
Title:	Green Infrastructure Statement
Document Reference:	11131 GIS
Proposed Development:	Construction of Building Extension and Associated Drainage Infrastructure
Prepared By:	Technia Environment and Planning Limited
Client:	Merthyr Borough Recycling Centre Ltd
Site:	Plot 5 Pengarnddu Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2TA
Date:	13th August 2024

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

Document Revision

Version	Date	Author	Checked	App'd	Revisions
DRAFT	12/08/24	SCW	13/08/24	CGM	FOR APPROVAL
1.0	13/08/24	SCW	13/08/24	NB	ISSUED FOR SUBMISSION

Disclaimer:

Every skill and care has been taken in completing this work within the terms of the contract commissioning our services and taking into account the resources assigned to the commission in agreement with the client. Similarly, every skill and care has been taken to ensure the accuracy of the information within this report. No liability or responsibility of any kind to the client or 3rd parties can be accepted by Technia Environment and Planning Ltd for any matters outside of the stated scope. The opinions and interpretations presented in this document represent our reasonable interpretation of the data made available to us. Drawings and descriptions within this document are not intended to represent detailed design unless otherwise stated and should not be used for construction.

TABLE OF CONTENTS

1 INTRODUCTION.....1

1.1 Background and Context 1

1.1.1 Development Overview 1

1.2 Green Infrastructure..... 1

1.3 Green Infrastructure and the Planning Process..... 1

1.4 This Report..... 2

2 EXISTING GREEN INFRASTRUCTURE3

2.1 National Context 3

2.1.1 National Landscape Character 3

2.2 Regional Context..... 3

2.2.1 Area Statement..... 3

2.2.2 Supplementary Planning Guidance 3

2.2.3 Data Maps..... 4

2.2.4 LANDMAP 4

2.2.5 Tranquil Areas Wales 5

2.3 Local Context 5

3 GI STRATEGY.....6

3.1 Vision 6

3.2 Risks 6

3.3 Opportunities, Constraints and GI Strategy..... 6

3.4 Application of Stepwise Approach..... 6

3.4.1 Avoid 6

3.4.2 Minimise 7

3.4.3 Mitigate..... 7

3.4.4 Compensation..... 7

3.4.5 Enhancement..... 7

4 CONCLUSION8

DRAWINGS

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

1 INTRODUCTION

1.1 Background and Context

This Green Infrastructure Statement accompanies an application submitted by Technia Environment and Planning Limited on behalf of Merthyr Borough Recycling Centre Ltd (the Applicant) to permit an extension to a building at their site at Plot 5 Pengarnddu Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2TA.

1.1.1 Development Overview

The Applicant seeks planning consent for:

“Construction of Building Extension and Associated Drainage Infrastructure”

The proposed development site is situated within of an existing Waste Transfer Station/Recycling Facility.

The building extension will be used for the storage of waste, plant and equipment.

1.2 Green Infrastructure

The Landscape Institute defines Green Infrastructure (GI) as *“the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect villages, towns and cities. Individually, these elements are GI assets, and the roles that these assets play are GI functions.”*

GI can be considered as elements influencing an area at three scales:

- Landscape scale - wetlands, woodlands, heathlands, shorelines, rivers and floodplains, mountains, national parks and other designated areas.
- Local scale - parks, fields, footpaths/ Public Rights of Way, cycle ways, common land, open access land, canals, allotments, cemeteries, landscaped areas and gardens.
- Small scale - individual features including street trees, roadside verges and hedges, village greens, swales and ditches, ponds, private gardens and green roofs.

In this way, small or local scale projects incrementally add to the bigger landscape-scale picture, and collectively contribute to maintaining and enhancing a network of green infrastructure

When appropriately planned, designed and managed, GI has the potential to deliver a wide range of benefits for people and wildlife, including mitigating and adapting to the effects of climate change.

1.3 Green Infrastructure and the Planning Process

Edition 12 of Planning Policy Wales (PPW), the latest version of the framework published in February 2024, mandates a duty to conserve and enhance biodiversity. It also introduces a requirement for all planning applications to be accompanied by a GIS. Specifically, paragraph 6.2.12 states that:

“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. In the case of minor development this will be a short description and should not be an onerous requirement for applicants. 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.”

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

1.4 This Report

PPW requires a GI statement to be submitted with all planning applications. This document fulfils this requirement and is considered to be proportionate to the scale and nature of the development proposed. It considers the site in the context of the surrounding area, identifies opportunities for enhancing biodiversity and describes how green infrastructure has been incorporated into the proposal.

Furthermore, it sets out the 'Stepwise Approach' which has been applied and used to inform development proposals. Namely, how the proposals have been developed to:

1. Avoid damage to biodiversity and green infrastructure assets
2. Minimise damage to biodiversity and green infrastructure assets
3. Mitigate damage to biodiversity and green infrastructure assets
4. Compensate damage to biodiversity and green infrastructure assets

This document is intended to provide a high-level summary of the proposals for achieving a net benefit for biodiversity as a result of the development.

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

2 EXISTING GREEN INFRASTRUCTURE

2.1 National Context

2.1.1 National Landscape Character

The site is located to the east of Natural Resources Wales' National Landscape Character Area NLCA 37: South Wales Valley. The Landscape Habitat area best characterises the north eastern area as containing *"dramatic upland settings with steep hillsides, open moors or forests"*.

2.2 Regional Context

2.2.1 Area Statement

Under Part 1 of the Environment (Wales) Act 2016, Area Statements were produced by Natural Resources Wales (NRW) and cover the marine and six land regions across Wales. The South Central Wales Area Statement (SCWAS) covers Merthyr Tydfil, Bridgend, the Vale of Glamorgan and Rhondda Cynon Taff, as well as Cardiff. It is the most densely populated of the seven areas, representing 29% of total population and 6% of Wales's landmass. Consequently, the area statement is dominated by a desire to bridge the urban and the natural environments.

There are five key themes identified within the area statement, two of which, Building resilient ecosystems and Connecting people, are the cornerstones that provide a sustainable management framework for natural resources in order to address the challenges of the three remaining themes; Working with water, Improving our health and Improving our air quality.

The Area Statement goes on to identify seven key ecosystems in South Central:

- Coastal
- Freshwater
- Grasslands
- Peatlands
- The Valleys
- Urban
- Woodlands

NRW's approach is to encourage the Sustainable Management of Natural Resources to have the highest level of resilience appropriate to the desired land use. This will require different action in different places.

2.2.2 Supplementary Planning Guidance

2.2.2.1 SPG 4 Sustainable Design

Chapter 10 of SPG 4 expands upon Merthyr Tydfil County Borough Council's (MTCBC) existing planning policy on GI. The document refers to policies contained in the previous adopted LDP 2006 – 2021, however, much of the principles and guidance within the document remains relevant. Until the LPA review and consult on draft SPG in light of the updated policy framework provided by the replacement LDP 2016 – 2031, the SPG remains until replaced or otherwise withdrawn.

The guidance highlights the multifaceted benefits of GI and outlines practical 'green' measures that can be incorporated into new developments including, green roofs, street trees and SuDS. The document further highlights that opportunities should always be taken to retain existing GI features including trees and hedgerows wherever possible.

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

2.2.3 Data Maps

Natural Resources Wales maps provide information relating to priority ecological networks, habitat networks, ecosystem resilience, Tranquil Areas and related themes. These were reviewed and have provided background and context to the assessment at a regional and local level.

2.2.4 LANDMAP

LANDMAP is an all-Wales GIS (Geographical Information System) based landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent data set.

2.2.4.1 Landscape Habitats

Within the Landscape Habitat data, the site lies within the Landscape Habitat Aspect Area MRTHRLH007, summarised as “*dry (relatively) terrestrial habitats, grassland & marsh and acid grassland.*” It should be noted that the key features that define this area's biodiversity character are derived from the large area occupied by Gelligaer, Merthyr and Mynydd y Capel Commons.

The dataset identifies the present Phase 1 habitat types as:

- Unimproved Acid Grassland
- Semi-improved Acid Grassland
- Improved Grassland
- March Grassland
- Bracken

Biodiversity is notably influenced by ponds, hedgerows, earth banks and rock outcrops. The area is assessed as being of high value as “*the aspect contains a different mosaic of valuable habitat*”.

Land management activities in the area consist mainly of stock grazing and mowing. The principal management recommendations for the area include conserving and enhancing semi-natural habitats, with medium term recommendations to modify spoil reclamation methods to enhance biodiversity opportunities and designate best semi-natural habitats as SINCs.

2.2.4.2 Geological Landscape

The site is located within Geological Landscape Aspect Area MRTHRGL008. The area is characterised by the NW-SE Penydarren and Dowlais Faults and extensive boulder clay cover, made ground, with numerous disused shafts and adits, waste tips and reclaimed opencast coal mines. The area is assessed as being of *moderate* value, featuring a productive coal formation, many old coal and iron workings and large areas of made and reclaimed land. Management recommendations emphasise the long-term implementation of plans to conserve/restore worked land and restore degraded land.

2.2.4.3 Visual and Sensory

The site is situated in Visual and Sensory Aspect Area MRTHRVS122, the quality of the aspect area landscape is variable and the pattern of development has historically been controlled by the exploitation of local minerals and related industrial development, resulting in strong visual contrasts between areas surrounding the town centre and random housing developments among the serried ranks of stone-built housing in Dowlais.

The area is assessed as being *low* value of poor condition, “*setting for wider more interesting landscapes of upland and coast*”. Recommended management strategies include immediate improvement and maintenance of existing open spaces and integrating new and existing development. In the medium term, management strategies include identifying and conserving heritage landscapes, managing roadside areas to connect with the countryside and enhancing river corridors to improve access and use.

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

2.2.4.4 Historic Landscape

The site is located in Historical Landscape Aspect Area MRTHRHL005, characterised by a wide range of features from various periods. The area holds significant archaeological interest, with notable buildings, structures, industrial archaeology and documentary evidence. The area is assessed as being *outstanding* value. The data set states: *“despite impacts from extensive recent land reclamation and the expansion of 20th century social housing, the town and its environs, together with the extant remains of the ironworks at Cyfarthfa, Dowlais and Ynysfach, constitute what has been characterised as ‘a potent example of an internationally renowned industrial landscape of the 18th and 19th centuries’*. Principal management recommendations include the long-term retention of distinctiveness of constituent communities and the immediate term management of enhancing accessibility and display of transport links.

2.2.4.5 Cultural Landscape

The site lies within Cultural Landscape Aspect Area MRTHRCL003. The area is assessed as having a strong sense of place/local distinctiveness, it is however largely assessed as low against the criteria within the data set, including scenic quality and character.

2.2.5 Tranquil Areas Wales

The Tranquil Areas Map of Wales shows zones of tranquillity. The site lies within Zone B, an area identified as experiencing significant disturbance.

2.3 Local Context

There is no available data regarding the site's ecological characteristics or its ability to support protected species. Given the site is largely laid to concrete or compacted stone hardstand, and frequently trafficked by HGVs and large plant, any ecological value is likely to be very limited.

With the exception of Merthyr Common, to the north, ecological infrastructure is limited to a limited number of hedgerows and small trees within the wider industrial estate. Merthyr Common to the north is an area of upland common land comprising a range of habitats including marshy grassland, acid grassland, wet and dry heath and acid flush.

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

3 GI STRATEGY

3.1 Vision

The overall vision is to:

- Safeguard and enhance the function of existing GI;
- Enhance ecological resilience by improving the condition, increasing the extent and/or improving connectivity between areas of GI within the site and to the wider landscape; and
- Consider opportunities for habitat protection and enhance the site for protected and priority species.

3.2 Risks

A number of risks have been identified that could impact the biodiversity value of the site, as well as potentially impacting upon the ecological functionality of the site and wider landscape. These risks include:

- Disturbance from lighting, noise and regular human presence.

3.3 Opportunities, Constraints and GI Strategy

Opportunity	Constraint	GI Strategy
Safeguard and strengthen biodiversity within the site to build ecosystem resilience	Limited area within the site boundary. GI predominantly outside of the site to the north.	Protection of GI assets during operational lifetime.
		Species-specific initiatives.
Climate change, sustainability and decarbonisation		Utilise SuDS (infiltration) to control run-off, reduce flood risk and remove pollutants.
Utilise buildings and structures for GI.	Building design and use will not permit green/brown roof.	Utilise existing buildings for GI enhancement features.
Improve health and well-being and social cohesion	Site not accessible by members of the public (other than customers and visitors).	Ensure GI development is not detrimental to local residents.
Sense of place	Existing industrial estate with limited opportunity/need for enhancement	No specific strategy.

Table 1. Opportunities, Constraints and GI Strategy

3.4 Application of Stepwise Approach

3.4.1 Avoid

The initial site layout was considered with the objective to avoid the construction on any areas of more notable ecological value within the site. These are located on the northern and eastern peripheries.

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

3.4.2 Minimise

The site layout was further refined to minimise habitat loss where possible. This resulted in the development being undertaken in the existing concrete surfaced area and a minimum amount of land required to deliver the development being taken.

3.4.3 Mitigate

The development could result in limited disturbance to bats.

The site's design specifically incorporates 'bat friendly' external lighting to prevent any unacceptable light spill. Security and utility lighting will comprise of PIR-activated surface-mounted spot lights, downward oriented and inward facing over the roller shutter door accesses to the building.

3.4.4 Compensation

Due to the scale and design of the development, offsite compensation measures are not required.

3.4.5 Enhancement

In advance of any works, a total of two bird boxes; 1B Schwegler Nest Box (or similar design) are to be installed on the northern elevation of the existing building. The boxes will be installed two to five metres high, out of the reach of predators such as domestic cats.

The specifications and design of the bird boxes is provided in Figure 1 below.

1B Schwegler Nest Box		
Material	Schwegler Woodcrete	
External Dimensions	26 cm x 17cm x 18 cm	
Colour	Brown	
Weight	3.6 kg	
Material	Schwegler Woodcrete	
Siting and Position	On northern elevation of existing building 2 – 5 m from ground level.	

Figure 1. Bird Box Specifications.

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

4 CONCLUSION

The proposal identifies important features within the site and wider area as a baseline for the development of Green Infrastructure proposals.

The approach taken by the developer has ensured that the step-wise approach has been followed, and in particular, that the development within more valuable habitats on site has been avoided.

Diligent planning and design has informed the provision of measures and ensured that an appropriate mix of Green Infrastructure (given the relatively small scale and minimal impact of this development) has been included in the proposals. The GI proposals will contribute to the functioning and enhancement of the local area.

	Green Infrastructure Statement	1.0
--	---------------------------------------	-----

DRAWINGS

- 11131 – 000 – A Location Plan
- 11131 – 000 – B Site and Surrounding Area Plan
- 11131 – 000 – C Site Plan
- 11131 – 000 – D Existing and Proposed Floor Plans
- 11131 – 000 – E Existing and Proposed Roof Plans
- 11131 – 000 – F Existing and Proposed Elevations