southern scientific services ltd

Supporting Information Document

Kerry Slug Derogation License Application

at

Glancuttaun Lower, Killorglin, Co. Kerry

Requested By:	Gerard Naughton & Sons Ltd.
Prepared By:	Timothy McCarthy BSc Southern Scientific Services Ltd.
Our Reference:	25P-012

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Contents

1 Introduction

1.1 Objective of Works

The objective of the proposed works for which this derogation license is sought is to expand the current boundaries of an existing quarry located at Glancuttaun Lower, Killorglin, Co. Kerry. The existing quarry is for extraction of sand and gravel aggregates using conventional excavation techniques and processing of same using conventional crushing, screening and washing plant on site. The aggregates will be predominantly used to support the applicant's construction business.

1.2 Qualified Persons

During the preparation of this application several staff members of Southern Scientific Services Ltd. have been involved.

Colette Murray MSc: 3 years of experience working as an Ecologist. BSc in Zoology and MSc in Marine Biology. Carried out initial Kerry Slug surveys for Phase 1 of this quarry development as part of the derogation license issued at the time. Also holds derogation license for the South Kerry Greenway Project with Kerry County Council.

Timothy McCarthy: 1.5 years experience working as n Ecologist. BSc in Zoology. Carried out Kerry Slug Surveys as part of this application, and also for the South Kerry Greenway project with Kerry County Council.

1.3 Disclaimer

Surveys for the Kerry slug can be carried out all year round. They should be conducted during damp and humid conditions. Periods of excessive cold or drought should be avoided as survey efficiency during these periods is considerably reduced. Whilst surveys can be carried out on

cloudy, damp days, the efficiency of these searches will be lower than for nocturnal surveys (National Roads Authority, 2008).

2. Background

In 2018 Gerard Naughton & Sons Ltd applied for planning permission (18/1292) for a quarry at Glancuttaun Lower, Killorglin, Co. Kerry (V 77874 90824). An EIAR was submitted as part of the planning application. A pre-planning survey for Kerry Slug (*Geomalacus maculosus*) was carried out by Dixon Brosnan on the 30th of May 2018, but this survey did not identify Kerry Slug on the development site, and it was noted that due to a lack of rock substrate the on-site conditions were suboptimal.

In 2019 Gerard Naughton & Sons Ltd received planning to develop a quarry on the site subject to 23 conditions.

Condition 20 of planning permission relates to the Kerry slug (*Geomalacus maculosus*) identified on the site, as stated below:

> "Details of pre-development Kerry Slug Surveying shall be submitted to and agreed in writing with the planning authority prior to commencement of development. This shall include the following:-
>
> (a) Immediately prior to the stripping of overburden, a suitably qualified ecologist shall check for the presence of Kerry Slug using suitably located baited metric traps under license from the NPWS and in accordance with best practice methodologies.
>
> (b) Should Kerry slugs be discovered, they shall be transferred to suitable habitat in the surroundings along with suitable boulders, unless otherwise agreed with NPWS.
>
> (c) Works shall be carried out in compliance with any conditions set out in a NPWS license.

Southern Scientific Services Ltd (SSSL) was commissioned by Gerard Naughton & Sons Ltd, to conduct pre-development Kerry slug surveys on the proposed development site as per Condition 20 of the planning permission. Surveys were conducted (under licence) across the entire site (i.e., the Phase 1, Phase 2, and Phase 3 areas, see Figure 1). These surveys aimed to identify if Kerry Slugs were present on the quarry site.

The Kerry Slug was identified on the development site in Phase 1 & Phase 3 areas but not in Phase 2. Following this confirmation, a Derogation Licence to Disturb Kerry Slug was then applied

for. This licence allowed for the trapping and transportation of Kerry Slug from the development site to a suitable site outside the development area. A suitable translocation site was identified within the land ownership but outside the footprint of the work. Surveys of the translocation site also confirmed that Kerry Slugs were on the site prior to translocation.

Surveys of Phase 1 took place over 4 days in June 2019. A total of 52 Kerry Slugs were collected and moved to the translocation area. Nine slugs were found using metric traps, whilst forty-three slugs were found using hand searching.

Following this suitable refuge boulders from the Phase 1 area of the development were moved into the translocation area. They were placed in the northern section of the translocation area as this was accessible to heavy machinery and away from the area where Kerry Slugs had been observed, so disturbance would be minimised. The boulders were painted with yoghurt (containing live bacterial cultures) to encourage early colonisation with moss and lichen (Serna, 2021), enhancing the habitat available to Kerry slugs within the translocation area.

Finally, the extent of the protected habitat and an exclusion zone was delineated by means of fencing to prevent any incursion by plant and machinery that might cause damage to the site.

The developer and NPWS agreed a future monitoring and reporting programme in order to evaluate the effectiveness of the mitigation measures described above. Monitoring the presence of Kerry slugs within the translocation site would be carried out using a combination of hand searching and metric trap surveys by a suitably qualified ecologist. This monitoring and reporting would be carried out on an annual basis for a period of three years. This monitoring has been carried out and Kerry Slug is found to still be present within the translocation area.

A derogation license (DER-KerrySlug-2025-07) was received for this project in 2025, however the proposed works for which this derogation was sought were not completed.

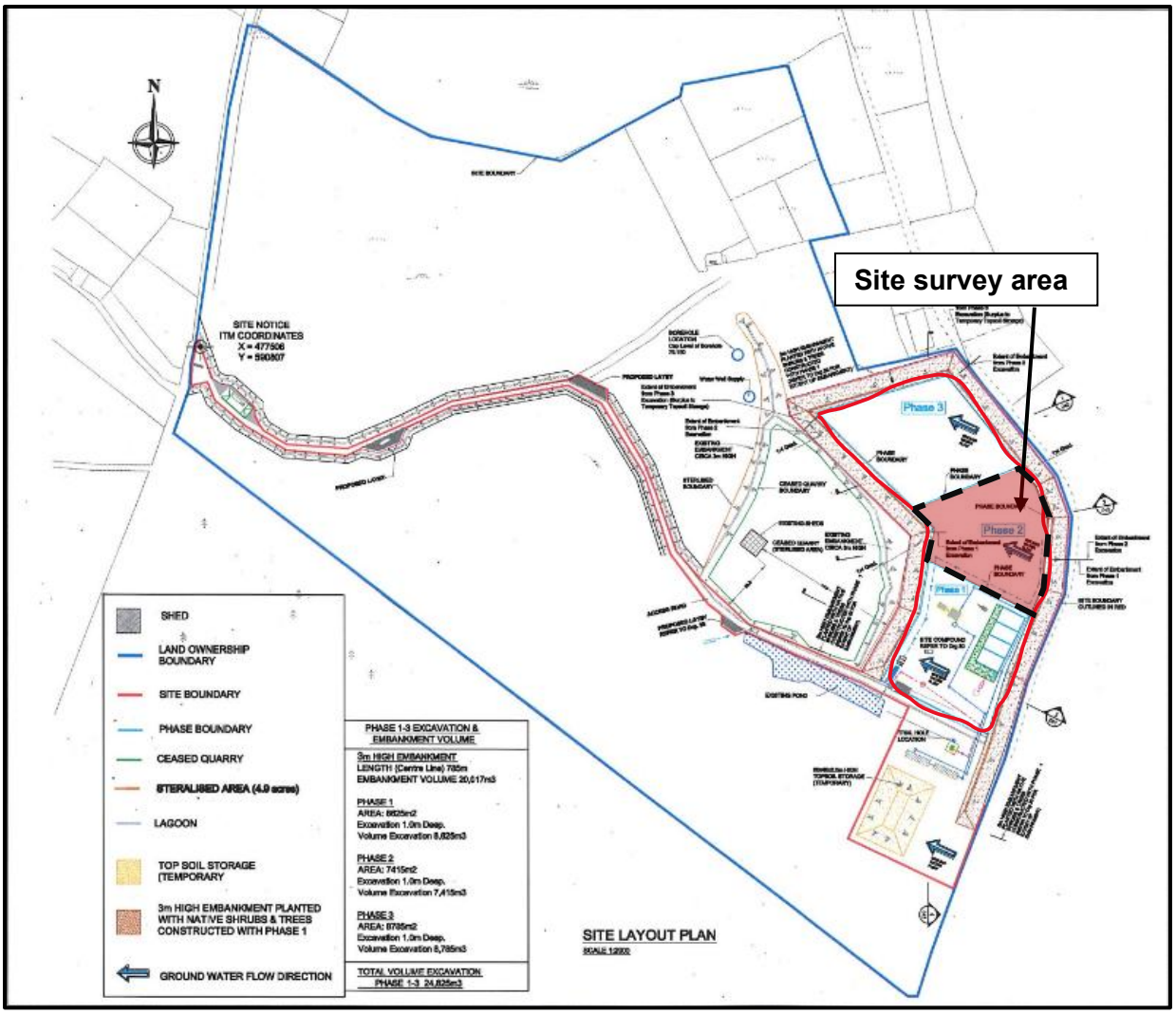

Figure 1: Site layout plan showing Phase 1, Phase 2 and Phase 3, with phase 2 survey area highlighted.

3. Details of Proposed Activities

The development involves the extraction of sand and gravel aggregates using conventional excavation techniques and processing of same using conventional crushing, screening and washing plant on site. The stockpiled aggregates will be subsequently transported off site using trucks and other vehicles. The aggregates will be predominantly used to support the Applicant's construction business. It is anticipated that approximately 5-7 loads will be transported from the site each day and a maximum of 10 loads per day.

4. Ecological Survey And Site Assessment

4.1 Pre-existing Information on Species Onsite

4.2 The Kerry Slug in Local/Regional Area

"The Kerry Slug, *Geomalacus maculosus* is listed on Annex II and IV of the EU Habitats Directive 92/43/EC. The slug is also protected under the Wildlife Act 1976 (as amended) having been added under Statutory Instrument No. 112 of 1990. In Ireland, seven Special Areas of Conservation (SACs) have been designated for its conservation. The core range of *G. maculosus* is located within the Devonian Old Red Sandstone strata of West Cork and Kerry (Kearney, 2010).

G. maculosus typically occurs in three general habitat types; deciduous woodland (usually *Quercus* dominated), blanket bog or unimproved oligotrophic open moor, and lake shores (NPWS, 2010; Platts & Speight, 1988). Within these habitats, the species tends only to be present if there is outcropping of Devonian Old Red Sandstone (NPWS, 2010), humid conditions and lichen, liverwort and/or mosses to provide the species with shelter and food (Platts & Speight, 1988). Individuals living within open habitats are usually grey/black with white spots (Appendix III, Plate1), while those within woodlands tend to be brown with yellow spots (McDonnell and Gormley, 2011a). Another distinguishing characteristic of this species is its ability to roll into a ball when disturbed. *G. maculosus* is a crepuscular animal and will take refuge in crevices in rocks or under the bark of trees during the day. However, following rain the Kerry slug may emerge and be seen during the day (Platts & Speight, 1988; Taylor, 1906).

The main threats to the Kerry slug include afforestation, agricultural reclamation, the invasive species *Rhododendron ponticum*, and infrastructure development (NPWS, 2010). The overall conservation status of the species has been reported as favorable and it is not currently considered threatened within its range (NPWS, 2013)." (Mc Auliffe, 2019)

4.3 Objective of Survey

The objective of the survey carried out was to identify whether Kerry Slug was present onsite and determine whether a derogation license would be required for the proposed works to take place.

4.4 Description of Survey Area

The survey area was a section of field directly adjacent to the north of the eastern side of the quarry (See figure 2). The survey area was an agricultural field, approximately 0.56ha in size, with the dominant habitat onsite being Wet Grassland (GS4), with signs of improvement. Occasional

outcrops of rock were present throughout the site. Metric slug traps were placed in four spots within the site boundaries, on rock outcroppings.

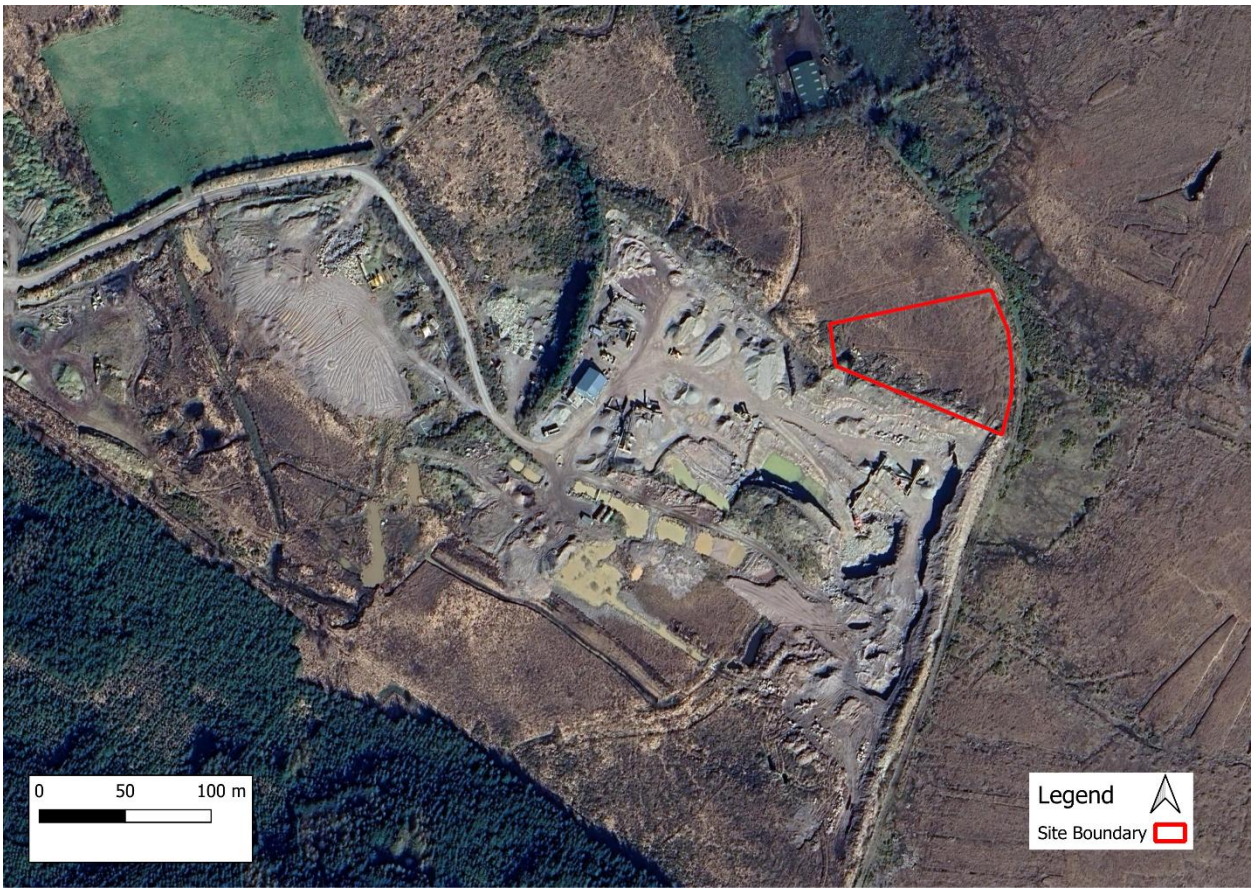

Figure 2. Survey Location

4.5 Methods

Surveys were carried out over a 4 separate visits. The initial site visit was carried out on the 5th of June, and the final visit was carried out on the 7th of August. Fixed route transects were walked and a visual count made of the number of individuals observed within five metres of the transect. This involved a careful hand search of features on which the animals are likely to be feeding, especially moss-covered timber close to water, and lichen covered boulders and outcrops. Transects were covered over a fixed time period to provide indices of relative abundance. Along with walked transects, live refuge trapping, as recommended for use by McDonnell and Gormally (2011) was also utilised (see figure 3). This involved the use of metric traps (0.25 m^2) with an absorbent material covered with a reflective upper surface and black perforated plastic on the lower surface (manufactured by De Sangosse).

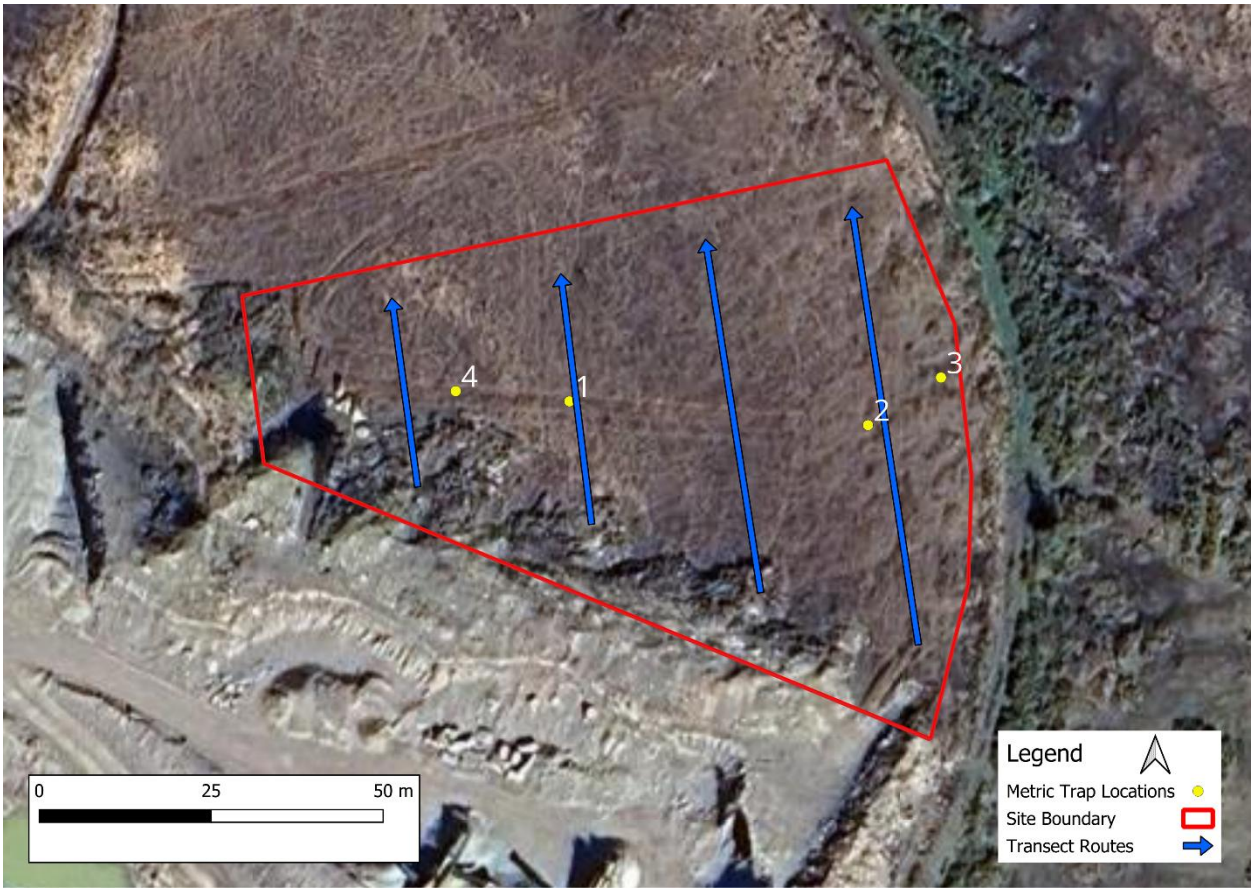

Figure 3. Location of Metric traps and transect routes within survey area.

Prior to being laid out the traps were wetted and baited with pieces of organic carrot. The traps were secured to rocky outcrops or beneath surface vegetation (in the case of heath) using stones (see Figure 4).

Figure 4: Metric traps are wetted and baited with organic carrot, before being held in place with stones.

Four traps were set as described on the 5th of June 2025 within the site boundaries. On each site visit these traps were checked for signs of Kerry Slug. Once traps had been checked, they were re-wetted, and the carrot was replaced with fresh pieces during each site visit.

In addition one hour was designated on each site visit for hand searches, which of involved checking crevices, mosses or all other vegetation present as per Reich et al., (2012). Hand searching took place in the area around each trap location.

4.6. Survey Results

05/06/2025

No Kerry Slug were identified onsite during walked transects or during hand searches in area where metric traps had been placed.

12/06/2025

One Kerry Slug was identified during hand search of exposed rocks near trap 3. Slug identified on rock adjacent to the boundary of proposed quarry expansion. No other Kerry slug identified during hand searches or walked transects.

30/07/2025

No Kerry Slug were identified onsite during walked transects or during hand searches in area where metric traps had been placed.

07/08/2025

One Kerry Slug identified on trap 2 during check. No Kerry slug identified on any other trap or during hand searches.

Table 1: Results of Kerry Slug Survey.

Date	Trapped	Hand Search	Total
05/06/2025	0	0	0
12/06/2025	0	1	1
30/07/2025	0	0	0
07/08/2025	1	0	1
Total	**1**	**1**	**2**

4.7 Population Size Assessment

A total of 2 Kerry slug were identified within the boundaries of the proposed quarry expansion. One Kerry slug was found using the hand searching method, near trap 3. The second Kerry slug was identified using the metric trap method, being found at trap 2.

Overall, the project site is sub-optimal for Kerry Slug with limited suitable foraging habitat present within the site boundaries. The northern section of the survey area did not contain any exposed rock. Exposed rock within the site had limited lichen present, offering limited foraging opportunities for Kerry slug. Additionally, it should be noted that both Kerry slug identified within the survey boundary were located near the eastern boundary of the site.

Due to the limited availability of foraging habitat onsite, and the low numbers of Kerry slug identified during surveys, both from metric traps and hand searches, it can be determined that the Kerry slug population within the site is limited in size, and not significant at a local or regional level.

5. Evidence to Support Derogation Tests

5.1 Test 1 – Reason for Derogation

As per the derogation license application form for which this supporting document has been produced, the reason for which a derogation license is sought is:

"In the interests of […] imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment"

The proposed works are to be carried out to allow for the extension of an existing sand and gravel quarry into phase 2, as per existing planning permission.

5.2 Test 2 – Absence of Alternative Solutions

Do-Nothing

The first considered alternative was "Do-Nothing". This option is considered unsuitable for as planning permission has already been granted for the proposed quarry expansion. The quarry owner has already financially invested in the proposed quarry expansion, which has also already been granted conditional planning permission. Furthermore, the proposed expansion site has been determined to be of limited suitability to Kerry slug, and not significantly important at a local or regional level. If this option were to be selected, and the proposed expansion were not to occur, it would not result in any significant conservation benefits for Kerry slug.

Proceed without Mitigation

The next potential alternative for the proposed quarry expansion was to proceed without mitigation. This option was deemed unsuitable as, while the project site is generally considered sub-optimal for Kerry slug, it was found onsite on more than one occasion. As such, there is potential for adverse impacts on the conservation status of Kerry slug if the proposed expansion were to take place without mitigation.

Retain Areas of Suitable habitat

The final potential alternative considered was to proceed with the proposed quarry expansion, while retaining areas of suitable habitat. This has been deemed unsuitable as, while the suitable

habitat would be retained, the extension of the quarry would degrade the quality of the habitat, and likely render that retained areas unsuitable. Additionally, due to the small size of the proposed extension and the location, if the areas of suitable habitat were to be retained, the extension would no longer be financially viable, and would no longer be worth the investment and cost of carrying it out.

5.3 Test 3 – Impact of Derogation on Conservation Status

The proposed derogation would have an insignificant impact on the conservation status of Kerry slug. From the surveys carried out, and elaborated upon in Section 4 of this report, it can be determined that the site is generally unsuitable for Kerry slug, and that only a limited number (2) of Kerry slug are present onsite.

While the proposed project area is generally sub-optimal for Kerry slug, 2 were identified onsite. As such, there is potential for minor negative impacts on the conservation status of this species. To mitigate potential impacts on the conservation objectives, prior to the commencement of works onsite, metric traps will be placed on site and hand searches will be undertaken. Kerry slugs discovered within the survey area, will then be transferred to suitable habitat in the surrounding area, along with any suitable refuge boulders, as per planning conditions. Any Kerry slugs captured will be temporarily stored in a plastic container lined with moss and with sliced carrots to feed on, until they are translocated to suitable habitat on the same day (Reich et al., 2012).surveys will be translocated to an area of suitable habitat present within close proximity.

Given the above, with the aforementioned mitigation measures in place, the proposed derogation will not significantly impact the conservation status of Kerry slug.

6. Monitoring the impacts of the derogations.

Following the translocation of Kerry slugs and refuge boulders a monitoring and reporting programme shall be undertaken, in order to evaluate the effectiveness of the proposed mitigation measures. Monitoring the presence of Kerry slugs within the translocation site will be carried out using a combination of hand searching and metric trap surveys by a suitably qualified ecologist. This monitoring will be carried out on an annual basis for a period of three years, in agreement with NPWS.

7. References

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Appendix I – Kerry Slug Photos

Plate 1: Kerry slug observed feeding on a boulder within the translocation area.

Appendix II

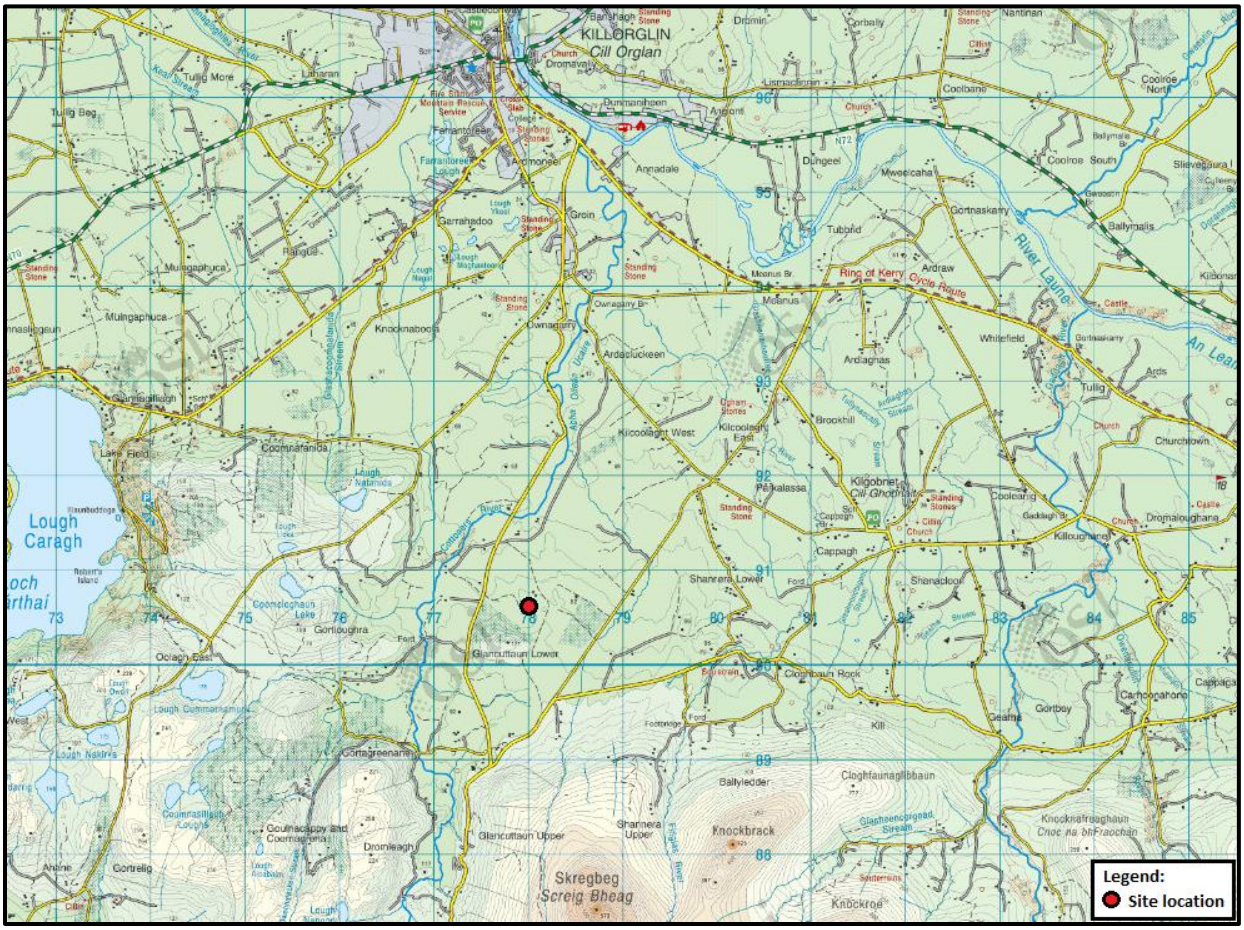

Plate 1: Location of the sand and gravel quarry