

Kenfig Turbine

Condition 15: Habitat Management
Plan

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Issuing office

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Client	Infinite Renewables
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	Name	Position	Date
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1 Introduction

Background and Context

1.1 The erection of a single wind turbine and associated infrastructure at the Kenfig Industrial Estate, Neath Port Talbot, was consented, subject to conditions, in May 2022 (Planning Reference P2022/0372).

1.2 One condition primarily concerns ecology (Condition 15). The condition states:

“A habitat management plan, including long term design objectives, management responsibilities and maintenance schedules for the habitat creation area at the base of the turbine (including species schedule), shall be submitted to and approved by the local planning authority prior to the first operation of the turbine. The habitat management plan shall be carried out as approved. Reason: In the interests of biodiversity and to ensure the development complies with Policy EN7 of the Neath Port Talbot Local Development Plan.”

Site Description

1.3 The turbine will be located in an area currently used as a car park for an adjacent warehouse.

1.4 The immediate wider area (Kenfig Industrial Estate) is a mixture of hardstanding and warehouse buildings, with grass verges and ornamental trees. The area is 10-12 m elevation above sea level. The Industrial Estate is surrounded by scrub interspersed by patches of more open brownfield habitat, and is bordered by sections of the local rail network to the north and south, railway sidings to the west, and the M4 motorway to the east.

1.5 The wider landscape comprises a variety of habitats, including areas of high quality semi-natural habitat. Eglwys Nunydd reservoir, a large freshwater waterbody with adjacent pasture, scrub and woodland, is located beyond the railway to the north of the Industrial Estate. The land beyond the M4 motorway, to the east, consists of pasture fields under arable rotation and livestock grazing. The Kenfig Reserve is located beyond the railway to the south, and consists of an expanse of dunes, scrub and woodland, and includes the Kenfig Rivermouth and Kenfig Pool. Morfa sand, gravel and landfill site is located beyond the railway sidings, to the west of the Industrial Estate, beyond which is the Bristol Channel coast and Kenfig Sands. To the north-west of the Industrial Estate (between Eglwys Nunydd Reservoir and the Bristol Channel) is Margam Moors, which consists of agriculturally managed coastal levels.

Purpose of this Document

1.6 The purpose of this document is to provide a basis for the local planning authority to discharge Condition 15 of the consent.

2 Habitat Creation Proposed

Overview of Proposals

- 2.1 The Kenfig Industrial Estate Wind Turbine Ecological Assessment (BSG Ecology, April 2021) made the following commitment with regard to biodiversity enhancement.

*“Enhancement measures to benefit protected species and encourage their use of the Site will involve establishing a thin soil cap on the turbine base and seeding it with common bird’s foot trefoil *Lotus corniculatus* (the food plant of the dingy skipper butterfly) and other pollinator-friendly species. The plot, once established, should be fenced off to prevent incursion by personnel and vehicles.”*

Design Objectives

- 2.2 The design objectives are to:
- Create an area of flower rich habitat within an immediate area that is largely inhospitable to pollinator species.
 - To establish a range of flowering plants that are typical of the nearby coastal strip, and which are important to locally-occurring invertebrates of high conservation priority such as dingy skipper *Erynnis tages* and (nectaring) aculeate Hymenoptera such as brown-banded carder bee *Bombus humilis*.
 - To establish ground conditions that are likely to encourage the spread of species established within the plot, such as bird’s-foot trefoil.

Design Implementation

- 2.3 An area around the base of the turbine will be demarcated through the use of concrete bollards. This will prevent vehicles driving over it. The area will extend to circa. 25 m². This is shown on **Figure 1**.
- 2.4 A low wall three bricks in height will be built to form the boundary of a raised bed and prevent the soil cap being washed off. The lower course of bricks will not have mortar put between them during construction, in order to allow drainage of water onto the adjacent car park (the gaps will create weep holes).
- 2.5 A layer of coarse pea gravel of approximately 5 cm depth will be spread onto the base of the bed. This will be covered by an untreated geo-textile membrane to prevent the soil entering the gravel. The area will then be dressed with a mixture of locally-sourced topsoil and horticultural sand (ratio 3:1) to a depth of 12 cm (such that the entire depth will be approximately 17 cm).
- 2.6 Plug plants of local provenance will be sourced from Celtic Wildflowers¹. It is proposed to plant 10 plug plants per metre square. The following species should be used:
- Common bird’s foot trefoil
 - Common restharrow *Ononis repens*
 - Bloody crane’s-bill *Geranium sanguineum*
 - Common stork’s-bill *Erodium cicutarium*
 - Wild carrot *Daucus carota*
 - Viper’s bugloss *Echium vulgare*
 - Wild thyme *Thymus vulgaris* (available as a potted plant as opposed to a plug)
- 2.7 Bird’s foot trefoil should account for 50 % of the plants, with the remainder made up of the other species.

¹ <https://celticwildflowers.co.uk/>

3 Aftercare

Responsibility

- 3.1 The developer (Infinite Renewables Group Ltd) will maintain the plot throughout the operational life of the turbine.

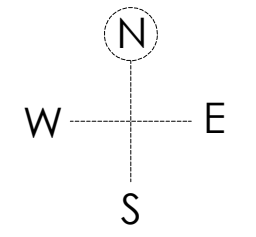
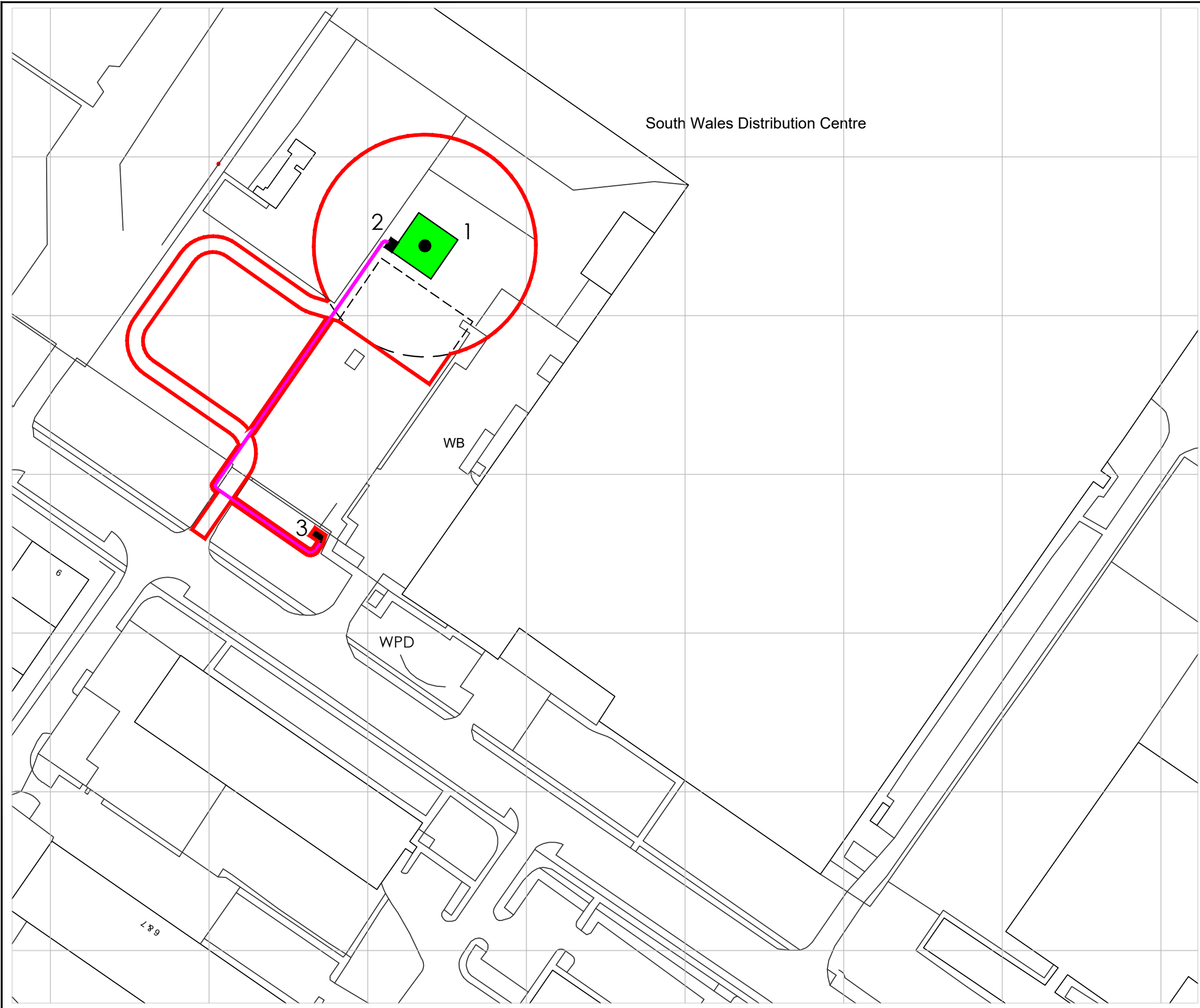
Annual Inspection

- 3.2 The plot will be inspected annually (in early July) to determine the success of the planting and whether any maintenance is required.
- 3.3 If the plot becomes 'rank' (which is unlikely if the soil mix, depth and drainage are correct), measures will be recommended and implemented to address this. Rank vegetation might include broadleaved species such as docks or invasive coarse grasses. These would need to be manually removed.
- 3.4 Any seedling trees will also need to be removed.
- 3.5 Other potential management might include:
- Repairs to brickwork
 - Restocking of failed plants (e.g. following very hot weather)
 - Cleaning out drainage points in the lower course of brickwork to address waterlogging.

Reporting

- 3.6 A short annual report will be submitted to Neath Port Talbot County Borough Council illustrating the condition of the plot (primarily through the use of photos).
- 3.7 This will outline the species present, their approximate percentage cover, the cover of bare ground, and any invertebrates noted using it. It will also set out any remedial measures identified during the inspection and how these were addressed.

4 Figure 1. Site Layout showing Planting Area

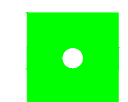


1 - Turbine (70m Ø)
Proposed Location - 279818,
183522 including foundation
and tower

2 - Client Transformer

3 - WPD Substation

 Underground Cable

 Maximum extent of
planted area to
promote bio diversity.
Bollards to be provided
to perimeter.



CLIENT: Infinite Renewables		SCALE: 1:1250@A3
PROJECT: Kenfig Industrial Estate		DATE: 23/05/2022
DRAWING: Site Layout Plan		DRAWN: RS
DRAWING No: IR-Kenfig-201	REV: N	CHECKED: GJ