



Land North of Elba Crescent, Swansea

Green Infrastructure Statement



Introduction

CarneySweeney has been commissioned by Hawkland Estates Ltd to prepare this Green Infrastructure Statement in support of the proposed residential development at Elba Crescent, Swansea.

The proposal involves the development of up to 152 dwellings (including affordable housing), associated infrastructure, public open space and landscaping.

The proposal comprises up to 152 new dwellings, including affordable housing, alongside associated infrastructure, public open spaces, and landscaping. This development presents an opportunity to revitalise a currently under-utilised brownfield site, extending the existing residential area and establishing a new, sustainable neighbourhood within Crymlyn Burrows.

The scheme will deliver a diverse mix of homes to meet a range of housing needs, complemented by high-quality green spaces for community enjoyment. It will embrace principles of good design and placemaking, resulting in an accessible, inclusive, and environmentally responsible place where people want to live.



Policy Context

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.



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

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.

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 12, February 2024

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."

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."

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..."

A Step-Wise Approach is required to be demonstrated in the Green Infrastructure Statement to assess impacts on habitats and species.

‘Green infrastructure is the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places. Component elements of green infrastructure can function at different scales and some components, such as trees and woodland, are often universally present and function at all levels. At the landscape scale green infrastructure can comprise entire ecosystems such as wetlands, waterways peatlands and mountain ranges or be connected networks of mosaic habitats, including grasslands. At a local scale, it might comprise parks, fields, public rights of way, allotments, cemeteries and gardens or may be designed or managed features such as sustainable drainage systems. At smaller scales, individual urban interventions such as street trees, hedgerows, roadside verges, and green roofs/walls can all contribute to green infrastructure networks’.



Neath Port Talbot LDP (2011- 2026)

The Neath Port Talbot Local Development Plan (LDP) was adopted in January 2016 and covers the period 2011 to 2026. The application site is shown as being located within the settlement limit under **Policy SC1** and allocated for housing under Policy H1/LB/3 on the adopted LDP Proposals Map.

Policy BE1 requires that all development proposals will be expected to 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. It stipulates that important local features (including buildings, amenity areas, green spaces and green infrastructure, biodiversity and ecological connectivity) should be retained and enhanced as far as possible.

Policy SP15 requires Important habitats, species and sites of geological interest to be protected, conserved, enhanced and managed.

Policy EN 7 advises that development proposals that would adversely affect ecologically or visually important natural features such as trees, woodlands, hedgerows / field boundaries, watercourses or ponds will only be permitted where full account has been taken of the relevant features in the design of the development, with measures put in place to ensure that they are retained and protected wherever possible; or the biodiversity value and role of the relevant feature has been taken into account and where removal is unavoidable, mitigation measures are agreed.

Placemaking Wales Charter

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 the environment.

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.”



Existing Green Infrastructure

The site is surrounded by existing industrial-use buildings. The site comprises a broken asphalt surface with boundary vegetation comprising a 2-3m high shrub and hedgerow zone along Elba Crescent on the southern and eastern boundaries.

The elements that are considered to form the existing Green Infrastructure (GI) of the site and surrounding context are as follows:

- Trees
- Ecology and Habitat
- Watercourses and drainage

Existing Green Infrastructure



Trees

The application is supported by a tree survey and an Arboricultural Impact Assessment (AIA) which assesses the trees on site for their quality and benefits and quantifies the arboricultural impact of the proposed development.

The survey recorded a total of 70 no. individual trees, 12 no. tree groups and 5 no. hedges. Age varied between young and mature. There are some variation in species, with Lawson Cypress, Scots Pine and Silver Birch being abundant.

The assessment of on-site trees is as follows:

- Category A ('High Quality') 4 No.
- Category B ('Moderate Quality') 26 No.
- Category C ('Low Quality') – 57 No.

'A' and 'B' category trees should be incorporated as part of the development proposals where possible, retaining the significance on the boundaries which have landscape value as screening, whilst removing the lower quality trees, dead specimens and clearing the scrubland, which are mostly found on the existing hardstanding areas.

'C' Category trees will not usually be retained where they would impose a significant constraint to development but should be retained where there is no reason for their removal.

The survey identified a number of individual trees of good quality on the site. Those which are of good quality are located on the boundaries, mainly the eastern boundary and the southern boundary, along Elba Crescent.

Fir trees located at the south-western corner of the Site





Ecology

The site mostly consists of existing hardstanding with areas of grassland, scrub and other colonising vegetation present. A single guard house found near the southern site boundary represents the only building or structure within the site.

Stage 2 bat activity surveys revealed the site is used by very few commuting/forging bats with species limited to Common Pipistrelle, Soprano Pipistrelle and Noctule, all of which are known to be relatively tolerant to artificial light. The majority of bat activity at the site was associated with a treeline marking the southern boundary. This treeline is already subject to artificial light from existing lighting columns along Elba Crescent Road, and so any additional lighting required at the site is unlikely to result in a negative effect on locally foraging/commuting bat populations.

A dusk emergence survey found no evidence to suggest that the derelict guard house was currently or had been recently used by roosting bats and so no licence would be required prior to any works taking place to this building.

Targeted reptile surveys confirmed the likely absence of reptiles within the habitats present at the site, with no reptiles found on any of the seven survey visits. As such no particular mitigation measures for reptiles would be required as part of any future development at the site.



Drainage & Hydrology

The site is located in River Flood Zone 1, meaning it has less than 1 in 1000 year (0.1%) annual probability of river flooding.

The site is located within Tidal Flood Zones 2 and 3, meaning it has between a 1 in 200 (0.5%) and 1 in 1000 (0.1%), and a 1 in 200 (>0.5%) or greater annual probability of sea flooding, respectively.

The site does not benefit from flood defences and is outside of recorded flood outlines.

Climate change considerations within the FRA concluded ground levels could be raised above the predicted flood level to create a flat and level plateau for the proposed development. The final flood resilience/resistance levels to be achieved will be no lower than 7.91 m AOD (1 in 200 year +Climate Change uplift level).

Currently the site is served by surface water drains which feed into a below ground attenuation tank situated in the south of the site. Water is then piped eastwards out of the site under agreed with adjacent landowner. It is proposed to retain both the attenuation tank and discharge location as a feasible means of surface water management for the proposed development.

Landscape Strategy



The landscape strategy for the site is based on legibility, permeability, connectivity and the integration of existing landscape features into a greenspace network. It aims to ensure the:

- Retention and enhancement of existing trees and hedgerows.
- Provision of new planting along the northern, eastern and western edges of the site to create a strong green buffer to screen views of the surrounding uses.
- Creation of new publicly accessible green spaces within the site for residents and visitors to enjoy.
- Opportunity exists to improve biodiversity across the site, through the use of new landscape areas offering a diverse range of habitats and native planting species.
- Integration of a robust landscape framework to help screen the development from the surrounding land uses, whilst providing attractive and high-quality open spaces for the enjoyment of residents and the local community.

Net Benefit for Biodiversity and the Step-wise Approach

The Proposed Development seeks to follow the Stepwise Approach as detailed within Chapter 6 of PPW12, by implementing the following:

Avoid

Any future vegetation clearance, including the removal of trees, scrub or brash piles, will be undertaken outside of nesting bird season. If clearance is unavoidable during the nesting season, an ecologist will be present on site to inspect habitats for active nests prior to removal and supervise the clearance process.

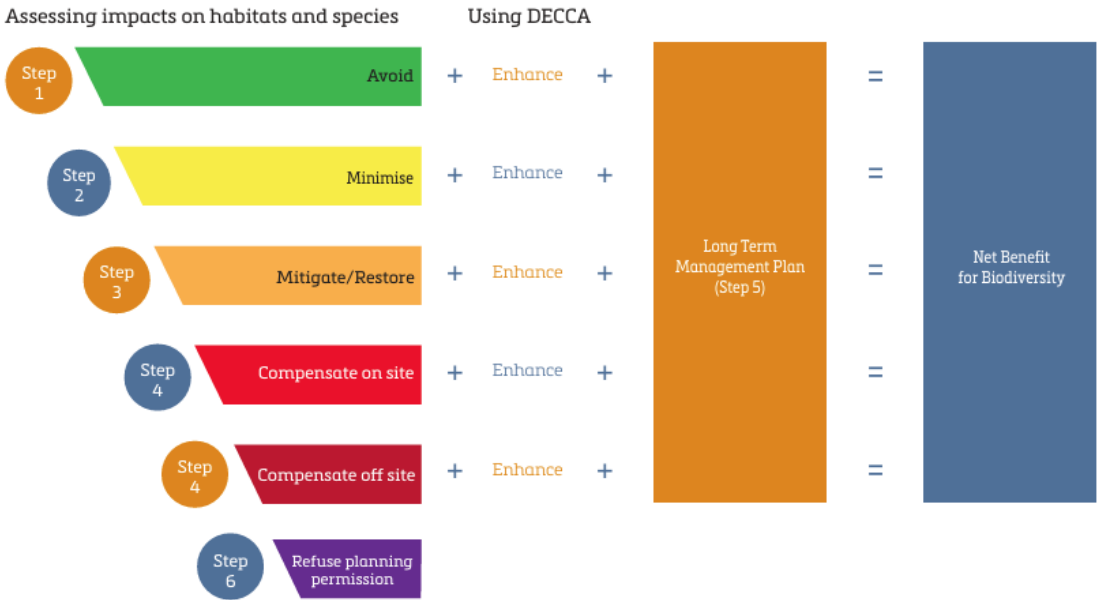
Boundary vegetation will be retained where possible, such as treelines and strips of scrub, along with a number of existing good quality trees on the Elba Crescent frontage.

Minimise

Site lighting will be specifically designed to minimise light spill onto retained boundary features and linear habitats which serve as a commuting corridor for bats and other nocturnal wildlife.

During the construction phase, all excavations will be covered overnight or a means of escape provided to minimise risks to any small fauna that may become trapped.

Comprehensive pollution control measures will be established and carried out within a Construction Environmental Management Plan (CEMP).





Net Benefit for Biodiversity and the Step-wise Approach

Mitigate

The development will include gaps at the bottom of all garden and boundary fencing to ensure continued connectivity through the site for Hedgehogs and other small mammals known to be present in the local area.

An updated dusk emergence survey will be conducted for the derelict guard house to confirm the status of roosting bats and inform specific licensing and mitigation requirements before demolition.

Compensation

While the site lacks priority habitats the existing areas of grassland will be compensated for through the creation of new grassy areas that will be managed specifically as wildflower meadows to replace lost habitat and support pollinators.

A provision of bat, bird and insect boxes will be installed on new buildings and retained trees. Any Sustainable Urban Drainage Systems (SuDS) features proposed for the site will be designed to benefit biodiversity.

Furthermore, the soft landscaping scheme will utilise native species of trees and shrubs or species with a known benefit to local biodiversity.

The proposed ecological enhancements fit with the DECCA (Diversity, Extent, Condition, Connectivity and Aspects of ecosystem resilience) Framework by:

1. Increasing diversity within the local ecosystem
2. Increasing the extent/scale of ecosystems
3. Improving the condition of the ecosystem
4. Improving connections within and between ecosystems
5. Improving ecosystem resilience and adaptability to future pressures

It is therefore considered that there will be a demonstrable net benefit for biodiversity within the wider ownership boundary. Areas of the site to be impacted have been identified as being of local value and negligible ecological importance, with onsite impacts appropriately minimised and mitigated. All habitats either retained, created or enhanced will be subject to long-term management with defined biodiversity targets and performance indicators.