates Distinctive Places • 7 - Brings Nature Closer to People • 9 - Delivers Climate Resilient Water Management • 10 - Brings Water Closer to People
Proposed open spaces with species rich grasslands	Grassland	• **Wildlife Habitat** • Calming and Inspiring • Exercise • Health and Wellbeing • Nutrient Cycling • Wildlife Habitat • Contribution to Placemaking	• 1 - Optimises Multi functionality and Connectivity • 2 - Positively Responds to the Climate Emergency • 3 - Maximises Environmental Net Gains • 5 - Creates Distinctive Places • 6 - Secures Effective Place-keeping • 7 - Brings Nature Closer to People • 11 - Delivers Wildlife Enhancement • 12 - Underpins Nature's Recovery

Figure 8: Green Infrastructure Functionality

07 Conclusion

The landscape proposals Crymlyn Parc, Skewen are based on a Stepwise Approach, and given the importance of existing green infrastructure at the site, the strategy was to avoid and retain wherever possible. Where green infrastructure features have been lost the design has mitigated and/or compensated for the loss and enhanced the green infrastructure overall.

The proposals aim to create a hierarchy of spaces focused around existing and proposed green infrastructure. Naturalistic green spaces provide a setting for the development with space for landscape-based play and walking within green spaces which encourage social interaction.

SuDS features are integrated into the landscape strategy, introducing flowering pollinator species to provide a source of nectar for bees and other insects.

The landscape proposals make a good contribution towards the strategy aims defined against the landscape concept themes for the project defined on Page 12. The strategy aims are:

- Retain existing trees wherever possible and avoid removal of higher quality, A and B Category trees, and supplement with new native planting of welsh provenance.
- Create green corridors along retained vegetation with active travel, SuDS, habitats, play and edible landscapes.
- Establish strong connectivity across the site for people and nature.
- Focus on habitat enhancements which improve species and age diversity to improve longevity and resilience to climate change.
- Planting and grasslands to be designed to work with nature, based on lower future maintenance requirements.
- Integrate SuDS features as part of landscape proposals to improve amenity value.
- Establish a setting for informal play and landscape based exercise which is attractive and provides interaction with nature.
- Create a landscape that changes with the seasons to increase amenity and reinforce a connection with nature.

With regards to the **Placemaking Wales Charter** the landscape proposals make a good contribution towards the six placemaking principles, which cover the range of considerations that contribute to establishing and maintaining good places.

The proposals also contribute well to the **12 Standards of Building with Nature**, creating well connected, multi-functional green infrastructure.

Overall, it is considered that the proposed development would be in accordance with the Neath Port Talbot Local Development Plan policies relating to Green Infrastructure.

tir collective
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