O'LEARY CONSULTING
ENGINEERS

BIODIVERSITY PLAN

FOR

SUBSTITUTE CONSENT
APPLICATION TO AN BORD
PLEANÁLA UNDER SECTION 177E OF
THE PLANNING & DEVELOPMENT
ACT 2000 FOR A CAMPER VAN AND
CARAVAN PARKING AREA /
CAMPSITE AND ALL ASSOCIATED
SITE WORKS

AT

CLONMINES, WELLINGTONBRIDGE,
CO. WEXFORD

ON BEHALF OF

MR. JOHN ROCHE

Prepared by
Stephen Byrne,
Ecological Consultant
13th February 2025

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Stephen Byrne Ecological Consultant – Professional Profile:

This report has been prepared by Stephen Byrne, working for O' Leary Consulting Engineers, a multi-disciplinary consultancy specialised in Planning, Surveying, and the Environment. Stephen holds an honours degree in Environmental Science from Trinity College Dublin, obtained in 2020, and is currently in the final year of his PhD at the same institution. With over five years of experience, Stephen's expertise includes environmental monitoring, desktop research, literature reviews, and report writing, as well as practical fieldwork such as screening, scoping, and contributing to Environmental Impact Assessment Reports, Landscape Plans, environmental monitoring of tree health, and physico-chemical water quality assessments. Additionally, Stephen is skilled in Geographical Information Systems (GIS) for applications including site suitability assessments, and ecotope classification. He has been a member of the Chartered Institute of Ecology and Environmental Management (CIEEM) since 2022.

Scope:

To provide a Biodiversity Plan for submission as part of a planning permission application for a development at Clonmines, Wellingtonbridge, Co. Wexford, by Mr. John Roche.

Site Specifications:

Table 1. Site Specifications

Site Location	52.251094, -6.769193
Altitude	4-18 meters above sea level
30 year mean annual rainfall	986.2 mm (Coonan et al., 2024)
30 year mean annual air temperature	10.6 °C (Coonan et al., 2024)
Site Area	1.718 ha
Soil Type	Predominantly Acid Brown Earths, Brown Podzolics. Derived from mainly non-calcareous parent materials (EPA Maps)
Bedrock	Cambrian greywacke, slate, quartzite (EPA Maps)
Aquifer	Pl (EPA Maps)
Groundwater Vulnerability Category	E, X (EPA Maps)
Nearest SAC	Immediately adjoining Bannow Bay SAC (NPWS Designations Viewer)
Nearest SPA	Immediately adjoining Bannow Bay SPA (NPWS Designations Viewer)
Nearest NHA	5.6 km Keeragh Islands NHA (NPWS Designations Viewer)

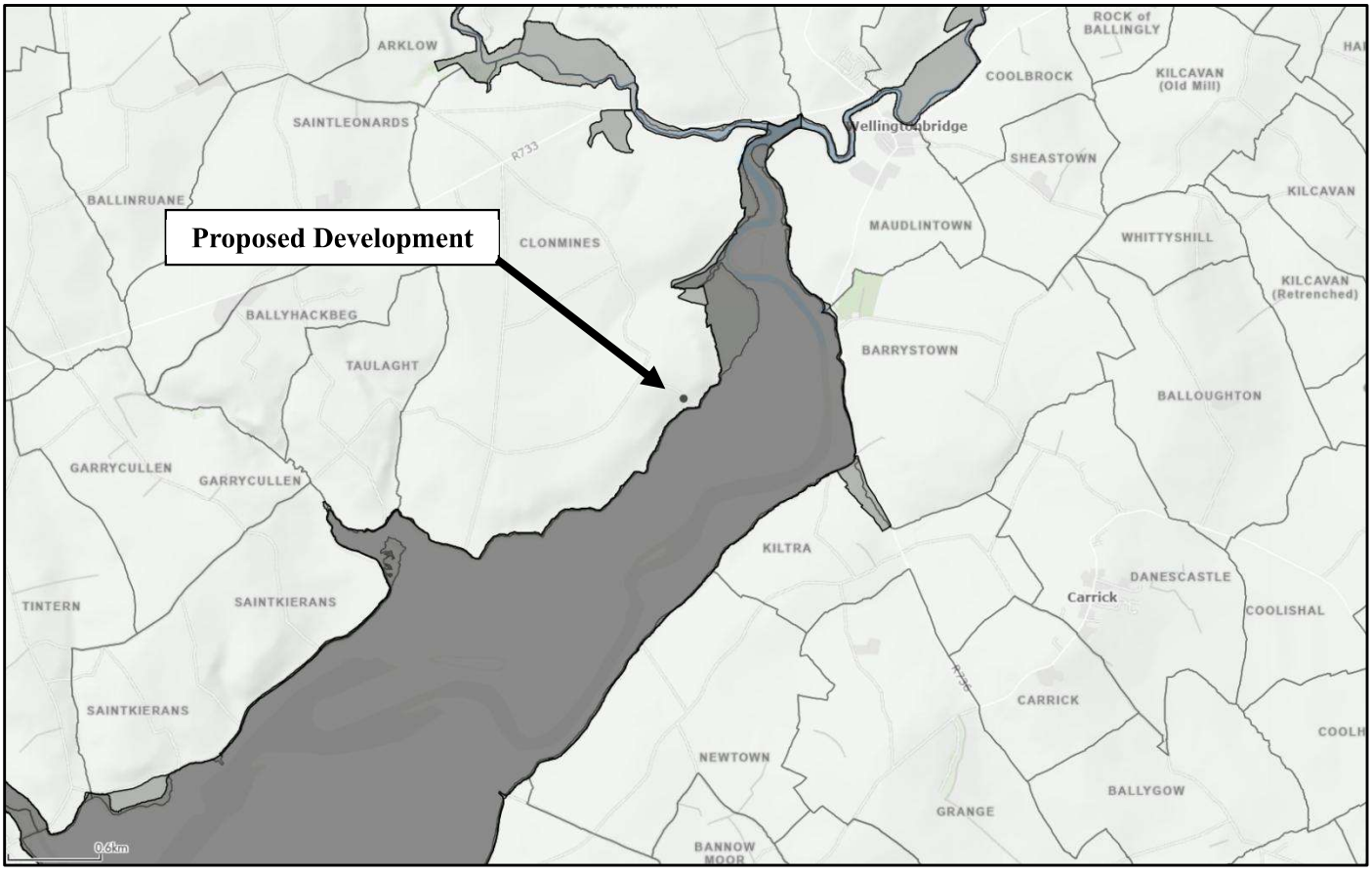

Fig. 1. Site location adjacent to Bannow Bay Natura Sites (NPWS Designations Viewer)

Fig. 2. Aerial Image of Site Location (Google Earth)

The proposed development site is an agricultural grassland part of a dairy farm in a rural area. Biodiversity at the proposed site is limited to sparse hedgerow to the north, beyond which lies more agricultural grassland. Mature hedgerow with occasional trees bordering the east of the proposed site. The field in which it is proposed to locate the proposed development slopes southward from 18 meters above sea-level to 7 meters above sea level. Soil testing for the purpose of measuring fertility has not been carried out as part of this planning process, however, it is expected that soil index would be high due to frequent fertiliser application.

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GENERAL NOTES

Site Plan Provided by John Roche Architectural Services

Key:

Db - Downey birch
Ro - Rowan
Wc - Wild cherry
Ha - Hawthorne
Ca - Crab apple
Bl - Blackthorne

Details of Planting Mixes Provided on Separate Page

DESIGNED BY:

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Tel: 086-8653544
Email: stephen6480@gmail.com

CLIENT:

John Roche

SITE AT:

Clonmines, Wellingtonbridge,
Co. Wexford

Date: 11/02/2025
Scale: 1/750
Drawing: Biodiversity Plan

PLANTING SCHEDULE

PROPOSED TREE – SMALL, POLLINATOR SPECIES (WOODLAND AREA)

Species	Girth / Form / Height	% in mix	Planting density	Total No.	Comments	Management year 1-5	Management year 5-10
Crataegus monogyna	12-14cm / Advanced Heavy Standard / min 1.5m height	As shown in drawing		3	All trees to be staked Trees will grow to maximum of 3m.	Defective plants (dead or dying) to be replaced after year 1. Monthly tasks: - Tree stakes/ties to be checked - Water weekly during dry weather - Weed removal at base of tree - Fertilise base of tree - After 3 years tree ties and staking to be removed	Trees to be thinned and pruned to 3m height.
Malus sylvestris	8-10cm / Advanced Heavy Standard / min 1m height	As shown in drawing		4			
Prunus avium	12-14cm / Advanced Heavy Standard / min 1.5m height	As shown in drawing		6			
Prunus spinosa	4-6cm / Advanced Heavy Standard / 60-90cm	As shown in drawing		5			
Sorbus aucuparia	12-14cm / Advanced Heavy Standard / min 1.5m height	As shown in drawing		5			
				23			

PROPOSED TREE – SMALL (WOODLAND AREA)

Species	Girth / Form / Height	% in mix	Planting density	Total No.	Comments	Management year 1-5	Management year 5-10
Betula pubescens	16-18cm / Advanced Heavy Standard / min 2m height	As shown in drawing		5	As above	As above	As above

PROPOSED HEDGEROW PLANTING MIX (A) (NATURE WALK)

Species	Girth / Form / Height	% in mix	Planting density	Total No.	Comments	Management year 1-5	Management year 5-10
Acer campestre	4-6cm / bareroot, 60-90cm	~15%	3 per meter	50	To be planted in groups of 3-5 of same species	Defective plants (dead or dying) to be replaced after year 1. Monthly tasks: - Water weekly during dry weather - Weed removal at base of	Hedgerow to be thinned and pruned to 1m height.
Corylus avellana	4-6cm / bareroot, 60-90cm	~15%		50			
Euonymus europaeus	4-6cm / bareroot, 60-90cm	~15%		50			
Ilex	4-6cm / potted, 60-90cm	~15%					

aquifolium						hedgerow	
Ligustrum vulgare	4-6cm / bareroot, 60-90cm	~15%		50			
Prunus spinosa	4-6cm / bareroot, 60-90cm	~15%		50			
Viburnum opulus	4-6cm / bareroot, 60-90cm	~15%		50			
				350			
PROPOSED HEDGE PLANTING (B)							
Species	**Girth / Form / Height**	**% in mix**	**Planting density**	**Total No.**	**Comments**	**Management year 1-5**	**Management year 5-10**
Ilex aquifolium	4-6cm / potted, 60-90cm	100%	3 per meter	300		As above	As above
PROPOSED HEDGE PLANTING (C)							
Species	**Girth / Form / Height**	**% in mix**	**Planting density**	**Total No.**	**Comments**	**Management year 1-5**	**Management year 5-10**
Fagus sylvatica 'Atropunicea'	8-10cm / bareroot, 90-120cm	100%	3 per meter	432		Defective plants (dead or dying) to be replaced after year 1. Monthly tasks: - Water weekly during dry weather - Weed removal at base of hedgerow	
PROPOSED NATIVE WILDFLOWER SEEDING							
Species	**Girth / Form / Height**	**% in mix**	**Planting density**	**Total**	**Comments**	**Management year 1-5**	**Management year 5-10**
Biodiverse grass mix WF03.	Seed mix	100%	1.5 g/m^2	400m^2	Wildflower seed mixture for loamey soils, supplier Wildflowers.ie	Control weeds and grasses until well established. Annual cutting in spring (to 10cm max). Cuttings to be removed. Do not cut at end of summer.	

Bird nesting boxes:

Two bird nesting boxes (denoted as yellow triangles on the Biodiversity Plan Drawing) are proposed to be installed in the proposed woodland area to increase the area of suitable habitat for nesting birds in the area. Nest boxes to be installed will be "hole-nesting" type with holes of 28mm and 45mm Tits and Starlings, respectively. The boxes shall be made from non-treated wood and include drainage and ventilation. The 28mm hole-nesting bird box will be installed to a sturdy tree aprx 1.5 meters high. The 32mm hole-nesting bird box will be installed higher, at 2 meters if the tree can support it.

Maintenance Schedule:

Management of the proposed plants to be planted in this Biodiversity plan are provided for in the Planting Schedule above. In brief, all trees within the woodland area (refer to above drawing) are to be staked. Stakes and ties are to be subsequently removed 3 years after planting. Trees in the proposed **woodland area** are to be organically fertilised at the base, weeded, and watered during dry periods. The trees are to be maintained to a max height of 3 meters.

The hedgerow planting mix (A) for the proposed **nature walk** is to be mixed, achieved by planting in groups of 3-5 of the same species. Once established the hedgerow shall be maintained to a height of 1 meter. Proposed hedge planting B & C (Holly and Copper beech, respectively) are to be maintained and managed the same. Any defective plants (dead or dying) are to be replaced after year 1 – applying to all proposed species in this biodiversity plan.

The proposed **native wildflower seeding** areas are along the eastern side of the proposed development as a 3 meter corridor parallel to existing trees and hedgerow and the proposed hedgerow planting mix (A), and as a cluster in the south-west of the proposed development site. The proposed native wildflower seeding areas are to be cut to no less than 10cm in spring and **not** in summer, unlike many other seed mixes.

The following is an extensive list of 38 species contained within the WF03 wildflower mix: Birdsfoot Trefoil, Black Meddick, Burdock, Common Vetch, Corn Marigold, Corn Poppy, Corncockle, Cornflower, Cowslip, Devil's Bit Scabious, Field Scabious, Fleabane, Foxglove, Greater Trefoil, Hedge Garlic Mustard, Hemp Agrimony, Kidney Vetch, Lady's Bedstraw, Lesser Knapweed, Marjoram, Scentless Mayweed, Meadow Vetchling, Meadowsweet, Ox-eye Daisy, Purple Loosestrife, Ragged Robin, Red Campion, Red Clover, Ribwort Plantain, Shepherds Purse, Sorrel, St Johnswort, Teasel, Wild Angelica, Wild Carrot, Yarrow, Dames Violet, Wood Sage.

The bird-boxes shall be physically inspected in late autumn (outside of breeding season) to ensure the boxes remain usable.

Biodiversity area coverage:

Table 2. Proposed biodiversity planting area coverage*

Area (Proposed Planting)	Approximate Area Coverage	Proportional Site Coverage
Woodland area (Small Trees)	1300m^2	7.6%
Nature Walk (Wildflowers)	330m^2	1.9%
Southwest Corner (Wildflowers)	150m^2	0.9%
Camper/Caravan Screening (Hedgerow [C])	144m^2	0.8%
General screening (Hedgerow [B])	100m^2	0.6%
Nature Walk (Hedgerow Mix [A])	110m^2	0.6%
Total	**2134m^2**	**12.4%**

* In addition to pre-existing biodiversity areas on proposed development site

Sowing:

Optimal sowing conditions for all proposed plants here, including wildflower seed mixes, are late spring or early autumn when the soil is moist and warm.

General Notes:

- Site layout drawings were provided by John Roche Architectural Services.
- 5 of the 6 tree species selected for the proposed woodland area were chosen based upon their ecological role in supporting pollinator species.
- Of the 13 tree and hedgerow plant species proposed here, 11 are native and 2 are naturalised.
- Should you require any further information, please contact Stephen Byrne for assistance.