



**Ecological Report to Inform an  
Application for a Derogation Licence  
under the European Communities  
(Birds and Natural Habitats)  
Regulations 2011-2021 pertaining to  
Kerry Slug (*Geomalacus maculosus*)**

**Proposed Dinis Loop Walkway/Cycleway,  
Killarney, Co. Kerry**

**National Parks and Wildlife Service (NPWS, Killarney)**

**December 2024**

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## Executive Summary

A planning application has been submitted to Kerry County Council (KCC) by Malachy Walsh and Partners (MWP), Engineering and Environmental Consultancy, on behalf of the Applicant (the National Parks and Wildlife Service - NPWS, Killarney) in relation to a proposed development on the southern shore of Muckross Lake in Killarney, Co. Kerry.

The proposed development site is fully encompassed within the Killarney National Park, MacGillycuddy's Reeks and Caragh River Catchment SAC (000365), for which Kerry slug (*Geomalacus maculosus*) is a qualifying species.

Baseline ecological surveys were undertaken by MWP Ecologists at the proposal site in support of the planning application between October 2023 and October 2024 during which low numbers of Kerry slug were recorded.

As there is potential for the proposal to result in mortality or disturbance of Kerry slug and/or damage or destruction of their breeding sites or resting places, a Derogation Licence, issued under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011–2021, is required to authorise the works.

This document provides ecological information pertaining to Kerry slug at the proposal site and includes appropriate mitigation measures to minimise risk of loss/injury/disturbance of this species or damage to their breeding/resting habitat.

This document will accompany the Derogation Licence application to the Department of Housing, Local Government and Heritage (DHLGH) which will be submitted to the Wildlife Licencing Unit (WLU) of NPWS on behalf of the Applicant. The purpose of this document is to provide sufficient information to the WLU and the Department to allow them to make an informed decision regarding the granting of a Derogation Licence to the Applicant in relation to Kerry slug.

## **1. Introduction**

### **1.1 Background Information**

A planning application in relation to a proposed walkway/cycleway at Muckross Lake, Muckross, Killarney, County Kerry was submitted to KCC by MWP on behalf of the Applicant (NPWS - Killarney) on the 19<sup>th</sup> January 2024 (Planning Reference No. 24/60025). Permission is being sought for the construction of a raised platform walkway/cycleway, inclusive of signage and ancillary siteworks. The walkway/cycleway route is proposed to be located on the strip of land between the N71 roadway and the southern shore of Muckross Lake and will extend over a distance of 1.02 km from Dinis carpark to Torc (Cardiac Hill) carpark.

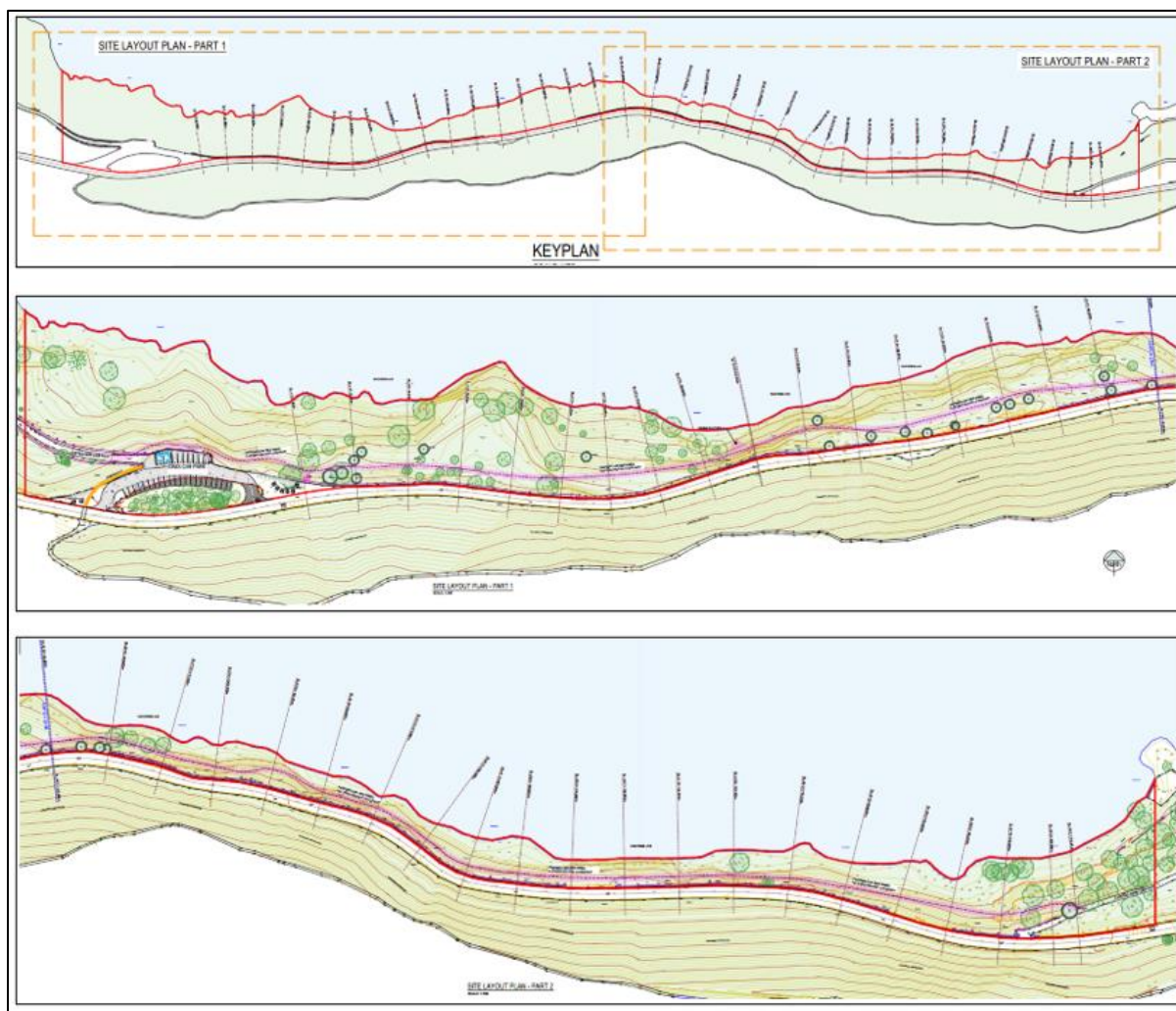
A Request for Further Information (RFI) was received from KCC by MWP on behalf of the Applicant on the 12<sup>th</sup> March 2024. The RFI outlined several items requiring clarification or the provision of supplementary information in order to facilitate KCC as the Competent Authority in the completion of their assessments. In relation to ecology, these pertained to the requirement for a Stage 2 AA Natura Impact Statement (NIS) and Ecological Impact Assessment (EclA) to be prepared and submitted in relation to the proposed development. The RFI further outlined specific items to be addressed within each of these reports. MWP have prepared a NIS and EclA for the proposed development in response to the request for supplementary information which address the specific items raised in the RFI. Further baseline ecological surveys of the proposed development site were undertaken by MWP over summer and autumn 2024. The NIS and EclA reports have fully incorporated all ecological baseline data gathered in relation to the proposed development. All of the above responses form part of the overall RFI response to KCC.

### **1.2 Statement of Competency**

This report has been prepared by Hazel Dalton (BSc., BBus.). Hazel is a Principal Ecologist with over nine years' experience with MWP since graduating with a first-class Honours Degree in 'Wildlife Biology' from Munster Technological University (MTU) in 2015. Hazel is experienced in ecological surveying and impact assessment for Appropriate Assessment (AA) and EIAR. She has authored and contributed to numerous screening reports for AA, Natura Impact Statements (NIS) and Ecological Impact Assessment (EclA) reports. Hazel is an experienced field ecologist with a diverse ecological survey profile including habitats and flora, mammals, bats, birds and terrestrial invertebrates. She has held/holds National Parks and Wildlife Service (NPWS) Licences for small mammal trapping, tape lure/endoscope bird surveys, Kerry slug surveys, disturbance of a bat roost to facilitate bridge works, photographing wild animals (badger and otter) at their resting/breeding places and undertaking bat surveys.

### **1.3 Description of the Project**

The proposed development site is situated approximately 6.1 km south-west of the town of Killarney in County Kerry. The site is located in a rural setting, positioned between the southern shore of Muckross Lake and the N71 National Road (connecting Killarney with the town of Kenmare in south Kerry), characterised by a mosaic of woodland, scrub, boulders and rock outcroppings and the lake (see **Plate 1**). The proposed walkway/cycleway route will be constructed on a narrow strip of land located between the road and the lakeshore, travelling parallel to both, and which will be accessible via existing carparks at either end (see **Figure 1**). The proposed walkway/cycleway will form an extension to the existing Dinis to Torc loop which already loops around the perimeter of Muckross Lake. The area within the red line boundary is approximately 3.7 ha with a developable site area of approximately 0.35 ha.



**Figure 1. Proposed site layout (extracted from the planning drawings)**

The proposed walkway/cycleway has been designed from the outset to minimise impacts on the surrounding environment. The proposed development will comprise of a raised platform walkway/cycleway, circa 1,020 m long and 3.4 m wide which will sit above the ground to varying heights depending on topography. The raised platform structure will be comprised of a pre-cast concrete platform deck which will sit on a steel grid supported by steel column supports sitting on small concrete pad foundations. These will be anchored to the rock where the rock is close to the surface. The use of rock anchors wherever possible will allow the size of the concrete pads to be reduced. To facilitate construction of the foundation for each individual support column, minor excavations will be required at each footing. Any material excavated will be reinstated at the location once the foundation has been installed.

Off-site assembly and minimal use of plant and machinery has been prioritised to reduce potential construction impacts. Use of hand-tools will be implemented as much as possible. The route of the proposed walkway/cycleway has been designed to minimise impacts on trees within the site. All significant mature trees have been avoided during route selection such that the walkway/cycleway will sit in amongst existing trees on-site. There may be a requirement to trim/cut-back tree limbs at some locations where these will unavoidably infringe on the structure and pose a potential H&S risk.





**Plate 1. Various images of the general area of the proposed development site showing main habitats and general character of the landscape**

## **2. Species Conservation Status and Legal Protection**

Kerry slug is protected by the Wildlife Acts 1976 to 2022 and is listed under Annex II and Annex IV of the Habitats Directive.

Because of its status as an Annex IV species, it is strictly protected from injury, or disturbance or damage to any breeding or resting place wherever it occurs. Therefore, its natural range, or area of occupancy, cannot be reduced. Under the Habitat Regulations 2011-2021, any person who, in regard to the animal species listed in Annex IV of the Habitats Directive,

- a. deliberately captures or kills any specimen of these species in the wild,*
- b. deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration,*
- c. deliberately takes or destroys eggs of those species from the wild,*
- d. damages or destroys a breeding site or resting place of such an animal, or*
- e. keeps, transports, sells, exchanges, offers for sale or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 12(2) of the Habitats Directive*

shall be guilty of an offence.

Annex IV species must be maintained at Favourable Conservation Status or restored to favourable status if this is not the case. The conservation status of a species is defined as the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory of the member states.

NPWS (2019) concludes that, across the applicable parameters, Kerry slug has a Favourable Conservation Status. The Long-Term Trend Direction for 'Range', 'Population', 'Habitat for the species' is, in each case, Stable. Future Prospects for all Attributes are Favourable and there are no significant threats and pressures. In light of the Favourable Conservation Status the population is considered to be maintaining itself on a long-term basis as a viable component of its natural habitats, its natural range is neither being reduced nor is likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The species has a resilience to disturbance that occurs under, or because of, natural processes. While the undertaking that is the subject matter of this application is an anthropogenic disturbance, considering its scale and scope, it is unlikely to cause changes in biotic and/or abiotic variables in excess of what could reasonably be envisaged under natural processes within the 6-year reporting cycle. The capacity of the species to recover from changes, natural or anthropogenic, is an important consideration. Therefore, the current Conservation Status, the evidence provided in NPWS (2019) that its range is increasing, that it is highly likely also that the population is increasing and that the habitat available nationally is sufficient for long-term survival, suggests that the structure and function of the ecological resources that support and maintain the population nationally are such that the works outlined in this report are not of a scale to have an effect on the Conservation Status of this species.

### **3. General Ecological Requirements and Preferred Habitat Characteristics**

This section outlines the general ecological requirements and habitat preferences of Kerry slug. Kerry slug is a species of gastropod of the family Arionidae. In Ireland, the species is restricted to the sandstone geology of west Cork and Kerry. Kerry slug occurs most commonly in either of two broad habitat types in circumstances where the humidity is high. These habitat types are:

- broadleaved woodland
- rock outcrops associated with heath or blanket bog

Within these habitats, the species tends to only be present if there are outcroppings of Devonian Old Red Sandstone or mature trees and timber, and lichen, liverworts and/or mosses in which the species shelters and feeds (Platts and Speight 1988), although in 2010 the species was recorded feeding on lichen-covered granite boulders and in conifer woodland for the first time (Kearney, 2010).

The first habitat type is oak-dominated or mixed deciduous woodland with a mixture of oak and birch. Woodland on slopes which incorporate rocky outcrops or scattered boulders is of particular value. Other favoured conditions include areas where trees and rock are situated close to water in undisturbed, humid conditions; areas with clean air; and areas with a good lichen, or lichen, liverwort and moss florae. The second broad habitat type includes areas of unimproved oligotrophic open moor or blanket bog, with sandstone outcrops and boulders. These areas may be largely devoid of vegetation except for lichens and mosses, which are present in a sufficiently large quantity to provide enough suitable grazing material (NRA, 2009). This species is active at night throughout most of the year if it is not too cold or dry, and also commonly during the day, emerging to feed in very damp and humid conditions on cloudy, warm, damp days, either during or after rain. At other times they hide in crevices, under dead bark and stones (NRA, 2009).



## 4. Kerry Slug at the Proposed Development Site

### 4.1 Desktop study

Current NPWS Article 17 distribution mapping for Kerry slug indicates that the known range and distribution encompasses the relevant hectad, V98 (NPWS, 2019).

The NBDC does not hold any records for the Annex II species Kerry slug within the proposed development site; however, does hold several records within the wider surrounding area. The closest of these is located approximately 1.25 km west of the development site boundary.

A review of the Conservation Objectives mapping for the SAC determined that there are no records for Kerry slug from within the proposed development site; however, the species is known from the surrounding area (closest 1 km grid square comprises V9483, located to the southwest of the proposal site) (NPWS, 2017).

### 4.2 Field Surveys

Initial surveys of the proposed development site by MWP ecologists identified habitat within the development site considered suitable for Kerry slug in the form of oak-dominated deciduous woodland with rocky outcrops and scattered boulders of sandstone geology, occurring on sloping ground adjacent to a lake in undisturbed, humid conditions with abundant lichen, liverwort and moss floras.

During a multi-disciplinary daytime walkover survey of the proposal site on the 16<sup>th</sup> April 2024, a total of 8 no. individuals were recorded in the approximate centre of the proposed walkway/cycleway linear route, all at one location situated within several metres of each other. Of these, 3 no. were recorded on the trunk of a mature oak tree and 4 no. were recorded on an adjacent moss-covered rock outcropping.

During habitat surveys on the 13<sup>th</sup> June 2024, 2 no. Kerry slugs were recorded (tree trunk and rock outcropping) in the same general area as previously.

A Derogation Licence application was submitted by MWP to the WLU of NPWS on the 27<sup>th</sup> June 2024 in relation to proposed metric-trapping surveys for Kerry slug at the proposed development site to further inform the ecological baseline of the site. A grant of licence was not received from NPWS in time and so the metric trap surveys did not proceed. Instead, visual (non-intrusive) inspection surveys for Kerry slug were undertaken on the 11<sup>th</sup> September and 2<sup>nd</sup> October 2024. Due to considerable H&S concerns with regard to terrain/slope/risk of injury, surveys were conducted during the daytime. It is noted that both Platts & Speight (1988) and Taylor (1906) recorded diurnal activity by Kerry slugs during or after rain. The surveys on the 11<sup>th</sup> September and 2<sup>nd</sup> October 2024 were undertaken when weather conditions were optimum for Kerry slug i.e., overcast, damp and humid with occasional rain (NRA, 2009).

During these targeted surveys, careful hand searches of any features on which slugs could potentially be present, such as tree-trunks, moss-covered fallen timber, and lichen covered boulders and rock outcrops, were undertaken. The visual inspection surveys covered the full extent of the proposed development site where access on foot was possible. During the survey on the 11<sup>th</sup> September 2024, a single individual was recorded on a wet, moss-covered boulder within a scrubby area of woodland within the proposed development site.

**Therefore, in summary, a total of 11 no. Kerry slugs were recorded within the proposed development site over the course of the ecological surveys** (see **Figure 2** below which shows locations of Kerry slugs recorded on various survey dates, and **Plate 2** and **Plate 3**).

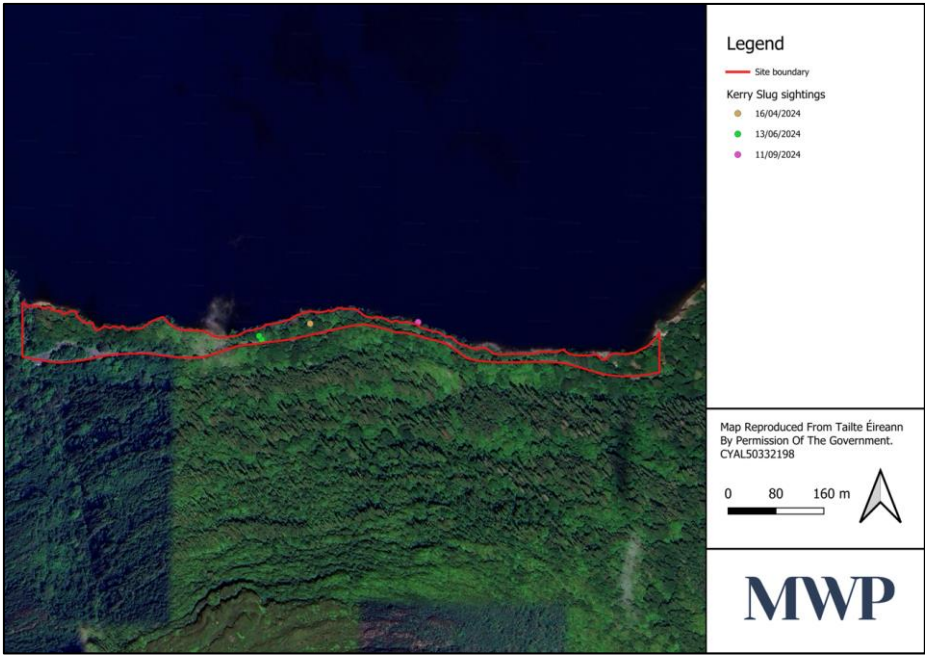


Figure 2. Sightings of Kerry slug recorded at the proposed development site during baseline ecology surveys



Plate 2. Examples of Kerry slug specimens encountered on-site during baseline ecology surveys in April and June 2024



Plate 3. Left) Kerry slug recorded on-site in September 2024. Right) example of surrounding lakeshore habitat

## 5. Requirement for a Derogation Licence

Kerry slug have been identified as occurring within the proposed development site. The proposal will not result in any habitat loss for Kerry slug within the site; however, suitable habitat, comprising moss and lichen covered boulders and trees may be altered and/or damaged through cutting/trimming of tree limbs or small-scale, highly localised movements of rocks/boulders/fallen tree trunks, where required to facilitate the works. Access to and movement within works areas by plant, machinery and construction personnel, temporary stockpiling of construction materials/equipment and construction of temporary compounds also poses a risk of damage/alteration of potential Kerry slug habitat. These aspects of the proposal also have the potential to result in loss/injury/disturbance of Kerry slug, if present.

Therefore, a Derogation Licence, issued under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011–2021, is required in relation to Kerry slug to authorise these works. MWP are therefore applying to the DHLGH through the WLU of NPWS on behalf of the Applicant for a Derogation Licence. This licence must be obtained from the Department in advance of any works taking place which would or potentially could disturb or kill Kerry slug or destroy or damage their breeding/resting places. All works/activities to which the Derogation Licence pertains must be undertaken in accordance with any conditions attached to the licence.

If constructed, the proposed walkway/cycleway will form an extension to the existing Dinis to Torc loop which already loops around the perimeter of Muckross Lake. The purpose of the proposed walkway/cycleway is to eliminate the need for walkers and cyclists to use the N71 roadway to travel between Dinis carpark and Torc (Cardiac Hill) carpark, as is currently the case. There are serious health and safety concerns with the current usage of this very busy roadway by walkers and cyclists. Construction of the proposed walkway/cycleway will eliminate the need for walkers and cyclists to travel along this section of the N71. If constructed, the proposed walkway/cycleway will therefore be a significant health and safety improvement for pedestrians and cyclists visiting the area. Therefore, the specified reason for the Derogation Licence application, as listed in Regulation 54 of the 2011 Regulations, is:

*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.*

With the full and proper implementation of the mitigation measures (see **Section 6**), it is considered that the actions permitted by the Derogation Licence being applied for will not be detrimental to the maintenance of the population of Kerry slug at its favourable conservation status in its natural range, as required under Section 54(2) of the 2011 Regulations.



## **6. Recommended Mitigation for Kerry Slug**

The following measures are recommended in relation to avoidance or reduction of impacts on the local population of Kerry slug and its habitat at the proposal site. All works and activities must be undertaken in accordance with any conditions attached to the Derogation Licence, where granted.

### **6.1 Appointment of Project Ecologist/Ecological Clerk of Works (ECoW)**

A suitably qualified and experienced Project Ecologist/Ecological Clerk of Works (ECoW) will be employed on-site for the duration of the construction phase. The appointed Project Ecologist/ECoW will have demonstrated professional experience in managing construction works affecting sensitive receptors. The Project Ecologist/ECoW is to maintain a regular presence on-site throughout the construction phase. The Project Ecologist/ECoW will have the power to halt works in the event that any environmental impacts, other than those identified and where necessary mitigated against in the NIS and EclA, arise.

Duties of the Project Ecologist/ECoW will include, but are not limited to:

- Review of all Contractor method statements to ensure that works are taking place in compliance with the CEMP and that all environmental controls and mitigation are being implemented in full.
- Delivery of toolbox talks. All operatives/personnel working at or visiting the site are to be made aware of the sensitive nature of the site through toolbox talks to be given by the ECoW, who will explain the sensitivities of the development site in the context of its location within a protected area, and in particular the sensitivities of qualifying woodland habitat and species encompassed within the development site, including Kerry slug.
- Regular monitoring of works throughout the construction phase, including effectiveness of mitigation measures.
- Liaising with the Environmental Manager, the Construction Manager and/or NPWS, as required.
- Maintenance of records regarding assigned duties.

Appointment of a Project Ecologist/ECoW will ensure that the works are undertaken in compliance with the CEMP, mitigation measures contained in the NIS and EclA and any relevant planning conditions.

Appointment of a suitably qualified ecological specialist who will maintain a regular presence on-site will ensure that all ecological sensitivities on-site are considered throughout the construction phase and that the proposed development will be carried out in accordance with the grant of planning. This measure is to be implemented at the outset of the construction phase and is to remain in place until construction works are complete.

### **6.2 Pre-commencement Checks**

In relation to construction activity/or any aspect of works in any area of potentially suitable habitat, pre-commencement checks for presence of Kerry slug are to be undertaken by the appointed Project Ecologist/ ECoW in advance of construction activity. This is to include the main works areas along the proposed route, as well as any temporary compounds, materials storage areas, temporary material stockpiles, access routes for plant and machinery etc. Areas of suitable habitat will be hand searched (including rocks/trees, crevices/cracks, base of vegetation around boulders/rock outcroppings etc) to determine presence of Kerry slug. Pre-commencement checks are to progress in tandem with construction works to ensure that there is no significant time lag between the inspection and works commencing. Checks are to be undertaken no more than 3 days in advance of each works section so as to minimise the time frame within which Kerry slugs could migrate into surveyed areas.

### **6.3 Translocation**

Where any Kerry slugs are encountered within future/active works areas, these will be carefully captured by hand and translocated to areas of suitable habitat near-by, but outside of the extent of works footprint. Any Kerry slugs captured will be moved to comparable habitat (i.e., if found on a tree, the slug will be moved to the same species of tree). This will minimise the level of disturbance to any specimens encountered. As per Reich *et al.* (2012), any specimens captured will be temporarily stored in a plastic container filled with moss and containing carrot on which they can feed until translocation takes place as soon as possible on the same day.

Kerry Slugs encountered will be translocated under a 'Section 23 and 34-licence to capture or humanely kill a protected wild animal for educational, scientific or other purposes'.

### **6.4 Minimisation of Impacts on Kerry Slug Habitat**

Where placement of column supports overlaps with the occurrence of boulders within the proposal site, or boulders impede access by minor plant and machinery, these will be moved to one side. Boulders will be moved only where absolutely necessary to facilitate works. Boulders will be moved by the minimum distance needed to facilitate works (estimated 1-2 m in each instance).

Movement/alteration of boulders or tree limbs is to be minimised. Any boulders or tree limbs required to be moved out of the way are to be positioned in the same original orientation/position. Any tree limbs/wood required to be removed are to be retained on-site such that they can continue to provide potential habitat to Kerry slug following works. Tree limbs are to be left in-situ on the ground as close as possible to their original location. Deadwood provides suitable habitat for Kerry slug, as well as a range of other species. The project Ecologist/ECOW is to pre-check locations where boulders/tree limbs will be moved to for Kerry slugs prior to relocation so as to avoid/minimise risk of loss/injury/disturbance.

### **6.5 Monitoring and Reporting**

A monitoring and reporting programme for the mitigation proposed shall be undertaken, subject to the terms of any derogation licence for the project.

## 7. References

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