



southern scientific
services ltd

**Ecological Report to Inform an Application for
Derogation Licence
Under the European Communities (Birds and
Natural Habitats) Regulations 2011–2021 pertaining
to Kerry slug (*Geomalacus maculosus*)**

Requested For:	Kerry County Council
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Our Reference:	SSS-SKG-132

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2 Introduction

2.1 Objective of Proposed Works

Southern Scientific Services Ltd (SSSL) have been appointed by Kerry County Council as Project Ecologist for the South Kerry Greenway (SKG) project. The project is being completed in stages over a 4-5 year period.

The works for which this derogation is sought pertains to the South Kerry Greenway (SKG) which, when constructed, will stretch from Caherciveen, to the village of Glenbeigh, will comprise an approximately 27km long trail with a two-way shared cycling and walking route for use by walkers and cyclists. For part of its route the greenway will occupy the footprint of the now dismantled and abandoned Great Southern & Western Railway's (GS&WR) branch line that operated between Killorglin and Valentia Harbour, in the period from December 1893 to January 1960 including the sections that ran through the old railway tunnels at Drung Hill. While some of the route will use the original railway track alignment, use will also be made of urban paths, forest roads, and minor diversions on adjacent land and while not aligned with the existing N70 the abandoned rail line closely follows its route.

2.2 Name & Qualifications of Staff

The following table details the qualifications and experience of the Ecologists involved in preparing the licence application.

Team Member	Relevant Experience
Monica Kane	Monica Kane has a BSc in Zoology from UCC, a MSc from NUI Galway, UCC, University of Helsinki, Utrecht University. She is also a full member of CIEEM. Monica has been involved in Kerry slug surveys and licence applications for a number of projects including the South Kerry Greenway.
Timothy McCarthy	Timothy has a BSc (Hons) degree in Zoology received from University College Cork (UCC). Timothy has carried out a number of Kerry Slug surveys in Kerry for a variety of projects including South Kerry Greenway, quarries and construction.
Colette Murray	Colette has a BSc (Hons) degree in Zoology received from University College Cork (UCC) as well as a Master's Degree in Marine Biology, also from UCC. Colette has undertaken and led several Kerry Slug surveys in Kerry for a variety of projects. Colette currently holds derogation licences relating to Kerry Slug as part of the South Kerry Greenway Project.

3 Background to Proposed Activity

A planning application for the South Kerry Greenway (SKG) was submitted to An Bord Pleanála by Kerry County Council (KCC) on the 29th of August 2018. The application was accompanied by an EIAR prepared by Fehily Timoney and Company along with planning application documentation prepared by Kerry County Council. Malachy Walsh and Partners (MWP) completed the Biodiversity Chapter of the EIAR and the Natura Impact Statement (NIS) along with all associated ecological surveys. The SKG project was granted planning in November 2020.

The SKG project has been in the making since 2003 when it was included in the Objectives of the County Development Plan. Since then, a number of bodies both voluntary, community or public have worked on bringing the project to fruition. In August 2013 the Department of Transport, Tourism and Sport announced approximately €6.5 million in funding to local authorities to deliver cycle routes under the National Cycle Network Local Authority Funding Scheme 2014-2016. Following on from the work completed by the local development companies KCC made an application for funding under the scheme and in April 2014 funding was approved by the Department of Transport, Tourism and Sport.

The project has the full backing of National Policy and the support of KCC and Transport Infrastructure Ireland (TII). The grant of planning and successful Compulsory Purchase Order (CPO) process has placed the project as a priority for the communities of South Kerry. It is of a significant scale and importance in terms of social, economic, heritage and tourism for the region. The delivery of the project in stages over the next number of years will see the re-awakening of a historic piece of long abandoned infrastructure in South Kerry which is vital for South Kerry's social and economic standing.

The overall objectives of the SKG are as follows:

- Increase the economic contribution of tourism to the Irish economy, by increasing the value of tourism service exports, that is, by generating increased levels of overseas revenue.
- Provide a catalyst for the economic regeneration of the local economy by:
 - Successfully delivering a world class visitor experience
 - Supporting a tourism sector that is profitable and will achieve a sustainable level of growth and delivers jobs
 - Facilitating local communities to play an enhanced role in developing tourism in their area, thereby strengthening and enriching local communities
 - Recognising, valuing and enhancing the natural environment as the cornerstone of Irish tourism
- Maximise the economic potential of the project by:
 - Attracting the maximum number of visitors
 - Optimising the amenity value of the route
 - Designing the route for all users including the elderly and disabled as well as families with children
- Maximising the safety of the route

The project will provide a sustainable tourism product capitalising on the beautiful scenery of the area. It will maximise tourism numbers by being accessible to all users including families and the elderly and, as a primarily segregated route, maximising safety.

The greenway has the potential to provide the critical mass of tourism necessary to make marginal proposals viable and to stimulate growth of additional tourism products.

It will also maintain and create a viable demand for local services such as shops, schools, post offices and transport linkages vital for the future of sustainable rural communities.

4 Proposed Activity for Which Derogation is Sought

Sections of the greenway will be constructed above the road level on a substructure of rock filled gabions that will be supported by the existing profile over a length of approximately 850m east of Drung Hill tunnels and over a length of approximately 200m west of Drung Hill tunnels (see Figure 2). The ground on which the gabions will be placed against supports potential Kerry slug habitat. Due to the engineering design, rock breaking to accommodate the gabion structures will be required, therefore, it will not be possible to translocate the existing habitat to another location. While the gabions will be constructed outside the adjacent Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC for which Kerry slug is a qualifying interest, because the species is listed in Annex IV of the Habitats Directive it is strictly protected from injury, or disturbance or damage to any breeding or resting place wherever it occurs. The gabions occur within the Iveragh Peninsula SPA. The gabion solution will require the use of shotcrete concrete in some sections above the upper slope where fractured rock occurs to stabilise the rock for health and safety reasons. As a result, it will be necessary to provide mitigatory habitat to achieve a like for like exchange of habitat created for habitat destroyed. When constructed the gabions, which will extend over a 1km long footprint, will provide a surface area of approximately 5,000m² suitable for development as Kerry slug habitat.

An old stone wall associated with the original railway traverses the route in the townland of Gortaforia (see Figure 1). The wall at its closest point is 1km outside the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC. Approximately, 240m of the stone wall will have to be permanently removed to accommodate the Greenway. The wall provides suitable Kerry slug habitat and the species has been recorded on the wall. The stone from the stone wall will be temporarily stored at Golden's old quarry site compound before being placed in a permanent location on the western slope of the SKG track between Golden's and the Top of the Rock stream in the townland of Knockaneyouloo approximately 400m south of the original location.

It is for the above described that the application for a Derogation Licence under the European Communities (Birds and Natural Habitats) Regulations 2011–2021 is submitted. Derogation licenses for the works outlined above, have been granted previously (DER-Kerry-SLUG-2025-XXXX & DER-KERRY-SLUG-2025-02), however due to the nature of the project, these works were not able to be carried out during the period for which the license was issued. These works are expected to commence in 2026.

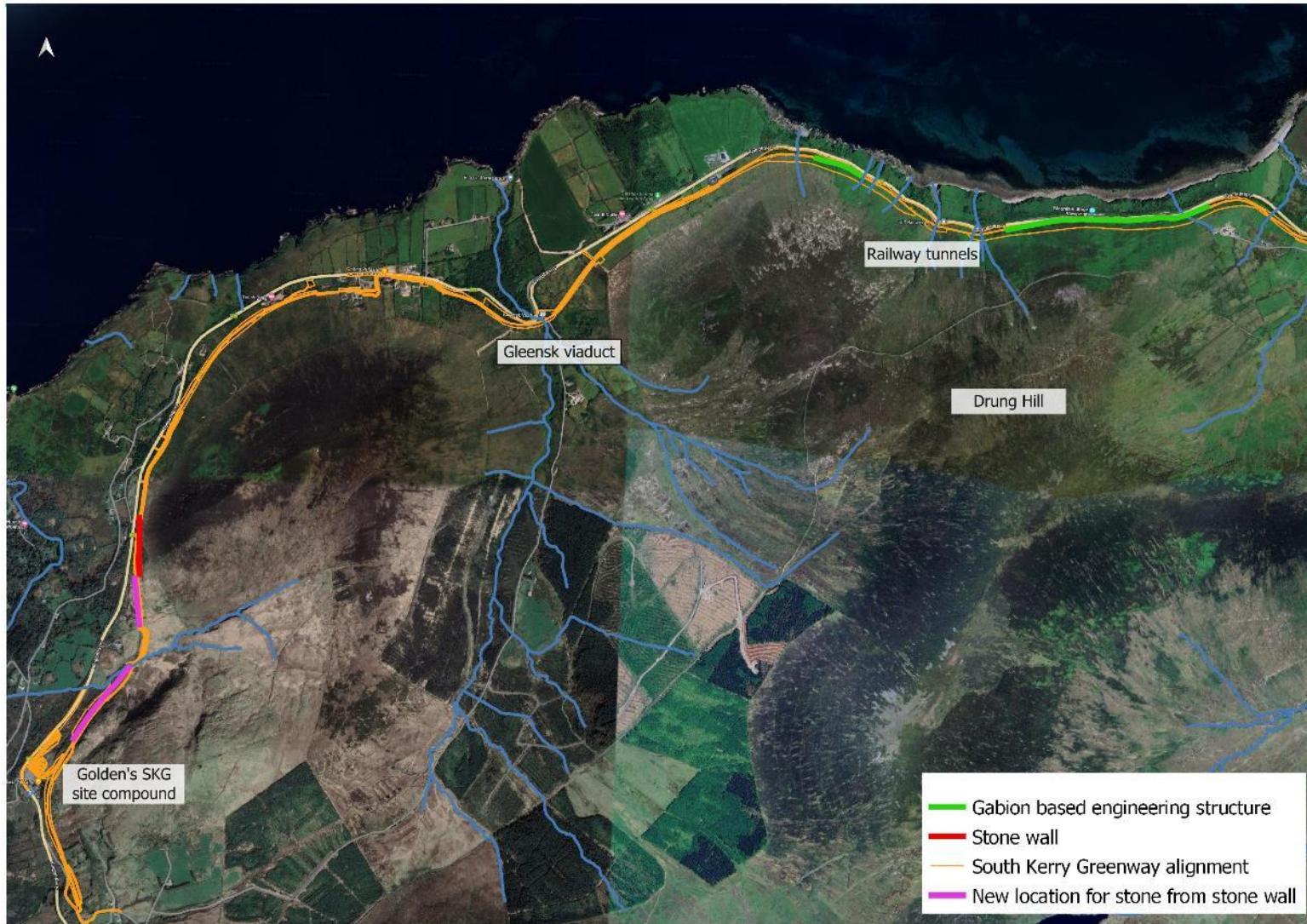


Figure 1. Location of Gabion structures and stone wall along with new locations for stone from the dismantled wall

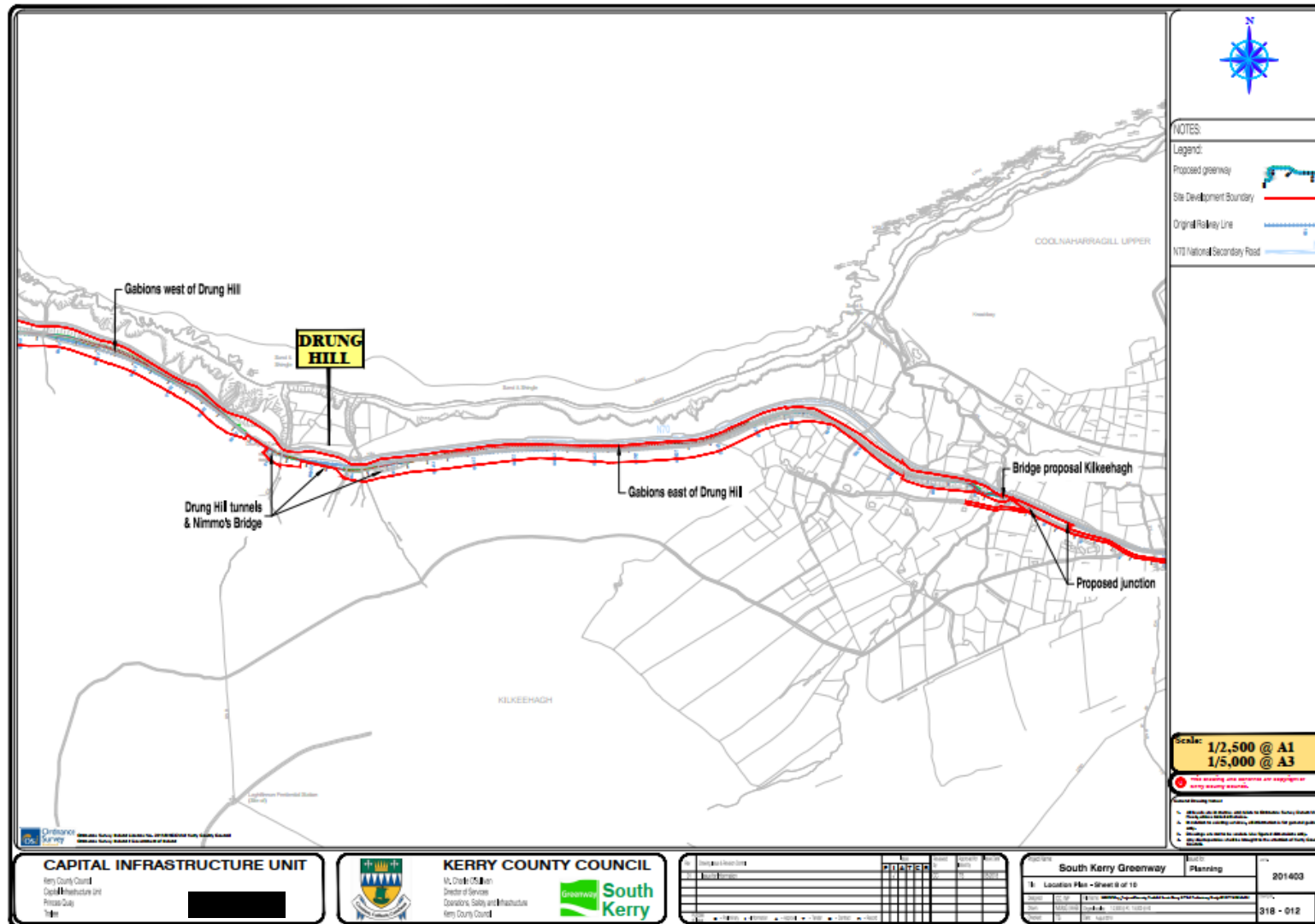


Figure 2. Location of Gabions west and east of Drung Hill tunnels

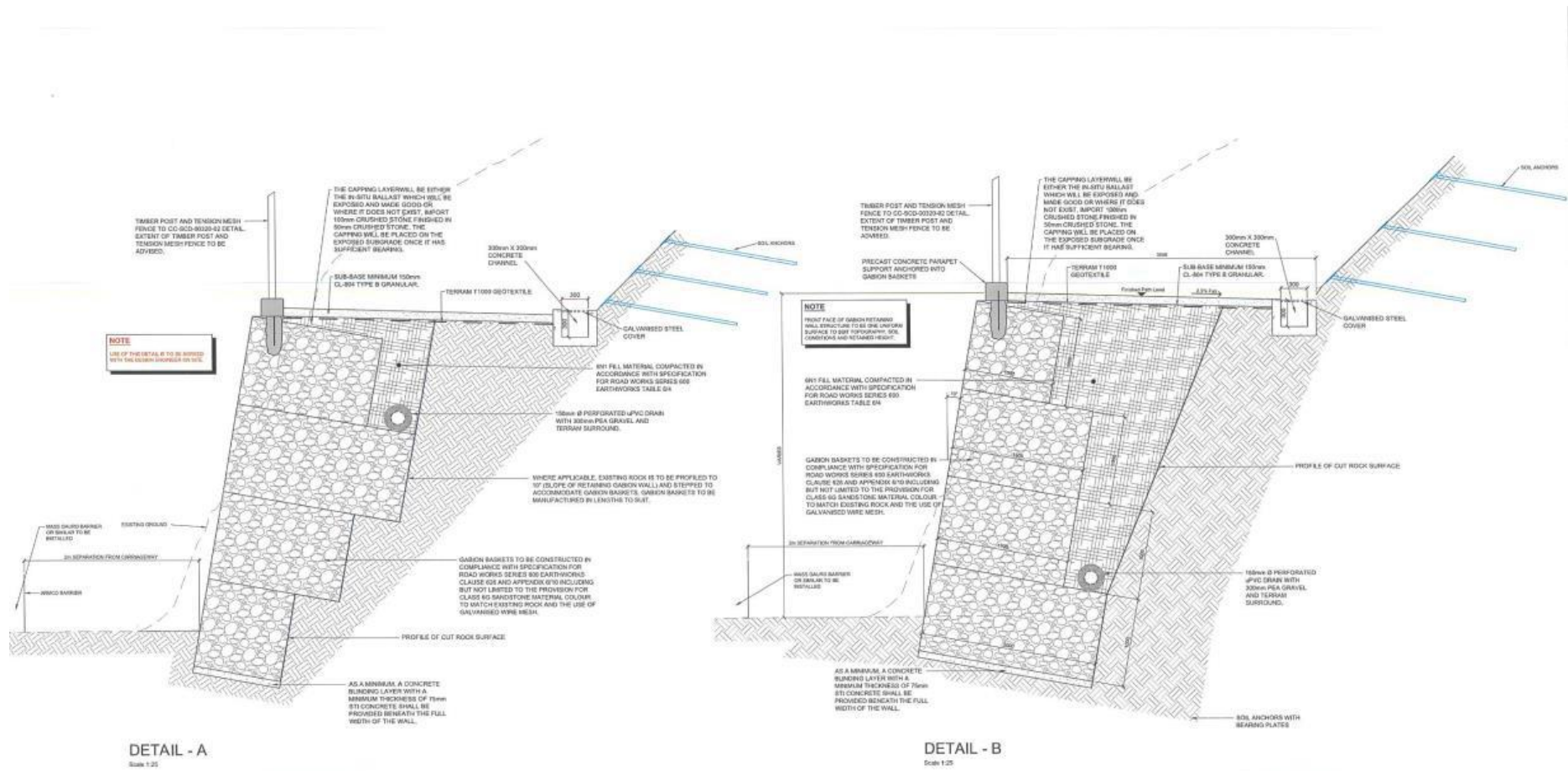


Figure 3. Typical Gabion Detail

4.1 Previously Awarded Licenses

In 2023 the Minister for Arts, Heritage and the Gaeltacht in exercise of the powers granted by Regulation 54 of the Habitats Regulations, then pertaining, granted Kerry County Council (KCC) a licence (Licence no. DER-KERRY-SLUG-2023-49) in respect of the Kerry slug authorising at the location specified above:

- a) disturbance.
- b) damage or destruction of breeding places.

Condition 2 of said licence stipulated that the authorised actions were to be carried out, on behalf of the licensee namely, KCC, by Malachy Walsh and Partners (MWP). Condition 7 stipulated that the authorised actions were to be completed between 5th of May 2023 and the 1st of May 2026.

Southern Scientific Service Ltd are the current Project Ecologists for this project, and have been issued two derogation licenses for this project (DER-KERRY-SLUG-2024-46 & DER-KERRY-SLUG-2025-02).

5 Ecological Survey & Site Assessment

5.1 Presence Absence & Refuge Trap Surveys 2014

As part of the ecological surveys for the greenway project a non-destructive Presence/Absence survey was initially carried out, in October 2014, in the Drung Hill area where two tunnels and a Retaining Shed associated with the, now abandoned, railway line are situated and are referred to generally as the Drung Hill tunnels. The area of overlap between the route corridor and the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC site and the area to the east and west, outside the European site boundary, was surveyed for the species and for the availability of suitable habitat for the rock dwelling variety of Kerry slug (black with white spots). The methodology was adapted from the National Road Authority's (NRA) guidelines on ecological surveying techniques for the Kerry slug (NRA, 2009).

While this initial survey was focussed on the area around the tunnels and the Retaining Shed, that survey was supplemented, in November, 2014, by a Refuge Trap Survey in the tunnels area and in two areas of woodland, one to the west of Glenbeigh (Behy Woodland) and the other to the west of Gleensk Viaduct that are situated outside the Drung Hill Tunnel/SAC overlap but located on the proposed Greenway route. This Refuge Trap Survey was undertaken under licence within optimal habitat types preferred by Kerry slug along the route corridor between Cahersiveen and Glenbeigh in order to establish presence/absence and, therefore, the potential distribution of the species.

No Kerry slugs were recorded during the initial surveys, in October 2014, and none were recorded under any of the Refuge Traps deployed in November, 2014. However, seven Kerry slugs were observed on exposed rocks and boulders to the east of the Retaining Shed on the 28th of November, 2014 when the Refuge Traps were being retrieved. The Kerry slugs were recorded in open view on remnant sections of the foundations and the stone walls built as part of a dismantled railway line. The area where the specimens were recorded is outside but in close proximity (20m north) to Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC site boundary and, while within the CPO (Compulsory Purchase Order) land, is not within the works area or the pavement's footprint. This area is one of the proposed translocation areas (see Appendix 1).

5.2 Habitat Surveys 2015

The species was also recorded in low numbers in an area of wet heath near the Gleensk Viaduct during habitat site walkover surveys conducted in October 2015 when <5 individuals were recorded. This location is not within the permitted development.

5.3 Metric Trapping Survey 2019

A Metric Trapping Survey, which commenced on the 22nd August, 2019, was carried out to the east of the Drung Hill Tunnels that is the subject of Derogation Licence No: DER/KERRY SLUG-2018-29. Following the methodology approved by licence 16 traps were deployed on the 22nd and 23rd of August. These were retrieved at the end of the fifth week. No specimens were found under any mat on any of the weekly site visits.

However, on each of the two days during which mats were being deployed specimens were recorded in plain sight. In total 3 individuals were recorded; one on the 22nd of August and two on the 23rd. One of the individuals recorded on the 23rd was observed at the same location as the specimen had been recorded on the previous day.

5.4 Metric Trapping Survey 2023

Flynn Furney Environmental Consultants were the Project Ecologists appointed to a trial section of gabion structures, which is now constructed. They completed metric trapping as part of the conditions of a Kerry slug licence (Licence no. DER-KERRY-SLUG-2023-49) of the trial area of Gabions constructed in Kilkeehagh on the lower slopes of Drung Hill. Trapping was undertaken prior to the commencement of the works and no Kerry slug were detected during the trapping.

5.5 Kerry slug Observations on Stone Wall 2023

A total of 3 No. Kerry slugs were observed along stone walls during pre-clearance ecological walkover surveys as part of the construction phase of the project. Of these, two observations were on the old stone wall associated with the railway boundary and within the greenway CPO temporary land take boundary. The stone wall is evident on the historic 6 inch mapping showing the railway on the eastern side and running in a north-south direction. It lies on a steep slope of roughly 60 degrees, is approximately 1-1.5m in height and up to 0.5m in width and supports lichen, moss and ample crevices for shelter and while it has collapsed in parts, for the most part it is structurally intact. The habitat on either side consists of bracken and scrub.

6 Evidence to Support Derogation Tests

6.1 Test 1 – Reason for Derogation

As per the Derogation license application for which this Supporting information document has been drafted, the reason for which this derogation is sought is

“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 objectives of the SKG project are as follows:

- Increase the economic contribution of tourism to the Irish economy, by increasing the value of tourism service exports, that is, by generating increased levels of overseas revenue.

- Provide a catalyst for the economic regeneration of the local economy by:
 - Successfully delivering a world class visitor experience
 - Supporting a tourism sector that is profitable and will achieve a sustainable level of growth and delivers jobs
 - Facilitating local communities to play an enhanced role in developing tourism in their area, thereby strengthening and enriching local communities
 - Recognising, valuing and enhancing the natural environment as the cornerstone of Irish tourism
- Maximise the economic potential of the project by:
 - Attracting the maximum number of visitors
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- Maximising the safety of the route

The project will provide a sustainable tourism product capitalising on the beautiful scenery of the area. It will maximise tourism numbers by being accessible to all users including families and the elderly and, as a primarily segregated route, maximising safety.

The greenway has the potential to provide the critical mass of tourism necessary to make marginal proposals viable and to stimulate growth of additional tourism products.

It will also maintain and create a viable demand for local services such as shops, schools, post offices and transport linkages vital for the future of sustainable rural communities.

The following sets out how this project is of significant interest and importance to the public and wider communities of South Kerry.

1.1.1 Sustaining local population

The SKG route travels between Glenbeigh and Cahersiveen through a mainly rural landscape with low population density with the exception of the towns of Glenbeigh and Cahersiveen. The railway line was once a lifeline to South Kerry and a vital transport link around which communities lived and relied upon for connectivity and commerce. The SKG will form a new connective link between towns and communities in this sparsely populated rural area. The route, like many other successful greenways will bring new tourism activity to the area and this will have localised benefits in terms of jobs and sustaining communities. It may also provide stability in areas where there is population decline and no immediate visibility for new economic or social stability.

1.2.1 Farm sustainability

The proposed scheme will provide the potential to promote farm diversification into agri-tourism by:

- providing additional direct employment opportunities through tourism development
- increasing direct demand for farm produce
- providing additional farm income by scheme maintenance
- providing an accessible recreational amenity for local use.

Farm sustainability and population support are positive outcomes for the proposed scheme in this part of South Kerry.

1.3.1 Health and wellbeing

The scheme provides a positive means of improving health and wellbeing for both the local population and visiting tourists. It is an excellent amenity in a very unique local setting along the coast of South Kerry. The views are stunning and the topography and landscape is varied along the route. Visitors and locals travelling along the route whether cycling, walking, running etc are experiencing fresh air, the environment, appreciating the heritage story of the former railway line and also gaining experience in the Local Towns and hinterlands of Glenbeigh and Cahersiveen. The off-road route gives potential for a wider engagement for this part of South Kerry for locals and tourists in a safe and engaging environment. The health benefits of cycling are universally recognised, and the promotion of cycling is enshrined at all levels of European and national policy. The Greenway will provide a safe predominantly segregated environment for cyclists and walkers and act as a stimulus to encourage greater participation in outdoor activity for locals and visitors to the area. Engagement in outdoor activities is a positive step in terms of wellbeing for the local communities along the route and for visitors.

1.4.1 Environment awareness

The re-use of this existing and abandoned infrastructure is positive in terms of sustainable development and bringing of value back to life. It provides a corridor or pathway for people to visit this part of South Kerry and experience the environment, the topography, the views and the flora and fauna long the route. The project will have information points along the route pointing out the features of importance in terms of ecology but also in terms of local geology and coastal features. The use of this greenway route will increase awareness on the environment in this part of South Kerry so is a positive aspect in terms of the environment. The project has been the subject of a very detailed Environmental Impact Assessment (EIA) Report and focussed ecological surveys. The design and re-use of the existing railway line infrastructure minimises intrusion into the landscape with new infrastructure and makes the best use of what naturally exists.

1.5.1 Culture and Heritage

The greenway includes the remains of significant elements of the former railway line and associated infrastructure and while it doesn't include protected structures, they are of local cultural heritage significance. These include features such as the line embankments and cut sections, the Drung Hill tunnels, small bridges, stone-built culverts and the extant rail buildings at Kells station.

The former line has been subject to a number of interventions since it closed in the 1960s, such as the removal of the tracks, a section removed by a road diversion, the construction of modern houses on its line and impacts by land improvement works. However, the rail line and its associated features survive as a relatively well-preserved landscape feature, although many sections have become overgrown and silted-in due to a lack of vegetation control and maintenance of drainage channels. As the railway line and many of its associated features are not protected, they are vulnerable to further impacts by localised developments, agricultural activity and general degradation by lack of maintenance.

The project will include repairs to the two rail viaducts at Valentia and Gleensk in order to repair and arrest ongoing corrosion damage to both of these Protected Structures and integration of the repaired railway viaducts into public accessible spaces as part of the greenway route is positive in terms of preserving and enhancing the heritage value of the original railway scheme.

The project will formalise the route of the railway line within the landscape and assist in halting the general decline of the physical remains of this element of the cultural heritage of the county.

1.6.1 Tourism and socio-economic benefits

Aside from the benefits for the local agricultural hinterland, the project will provide direct employment in the accommodation and food sectors of the local economy and, as an activity attraction, has the potential to extend the tourism season and provide increased year-round demand.

Government policy as outlined in 'Energising Ireland's Rural Economy' recognises the need for rural areas to capitalise on their indigenous assets in order to provide employment and rural regeneration. The route is located on and incorporates some of the most magnificent scenery of the world famous 'Ring of Kerry' tourist route. This is a unique local asset and one which can be utilised for the benefit of the local community.

1.7.1 Summary

The permitted South Kerry Greenway project is of significant value and public interest in the county of Kerry. The scheme will have positive effects in terms of the following:

- Sustaining local population
- Farm sustainability
- Health and wellbeing
- Environment awareness
- Culture and Heritage
- Tourism and socio-economic benefits

The project is of significant value in terms of social, economic and heritage and the delivery of the project will also enhance environmental awareness for locals and visitors over its lifetime. It is a good example of sustainable development making use of previously abandoned infrastructure

Finally, the greenway has been granted planning permission, Compulsory Purchase Orders have been completed on land along the proposed track, and a significant amount of construction work, for which a derogation license is not required has already been carried out. There has already been significant financial investment into the project and the works for which the derogation license is being sought will help to complete the project and allow for the full economic and social benefits this project will provide. It is the intention of KCC to open a section of the greenway in Kells in December 2025.

6.2 Test 2 – Absence of Alternative Solutions

A number of alternative solutions to this derogation were considered, and the reasons why they were deemed unsuitable are outlined below.

2.1.1 Gabions structure at Drung hill

6.2.1.1 *Do-Nothing*

This is considered unsatisfactory as this would prevent the completion of the SKG project. The areas for which this derogation license are being sought are present along the greenway path, and if these works are not carried out, then the greenway will be segmented and not fit for purpose. Furthermore, due to the considerable financial investment already put into this project, including the purchasing of land by Kerry County Council, this option was deemed unsuitable.

6.2.1.2 Proceed without mitigation

This is considered as unsatisfactory as previous surveys in the area for which this derogation is sought have identified Kerry slug present within the project site. As such, if the project were to proceed it could negatively impact Kerry slug populations in the local area.

6.2.1.3 Alternative design options

A number of alternative construction options along the base of Drung hills were considered to complete the greenway. These are details in the following sections.

6.2.1.3.1 Option 1. On- line on the existing Railway Line

Initially the existing line was explored in terms of suitability, however this section had stability issues due to the previous works completed adjacent to it when forming the bench below the railway line. That bench was part of the widening of the National Road, N70, at the time. It also had constraints in terms of the extent of rock material upslope and in the case of constructing a full width greenway to the specifications required would have led to some excavation into that upper slope areas depending on levels and topography.

In order to get the required greenway footprint width and infrastructure constructed on the existing line would have meant providing structural support on its outer north facing edge. In that scenario it would be necessary to bring a support structure in either reinforced concrete (RC) or in an engineered Gabion type structure from the Lower National Road at full height up to the railway line footprint. To do this would mean delivering a very extensive engineered support structure at this location which would stretch over a significant length and elevation. This type of structure would entail significant intrusive engineering works.

It would lead to a very large area of habitat loss, and it would be visually very intrusive in the landscape. In addition, it would also have a knock-on effect on local drainage and, long term, may not facilitate any habitat recovery.

This option was discounted for the following reasons:

- Concerns on stability upslope of the existing railway line plus tight corridor space to deliver the infrastructure required.
- Very large area of habitat loss.
- Visually intrusive in the landscape at this location on a scenic coastal drive.
- Local impacts on drainage.

6.2.1.3.2 Option 2. Bringing the Greenway down to the existing National Primary Road level

The option of bringing the greenway down from the upper railway line level to the public road for this section and then bringing it back online again further west was also explored at the time. This option had a number of issues.

From a design point of view the vertical alignment and gradients required could not be achieved.

From a traffic and health and safety perspective bringing the required 3m wide greenway infrastructure down to road level was not desirable and would introduce risk to the users of the greenway.

Given the width of the road at this location it would not be possible to accommodate the required footprint of the greenway on the ground with a safe setback from the road corridor.

One of the options explored was to excavate into the vertical face at road level and create the required space for the greenway with a set back from the road. This would require a support structure to be in place for the vertical face above the greenway and in so doing would lead to a linear section of vertical face RC or Gabion structure at height to provide slope stability and support. This type of structure over an extensive height and length would be visually obtrusive and would also entail a significant area of habitat loss. Local drainage issues would need to be dealt with and any risk of destabilising the shelf above would have to be accommodated in the design and construction solution. The civil engineering works would be extensive.

This option was discounted for the following reasons:

- Vertical alignment and gradients required for the greenway could not be achieved.
- Health and Safety and public risk adjacent to a busy National Primary Road.
- Engineering solution to develop a setback space/corridor at road level to accommodate a greenway corridor would lead to a significant engineered vertical support structure along this length and this would have engineering constraints and potentially larger knock-on constraints upslope.
- From a visual perspective an extensive support structure at road level along this section of a scenic route would not be desirable.
- Large footprint of habitat loss and localised impacts on drainage.

6.2.1.3.3 [Option 3. Use the mid-level bench for the Greenway](#)

The existing mid-level bench (above the National Road and below the railway line) was considered from an engineering, environmental and constructability perspective.

This existing bench will work from a vertical alignment and gradient point of view although it does still require an engineered support structure on its northern edge.

The support structure along the northern edge was examined in terms of an RC retaining/support wall or an Engineered Gabion wall system. The focus was to develop a solution that was structurally sound but with a minimum footprint and least loss of habitat. A further focus was a structure that could bring some potential habitat redevelopment/maturity over time for the benefit of the Kerry Slug at this location. The concept of the gabion baskets in this area and providing structural support to the middle bench route would mean a smaller footprint, less visual intrusion, lower habitat loss and also the potential that rock within the gabion's baskets could revert over time to suitable habitat for use by the Kerry slug. The smaller footprint and the proposed design cross section means that there is less intrusive excavation into the slope to stitch in or mesh the gabions to the landscape and thus the constructability of this type of solution at this location is the most optimal solution. This solution will also require the use of shotcrete concrete in some sections above the upper slope where fractured rock occurs to stabilise the rock for health and safety reasons.

The design approach of this option was the preferred one, based on what's set out above and based on the key points below:

- The vertical alignment and design gradients along with the required corridor space for the greenway could be achieved.
- The gabion solution was the least intrusive from a constructability perspective.

- From a visual perspective the gabion solution would have the least footprint and over time the potential for revegetation or colonisation by plants would ultimately soften the landscape and blend in.
- From a habitat perspective the smaller footprint of a structure was more desirable and that in tandem with a gabion solution with local stone fill material would mean that there is potential for the gabion areas to become suitable or viable habitat for Kerry slug use over time.
- Using the mid-level bench corridor avoided potential rock fall or slope instability risk associated with the lands above the rail line route.

6.2.1.4 Discussion

From the outset the design team within Kerry County Council in conjunction with the engineers in MWP focussed on the least impact solution be it from an engineering, visual, habitat, or environmental perspective. The solution for this stretch of the greenway had to be deliverable on the ground within the constraints of good design parameters, environmental and ecological constraints. It also had to have a finished product that was safe to use for all, and one that could be managed over its' lifetime.

While there is no perfect solution for this section of the greenway given its' topography, habitats, visual sensitivity, proximity to the National Road and constraints, the middle bench level route, combined with a Gabion based engineering solution, was the only viable and deliverable solution.

Accordingly, the Option 3 solution is the only available option for works and no suitable alternative exists.

2.2.1 Old Stone Wall

6.2.2.1 Do-Nothing

This is considered unsatisfactory as this would prevent the completion of the SKG project. The areas for which this derogation license are being sought are present along, and close to, the greenway path, and if these works are not carried out, then the greenway will be segmented and not fit for purpose. Furthermore, due to the considerable financial investment already put into this project, including the purchasing of land by Kerry County Council, this option was deemed unsuitable.

6.2.2.2 Proceed without mitigation

This is considered as unsatisfactory as the stone wall is considered suitable Kerry slug habitat, and previous surveys have recorded Kerry slug present on the wall. Were the project to proceed without mitigation, then it would result in the loss of suitable Kerry slug habitat, with no replacement habitat created. This is considered unsuitable as it would negatively impact the species.

6.2.2.3 Alternative design options

The final option considered was to alter the proposed route of the greenway, similarly to how it was considered for the gabions above. This was considered unsuitable as much of the former railway track has been dug away some years ago to facilitate upgrading and widening of the N70 resulting in a steep slope from the edge of the N70 up to the stone wall and beyond up the mountain side. The task is to construct the new greenway on the side of this steep slope, which will involve steepening the slope even further on the eastern side to provide a 4m wide level platform to construct the greenway. The slope will be stabilised with significant engineering works involving soil nailing of the new cut slope. The steepest slope possible would be at 60 degrees to the horizontal and the top of the new cut slope

would undermine the existing stone wall, thus the stone wall will need to be removed. This is apparent from the attached cross-section at this location (see Appendix 2).

If the cut slope could be steepened from 60 degrees to 70 degrees or more, which would provide very unsafe working conditions during the construction phase, the top of the cut slope would only just be on the western side of the existing stone wall. If it were left sitting on the top of the cut slope, the stone wall, which is currently very unstable, would pose substantial risk to the Health and Safety of greenway users on completion of the project.

6.2.2.4 Discussion

The planned greenway just west of the stone wall is located above the N70 on a steep hill slope of about 60 degrees. There is no other alternative design for this approach due to the proximity of the N70 to the west of the Greenway and the steeply rising slope to the east.

6.3 Test 3 – Impact of a Derogation on Conservation Status

3.1.1 Conservation Status of Kerry Slug

The latest report into the status of EU protected species (NPWS, 2025) has concluded that there are no significant pressures on Kerry slug and the overall conservation status remains Favourable and is improving.

Specific mitigation measures have been developed and will be implemented to ensure the derogation licence will not be detrimental to the maintenance of the population of Kerry slug or affect the species favourable conservation status within its range. The mitigation measures for Kerry slug are set out in the following sections.

3.2.1 Appointment of Project Ecologist

A Project Ecologist (PE) with appropriate experience and expertise will be employed on site for the duration of the construction phase to ensure that all the mitigation measures outlined are implemented. The Project Ecologist will be awarded a level of authority and will be allowed to stop construction activity if there is potential for adverse environmental/ecological effects. The PE will provide all personnel involved in the construction with an ecological toolbox talks and to ensure that the proposed mitigation measures are adhered to.

SSSL have been appointed as Project Ecologist for the SKG project by KCC. An external contractor will be appointed in 2026 to construct the section of greenway between Griffin's cottage and Kells Post Office and will appoint their own Project Ecologist. SSSL will have an oversight role on this contract ensuring that all mitigation measures as set out in the project EIAR, NIS, planning conditions and derogation or wildlife licences are implemented.

3.3.1 Ensuring Appropriate Mitigation is Undertaken

For all aspects of construction that relate to the Kerry slug including the gabion structures and stone wall, a contractor's Method Statement (MS) will be approved by a competent malacologist and the work supervised by a suitably qualified clerk of works with a full understanding of the malacological requirements. Dr. Evelyn Moorkens, a suitably qualified malacologist, was appointed by Flynn Furney to review the MS for the trial area of gabions, which are now constructed.

3.4.1 Mitigatory Habitat

6.3.4.1 Gabions

When constructed, the gabions, which will extend over a 1km long footprint, will provide a surface area of approximately 5,000m² suitable for development as Kerry slug habitat. The gabions will be constructed using sandstone blocks which will provide good gaps for the species and will be partially painted with yoghurt (containing live bacterial cultures) as required to encourage early colonisation with moss and lichen. Where practical, during the proposed pre-construction survey any loose vegetation or moss will be removed and stockpiled within suitable Kerry slug habitat for the duration of the construction. This will be translocated to the new gabion walls when construction is complete in order to assist with the development of suitable slug habitat.

6.3.4.2 Mitigatory Habitat for Stone Wall

The stone from the stone wall will be temporarily stored at Golden's old quarry site compound before being placed in a permanent location on the western slope of the SKG track between Golden's and the Top of the Rock stream in the townland of Knockaneyouloo approximately 400m south of the original location (see Figure 1).

The stone wall will be carefully dismantled to ensure the protection of lichen and attached moss. The stone will be placed right side up to ensure preservation of the lichen and moss where feasible. The dismantling, transport and temporary storage of the stone will be done under the supervision of the Project Ecologist.

The stone will be moved from the temporary storage area at Golden's SKG site compound to the new permanent location west of the greenway north of the site compound and placed right side up. This work will be done under the supervision of the Project Ecologist.

3.5.1 Preconstruction Surveys

6.3.5.1 Gabions

The construction phase, without mitigation works, could result in the death of low numbers of Kerry slug due to the placement of the gabions and machinery movements in areas of suitable habitat. Measures outlined in the following paragraphs will be undertaken to minimise this potential impact on the local Kerry slug population.

Pre-construction surveys will be conducted where the placement of the gabion baskets will result in the loss of existing Kerry slug habitat. The gabion wall construction will be completed in stages and each works stage will be influenced by the ground conditions, stability and access. Two 75m sections will be constructed at the same time rather than one 75m sections so works along the N70 can be completed sooner. Dr. Evelyn Moorkens has reviewed this proposal and is satisfied that it will not pose additional risk to the Kerry slug. A letter from her to this effect including a number of conditions is presented in Appendix 3. Each section will be constructed from road level from the southern verge of the N70 upwards. As the gabion wall reaches design height the works area will move accordingly.

The pre-construction surveys will investigate the presence/absence of Kerry slug in each works stage in advance of the works and will comprise a 6 week programme of metric trapping followed by hand searching, described in Section 6.3.6 and 6.3.7.

The construction works will not progress without the express permission of the PE and will not advance along the footprint into unsurveyed areas under any circumstances.

6.3.5.2 Stone wall

During dismantling of the wall, and without mitigation, works could result in the death of low numbers of Kerry slug. It is proposed that pre-construction surveys should be conducted along the stone wall prior to it being dismantled and removed. The pre-construction surveys will investigate the presence/absence of Kerry slug in the wall in advance of the works and will comprise a 6 week programme of metric trapping followed by hand searching, described in the following sections.

The dismantling of the wall will not progress without the express permission of the PE.

3.6.1 Metric Outcrop Trapping

These traps were developed and described in recent studies by McDonnell and Gormally (2011a and 2011b); detailed trap specifications are provided in McDonnell and Gormally (2011a). The traps comprise synthetic mats designed to attract slugs. The mats are double-sided LDPE polymer, with one side perforated to absorb heat and the other side composed of an aluminium coating to reflect heat. The lining of the mats is composed of synthetic wool. The mats are soaked in water prior to placement in selected areas that may contain Kerry slugs. The mats are pegged to ground surfaces or fixed to boulders. Kerry slugs, where present, crawl under the mats and are attracted to the heat given off when the moisture in the mat warms up, due to the composition of the material.

Six weeks prior to the commencement of works at both the gabions and stone wall metric outcrop traps will be baited with organic carrot and installed, under the supervision and control of the PE, to determine the presence/absence of this species within each 75 m section. Traps will then be checked on a weekly basis and the inspections will be timed to occur in the morning; the bait will be replaced each week and the underside of each trap will be moistened for 15 seconds using a mist gun filled with deionised water after each inspection as per Reich *et al.* (2012). For the gabions, the trapping will advance in tandem with construction.

If the metric trapping is undertaken during the period spring to autumn, if no Kerry slugs are found beneath the traps after 4 – 6 weeks it is likely the species is not present within the section surveyed (McDonnell & Gormally, 2011a).

3.7.1 Hand Searching

6.3.7.1 Gabions

On the basis of the precautionary principle, the pre-construction survey will include a hand search of the exposed rock and glacial till and scree within each 75 m section which will be undertaken in suitable weather (damp and mild). The hand search will involve checking any crevices present and any mosses or other vegetation present as per Reich *et al.* (2012). Where practical, during the pre-construction survey any loose vegetation or moss will be removed and stockpiled within suitable Kerry slug habitat for the duration of the construction. This will be translocated to the new gabion walls when construction is complete in order to assist with the development of suitable slug habitat.

6.3.7.2 Stone wall

Similarly, hand searching of the wall will be undertaken at the stone wall in suitable weather conditions and will involve checking any crevices present and any mosses or other vegetation present as per Reich *et al.* (2012). Where practical, during the pre-construction survey any loose vegetation or moss will be removed and stockpiled within suitable Kerry slug habitat until the stone is placed in the permanent new location and will be translocated as appropriate.

3.8.1 Translocation

6.3.8.1 Gabions

Any Kerry slugs found during the surveys described above 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. As the newly created mitigatory habitat for Kerry slug will take time to develop, the Kerry slugs will need to be translocated to the two areas where a population had been identified previously. Any specimens captured during the surveys will be moved to the translocation area as shown in Appendix 1. Two translocation sites are identified:

- Translocation Site No. 1: this is an area of exposed rock on the western side of the middle tunnel.
- Translocation Site No. 2: this is a more extensive area of exposed rock and heath habitat on the upper slope of the planned Greenway.

These have been identified as the most suitable translocation areas and the closest to the survey corridor, and Kerry slug has been found in these areas during previous surveys. As these locations are within the SKG CPO, but outside the works footprint, and are in relatively close proximity to the area that will be the subject of the surveys it will minimise the level of disturbance to any specimens found. As per Reich et al. (2012) any specimens captured will be temporarily stored in a plastic container filled with moss and fed on a diet of carrots until translocation takes place on the same day.

6.3.8.2 Stone wall

Any Kerry slug found during trapping and hand searching of the stone wall will be removed to the translocation sites described above.

6.3.8.3 The greenway outside of these areas

In the unlikely event of finding a Kerry slug elsewhere within the greenway CPO, outside of areas of suitable Kerry slug habitat, namely the gabion areas and the stone wall as described above, it will be translocated to one of the two translocation sites.

3.9.1 Potential Impact on Conservation Status

Given the overall conservation status of Kerry slug as Favourable and improving (NPWS, 2025), together with the mitigation measures outline above, as well as the relatively low population levels for Kerry Slug in the area, as outlined in section 5 of this report, it can be determined that the proposed project will not be detrimental to the maintenance of the Kerry slug population to which the Habitats Directive relates at a favourable conservation status in their natural range .

7 Monitoring Impacts of Derogation

Using the survey methods outlined in Section 6.3 above, a monitoring and reporting programme for the mitigation proposed shall be undertaken, subject to the terms of any derogation licence for this project.

8 References

McDonnell, R. and Gormally, M. (2011a). Distribution and Population Dynamics of the Kerry slug, *Geomalacus maculosus* (Arionidae), Irish Wildlife Manuals No. 54, National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin

Reference No: SSS-SKG-132

McDonnell, R.J. and Gormally, M.J., (2011b) A live trapping method for the protected European Slug, *Geomalacus maculosus* Allman, 1843 (Arionidae). *Journal of Conchology*, 40 (4): 483-485

National Parks and Wildlife Service (NPWS) (2019). The Status of EU Protected Habitats and Species in Ireland. Species Assessments Volume 3. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.

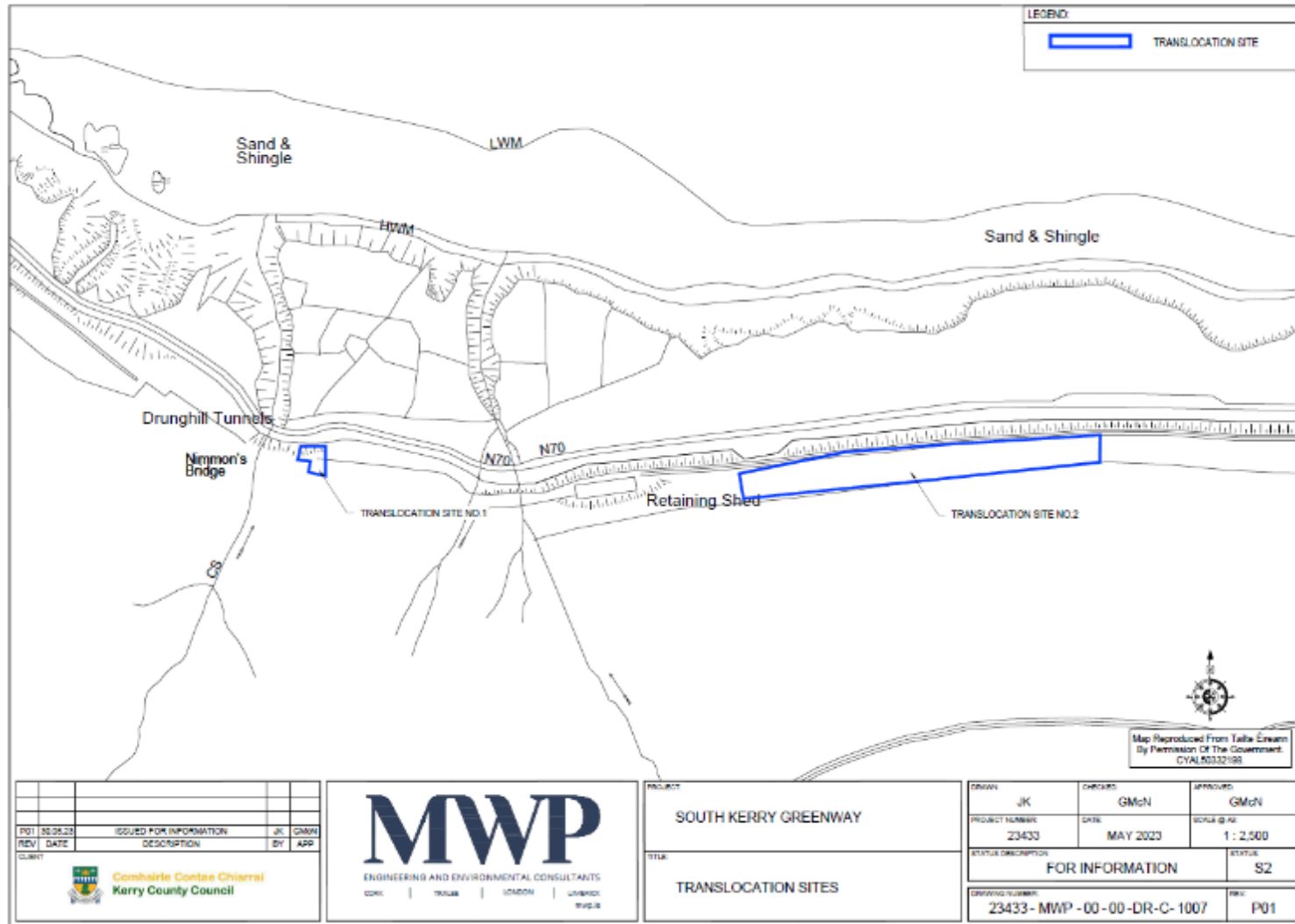
NPWS (2025). The Status of EU Protected Habitats and Species in Ireland.

National Roads Authority (NRA) (2009). Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of national Road Schemes. National Roads Authority.

Reich, I., O'Meara, K., Mc Donnell, R.J. and Gormally, M.J. (2012). An assessment of the use of conifer plantations by the Kerry slug (*Geomalacus maculosus*) with reference to the impact of forestry operations. Irish Wildlife Manuals, No. 64. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Ireland.

Appendix 1

Map of Kerry slug translocation sites



P01	30.05.23	ISSUED FOR INFORMATION	JK	GMN
REV	DATE	DESCRIPTION	BY	APP
CLIENT				

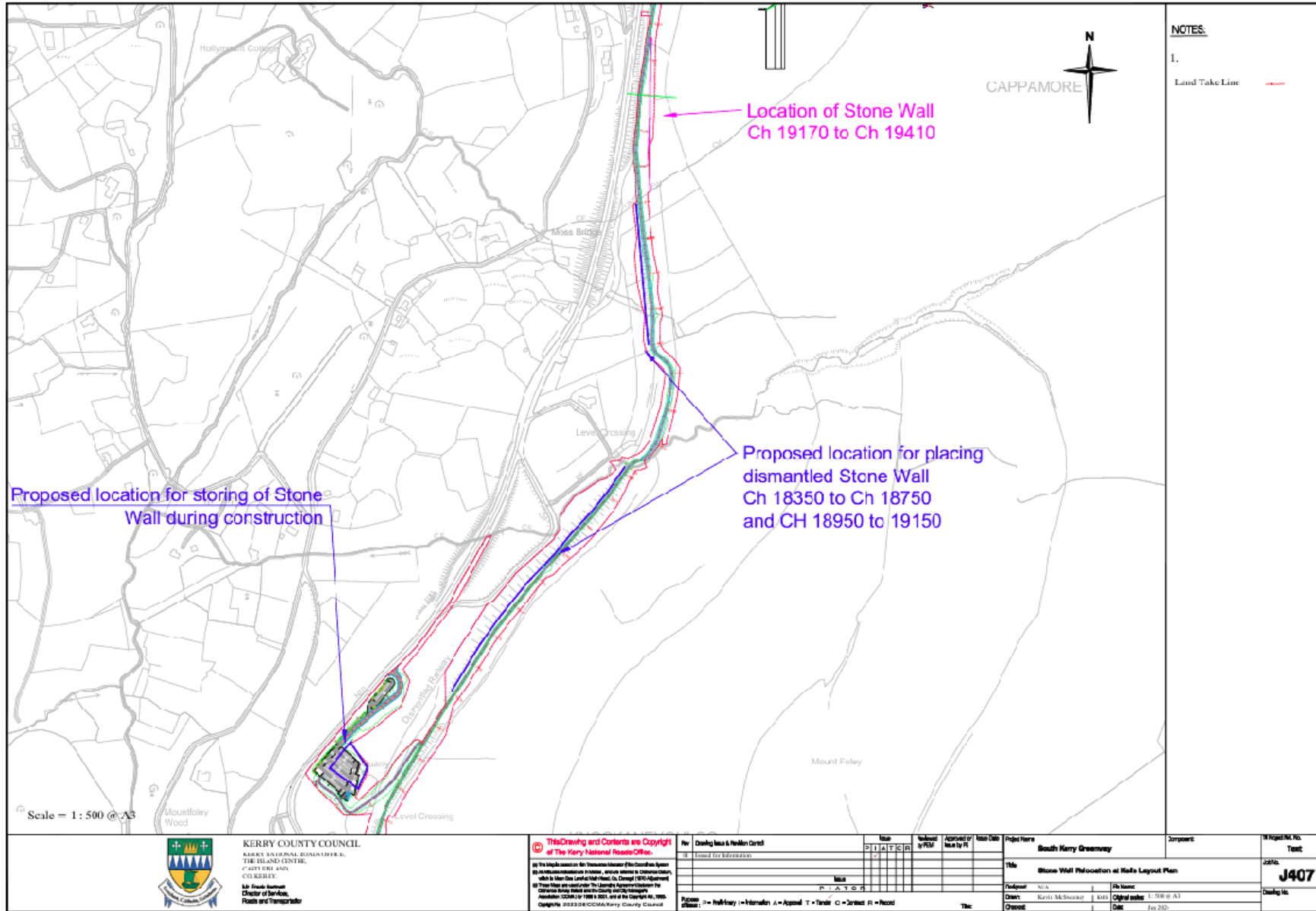
MWP
ENGINEERING AND ENVIRONMENTAL CONSULTANTS
CORC. | TOLLAR | SCAMON | LIMERICK | WEXFORD

PROJECT	SOUTH KERRY GREENWAY
TITLE	TRANSLOCATION SITES

DRAWN	JK	CHECKED	GMcN	APPROVED	GMcN
PROJECT NUMBER	23433	DATE	MAY 2023	SCALE @ NO.	1 : 2,500
STATUS DESCRIPTION				STATUS	
FOR INFORMATION				S2	
DRAWING NUMBER					REV
23433 - MWP - 00 - 00 - DR - C - 1007					P01

Appendix 2

Map and photographs of Kerry slug recorded from Stone Wall



NOTES:
 1. Land Take Line

Scale = 1 : 500 @ A3



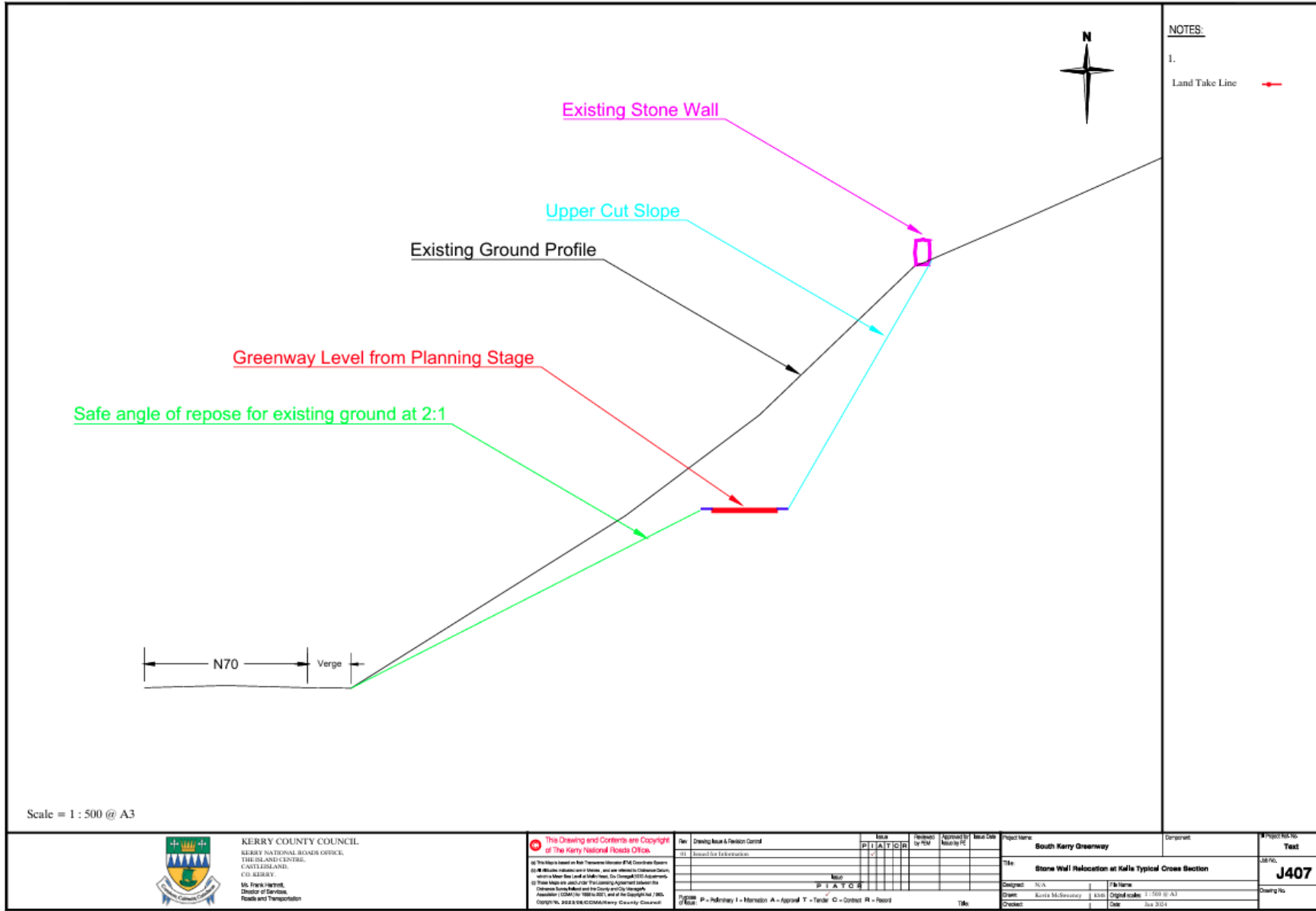
KERRY COUNTY COUNCIL
 KERRY REGIONAL ADMINISTRATION
 THE ISLAND CENTRE,
 CASTLE ROAD,
 COLLIERAY,
 CO. KERRY.
 Mr. Frankie Sweeney
 Director of Services,
 Roads and Transport

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Rev	Description	Date	Drawn by	Checked by	Approved by	Scale
1	Design Issue & Problem Detail					
2	Issued for Information					

Project Name	South Kerry Greenway
Title	Stone Wall Relocation at Moss Layout Plan
Drawn	Kevin McSweeney
Checked	
Original scale	1:500 @ A3
Date	Jan 2023

Project No. Vc
 Test
J407
 Drawing No.



KERRY COUNTY COUNCIL
 KERRY NATIONAL ROADS OFFICE,
 THE ISLAND CENTRE,
 CASTLEBLAND,
 CO. KERRY.
 Mr. Frank Harriott,
 Director of Services,
 Roads and Transportation

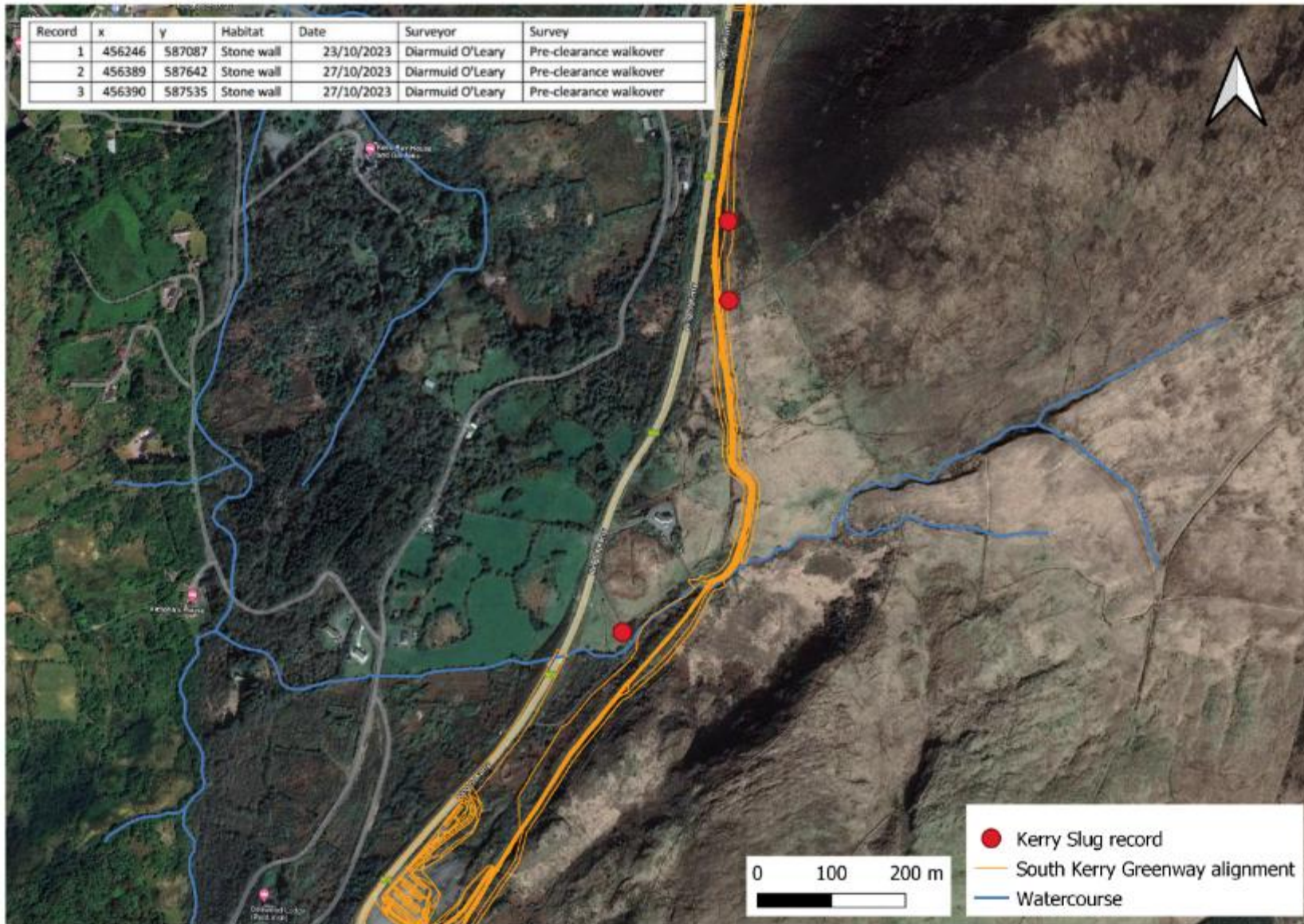
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Rev	Drawing Name & Revision Control	Issue	Reviewed by	Approved by	Issue Date
01	Revised for Information	P I A T C R			
P I A T C R					

Project Name:	South Kerry Greenway
Title:	Stone Wall Relocation at Kalls Typical Cross Section
Design:	N/A
Drawn:	Karla McCreary
Checked:	

Project Ref No:	Text
Job No.:	J407
Drawing No.:	
Date:	Jan 2024

Reference No: SSS-SKG-132



Reference No: SSS-SKG-132



Plate 1. View from upper side of stone wall facing south



Plate 2. View from upper side of stone wall facing north

Reference No: SSS-SKG-132



Plate 3. view of upper part of stone wall towards N70



Plate 4. Kerry slug photographed on stone wall (27/10/2023)

Reference No: SSS-SKG-132



Plate 5. Kerry slug photographed on stone wall (27/10/2023)

Appendix 3

Letter from Dr. Evelyn Moorkens, Malacologist

DR EVELYN A. MOORKENS B. A. (Mod.). H. Dip. (Ed.), M. Sc., PhD

123, Rathdown Park,
Greystones,
Country Wicklow A62 PO43
Ireland.



Evelyn Moorkens
& Associates

Monica Kane BSc MSc MCIEEM
Kane Williams,
3 Godfrey Place,
Tralee,
Co. Kerry.

26/10/23

Dear Monica,

I am writing to provide an expert opinion as a specialist malacologist with over 30 years' experience in working with the Kerry slug *Geomalacus maculosus*.

The question you asked was whether the construction of the gabion section along the foothills of Drung Hills resulting in the destruction of potential habitat for the Kerry slug would need to be carried out sequentially in 75m sections, or whether it could be carried out with equal protection for allowing egress of slugs if it were done in two 75m sections at a time.

The planning conditions (p72 of the biodiversity chapter in the EIAR) require "... a works area of approximately 75m in length at any one time with the eastern side reaching design height first, and moving sequentially." The mitigation commitments also state "For all aspects of construction that relate to the Kerry slug, a contractor's Method Statement would need to be approved by a competent malacologist and the work supervised by a suitably qualified clerk of works with a full understanding of the malacological requirements."

I can state that from a malacological perspective that there would be no additional risk to the Kerry slug from working in two 75m sections at a time providing:

- 1) Both sections are undertaken sequentially from east to west with one beginning at the eastern end and the other beginning at the half way point.
- 2) All 75m sections are thoroughly checked for slugs in advance of working that section, as per the mitigation methodology.

Reference No: SSS-SKG-132

- 3) Works are carried out using the SOWOR system (schedule of works operation record), operated by the project ecologist / ecological Clerk of Works, as per the mitigation methodology.
- 4) The project ecologist / ecological Clerk of Works needs to have competency in Kerry slug ecology and in the operation of a SOWOR, as per the mitigation methodology.
- 5) The Project Ecologist / ecological Clerk of Works should provide sufficient training to the construction staff to enable them to understand the ecological sensitivities relating to the Kerry slug.
- 6) As required, the contractor's Method Statement for this task would need to be approved by a competent malacologist in advance of the commencement of this work item.

Please do not hesitate to contact me if you have any queries or matters arising.

Yours sincerely,

A handwritten signature in cursive script, appearing to read 'Evelyn Moorkens', written in black ink.

Evelyn Moorkens