

MWP

Supporting Information to Inform an Application for a Derogation Licence under Regulation 54 & 54A of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended for Kerry Slug

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

National Parks and Wildlife Service (NPWS, Killarney)

March 2026

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Executive Summary

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

A Derogation Licence was issued by NPWS on the 26th September 2025 (DER-Kerry slug-2025-04). This licence has now expired as of the 31st December 2025. A licence return has been submitted. A renewal licence is sought from NPWS.

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 sets out supporting information being provided by the Applicant to NPWS to facilitate their assessment of the application in a robust and comprehensive manner.

This document has been prepared in line with NPWS guidance, published in July 2025 '*Applications for Regulation 54 Derogations for Annex IV species – Guidance for Applicants*' (NPWS, 2025) and '*Application for Derogation under Regulation 54 & 54A of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended*', including '*Part E: Template for Supporting Information*' (NPWS, 2025b).

This document will accompany the update 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 Objective of the Proposed Works

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 a narrow strip of land between the N71 roadway and the southern shore of Muckcross Lake within Killarney National Park, County Kerry, and will extend over a distance of 1.02 km from Dinis carpark to Torc (Cardiac Hill) carpark. The section of proposed walkway/cycleway will comprise an off-road extension to the existing locally named Muckcross to Dinis looped trail which currently loops around the perimeter of Muckcross Lake.

The Muckcross to Dinis loop trail is a well-known and used trail within the suite of wider National Park walks in Killarney. This looped trail is closed to public vehicular traffic, except for a section comprising the N71 roadway located between Dinis carpark and Torc carpark. Walkers and cyclists using the existing looped trail must currently leave the trail at either the existing Dinis or Torc carparks and use the N71 public roadway over a distance of approximately 1 km to complete the looped trail. Use of the public road carriageway by walkers and cyclists along this section of what is a very busy national road presents an ongoing, serious health and safety risk.

See **Figure 1, Section 2.1** below.

The objective of the proposed works is the development of an off-road walkway/cycleway solution which ensures a safe route for walkers/cyclists to traverse from the Dinis carpark to the Torc carpark, thus allowing full off-road completion of the Muckcross to Dinis looped trail, and which also considers functional requirements and various site, environmental and ecological constraints.

1.2 Statement of Competency

This report and application have been prepared by Hazel Dalton (BSc., BBus.) on behalf of the Applicant (NPWS, Killarney). Hazel is a Principal Ecologist with MWP with eleven years' experience in ecological consultancy. She graduated 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 EIA. She has authored and contributed to numerous screening reports for AA, Natura Impact Statements (NIS) and Ecological Impact Assessment (EIA) 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 NPWS Licences for small mammal trapping, tape lure/endoscope bird surveys, disturbance of Kerry slug, disturbance of bat roosts, and photographing wild animals (badger and otter) at their resting/breeding places.

Hazel was involved with the baseline ecological surveys for the proposal, including Kerry slug, the ecological assessments for the planning application, including authoring the Natura Impact Statement (NIS), and prepared and submitted the previous derogation licence for Kerry slug for the proposed development, subsequently issued by NPWS (DER-Kerry slug-2025-04).

2. Background to Proposed Activity

2.1 Location

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). The site can be accessed from either the existing Dinis carpark, located at the western end of the proposed route, or the existing Torc (Cardiac Hill) carpark, located at the eastern end. 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 will be accessible via either existing carpark (see **Figure 1**).

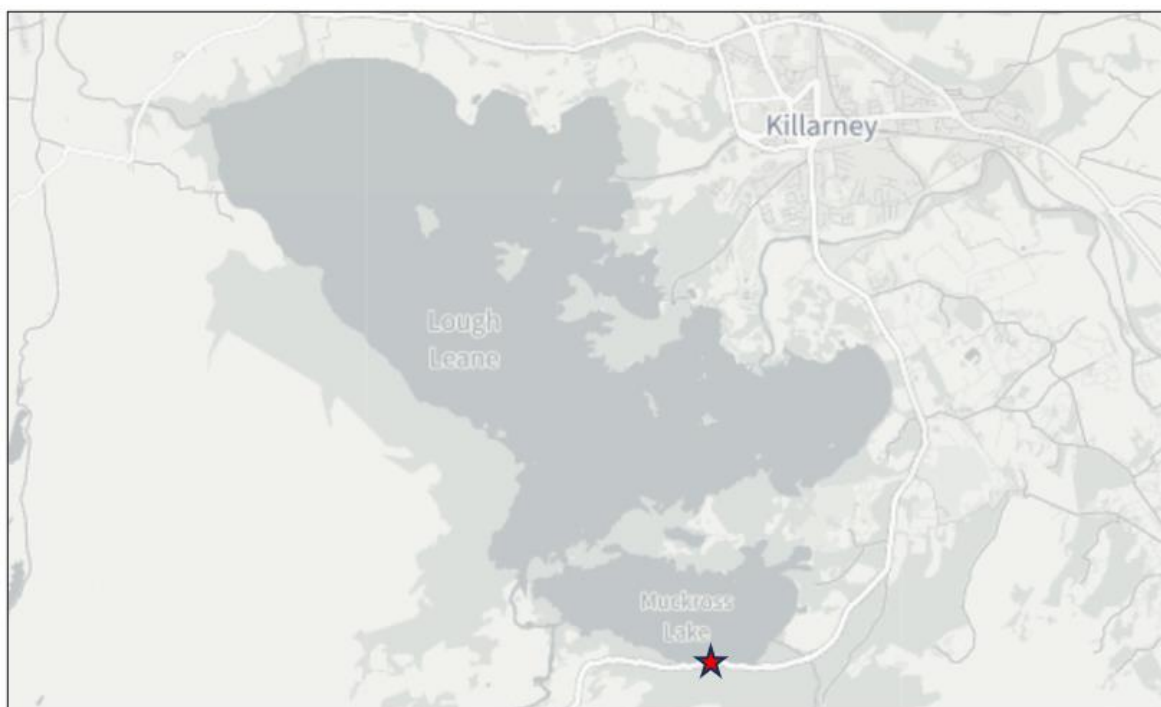


Figure 1. Location of proposed development site.

2.2 Ownership

The site is under the ownership and control of NPWS.

2.3 Type of and need for the proposed activity

Walkers and cyclists using the existing Muckross to Dinis looped trail around Muckross Lake must currently leave the off-road trail at either the existing Dinis or Torc carparks and use the N71 public roadway to complete the amenity loop. Use of the public road carriageway by walkers and cyclists along this section of what is a very busy national road presents an ongoing, serious health and safety risk.

The proposed activity comprises the construction of a raised walkway/cycleway over a distance of approximately 1km which will allow users to complete the existing Muckross to Dinis looped trail without having to travel along the N71 public roadway (see **Figure 2** below).

Once constructed, the development will therefore 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. This will therefore be a significant health and safety improvement for pedestrians and cyclists visiting the area.

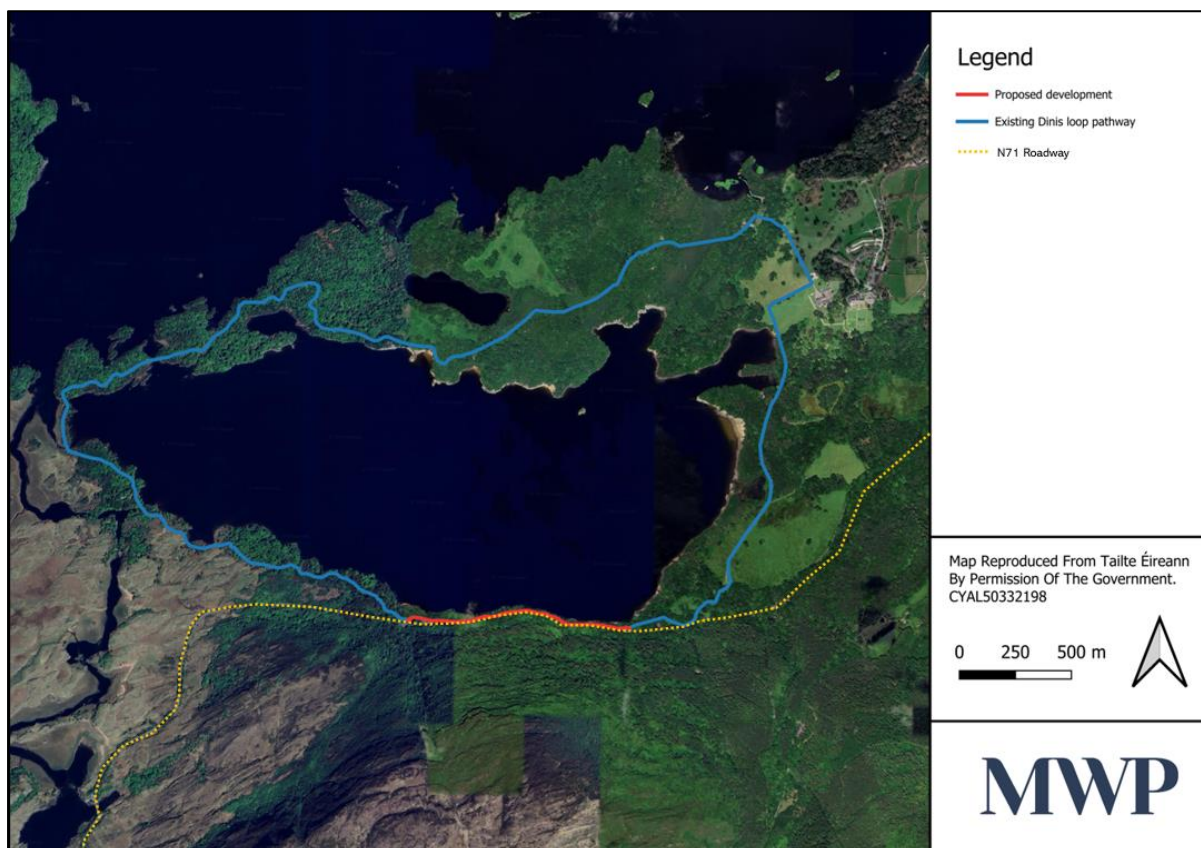


Figure 2. Route of existing Dinis to Torc walking route around Muckross Lake (blue) and section of proposed walkway/cycleway indicated in red

2.4 Planning history

A planning application in relation to the proposed Dinis to Torc walkway/cycleway was submitted to KCC by MWP on behalf of the Applicant on the 19th January 2024 (Planning Reference No. 24/60025).

A Request for Further Information (RFI) was received from KCC by MWP on behalf of the Applicant on the 12th 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 prepared an NIS and EclA for the proposed development in response to the request for supplementary information which addressed the specific items raised in the RFI.

The development was granted planning consent by KCC on the 23rd January 2025. This decision was subsequently appealed via Third Party to An Bord Pleanála (ABP) (now An Coimisiún Pleanála ACP) on the 19th February 2025 (ABP-321908-25). An RFI was received from ABP on the 30th June 2025. MWP, on behalf of the Applicant, submitted a response to this. A planning decision is currently pending.

There is no record of previous planning history on the subject site.

2.5 Relevant Planning Policy

2.5.1 National Policy

2.5.1.1 Project Ireland 2040- National Planning Framework

The Project Ireland 2040 - National Planning Framework (NPF) sets the vision and strategy for the development of the country to 2040. The NPF identifies that the built, cultural and natural assets which constitute the 'raw material' of the tourism industry are also essential to the 'production capability' of the sector while ensuring the protection and management of the landscape. Tourism has the capacity to directly and indirectly sustain communities, create employment and deliver real social benefits for rural Ireland.

National Policy Objective (NPO-22) facilitates tourism development and in particular a National Greenways, Blueways and Peatways Strategy, which prioritises projects on the basis of achieving maximum impact and connectivity at national and regional level. As well as this, (NPO-15) supports the sustainable development of rural areas by encouraging growth and arresting decline in areas that have experienced low population growth or decline in recent decades.

2.5.1.2 Our Rural Future: Rural Development Policy 2021-2025

Our Rural Future represents the Irish Government's blueprint for the post-COVID recovery and development of rural Ireland over the next five years. It provides the framework to achieve the vision of transforming the quality of life and opportunity for people living in rural areas. One of the high-level outcomes of this policy is to increase the number of people in rural areas employed/self-employed.

The COVID pandemic seen a significant decrease in economic activity in sectors such as tourism, hospitality etc which employ a large number of people in rural areas. Rural areas will face many challenges in the coming years such as impacts of an ageing population, immigration of the younger generations, the rise of emerging economies, climate change and environmental pressures, increased globalization.

Tourism has been a hugely important economic sector for Ireland and supports many thousands of jobs in rural communities throughout the country. COVID-19 has triggered an unprecedented crisis in the Tourism sector. The Tourism Recovery Taskforce estimated that, of the 260,000 jobs in the sector prior to COVID, 180,000 were either lost or vulnerable. Outdoor Activity Tourism is a key growth sector worldwide and Ireland is well placed to capitalise on this trend. The development and promotion of this sector provides opportunities for employment growth in rural areas in particular.

2.5.2 Regional Policy

2.5.2.1 Regional Spatial and Economic Strategy for the Southern Region (2020)

The RSES sets out the strategic regional development framework for the Region. The primary aim of the RSES is to implement Project Ireland 2040 - the National Planning Framework, at the regional tier of Government and to support NPF policy for achieving balanced regional development.

The RSES recognises that the Southern Region has extensive landscapes and takes a progressive approach in conserving and enhancing them, in line with The National Landscape Strategy for Ireland 2015-25. The RSES acknowledges the importance of tourism as a significant economic activity and seeks to increase tourist numbers, support sustainable jobs through targeted tourism initiatives, develop activity tourism and leverage natural and built heritage assets. In terms of Kerry's tourism assets RSES states that it is an objective to support the utilisation

and realisation of the existing and emerging tourism assets and promote activity tourism subject to appropriate site selection and environmental assessment processes, outlined in RPO53.

2.5.3 Local Policy

2.5.3.1 Kerry County Development Plan 2022-2028

The Kerry County Development Plan 2022-2028 was adopted on the 4th of July 2022, and sets the overall strategy for planning and sustainable development within the administration boundaries for County Kerry. The Plan highlights the impact the Covid-19 pandemic had on the tourism sector in County Kerry and it is policy to support the tourism sector as it recovers from this as outline in Policy Objective KCDP 9-13.

The plan outlines that in order to increase visitor numbers and visitor spend throughout the county, Kerry must upgrade its existing attractions and new signature attractions capable of competing with attractions nationally and internationally. It is also an objective to establish visitor attractions focused around key tourist sites (Policy objective KCDP 10-13) and facilitate the enhancement and development of the Wild Atlantic Way, subject to environmental assessment (Policy objective KCDP 10-11 & KCDP 10-12). The creation of integrated and coordinated tourism products is supported (Policy objective KCDP 10-25).

Other policies of relevance include –

- KCDP 10-2, KCDP 10-35, KCDP 10-36, KCDP 10-37, KCDP 10-42, KCDP 10-43 and KCDP 10-44
- KCDP 14-3 and KCDP 14-1

2.6 Principle of Development

The proposed development is to provide a walkway/cycleway that will deliver a safe route for users to complete the Dinis to Torc Loop without the need to use the N71 public roadway. The route selection has been undertaken in conjunction with NPWS. The route meanders to avoid mature trees and other significant features. The raised platform design ensures minimal impact on the existing terrain and surrounding environment. This development has the potential to positively impact the current tourist attractions in the area. It is considered that the principle of development is supported by planning policy at all levels as set out in previous sections of this report.

2.7 Land-use Zoning

The site lies outside any designated zoning areas within the Kerry County Development Plan (CDP) 2022-2028 and is not zoned for any type of development. The site is identified as a 'rural area under urban influence' (KCC, 2022).

3. Details of Proposed Activity

The proposed development will comprise of 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 proposed walkway/cycleway has been designed from the outset to minimise impacts on the surrounding environment. The proposed design largely utilises a prefabricated construction approach which will minimise environmental impacts. 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

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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

The area within the red line boundary is approximately 3.7 Ha with a developable site area of approximately 0.35 ha. The proposed development site encompasses the existing Dinis car park at its western end.

The Site Layout is shown in **Figure 3** below.

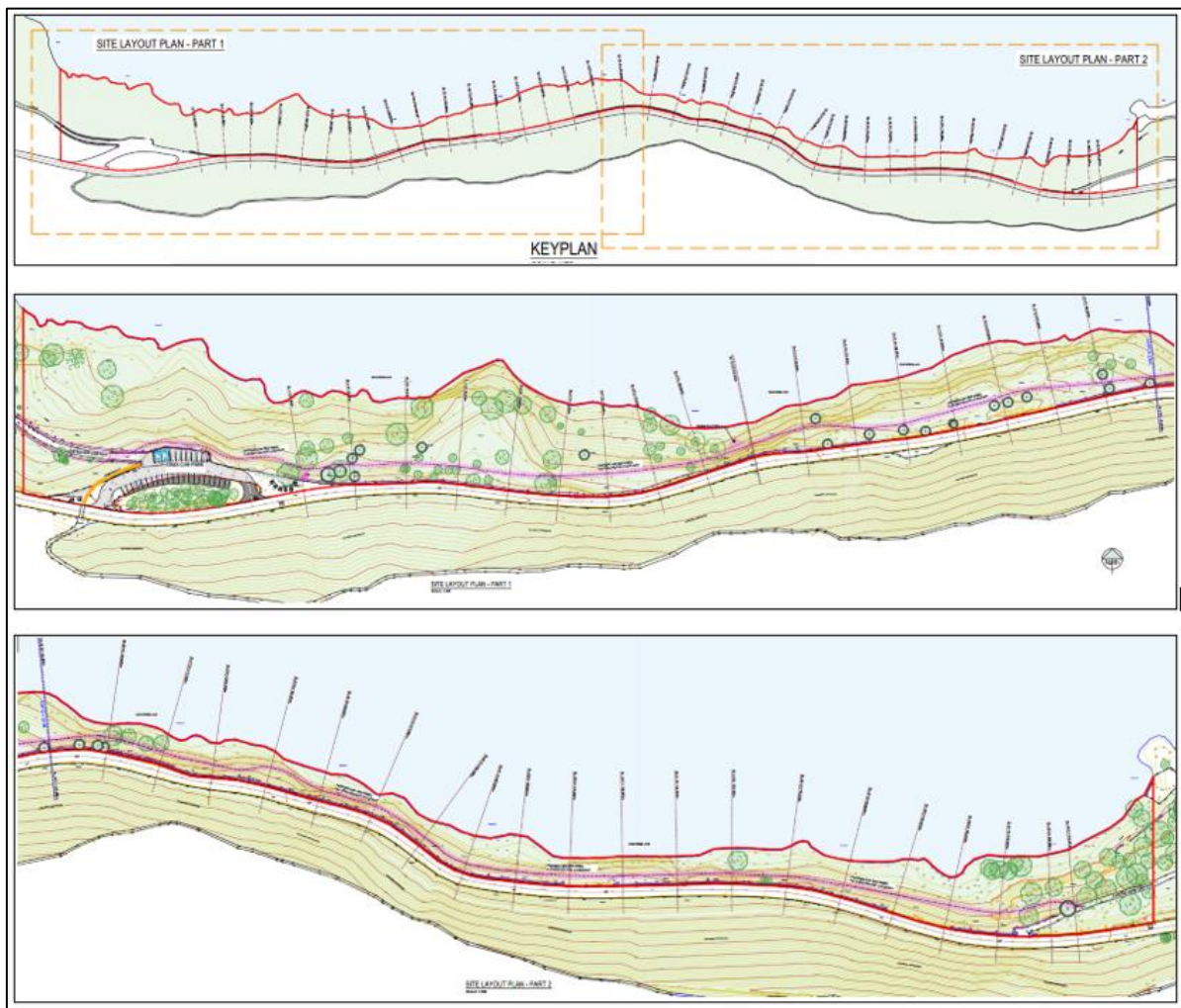


Figure 3. Proposed site layout (extracted from the planning drawings). Top: Full site overview, Middle: Western section, Bottom: Eastern section.

3.1 Characteristics of the Project

The various construction-phase elements of the raised platform structure will comprise of:

- Concrete pad foundations. These will be small and 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.
- The main structure of the platform will be galvanised and or corten steel. The design is based on a 5.0 m structural grid. The column supports and platform deck will be prefabricated off-site. All structural connections will be via bolted assembly.
- The platform deck will be largely of precast concrete planks. The planks will have an anti-slip textured finish.
- The platform deck will be fitted with guarding on both sides to a height of 1.4 m. Again, these will be fabricated off site and bolted to the platform frame on site.
- A small viewing area will be incorporated along the walkway. This will be constructed similar to the main walkway, but a glazed balustrade will be provided. All other areas of the platform balustrades will be unglazed.
- The car park layout at the existing Dinis Car Park will be altered to facilitate improved circulation within the car park and improve the entrance and exit junctions from the car park. This requires minor excavation of the mound between the car park and public roadway.

3.1.1 Site Setup and Compound

It is envisaged that a number of smaller compounds will be required at various locations between the Dinis and Torc car parks during the course of the build. These sub compounds would be located in relatively level sections of the site, clear from dense or mature vegetation and close to the roadway. A contractor's office and welfare facilities would most likely be located in one or both car parks. Ground protection matting and silt fences etc will be put in place where necessary.

3.1.2 Foundations

The foundation design philosophy utilises the underlying rock substrata in order to minimise the requirement for sizable traditional concrete pad foundations for the steel columns to support the walkway deck. This will be achieved using rock bolts/anchors drilled and grouted into the underlying rock. A small pad foundation will then be cast over the rock bolts/anchors which will provide a level base for the steel columns to be fixed to.

The construction of the above will entail excavating the overburden soil either by hand or with a 3-ton tracked excavator where terrain is suitable. The overburden material will be placed to the side. Silt fences will be put in place where necessary. Material will be reused and placed over the foundation upon completion. Inserting the rock bolts/anchors will be done manually with the assistance of pneumatic handheld drilling equipment. Where the sloped embankment is too steep, work operatives will be harnessed to ensure safe work practice.

3.1.3 Steel Frame Structure

The steel frame structure will be fabricated off site. Each structural member will have bolted assembly connections. The deck level over the existing ground varies. Therefore, the height of the column supports will vary. Where the column lengths are short, these can be installed manually. The deck steel beam members and

concrete platform would be placed in position with a small, tracked telehandler. Once the first bay is constructed, this would serve as a working platform for the construction of sequential bays.

In sections of the walkway where the terrain is more challenging, the steel frame would be lifted into position with a mobile crane located on the public roadway. The steel frame assembly operators would be lowered into position using a spider type manlift which would also be located on the public roadway.

3.1.4 Walkway Deck

The walkway deck will be constructed of precast concrete planks. The planks would be cast in short widths for ease of installation. These will be designed to accommodate construction loadings. It is envisaged that a small, tracked swivel forklift would lift the planks into position. Each completed deck section in turn becomes the access platform for installation of the next section of the deck.

3.1.5 Handrail and Balustrading

The handrail and balustrading will be of tubular metal with infill steel mesh panel. There will be a small section of glazed balustrades at the viewing area. The system will be entirely fabricated off site. The fixing system will be that of a bolted assembly. The sections will be fabricated in manageable lengths to facilitate ease of installation.

3.1.6 Description of Works

Site clearance and preparation works

- Site preparation, erection of security/perimeter fencing
- Set up of secure site compound including wash down area
- Site clearance including minor vegetation clearance (scrub and saplings) and topsoil stripping
- Removal of topsoil to stockpiles in designated areas

Construction Phase

- Construction of concrete pad foundations, to be secured to rock using rock anchors, where possible
- Construction of main platform structure using prefabricated steel column platform supports and precast concrete planks to form the platform deck.
- Installation of prefabricated guarding to both sides of platform to height of 1.4 m.
- A small viewing platform with glazed balustrade will be incorporated into the walkway.
- All platform structural connections will be via bolted assembly.
- Ancillary site development works.
- Reinstatement of excavations and topsoil and removal off-site of unsuitable and surplus material.
- Temporary site compound including contractors' offices and welfare facilities will likely be set up in one or both existing carparks. It is envisaged that a number of smaller compounds will be required at various locations between the car parks during the course of the build.

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Construction Excavation volumes:

- Total approximate volume of excavations = 530 m³ (for construction of support columns foundations plus works at Dinis Car Park).

Operational Phase

- On-going maintenance works (e.g. occasional trimming of overhanging vegetation to keep walkway clear from a H&S aspect).

Materials

- Hoarding, scaffolding, propping
- Structural Steel (rebar) in footings
- Structural steel columns and deck framework
- Glazing (for viewing platform balustrade)
- Ready-mix concrete to be used for foundations
- Precast concrete deck slabs
- Micropiles/rock anchors
- Clause 804 fill under footings
- Fencing/signage
- Lighting standards

Plant/Machinery

- 3 tonne Mini Excavators for digging foundations
- 1 No trucks for bringing stone for fill beneath foundations
- Mini pilling rig and remote hydraulic power pack
- Generator
- Concrete mix truck for ready mix concrete
- Various delivery trucks for delivery of raised platform materials and sand
- Crane
- Cement mixers
- 1 No teleporter for day-to-day use
- General tools including electrical saws, nail guns, concrete cutting equipment, jack hammers, drills, angle grinders

Human Resources

- Typically, 10 to 15 employees will be present on site daily for the duration of the works. This will fluctuate from time to time as different phases of the construction take place.

Timeline

- It is expected that the development will commence upon receipt of development consent. It is estimated that the duration of the build will comprise several phases with a total of approximately 8 to 10 months.

Tree Removal

101 trees are to be retained with no interference required, 19 trees are to be retained but will require some degree of minor trimming, and 9 trees are proposed to be removed to facilitate the works.

- ❖ Removal of trees is limited to young to semi-mature trees.
- ❖ There will be no removal of mature/significant trees to facilitate the development.

Tree removal is proposed for the following total number of semi-mature or young individuals of these species: ash (4 no.), hazel (1 no.), silver birch (1 no.), pedunculate or hybrid oak (2 no.) and grey willow (1 no.).

4. General Description of Species for which the Derogation is Sought

4.1 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.

In the most recent national assessment of EU protected species conservation status in Ireland, NPWS (2025) concludes that, across the applicable parameters, Kerry slug has a **Favourable Conservation Status**. The Long-Term Trend Direction for 'Range', 'Population', 'Habitat' and 'Future Prospects' are Favourable. Its range is increasing and it is highly likely also that the population is increasing. Habitat is sufficient for long-term survival and there are no significant threats or pressures identified (NPWS, 2025).

4.2 Species 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).

5. Ecological Survey and Site Assessment

5.1 Pre-existing information on species at location and environs

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.

The proposed development site overlaps with the Killarney National Park, MacGillycuddy's Reeks and Caragh River Catchment SAC (000365), designated for Kerry slug. 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) (see **Figure 4** below).

The Conservation Objectives note that *"The recorded distribution of Kerry slug (Geomalacus maculosus) is extensive within Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC. There have been records from 37 1km grid squares which overlap with the SAC. Most of these come from the area around Killarney National Park, and around Caragh Lake and Glencar"* (NPWS, 2017).

McDonnell and Gormally in *"Distribution and population dynamics of the Kerry Slug, Geomalacus maculosus (Arionidae)"* note multiple records for the species for hectad V98 all of which are associated with Derrycunihy

Wood near the Upper Lake in Killarney National Park, approximately 5 km from the subject site (McDonnell and Gormally, 2011).

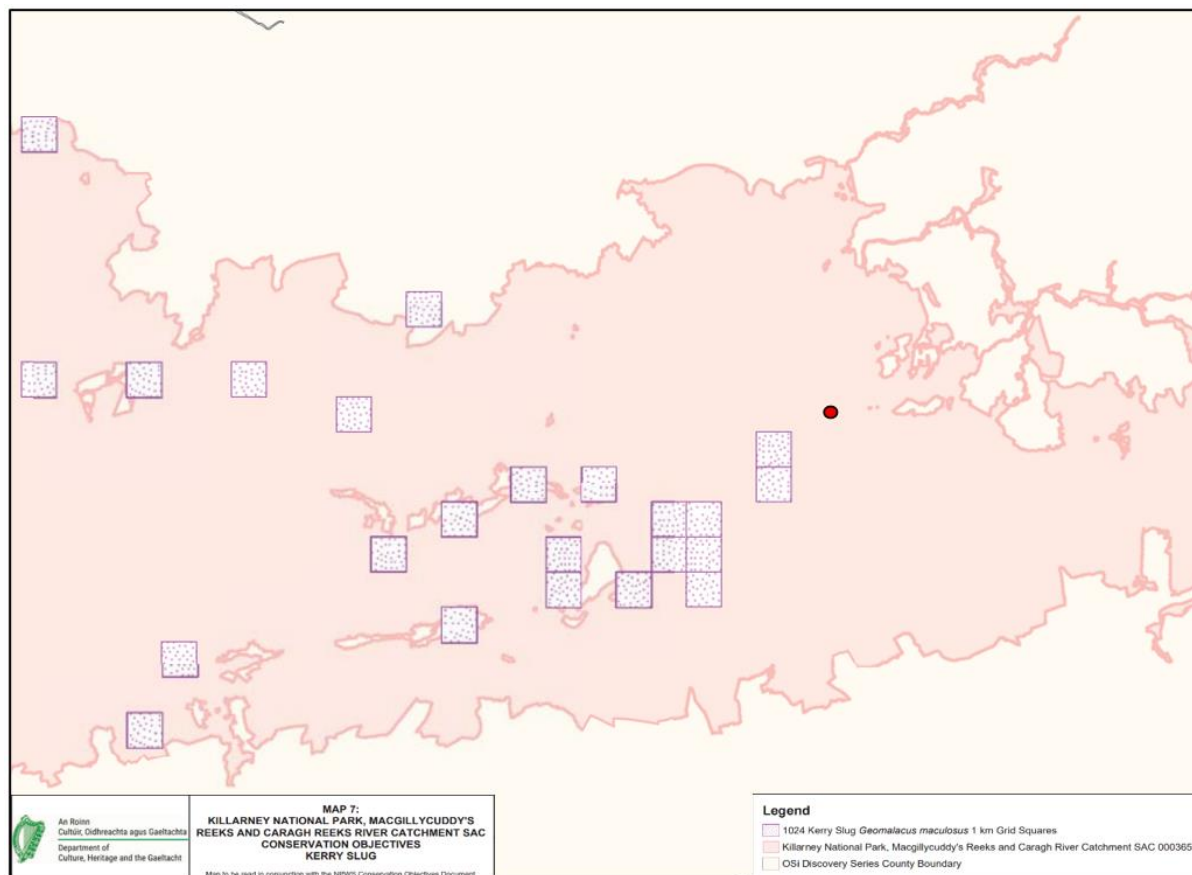


Figure 4. Positive 1km grid squares for Kerry slug within the Killarney National Park, MacGillycuddy's Reeks and Caragh River Catchment SAC. Adapted from NPWS (2017). General location of proposal site indicated in red.

5.2 Status of the species in the local/regional area (relevant to the consideration of the impact on the population at the relevant geographic scale (Test 3))

Under Article 11 of the Directive, each member state is obliged to undertake surveillance of the conservation status of the natural habitats and species in the Annexes and under Article 17, to report to the European Commission every six years on their status and on the implementation of the measures taken under the Directive. In August 2025, Ireland submitted the fourth assessment of conservation status for 59 habitats and 60 species. As part of the most recent national assessment of conservation status, current NPWS Article 17 distribution mapping for Kerry slug indicates that the known range and distribution encompass the relevant hectad, V98 (NPWS, 2025). The most recent assessment notes that *“There are no significant pressures on Kerry Slug, and the Overall Status is Favourable and improving, driven in part by the large populations in conifer plantations. This is the same result as in 2019”*.

The Site Synopsis for the Killarney National Park, MacGillycuddy's Reeks and Caragh River Catchment SAC notes that the SAC population is of *“particular importance in a national context”* (NPWS, 2013). The Conservation Objective for the SAC in relation to the species is *“to maintain the favourable conservation condition of Kerry Slug”*.

The Management Plan for Killarney National Park (2005-2009) notes that *“Populations of Kerry slug and marsh fritillary and other terrestrial invertebrate species are not thought to be threatened”* and *“The slug is widespread*

in the Old Red Sandstone areas of the National Park and populations there are contiguous with those outside the National Park boundaries” (NPWS, 2005).

5.3 Objective(s) of survey

Multi-disciplinary ecological walkover surveys were initially undertaken at the proposal site. The objective of these surveys was to classify and map habitats occurring and identify whether suitable habitat for Kerry slug was encompassed within the development site.

As suitable habitat and incidental Kerry slug specimens were recorded on-site during the habitat surveys, targeted surveys (visual inspection/non-intrusive surveys) were undertaken to establish presence/absence and distribution of Kerry slug throughout the full extent of the proposal site, where suitable habitat occurred.

5.4 Description of Survey Area

The proposed development site is encompassed within Killarney National Park and comprises predominantly woodland in mosaic with scrub, boulder and rock outcroppings occurring on the shores of Muckross Lake to the north, one of the three main lakes in the Killarney area (see **Plate 1** below). The development site boundary is situated in close proximity to the lakeshore, varying from less than 10 m at the eastern end to just over 50 m at its western end. In terms of site topography, the ground slopes away steeply from the N71 Road to the south towards the lake, with certain areas characterised by very steep and uneven terrain. The surrounding area is also characterised by woodland extending into the uplands of the MacGillycuddy’s Reeks mountains.



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

The Corine (2018) land cover category for the development site and surrounding area comprises 'Forests and semi-natural areas - Mixed forests'. The underlying geology comprises 'Devonian Old Red Sandstones'. Soil within the site is categorised as 'Peat soils' and 'Lithosols: stony mineral soils often overlying bedrock'.

Much of the site is mapped as Annex I 'Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]' within the Killarney National Parks, McGillicuddy's Reeks and Caragh River Catchment SAC. There is overlap between the proposed works area and Annex I 'old oak woodland'. Baseline habitat surveys confirmed that of a total length of proposed raised walkway/cycleway of 1.2 km, approximately 570 m (56%) of the route passes through qualifying 'old oak woodland' habitat which corresponds with the Fossitt woodland habitat category 'oak-birch-holly woodland WN1' within the site. Qualifying old oak woodland habitat is located in the western and central sections of the site. Extending eastwards from Dinis car park, old oak woodland habitat cover is almost continuous until towards the central section of the site where its distribution becomes fragmented, occurring intermixed with pockets of open habitat, categorised as scrub (WS1), as per Fossitt (2000).

Habitats along parts of the route, in particular along the central section, have been previously disturbed due to previous works to the carriageway of the adjacent N71 associated with road subsidence issues or previous traffic collisions. In this part of the site, past disturbance is evident with large boulders, rock material and other debris apparent on the steep slopes below the roadway. Areas of oak-birch-holly woodland (WN1), corresponding with 'old oak woodland (91A0)', and scrub (WS1) eventually grade into mixed broadleaved woodland (WD1) which is feature of the eastern extent of the site, and which does not correspond to any QI woodland habitat.

5.5 Survey methodology (including evidence as to how the methodology represents best practice and is appropriate to the Objective). Methodology should include survey maps, details of timing, climate, equipment used and identify any uncertainties or difficulties encountered.

The study area for field surveys was taken to be the full linear extent of the proposed walkway/cycleway route, encompassing the adjacent N71 road, the fringing shoreline of Muckross Lake out to a distance of c.5 m from the shoreline, and the area encompassed in between the lake and the roadway, as well as the two existing public car parks (known as Dinis carpark and Torc (Cardiac Hill) carpark) located at either end of the route, and their surrounds.

Baseline habitat and flora surveys were carried out within the study area on the 13th and 14th June and the 11th September 2024. These surveys were undertaken within the optimum flora survey period. The habitat surveys had regard to 'Best Practice Guidance for Habitat Survey and Mapping' (Smith et al., 2011) and 'A Guide to Habitats in Ireland' (Fossitt, J. A., 2000). Habitats within the study area were categorised to Level 3 according to Fossitt (2000). Habitats recorded within the proposed development site were evaluated with regard to potential links with EU Annex I habitats, with a focus on Annex I habitats of the SAC, with a particular focus on old oak woodland habitat using assessment criteria outlined in Perrin et al., (2008).

Habitats occurring were assessed for their potential suitability for protected species and/or qualifying species of relevant designated sites (such as the Killarney National Park SAC).

The results of habitat surveys were therefore used to inform the need for targeted species surveys (Kerry slug).

On the basis of the suitability of the habitats occurring, a Derogation Licence application was submitted by MWP to the Wildlife Licencing Unit (WLU) of NPWS on the 27th 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, targeted surveys for Kerry slug (comprising visual, non-intrusive inspections of potentially suitable habitat features) were undertaken on the 11th September and 2nd October 2024. During these 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. Where slugs were found to be present, a visual count was made of the number of individuals occurring, and descriptive notes of the relevant habitat feature, and GPS location was recorded. The visual inspection surveys covered the full extent of the proposed development site where access on foot was possible.

Surveys were undertaken when weather conditions were optimum for Kerry slug to be active i.e., overcast, damp and humid with occasional rain (NRA, 2009).

During all other ecology surveys undertaken on-site (occurring on multiple dates in October 2023, April, June, August, September and October 2024), any Kerry slugs were recorded where encountered within the study area.

Due to considerable H&S concerns throughout much of the study area with regard to terrain/slope/risk of injury, surveys for Kerry slug were conducted during the daytime. This is not considered to have comprised a significant constraint on the capture of baseline data as it is noted that both Platts & Speight (1988) and Taylor (1906) recorded diurnal activity by Kerry slugs during or after rain. Furthermore, in addition to the daytime records of Kerry slug recorded at the proposed development site, outlined above, MWP has recorded diurnal activity by this species on other sites.

An area of the site, of approximate length 70 m, located towards the western end of the proposed walkway/cycleway route, could not be surveyed on foot due to a combination of very steep slope and rough terrain which precluded access due to significant H&S concerns. For this section of the site, surveyors were

required to instead make their way up onto the carriageway of the adjoining N71 Road, where they continued on foot until they could safely regain access to the proposal site from the roadway. Although this section of the site which could not be accessed on foot was visible from the roadway which overlooks this area, visual inspections of suitable habitat features for Kerry slug could not be undertaken in this section of the site. Again, this is not considered to have comprised a significant constraint on the capture of baseline data in relation to Kerry slug.

5.6 Survey results including raw data, any processed or aggregated data, and negative results as appropriate. Photographs and maps must be provided where site-specific features are referred.

Initial surveys of the proposed development site by MWP ecologists identified habitat 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 16th 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 13th June 2024, 2 no. Kerry slugs were recorded (tree trunk and rock outcropping) in the same general area as previously.

During the targeted Kerry slug survey undertaken on the 11th September 2024, a single individual was recorded within the study area. This specimen was recorded on a wet, moss-covered boulder within a scrubby area of woodland within the proposed development site.

No Kerry slugs were recorded within the study area during the 2nd October 2024 targeted Kerry slug survey.

Therefore, in summary, a total of 11 no. Kerry slugs were recorded within the proposed development site over the course of all ecological surveys undertaken at the proposal site between April and October 2024 (see Figure 5 below which shows locations of Kerry slugs recorded on various survey dates, and Plate 2 and Plate 3).

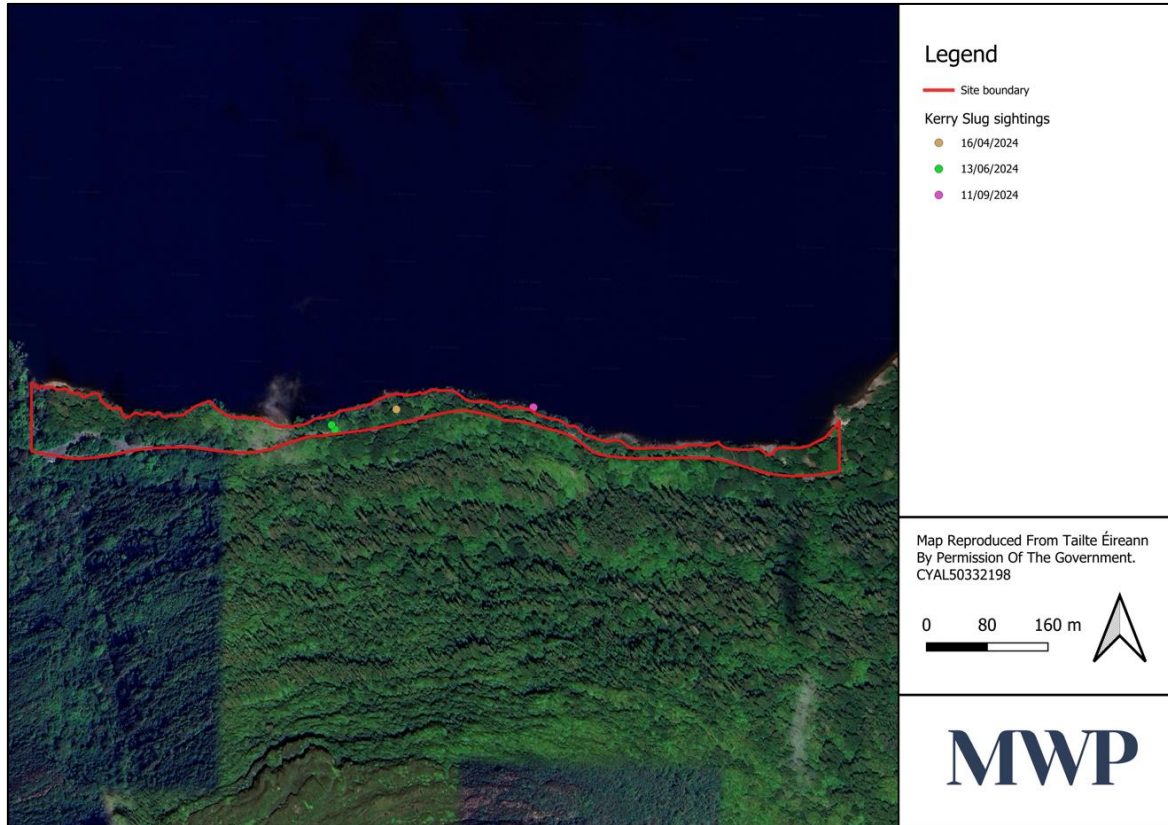


Figure 5. All sightings of Kerry slug recorded at the proposed development site during baseline ecology surveys. Some points denote multi-specimen records – refer to Section 5.6 above



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



Plate 3. Left) Single Kerry slug specimen recorded on rock outcropping within the study area in September 2024. Right) example of surrounding lakeshore habitat in vicinity of this recorded specimen.

5.7 Population size class assessment

The NBDC does not hold any records of Kerry slug from within the proposed development site or its environs, with the closest record occurring in excess of 1km from the subject site. Conservation Objectives mapping for the SAC does not identify the area encompassed within the development site as comprising part of the known distribution for Kerry slug within the SAC.

Based on the lack of pre-existing species records within the proposed development site and its environs (as outlined in **Section 5.1**) and the low numbers of Kerry slug recorded overall throughout baseline ecological surveys at the proposed development site (as outlined in **Section 5.6**), the subject site is not considered to support a significant or regularly-occurring Kerry slug population, relative to other parts of either the SAC or Killarney National Park, generally.

6. Requirement for a Derogation Licence

Kerry slug has 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 applied for a Derogation Licence on behalf of the Applicant (National Parks and Wildlife Service – NPWS, Killarney) on the 19th December 2024. This was issued on the 26th September 2025 (**DER-Kerry slug-2025-04**). **This licence has now expired as of the 31st December 2025.**

MWP wish to apply to the DHLGH through the WLU of NPWS for a renewed licence in relation to Kerry slug at the proposal site on behalf of the Applicant.

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.

With the full and proper implementation of the mitigation measures (see **Section 7.3.2**), 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.

Evidence to support the tests for Derogation are provided hereunder.

7. Evidence to Support the Derogation Tests

7.1 Test 1: Reason for Derogation

The existing Muckcross to Dinis trail loops around the perimeter of Muckcross Lake. It is closed to public vehicular traffic with the exception of a circa 900m section. This section occurs between the Dinis carpark and the Torc carpark. Walkers and cyclists must use the N71 public roadway to complete the loop walk. The objective of the Raised Platform Walkway / Cycleway project is to provide a walkway/cycleway that will deliver a safe route for users to complete the Dinis to Torc section of the loop without the need to use the N71 public roadway.

If constructed, the proposed walkway/cycleway will form an off-road extension to the existing loop. 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.

The health and safety considerations are outlined hereunder.

- The requirement for a safe walkway/cycleway between the Dinis carpark and Torc carpark has been identified as an infrastructural deficit and safety concern by various stakeholders in the area for many years.
- This section of N71 roadway is a narrow and winding road with poor lines of sight. In addition, there has been a number of road accidents inclusive of vehicles having to swerve due to deer wildlife on the road.
- The roadway does not have a dedicated walking/cycling lane or indeed a hard shoulder margin. This heightens the risks for head-on collisions and overtaking hazards and is extremely dangerous for pedestrians and cyclists.

The key risks associated with shared narrow roads can be summarised as follows:

- Limited visibility and Line of Sight due to blind bends and undulating terrain which obscures the view of cyclists and pedestrians. It can be difficult for drivers to see vulnerable road users.
- Insufficient road width to achieve a 1.5m safe passing distance as required by the Road Safety Authority (RSA). Vehicles (cars, coaches, HGV's, agricultural vehicles) struggle to pass pedestrians and cyclists without entering oncoming traffic.

- No dedicated footpath, hard shoulder or cycle lane to safely accommodate vulnerable road users. Pedestrians and cyclists travel beside moving traffic. This risk escalates with tourist footfall.
- Speed Differential Hazards. Vehicles travelling at 80–100 km/h. Cyclists typically go 15–30 km/h; walkers 3–6 km/h.
- Roads less than 6 meters wide—insufficient for safe 1.5m passing distance.
- Driver Distraction & Tourist Traffic. Tourists unfamiliar with the road. Tourists or other people not familiar with the road may be distracted by the scenic views, satnav, or signage reading.
- Poor Lighting & Weather Conditions. No public street lighting; thick mist common in valley between Muckcross and Molls Gap.

According to the RSA, in 2022, 73% of road fatalities occurred on rural roads with speed limits of 80 km/h or higher. Cyclists and pedestrians accounted for a significant share of fatalities. Shared roadway sections will remain high-risk due to geometry and traffic mix. Full segregation is the most effective safety solution to protect vulnerable road users.

Table 1. Risk Rating Matrix for Shared Roadways (MWP)

Hazard	Likelihood	Severity	Risk Level
Vehicle–cyclist collision	Likely	Major injury/fatality	High
Vehicle–pedestrian collision	Likely	Major injury/fatality	High
Pedestrian trip/fall due to verge condition	Likely	Minor injury	Medium
Loss-of-control into roadside users	Possible	Major injury/fatality	High

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.

The overall benefits of this project:

- A significant benefit of this project is one of Health and Safety. Currently, pedestrians and cyclists must travel along the busy N71 roadway to complete the Dinis to Torc Loop.
- The Dinis to Torc loop along the N71 roadway has been identified in the Killarney Lakes Greenway report as “an infrastructural deficit in the walking/cycling amenities of the Killarney Municipal District. This project would eliminate the infrastructural deficit.
- In terms of the vertical alignment, the design has a maximum gradient of 4%. This ensures that the proposed loop will be accessible to wheelchairs users and people with mobility issues.
- Provide spectacular elevated views across Muckcross lake.

- Tourism initiatives such as the proposed walkway can have a significant positive impact on the local economy through increasing visitor numbers and their spend in a location.
- This development encourages outdoor tourism/recreation and would attract people of all age groups.

7.2 Test 2: Absence of Alternative Solutions

Do-Nothing Alternative

In the do-nothing scenario, users of the existing Muckcross to Dinis looped trail will continue to have to use the N71 public roadway to complete the section of the loop between Dinis carpark and Torc (Cardiac Hill) carpark. Serious health and safety concerns associated with usage of this very busy roadway by walkers and cyclists to complete the looped trail will remain on-going.

Consideration of Alternative Route Options

As part of the initial design process, MWP considered the functional requirements, various site constraints, environmental, ecological and visual impacts in developing a walkway/cycleway solution which would ensure for a safe route to traverse from the Dinis carpark to the Torc carpark. In rural areas, where traffic volumes are high and pedestrian pressure exists, offline or separated active travel infrastructure is recommended under TII's NR2040 commitments.

Consideration of alternative options has considered alternative scale, designs and locations. Given the ecology of Kerry slug and their year-round presence, it is considered that there is no viable alternative option in terms of timing/seasonality which would avoid potential impacts on the species or their habitat.

MWP, on behalf of the NPWS, commissioned Murphy Geospatial Ltd to carry out a detailed topographical survey of the site area in September 2023 which encompassed all of the route options. The purpose of this survey was to provide an accurate representation of the land's surface and notable features thereon to facilitate the planning, engineering assessment, route option and design for the proposed walkway/cycleway.

The scope of the survey within the defined site area was as follows.

- N71 Road edge and centreline and low walling on lakeside at 10m intervals
- Dinis car park and Torc car parks.
- Trees, hedges and scrub areas
- Rock and boulder features
- Existing walkway trail within survey area.
- Lake shoreline and water level.
- Lakebed level adjacent to shoreline for a distance of 25m beyond shoreline.
- Existing signage.
- Contours at 0.5m intervals.

The topographical outputs provided MWP with details of spot levels, contours, tree locations, rock features, roadway layout, paths and shoreline position. This information was used to assess the various route options and ultimately informed the design principle for the proposed raised platform walkway/cycleway and preferred route option.

An Ariel Drone Survey was made available to MWP. However, this was use purely as a visual overview of the site. It did not provide any engineering technical outputs. Hence the requirement for the topographical survey

Initially, four route options were identified and assessed to determine the preferred route. The four routes were:

- A. Adjacent to the N71 roadway
- B. On the hillside south of the N71
- C. Lake Shore – Floating Deck
- D. Area between the N71 and the Lake Shore

See **Figure 6** hereunder which indicates the four routes considered.

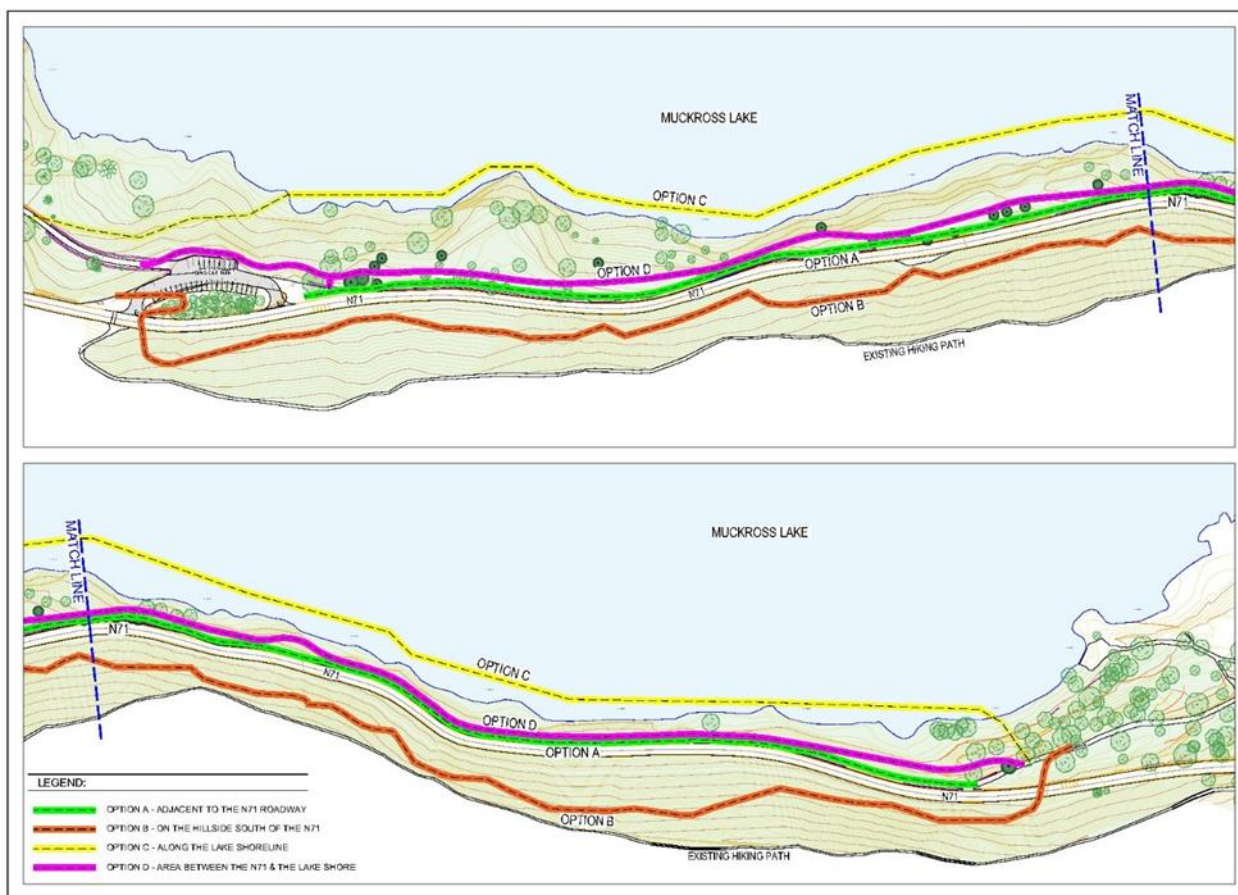


Figure 6. Four route options between Dinis and Torc car-parks which were considered (Options A – D)

7.2.1 Alternative Route Options Considered

Route Option A

The width of the N71 roadway between the Dinis car park and the Torc Car park is less than 6.0m wide. This is not sufficient to accommodate a shared walkway and cycleway without substantial road widening and realignment. The minimum width of a shared walkway and cycleway is 3.0m. In addition, Transport Infrastructure Ireland (TII) advises that where a greenway or cycleway runs alongside a road, there should be a 2 m separation between the edge of the trafficked lane and the cycleway (TII, 2022).

The overall additional 5.0m width required for this option was considered impractical for reasons such as road widening/land take, substantial cut and fill requirements, excavation through rock, environmental impact, costs etc. For these reasons this option was eliminated.

Route Option B

This option considered a route on the hillside south of the N71. While there is an existing narrow hiking trail at this location, it is elevated some 20m over the N71. The grade changes significantly and is very steep in parts. Therefore, a separate route for the proposed walkway/cycleway was considered which was located at a lower level between the N71 and the existing hiking trail. Walkers and cyclists would need to cross over the N71 to access and egress off the proposed new walkway/cycleway which would require an overbridge or underpass at both locations. The option would require substantial cut and fill. It would not be suitable for universal access. For these reasons, this option was considered unviable. There would also be environmental impacts associated with this option.

Route Option C

This option considered a route along the lake shore using a floating deck walkway/cycleway which was inspired by the Acres Lake Floating Boardwalk in Co. Leitrim. This floating walkway is part of the wider Shannon Blueway trail network which is some 200km long linking waterways and trails across Co Leitrim, Co Roscommon, Co Longford, and Co Cavan. The length of the Acres Lake walkway section is 600m, with 160m constructed as a floating boardwalk. The boardwalk opened to the public in 2017.

At the Dinis to Torc car park walkway/cycleway project concept stage, MWP and NPWS completed a joint site visit to Acres Lake to assess the feasibility of this option for Muckcross Lake. As part of this visit, MWP and NPWS met with Waterways Ireland. The purpose of the visit was to establish if a similar type of structure might be suitable for the proposed Dinis to Torc car park walkway/cycleway.

Acres Lake Floating Boardwalk site visit observations of relevance to the proposed Dinis to Torc car park walkway/cycleway project

1. Acres Lake water level is controlled and influenced by weirs, locks, and sluices operated by Waterways Ireland. The fluctuations in water level on Acres Lake is circa 500mm.
2. The Acres Lake floating boardwalk is based on modular floating pontoons which are anchored to vertical wooden piles to prevent drift. The sliding connection to the anchor piles allows for vertical movement to account for fluctuations in water level.
3. The land trail connects directly into the floating section via a ramped section that adjusts naturally with fluctuations in water level. This works well as the fluctuation in water level is only circa 500mm.
4. Cyclists must dismount when traversing the floating boardwalk.

Floating Walkway Option from Dinis Carpark to Torc Carpark on Muckcross Lake

This option considered a route along the Muckcross Lake shore using a floating deck walkway/cycleway which was inspired by the Acres Lake Floating Boardwalk in Co. Leitrim.

However, the fluctuation in the water level on Muckcross Lake cannot be controlled like that of Acres Lake in County Leitrim. The chart below in **Figure 7** presents OPW data on fluctuation in water level in the adjacent and connected Lake which show that water levels range from a low of 17.26m to high of 20.39m (www.waterlevel.ie). The design issue with such a large fluctuation in water level (up to 4m) relates to the floating ramp transition between the fixed point on land to access and egress from the floating deck on the lake. This would essentially require a ramp length of up to 150m in order to ensure the gradient of the ramp in all water level scenarios remains accessible to users. From an engineering, constructability and financial perspective this was considered

unviable. Therefore, this solution was eliminated at the option selection stage during the planning and design process. There would also be environmental impacts associated with this option.

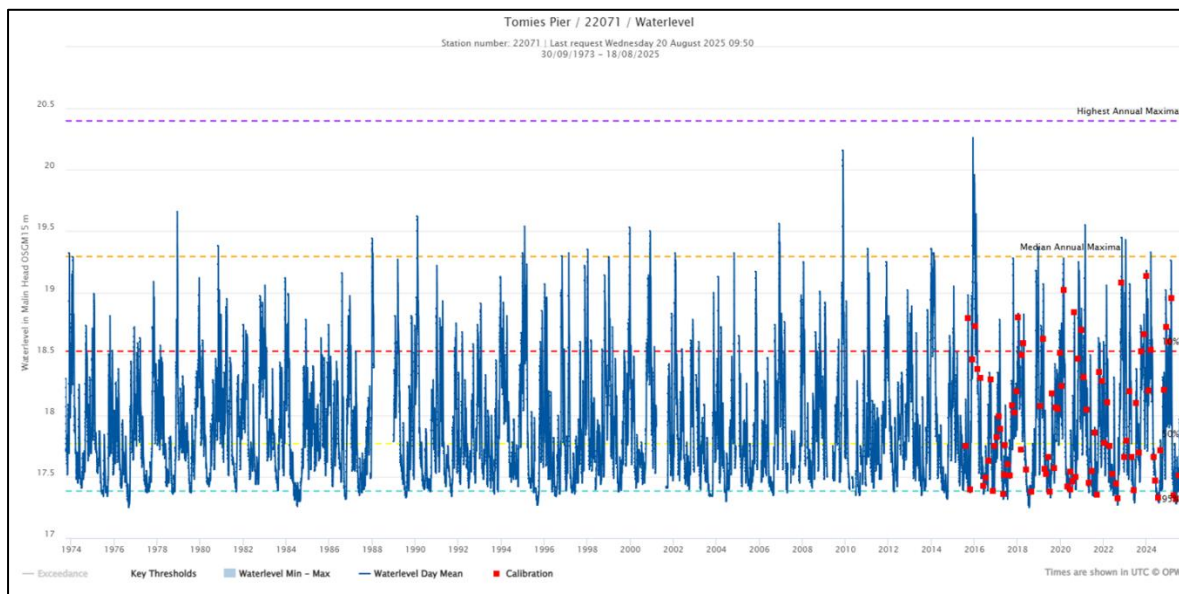


Figure 7. OPW data on fluctuation in water level at Tomies Pier located in the adjacent and connected lake between Sept 1973 and August 2025

Route Option D

This option considered a route between the lake shore and the N71. The site is in an area characterised by a mosaic of scrub land, boulders, rock outcrop, some mature trees and saplings. An initial assessment of the area revealed the advantages of this route insofar that pedestrians and cyclists could complete the Dinis to Torc loop without the need to use the N71 roadway. Further investigations revealed that a meandering route could be plotted from the Dinis car park to the Torc car park that would avoid significant trees of interests.

A raised platform walkway system, fabricated in elements or sections off site, would present a suitable construction solution with this route option. This route option also allowed for the vertical alignment with a maximum gradient of 4% to be achieved (TII, 2022). This ensures that the proposed walkway/cycleway will be accessible to wheelchairs users and people with mobility issues.

Summary of Consideration of Alternative Route Options

The table hereunder provides the analysis summary of the route options considered in terms of the following considerations:

- Health and safety
- Environmental/Ecology
- Derogation licence – Kerry slug
- Visual impact
- Usability/Universal access
- Buildability
- Cost implications

Table 2. Summary of Consideration of Alternative Route Options

Considerations	Route Option A	Route Option B	Route Option C	Route Option D	Preferred Route
	<i>Adjacent to the N71 roadway</i>	<i>On the hillside south of the N71</i>	<i>Lake Shore – Floating Deck</i>	<i>Area between the N71 and the Lake Shore</i>	
<i>Health and Safety</i>	Shared roadway sections will remain high-risk due to geometry and traffic mix. Full segregation is the most effective safety solution to protect vulnerable road users	Full segregation from the N71 can be achieved but overhead footbridges required.	Risk of excessive vertical movement due to high winds and wave action. Access for Emergency services may be difficult. Closure may be required during inclement weather due to wave action. Greater construction risks associated with working over water.	Full segregation from the N71 can be achieved. No cross over of the N71 by walkers and cyclists required to complete the Dinis to Torc trail.	Option D would provide greatest Health and safety benefits.
<i>Environmental/ Ecology</i>	Likely to require significant verge widening and rock cut, with direct loss of roadside woodland habitat	Substantial cut and fill would be required with large-scale clearance and	Significant construction risks to aquatic habitats and water quality during piling/anchoring.	Located within the narrow-wooded strip between the N71 and the lake.	Option D still requires management of

Considerations	Route Option A	Route Option B	Route Option C	Route Option D	Preferred Route
	<i>Adjacent to the N71 roadway</i>	<i>On the hillside south of the N71</i>	<i>Lake Shore – Floating Deck</i>	<i>Area between the N71 and the Lake Shore</i>	
	and a significant number of mature roadside trees. Impacts on trees, shrubs, ground flora, bryophyte and lichen communities and faunal species. Run-off management critical to avoid pollution of adjacent woodland streams.	loss of semi-natural woodland. Significant soil disturbance and elevated risk of erosion/sedimentation into adjacent streams during construction. Impacts on woodland and bryophyte-rich habitats and range of fauna. Woodland fragmentation. Large parts of route comprising extensive, well-established stands of mature rhododendron which would require to be managed and controlled.	Potential disturbance to designated features (otter, birds, aquatic vegetation). Visual and shading effects on littoral zone vegetation. Long-term maintenance risk: fluctuating water levels and wave action.	Requires trimming/removal of a small number of trees but avoids wholesale woodland clearance or removal of any significant trees or in-lake construction. Walkway design informed by existing ecological features to minimise ecological impacts. Elevated walkway design minimises habitat loss, trampling etc, retains woodland floor integrity, and allows light and water penetration to ground habitat.	rhododendron. Overall, the least ecologically damaging route compared to other options, with potential for net ecological benefits if invasive species control is delivered.
<i>Derogation Licence – Kerry Slug</i>	Required – additional land take required to accommodate segregated walkway/cycleway lanes. Habitat suitable for Kerry slug. Loss/disturbance to Kerry slug or their habitat.	Required – additional land take required to accommodate walkway/cycleway. Habitat suitable for Kerry slug. Loss/disturbance to Kerry slug or their habitat.	Required – additional land take required to accommodate walkway/cycleway access and egress onto land. Habitat suitable for Kerry slug. Loss/disturbance to Kerry slug or their habitat.	Required – additional land take required to accommodate walkway/cycleway. Habitat suitable for Kerry slug. Loss/disturbance to Kerry slug or their habitat.	All options would result in loss/disturbance of Kerry slug or their habitat and therefore all options would require a derogation licence for Kerry Slug.
<i>Visual Impact</i>	Significant visual impact as roadway/carriage would need to be widened by 6.0m minimum.	Screening would be provided by existing vegetation. However, overhead footbridge would	Significant visual impact on lake and surrounding area. No screening when viewed from across the lake on	Visual impact substantially screened by existing vegetation.	Option D would have the least and minimal visual impact

Considerations	Route Option A	Route Option B	Route Option C	Route Option D	Preferred Route
	<i>Adjacent to the N71 roadway</i>	<i>On the hillside south of the N71</i>	<i>Lake Shore – Floating Deck</i>	<i>Area between the N71 and the Lake Shore</i>	
		have significant visual impact	northern side. Pontoon structure would be visible from the curtilage of Muckcross House.		
<i>Usability/ Universal Access</i>	Unlikely to provide a route compliant with universal access requirements without adjustment of existing N71 vertical alignment grade	Walkers and cyclists would need to cross over the N71 to access and egress off the proposed new walkway/cycleway which would require an overbridge or underpass at both locations. It would not be suitable for universal access.	Risk of excessive vertical movement due to high winds and wave action could limit usability and universal at certain times.	Provides a route compliant with universal access requirements. Route would be accessible to wheelchairs users and people with mobility issues.	Option D would provide a fully compliant walkway/cycleway to meet universal access requirements.
<i>Buildability</i>	Requires minimum 5m additional land take over entire length involving substantial cut through rock.	Require substantial cut and fill, ground clearance and tree felling	Can substantially be prefabricated off site. Requires construction access from the lake on floating barges and from land. Substantial anchor piles to lakebed required. The substantial fluctuation of the water level means that access and the egress ramp from land would be unworkable. Long-term, substantial maintenance requirements due to	Can substantially be prefabricated off site with no requirement to have construction access from the lake.	Option D would have lesser buildability challenges than the other 3 options.

Considerations	Route Option A	Route Option B	Route Option C	Route Option D	Preferred Route
	<i>Adjacent to the N71 roadway</i>	<i>On the hillside south of the N71</i>	<i>Lake Shore – Floating Deck</i>	<i>Area between the N71 and the Lake Shore</i>	
			fluctuating water levels, wave action/storm damage.		
<i>Cost implications</i>	High Level Order of cost - €8.4million (National transport Authority - Cost Guidance Pedestrian Path & Cycleway - €7m/km) 1.2km long x €7m/km = €8.4m	High Level Order of cost - €6million (National transport Authority - Cost Guidance- Urban Greenways - €4m/km -High complexity Pedestrian Bridges - €17k/m2-High complexity Walkway/Cycleway €4m/km x 1.1km=€4.4m plus 2 Nr Overbridges €0.8m x 2 = €1.6m Total - €4.4m + €1.6m = €6.0m	High Level Order of cost - €6million Floating Deck 3000m2 X €1250/m2 = €3.75m Anchor piles = €1.25million Floating ramps x 2 = €0.5m x 2 = €1.0m Total - €3.75m + €1.25m + €1.0m = €6.0m	High Level Order of cost - €5.2million Walkway Deck 3000m2 x €1400/m2 = €4.2m Foundations + rock anchors = €1.0m Total - €4.2m + €1.0m = €5.2m	Option D would be the most cost-effective and economically viable solution.

Selection of Preferred Option

Having objectively reviewed all route options, it was clear that Option D would be the preferred route. In this regard,

- Option D would not require users to cross or use the N71 roadway. This would not be possible with either Option A & B.
- It does not require cut and fill excavation to achieve a suitable grade for the walkway/cycleway. This would not be possible with either Option A & B.
- In terms of vertical alignment, the design developed has a maximum gradient of 4%. This ensures that the proposed loop would be accessible to wheelchairs users and people with mobility issues. This would not be possible with Option A, B or C.
- The raised platform design ensures minimal impact on the existing terrain and surrounding environment during both the construction and operational phase. This would not be possible with either Option A & B.
- Option D would not be affected by the substantial fluctuation of the water level in the lake unlike Option C.

7.3 Test 3: Impact of a Derogation on Conservation Status

7.3.1 Applicants should include details of the population at the appropriate geographic scale and an evaluation of how the proposed activity will affect the conservation status both before and after mitigation measures have been applied.

7.3.1.1 Population details at various geographic scales

Ireland's non-marine molluscan fauna is of international importance (Byrne, et al. 2009). Six species are legally protected in Ireland under European legislation. Of these legally protected species, only the Kerry slug is not considered threatened in Ireland. However, the Irish population of this species is of particular international importance as the species is restricted to south-west Ireland and northern Iberia, and the Iberian populations are severely threatened (Byrne, et al., 2009).

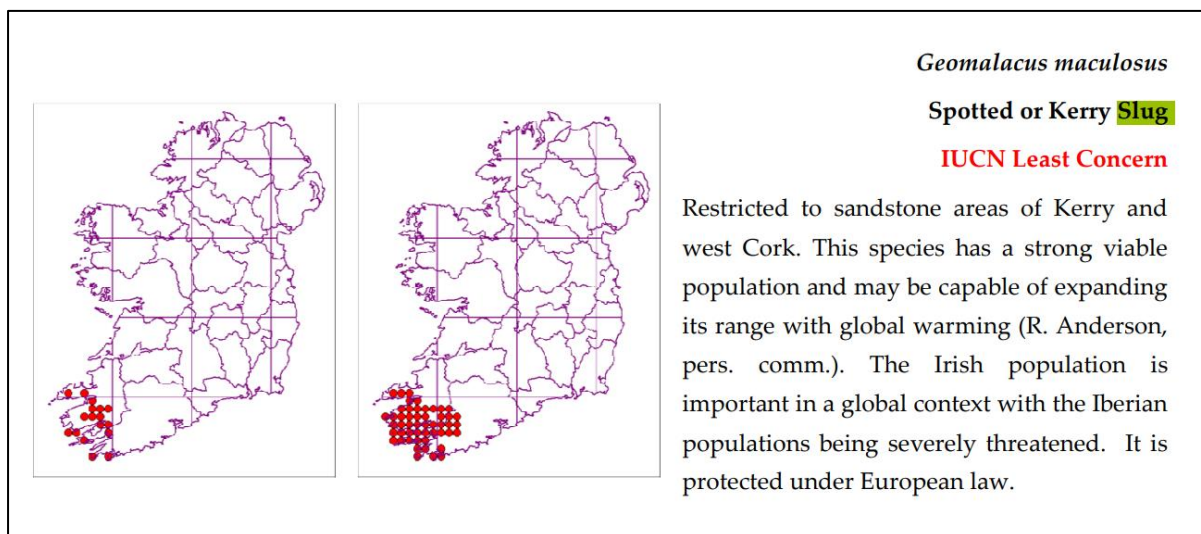


Figure 8. Distribution and Red List status of Kerry slug in Ireland (source: Red List of Irish Non-marine Molluscs 2009 - Byrne, et al., 2009). The distribution shown excludes populations that are considered to be introduced by humans.

In its most recent national assessments of EU protected habitats and species, for Kerry slug, NPWS (2025) has determined that:

Range: The species was recorded for the first time in three new hectads during the 2019-2024 period and this is considered a genuine increase in range. Expansion is occurring along the edges of the range (considered a combination of human-mediated introductions and overspill from large populations which have developed in conifer plantations). Favourable Reference Range = 5,900km².

Population: No national population estimate exists for this species, and it would be a considerable scientific and statistical challenge to produce one. With a range covering 5,900 km² it is not feasible to get presence/absence coverage of this complete range at the level of 1 km. As there has been a genuine increase in the range of the species and greater availability of habitat in the form of coniferous plantation, it is assumed the population has also increased but it is not possible to put a figure on this increase. Favourable reference population is unknown.

Habitat: Both the area and quality of occupied habitat is considered sufficient for long-term survival, and the long-term trend is stable. There is sufficient area of habitat of adequate quality to maintain a sufficient population.

Main pressures and threats and Conservation Measures: PI02 Other invasive alien species (other than species of Union concern) is identified. This pressure/threat is 'ongoing and likely to be in the future'. Influence is considered 'low'. No Conservation Measures are identified. As all pressures are low influence, additional conservation measures are not deemed necessary at this stage for the species.

Future Prospects: All three attributes are *Favourable* and the threats to the species are not severe. Future prospects are therefore *Good* for all parameters.

Overall Assessment of Conservation Status: Favourable; **Overall Trend in Conservation Status:** Improving.

The species is in **Favourable conservation status**. Its range is increasing and it is highly likely also that the population is increasing. Habitat is sufficient for long-term survival and there are no significant threats or pressures. The exact population of this species cannot be measured, which is often the case with invertebrate species. Thus, a Favourable Reference Population (FRP) cannot be calculated. The Overall Conservation Status of this species has been Favourable in all previous Article 17 assessments and the range and population (as assessed by distribution records) have increased over time. Therefore, even though the FRP will remain unknown, there is

no reason to believe that the species is not functioning in good status, or that it is, or is likely to be, the subject of overall negative impacts.

In relation to the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC [000365] within which the subject site is located, the Conservation Objective for Kerry Slug *Geomalacus maculosus* is “**To maintain the favourable conservation condition of Kerry Slug in Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC**”. NPWS (2017) notes that “the recorded distribution of Kerry slug (*Geomalacus maculosus*) is extensive within Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC. There have been records from 37 1km grid squares which overlap with the SAC”. No population related attributes or measures to maintain the favourable conservation condition of Kerry slug are listed in the Conservation Objectives for the SAC (NPWS, 2017).

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 (2025) 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.

To avoid or reduce predicted impacts on the local population, mitigation measures are proposed, as detailed in the following section.

7.3.2 Full and detailed descriptions of proposed mitigation measures that are relevant to the potential impact on the target species. Evidence that such mitigation has been successful elsewhere should be provided, where available

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.

There is no change in the mitigation measures which are proposed here relative to those which were recommended in support of the previously granted licence **DER-Kerry slug-2025-04**.

7.3.2.1 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.

The translocation and survey methodologies outlined in this report shall be fully adhered to.

7.3.2.2 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/boulders/trees, crevices/cracks, base of vegetation around boulders/rock outcroppings etc) to determine presence of Kerry slug. Particular attention will be given to features which provide cover such as any crevices, or where moss cover may be most dense, and under mats of moss and or flaking bark. Hand searches will be carried out under suitable weather conditions when this species is more likely to be active in the open, such as damp and humid conditions, on overcast warm damp days either during or after rain.

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.

7.3.2.3 Translocation

Where any Kerry slugs are encountered within future/active works areas, these will be carefully captured by hand and translocated to the nearest area of suitable habitat located 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). In all cases translocated slugs will be placed under cover, such as moss or other vegetation, at the receptor site to reduce the likelihood of predation or desiccation. Captured slugs will be relocated to receptor site as soon as possible after capture within the same day. This will minimise the level of disturbance to any specimens encountered. Suitable receptor sites to receive any captured Kerry slugs will be identified before translocation commences.

As per Reich *et al.* (2012), any specimens captured will be temporarily stored in clean, secure container containing carrot on which they can feed until translocation takes place as soon as possible on the same day. Bryophytes from the capture location will also be placed into the container if present to provide food, a source of moisture and shelter. Containers are to have sufficient ventilation. Gloves will be used when handling slugs.

On-going monitoring and translocation may be necessary as the project progresses into areas of suitable habitat within works areas. Such monitoring will be undertaken during suitable weather/ monitoring conditions to allow for the most effective translocation of Kerry slugs.

A full record of all translocations, including numbers captured, photo evidence of Kerry slug, capture and receptor coordinates will be kept and made available to NPWS.

7.3.2.4 Minimisation of Impacts on Kerry Slug Habitat

Vegetation removal will be undertaken in consultation with NPWS and under the supervision of the appointed ECoW. 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.

7.3.2.5 Summary

Mitigation has been proposed with regard to the appointment of a Project Ecologist/ECoW for the duration of the construction phase, pre-commencement checks for Kerry slug, translocation of individuals where these are encountered to nearby areas of suitable habitat, and measures to protect/minimise impacts on supporting habitat for Kerry slug within the development site.

The proposed development will not result in a significant loss of habitat for Kerry slug at the population level. Habitat loss/alteration effects on Kerry slug will be limited to within the construction footprint and therefore are unlikely to have impacts on Kerry slug outside of this area.

The overall assessment of Conservation Status for Kerry slug is '**Favourable**'. The overall trend in Conservation Status is 'Improving'. The species range is increasing, and it is highly likely also that the population is increasing. It is not considered that the proposed development will negatively affect the conservation status of Kerry slug at any geographic scale during any phase of the project.

7.4 Monitoring the Impacts of the Derogations

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

Monitoring will be carried out by an ecologist with experience of carrying out Kerry slug surveys and will comprise live traps under licence (number of traps and their placement will be determined by the licence holder) and/or hand searching. The monitoring surveys will establish the effectiveness of the mitigation measures.

It is proposed that post-construction monitoring will take place annually for 2-years post construction, subject to agreement with NPWS. A record of monitoring will be kept and made available to NPWS at the end of each monitoring year. Records will include the number of slugs observed, photo evidence and the coordinates of the traps/specimens recorded.

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