

Kerry Slug Derogation Licence Application

Carrigarierk Wind Farm
Construction Compliance





DOCUMENT DETAILS

Client: **Enerco**

Project Title: **Carrigarierk Wind Farm Construction Compliance**

Project Number: **240715**

Document Title: **Kerry Slug Derogation Licence Application**

Document File Name: **KSDLA - F - 2025.02.24 - 240715**

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Environmental
Consultants

Rev	Status	Date	Author(s)	Approved By
01	Draft	21/02/2025	MT	NOD
02	Final	26/02/2025	NOD	NOD

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1. INTRODUCTION

This report has been provided in support of an application for a derogation license for disturbance to Kerry Slug (*Geomalacus maculosus*) as required under Regulation 54(2) (A-E) of the European Communities (Birds and Natural Habitats) Regulations. Kerry Slug is protected under Annex II and Annex IV of the European Habitats Directive. Annex IV in particular protects the species from disturbance and habitat destruction.

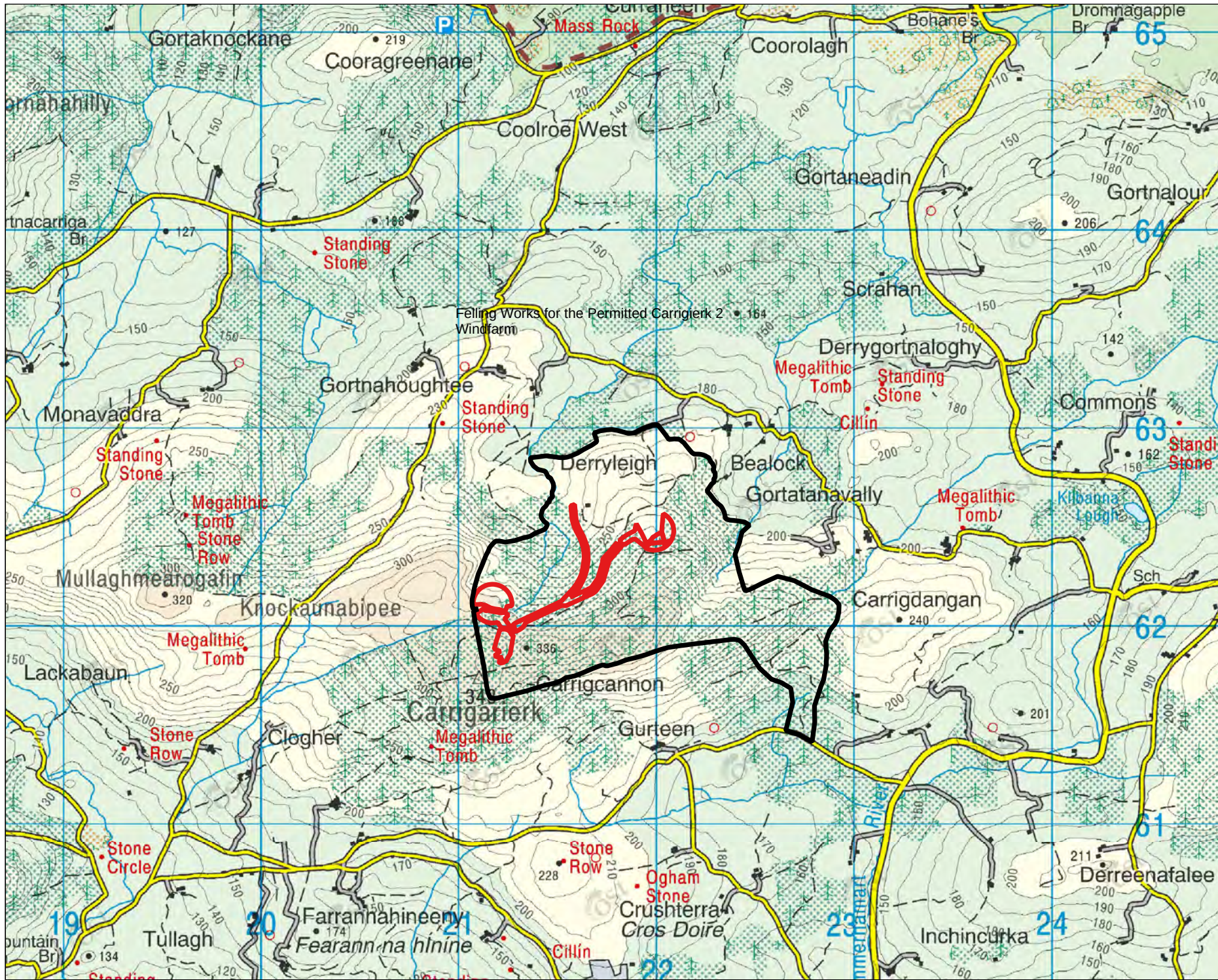
1.1 Background

The Kerry slug (*Geomalacus maculosus*) is protected by the Wildlife (Amendment) Act 2000 and listed on Annex II and Annex IV of the Habitats Directive. Therefore, it is strictly protected from injury or disturbance /damage to their breeding or resting place wherever it occurs. The overall conservation status of this species has been reported as favourable, and it is not currently considered threatened within its Irish range (NPWS 2019). This report sets out the results of previous dedicated Kerry slug surveys undertaken in the development site and also details information from the Kerry Slug Management Plan which was submitted with the planning application (Planning reference 215372) for which this project was granted by Cork County Council on the 21st March 2022. The development consists of the construction of 3 no. wind turbines and associated foundations and hard-standing areas, underground electrical cabling connecting the turbines to the existing Carrigarierk 110kV electrical substation, road upgrades and new site access roads, borrow pit, temporary construction compound, forestry felling, site signage, site drainage and all associated site development works in County Cork.

Kerry Slug surveys were undertaken in response to a further information request and as part of pre-construction works during which a number of Kerry slugs were recorded within sections of the development footprint. As part of the permitted development, felling of woodland, mainly conifer plantations, is required. A felling license was applied for and felling permitted under license TFL01033524 on the 4th of November 2024 for 6.76 hectares and under felling license TFL01033424 received on the 31st of October 2024 for a further 1.88ha. All permitted felling will be undertaken within the permitted Carrigarierk 2 Windfarm site at Gortnahoughtee and Derryleigh, Clogher, County Cork.

This report has been prepared in support of the Kerry slug derogation licence application to translocate the Kerry slug to nearby suitable habitat to mitigate negative impacts on the species within woodland felled under felling licenses TFL01033524 and TFL01033424, under which 8.65 hectares of woodland is permitted to be felled.

The location of felling works is shown in Figure 1-1 below.



Map Legend

-  Proposed Felling Area
-  Carrigierk 2 WF Site Boundary



Drawing Title

Site Location

Project Title
Felling Works for the Permitted Carrigierk 2 Windfarm

Drawn By
BB

Checked By
AvdGM

Project No.
240715

Drawing No.
Figure 1-1

Scale
1:25,000

Date
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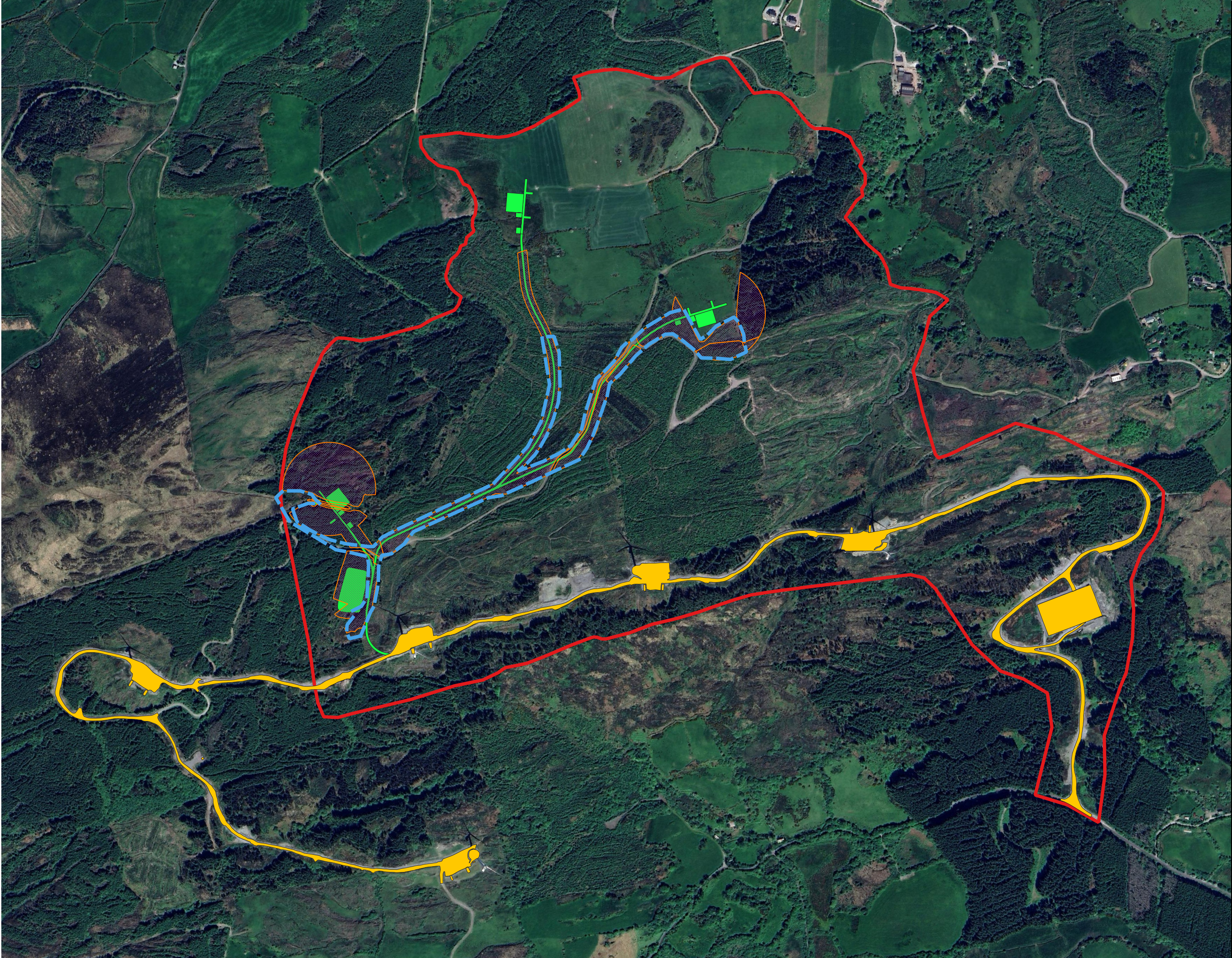
1.2

Description of the Permitted Felling

The permitted felling (under felling licenses TFL01033524 and TFL01033424) required for the permitted development of a windfarm (Cork County Council Planning reference 215372, ABP reference PL04.313261) will be undertaken over an area of 8.65 hectares. The felling comprises mainly Sitka Spruce and the area is to be permanently cleared. Detailed methodology for felling is included in the Harvest Management Plan as part of the Natura Impact Statement (NIS) completed for the felling application. Felling will adhere to mitigation measures as set out in the Construction and Environmental Management Plan (CEMP) and NIS prepared for these felling works as well as mitigation detailed in the Environmental Impact Assessment Report (EIAR) summarised in Chapter 16 of the EIAR for the Carrigarierk 2 Windfarm. The felling will further adhere with conditions attached by An Bord Pleanála to the Conditional Permission for the Carrigarierk 2 Windfarm. The felling works will also follow to the *Standards for Felling and Reforestation* (Department of Agriculture, Forestry and the Marine, 2019) and all other relevant guidance as set out in associated documents. The Harvesting Plan sets out the following methodology:

- Where possible, harvesting and extraction processes will be undertaken during dry periods, to limit surface water run-off.
- Proposed machinery will comprise a harvester and a low-ground pressure forwarder with a 14-tonne bunk capacity.
- Temporary bridges will be used where necessary as indicated on attached map. Brash mats will be used along all extraction routes, with corduroy rafts deployed to reinforce short sections of soft ground subject to high traffic usage. The extraction directions are marked with red arrows on the Harvest Plan Map. The existing forest road and wind farm access road will be used for access and haulage exit to L-8535 and then follow the public road.
- Onsite supervision will be present during operations to ensure that felling and extraction operations are carried out appropriately and that water protection measures are adequate and remain effective throughout, and to trigger contingency measures, if necessary (e.g., to cease operations if rainfall creates a risk of sediment mobilisation and runoff).
- Silt traps will be installed within relevant watercourses (RWs), at locations indicated on the Harvest Plan Map. These silt traps will be monitored and maintained throughout the period of works and for a period afterwards until the site has stabilised. Additional traps may be placed along the edge of the adjacent aquatic zones (AZs), in locations where surface run-off may be possible.
- Particular attention will be paid to minimizing disturbance to ground surfaces, drains /streams, and biodiversity features. 5m buffer zones will be established either side of the RWs within which there will be no traversal of machinery permitted. Similarly, 10m buffer zones will be established either side of AZs. If additional RWs are identified during the works, these will be dealt with the same way. Fully trained, experienced forest contractors will be selected for the felling operation.
- Felled to waste: This applies to sections where trees are young plantation and would make standard felling operations impractical. The material will be windrowed to facilitate future management operations & construction works.
 - Material will not be windrowed within 20m of main aquatic zone (10m either side) or 10m of a relevant watercourse (5m either side). Silt traps and mitigation measures will be also put in place to protect ground conditions and water features. Where salvageable material is available, it will be stacked in suitable locations away from the hydrology setbacks.
- All harvesting operations to comply with the Forest Harvesting and the Environment Guidelines and Forestry and Water Quality Guidelines.

The areas to be felled are set out in Figure 1-2 below.



Map Legend

- Survey Extent
- Application Felling Areas
- Development Footprint
- Existing Roads and Hardstanding
- ETAR Site Boundary



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Extent of Felling Works

Drawing Title

Project Title
Felling Works for the Permitted Carrigierk 2 Windfarm

Drawn By AS	Checked By PH
Project No. 240715	Drawing No. Figure 1-2
Scale 1:7,000	Date 17.02.2025

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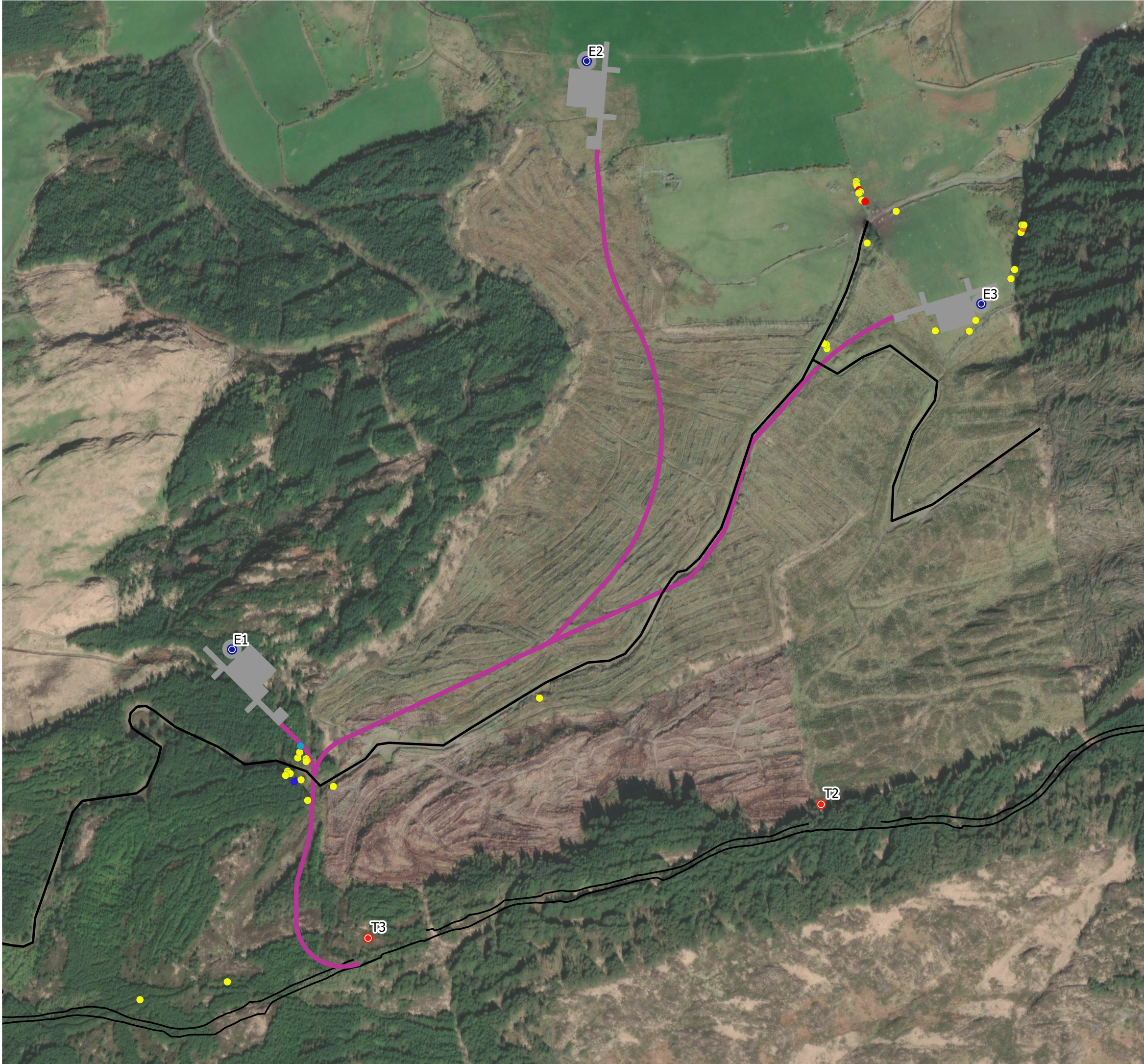
2.

KERRY SLUG RECORDS

The location of the site is within the range of the Kerry slug distribution in Ireland (Reich et al. 2012) and is situated within a larger landscape which contains suitable habitat for the species. There is no Special Area of Conservation (SAC) in the vicinity of the site designated for Kerry Slug. Any population found within the study site is not likely to be associated with a SAC designated population. This is due to the slow rate of dispersal shown by Kerry slugs (average mobility of 1m per day) and their strong affinity for the microhabitats with which they are associated (McDonnell & Gormally 2011). Further, the study site is isolated from the SAC by a distance of over 20km through barriers caused by rivers to the north and west. Therefore, actions permitted by a derogation licence will not affect the Kerry slug populations in any surrounding SAC's.

One slug was recorded within the felling area during a Kerry slug survey undertaken on the 26th of November 2020. A further 43 Kerry slugs were recorded during surveys for a further information request on the 21st September and 8th October 2021. The location of slugs is shown on Figure 2-1 below. The surveys were carried out by Inga Reich (Diplom-Biol., Ph.D.) and Rachel Walsh (B.Sc.) using both hand search and refuge trapping. Inga Reich has an Honours degree in Biology and a Ph.D. in Applied Ecology who specialises in Kerry slug with more than four years' experience surveying for Kerry slug.

A pre-commencement Kerry slug survey was undertaken on Friday February 21st, 2025, during which 1 slug was recorded via hand searching and 8 slugs were recorded via refuge trapping. Slugs were recorded in suitable habitat areas; no slugs were recorded in areas of sub-optimal habitat. Felling works were undertaken in areas of sub optimum habitat where no slugs were found, under the guidance of MKO Ecologists. The survey was carried out by Neansaí O'Donovan (B.Sc.). Neansaí has an Honours degree in Wildlife Biology specialises in Kerry slug with more than three years' experience surveying for Kerry slug.



Map Legend

- Existing Turbines
- Exisiting roads
- Proposed Turbines
- Proposed Infrastructure
- Proposed Roads

Kerry slug records

- Hand-search 1 slug
- Hand-search 2 slugs
- Hand-search 3 slugs
- Trap 1 slug
- Trap 2 slugs

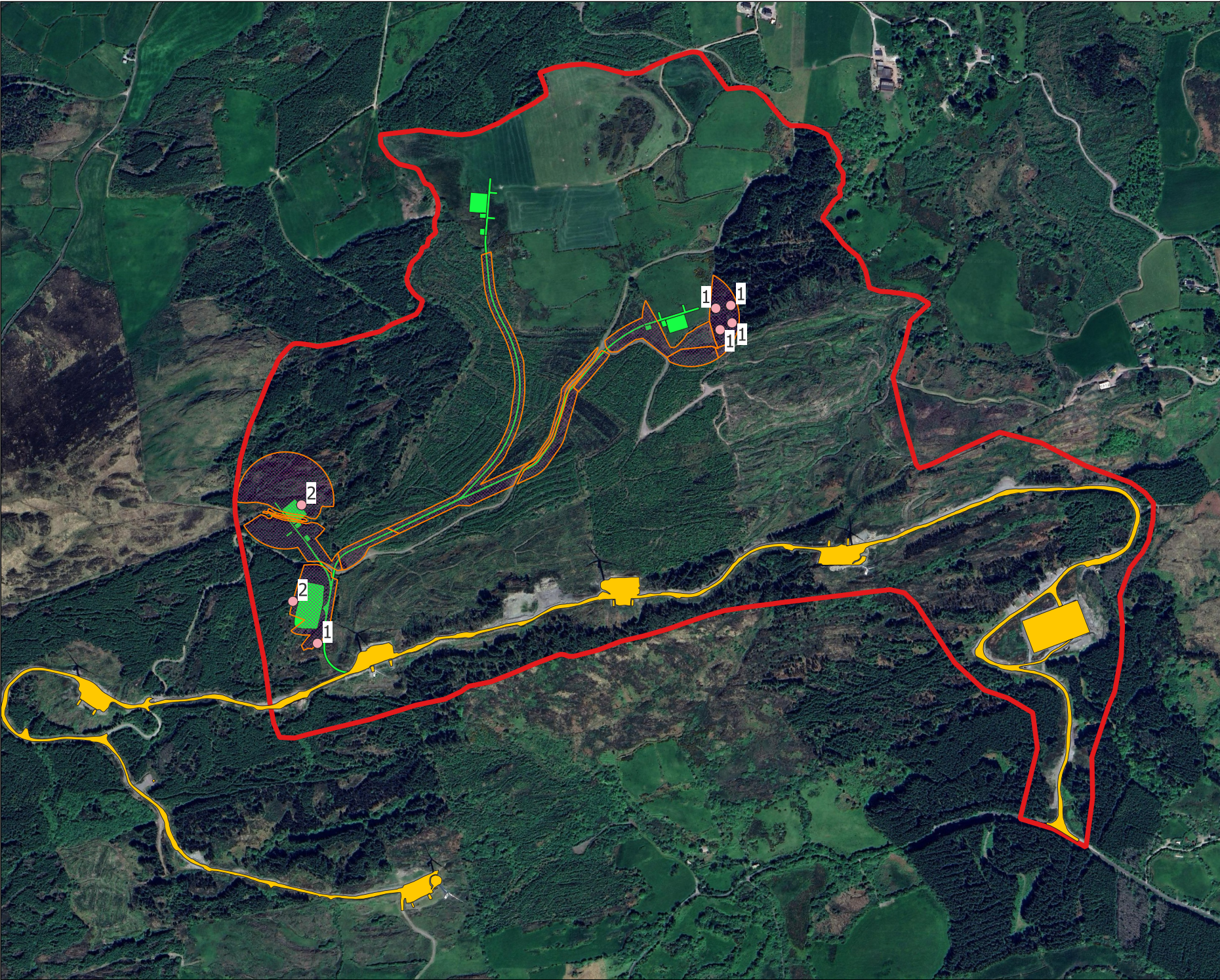


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Drawing Title		Kerry Slug Survey Map	
Project Title		Felling Works for the Permitted Carrigierk 2 Windfarm	
Drawn By	IR	Checked By	PR
Project No.	240715	Drawing No.	Figure 2-1
Scale	1:7500	Date	2021-10-28



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Map Legend

-  Eiar Site Boundary
-  Kerry Slug Numbers Recorded
-  Permitted Felling Areas
-  Existing Roads and Hardstanding
-  Development Footprint



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Drawing Title
Pre-construction Kerry Slug Survey

Project Title
Carrigarierk Construction Compliance

Drawn By NOD	Checked By NOD
Project No. 240715	Drawing No. Figure 2-2
Scale 1:10,000	Date 24.02.2025

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3.

SURVEY METHODOLOGY

The surveys for translocation will follow the methodology outlined in Mc Donnell & Gormally (2011), consisting of a hand search and the deployment of metric refuge traps manufactured by De Sangosse (Pont du Casse, France). The surveys will be undertaken in suitable weather conditions where the felling is permitted.

Only trained and licensed personnel will carry out the Kerry slug surveys, the credentials of whom are listed below;

Neansaí O'Donovan, MKO Project Ecologist, over 4 years ecological consultancy experience, trained in Kerry slug surveying under the guidance of Dr. Inga Reich (2022), previous Kerry slug Licence held (DER/KERRY SLUG-2022-137 (Extension); C106/2024; C012/2025). Neansaí has been trained in surveying Kerry Slug by PhD graduate Dr. Inga Reich who specialised in the species. Site visits were carried out in Oughterard, Co. Galway where slug traps were set, and records of Kerry slug collected. All these training works were carried out under licence C71/2022.

Pádraig Desmond, MKO Project Ecologist, over 4 years ecological consultancy experience, trained in Kerry Slug surveying under the guidance of Neansaí O'Donovan, (2023). Pádraig has been trained in surveying Kerry slug by Neansaí O'Donovan who is specialising in molluscs. Site visits were carried out in Knocknamork, Co. Kerry where slug traps were set, and records of Kerry slug collected. All these training works were carried out under license DER/KERRY SLUG-2022-137 (Extension).

Cora Twomey, MKO Ecologist, over 2.5 years ecological consultancy experience, trained in Kerry Slug surveying under the guidance of Neansaí O'Donovan, (2024). Cora has been trained in surveying Kerry slug by Neansaí O'Donovan who is specialising in molluscs. Site visits were carried out in Cleanrath, Co. Cork where slug traps were set, and records of Kerry slug collected. All these training works were carried out under license C106/2024.

Katie Grice, MKO Ecologist, over 1.5 years ecological consultancy experience, trained in Kerry Slug surveying under the guidance of Neansaí O'Donovan, (2024). Katie has been trained in surveying Kerry slug by Neansaí O'Donovan who is specialising in molluscs. Site visits were carried out in Cleanrath, Co. Cork where slug traps were set, and records of Kerry slug collected. All these training works were carried out under license C106/2024.

4.

TRANSLLOCATION

During the construction phase of the Permitted Windfarm Development, including felling works, the construction corridor will be kept to a minimum to avoid direct habitat loss for Kerry slug. In addition, the below habitat enhancement measures will be implemented:

The surveys will follow the translocation methodology as set out below:

- Search, trapping, and translocation will only occur during suitable weather conditions (wet/humid weather).
- The identification of suitable receiving habitat is critical. Animals found on sandstone will be translocated to sandstone, those found on oak trees will be located to oak trees, etc.
- Translocate to suitable habitat within 50m of the construction area (or to suitable habitat within a number of monitoring plots: 20x20).

5.

MITIGATION

Individual slugs within the footprint of the works will be translocated. Translocation will be to adjacent suitable habitats (outside of the following and other construction works area). This is to ensure that there remains suitable habitat and food sources for the Kerry slugs following their removal from the works area.

Kerry slugs have colour variations which are associated with different habitat types i.e., brown slug with yellow spots in forested habitats, and a black/grey slug with white spots in peatland habitats. This has been identified as a camouflage adaptation, and the translocation will consider this. For example, the translocation of any slugs from forested habitat will be to a suitable forested habitat outside of the impacted area. Any translocation which does not consider this will result in a mismatch of colouration. This in turn has the potential to result in an increase in predation caused by visually- foraging predators (O’Hanlon et al. 2017).

Mitigation measures for the Carrigierk 2 windfarm for the Kerry Slug are set out below:

Preconstruction Measures:

- Prior to the commencement of construction, the location of the Proposed Development footprint will be surveyed by a suitably qualified professional under license from NPWS. The results of this survey will be submitted to the NPWS for comment and approval and the survey will identify areas where further surveys or the removal of slugs may be required.
- It is likely that some removal and translocation of slugs will be required. The areas where this will be required will be informed by the initial surveys to be undertaken. The methods by which this will be undertaken will be submitted to the NPWS for approval. Any translocation works will be carried out by suitably qualified professionals under licence from the NPWS. The removal will be undertaken shortly before the commencement of construction activity.
- Slugs will be translocated to suitable areas of habitat within the study area. These will be located in areas of forestry that are located in the south, east and west of the site or along sections of stone wall in the agricultural fields north of Turbine 3 as identified as suitable habitat for Kerry slug in previous survey efforts. These sites will be approved by the NPWS as part of their approval process for the translocation methodology.
- Slugs collected from forestry will be re-located to a forested habitat and slugs collected from grassland will be relocated to grassland.

Measures during Construction:

- The extent of the development footprint will be clearly marked to prevent any encroachment on Kerry slug habitat located outside the works area.
- Should Kerry slugs be found in the works area during the construction phase the ECoW will notify the project ecologist and they will be relocated by a licenced and suitably qualified individual to a suitable habitat outside the works area to avoid direct mortality.
- Turves and boulders/exposed rock will be stored adjacent to the infrastructure footprint where practicable before reinstatement to maintain suitable habitat for the species in the vicinity of the works during construction.

There is sufficient evidence that such mitigation measures have been successful elsewhere (O’Hanlon et al. 2017) along with record returns (DER/KERRY SLUG – 2018 – 88).

6.

ENHANCEMENT AND MONITORING

The following enhancements for Kerry Slug specifically will be undertaken:

- Tree stumps resulting from the felling of forestry will be left in situ to decay to provide suitable habitat for Kerry slug.
- Rock outcrops, boulders and stonewalls will be retained where possible or, if removal can't be avoided, they will be replaced to enhance the value of the habitat surrounding the windfarm infrastructure.

The Kerry slug population on the site will be monitored as part of the ongoing monitoring associated with the Habitat Reinstatement and Enhancement Plan. This will involve conducting surveys on an annual basis for three years post construction, the results of which will be reported to NPWS. These surveys will be carried out during optimal weather conditions (mild, damp, overcast and not excessively windy) by suitably qualified professionals. They will follow Mc Donnell & Gormally (2011) and involve both hand searching and metric refuge trapping and will be carried out in the same locations and roughly around the same time every year to allow a comparison between years. If monitoring demonstrates that the enhancement measures are unsuccessful, the habitat management plan will be reviewed and additional measures prescribed if necessary.

7.

GUIDANCE

The NPWS document, *Guidance on the Strict Protection of Certain Animal and Plant Species under the Habitats Directive in Ireland* - National Parks and Wildlife Service Guidance Series 1 (2021), was reviewed before undertaking this derogation application.

Article 16 of the Habitats Directive sets out three pre-conditions, all of which must be met before a derogation from the requirements of Article 12 or Article 13 of the Directive can be granted. These preconditions are also set out in Regulation 54 of the Regulations.

The preconditions are:

1. A reason(s) listed in Regulation 54 (a)-(e) applies
2. No satisfactory alternatives exist
3. Derogation would not be detrimental to the maintenance of a population(s) at a favourable conservation status.

It is believed that the pre-conditions for granting a derogation licence have been met, as follows:

Test 1 – Reasons for Seeking Derogation Regulation

54(2) (a)–(e) states that a derogation licence may be granted for any of the reasons listed (a) to (e). We are of the opinion that the following reasons apply:

(c) In the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.

Tree felling is scheduled to take place in areas of conifer plantation where windblown trees pose a hazard and danger due to the effects caused by the recent storm Éowyn. The tree felling is required to construct the permitted windfarm. The construction of the wind farm will have consequences of primary importance for the environment by producing renewable energy and helping Ireland in the reduction of carbon emissions as part of the Climate Action Plan to halve Ireland's emissions by 2030 and reach net zero by no later than 2050.

Test 2 – There is no Satisfactory Alternative

There is no satisfactory alternative to the planned felling works. Tree felling is required to enable the construction of the permitted windfarm development (Cork County Council Planning reference 215372, ABP reference PL04.313261) and felling is permitted under felling licenses TFL01033524 and TFL01033424. Furthermore, tree felling is scheduled to take place in areas of conifer plantation where windblown trees pose a hazard and danger due to the effects caused by the recent storm Éowyn. Therefore, there is no satisfactory alternative available.

Test 3 – Favourable Conservation Status

Annex IV species must be maintained at Favourable Conservation Status or restored to favourable status if this is not the case at present. The net result of granting a derogation licence must be neutral or positive for the species in question.

The licence application for translocation is to ensure that any Kerry slugs within the works area are translocated to a suitable similar nearby habitat to ensure no species are harmed during the works and that the species can maintain a favourable conservation status. Suitable habitat for the Kerry slugs will be lost due to the felling works. However, habitat enhancement measures will be provided in line with the EIAR as follows:

- Turves and boulders/exposed rock will be stored adjacent to the infrastructure footprint and reinstated along the construction corridor post construction of the hardstanding areas. The boulders, currently containing lichen growth, will be placed to one side during construction and will be subsequently reinstated along the newly installed infrastructure to facilitate the restoration of this habitat.
- In addition, vegetated turves, stripped to 30cm during initial site preparation, will be temporarily stored to one side and reinstated along the construction corridor following the installation of the hardstanding.
- In addition, forestry felling around the infrastructure will result in tree stumps being left to decay naturally. This will further provide suitable habitat for Kerry slug.

8.

CONCLUSION

In conclusion, this report supports the application for a derogation license for disturbance to Kerry Slug (*Geomalacus maculosus*) associated with the undertaking of a survey to determine the presence/absence of the species and the translocation program in relation to the permitted felling as part of the permitted Carrigierk 2 windfarm development. As required as part of the application process, the report addresses the following:

- Explanation as to why the derogation licence sought is the only available option for works and no suitable alternative exists as per Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations.
- Evidence that actions permitted by a derogation licence will not be detrimental to the maintenance of the populations of the species to which the Habitats Directive relates at a favourable conservation status in their natural range as is required under Section 54(2) of the European Communities (Birds and Natural Habitats) Regulations.
- Details of any mitigation measures planned for the species affected by the derogation at the location, along with evidence that such mitigation has been successful elsewhere.
- As much information as possible to allow a decision to be made on this application.

9.

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