



Application for Derogation Under Regulation 54 & 54A of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) to

Construct a forest road in Shannapheasteen, Cloosh Valley, Oughterard, Co. Galway

Supporting Information



1. Introduction

Coillte are seeking a derogation to construct a forest road within the Coillte property Shannapheasteen in the Cloosh Valley, Oughterard, Co. Galway. This application is in relation to the proposed forest road within application CN92957.

Coillte commissioned Kerry slug surveys in the Cloosh Valley in 2022, to support a similar derogation application (DER/KERRY SLUG-2022-175), and follow up surveys in 2024. A further derogation application was submitted in April 2026 for the planned 2026/27 forestry programme (Table 1) within the Cloosh Valley with a derogation being sought for felling licence areas located within 100m of Kerry slug records. Significant portions of these felling licence areas were windblown during Storm Eowyn in early 2025.

A derogation is now being sought for the proposed forest road (CN92957) as it is located within 100m of Kerry slug records.

2. Location

The derogation application is related to the Connemara population of the Kerry slug in the Cloosh Valley, approximately 6km south-west of Oughterard, Co Galway. The study area for Kerry Slug surveys included five Coillte properties: Lettercraffroe, Derradda, Seecon, Shannapheasteen and Finnaun (Figure 1).

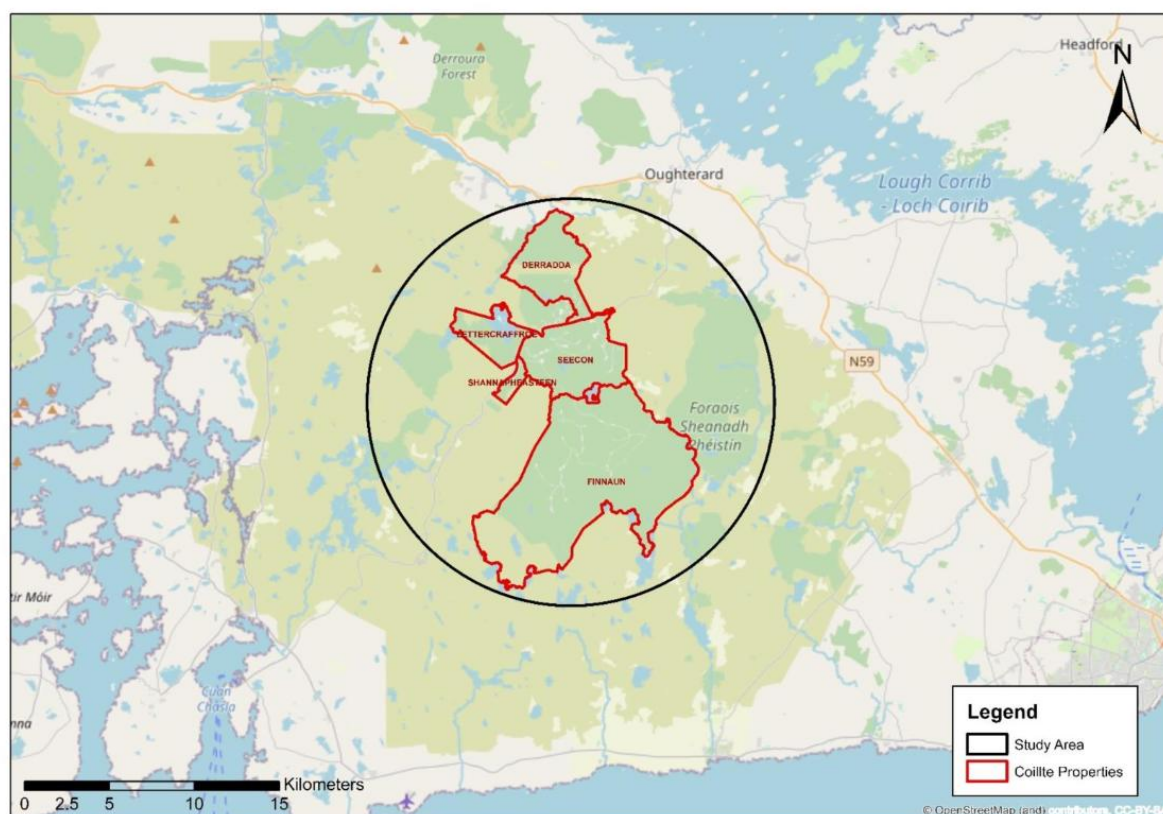


Figure 1. Location map showing the study area in Connemara, Co. Galway and the relevant Coillte properties.

A derogation is being sought for the proposed forest road CN92957 located within the Coillte property Shannapheasteen in the Cloosh Valley (Figure 4).

The construction of this forest road is required in order to access felling licence blocks within Shannapheasteen (Table 1). Due to Storm Eowyn in 2025, large areas of plantation within the Cloosh Valley experienced significant windblow. In some cases, harvest blocks may be 80-90% windblown. The remaining standing trees within these blocks have reached maturity and there is a risk that if they aren't felled, they will blow over too. This will pose a threat to water quality in the area. Felling the trees in these felling blocks is the only available option for these sites and no suitable alternative exists. The construction of this forest road is required to access felling licences areas for harvesting and to enable the removal of timber and windblown material off site.

Table 1. Felling licences applied for by Coillte to DAFM which (a) overlap with Kerry slug records or (b) are within 100 metres of a known Kerry slug record

Coillte Property	Felling Licence	Type	Area (ha)	Kerry Slug Proximity
Shannapheasteen	GY21-FL0079	Clearfell	24.38	Overlaps
Shannapheasteen	GY21- FL0009 ¹	THIN	22.16	20m
Seecon	GY21-FL0093	Clearfell	9.41	20m
Seecon	GY21-FL0091	Clearfell	46.23	Overlaps
Seecon	GY21- FL0008 ¹	THIN	7.39	Overlaps
Lettercraffroe	GY22-FL0011	Clearfell	36.26	Overlaps

There is no alternative forest road to enable access for harvesting or removal of timber from felling licence blocks within the property. The proposed road is also required for stacking of timber. The only other road within the surrounding area belongs to a windfarm and has a series of underground power cables which may be damaged by machinery, timber stacking, and haulage. There is also a risk of serious harm to machine operators and ground staff if operations cause damage to or interact with windfarm powerlines in the absence of the proposed road.

3. Kerry Slug Surveys

3.1 2022 Surveys

In 2022, Dr. Inga Reich was commissioned by Coillte to establish the distribution of Kerry slug within the Cloosh Valley with the aim of determining if the known population had spread since the first records in 2010/2011 during Dr. Reich's PhD (Figure 2). The study also aimed to determine the rate of spread of Kerry slug within the Cloosh Valley and to ascertain whether the 2022-2024 tree felling programme would be detrimental to the conservation status of the Kerry slug population in this area.

In total, more than 200 Kerry slugs were recorded between hand search and trapping methods within the Lettercraffroe, Shannapheasteen, Seecon and Derradda properties (Figure 3). Forty Kerry slugs were found underneath traps specifically set for this survey while 37 slugs were discovered underneath traps that were still installed in the plantation from the 2010/2011 survey. The remainder were active slugs or slugs sheltering underneath moss/bark found during hand searching.

The 2022 survey found that the Kerry Slug distribution in Cloosh Valley had expanded in comparison to the 2010/2011 survey. The species was recorded approximately 350 metres further into the plantation in comparison to 2010/2011 records within the properties of Seecon and Lettercraffroe. Given that the slug had spread by the same distance within both properties, this is likely the rate of natural population expansion. It is also likely that the Kerry slug was present but not recorded in Shannapheasteen.

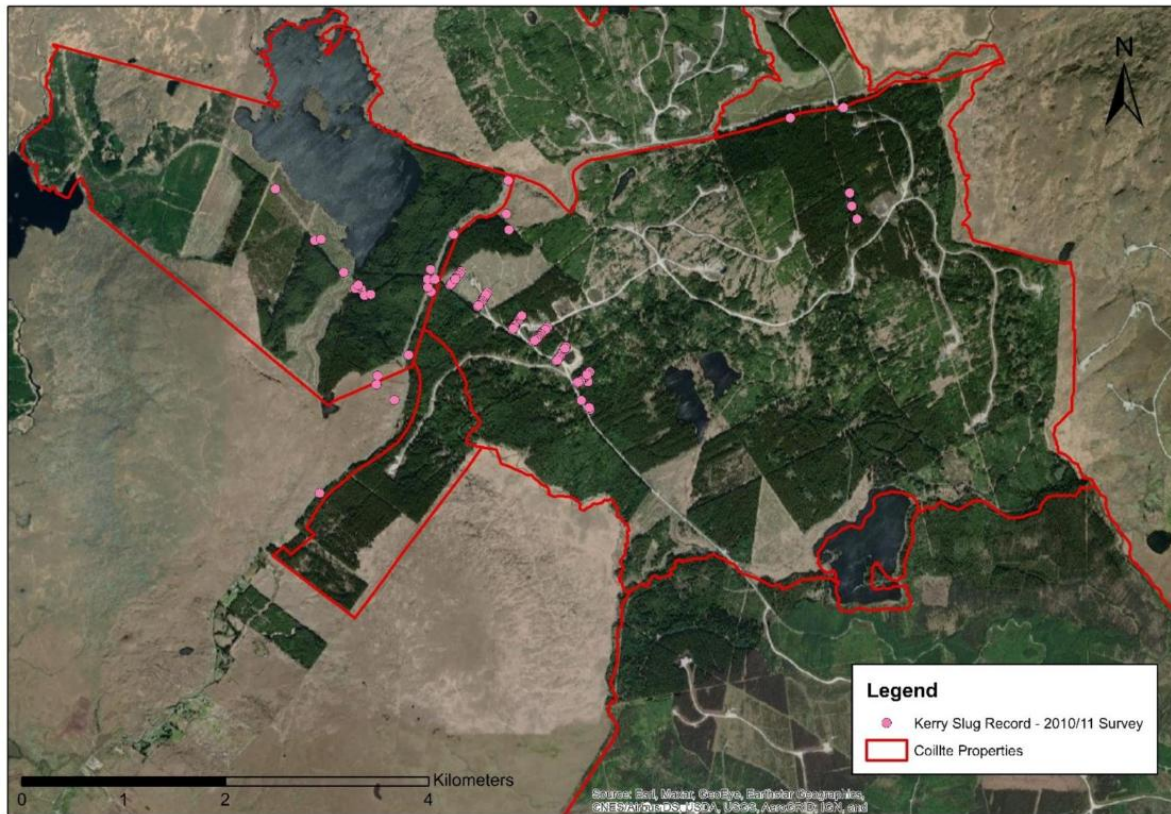


Figure 2. Aerial photo of Cloosh Valley Kerry slug records recorded in 2010/2011 in Dr. Inga Reich's PhD, which correspond with the records held by National Parks and Wildlife Service as seen in 2010/2011 given the large numbers recorded during this survey.

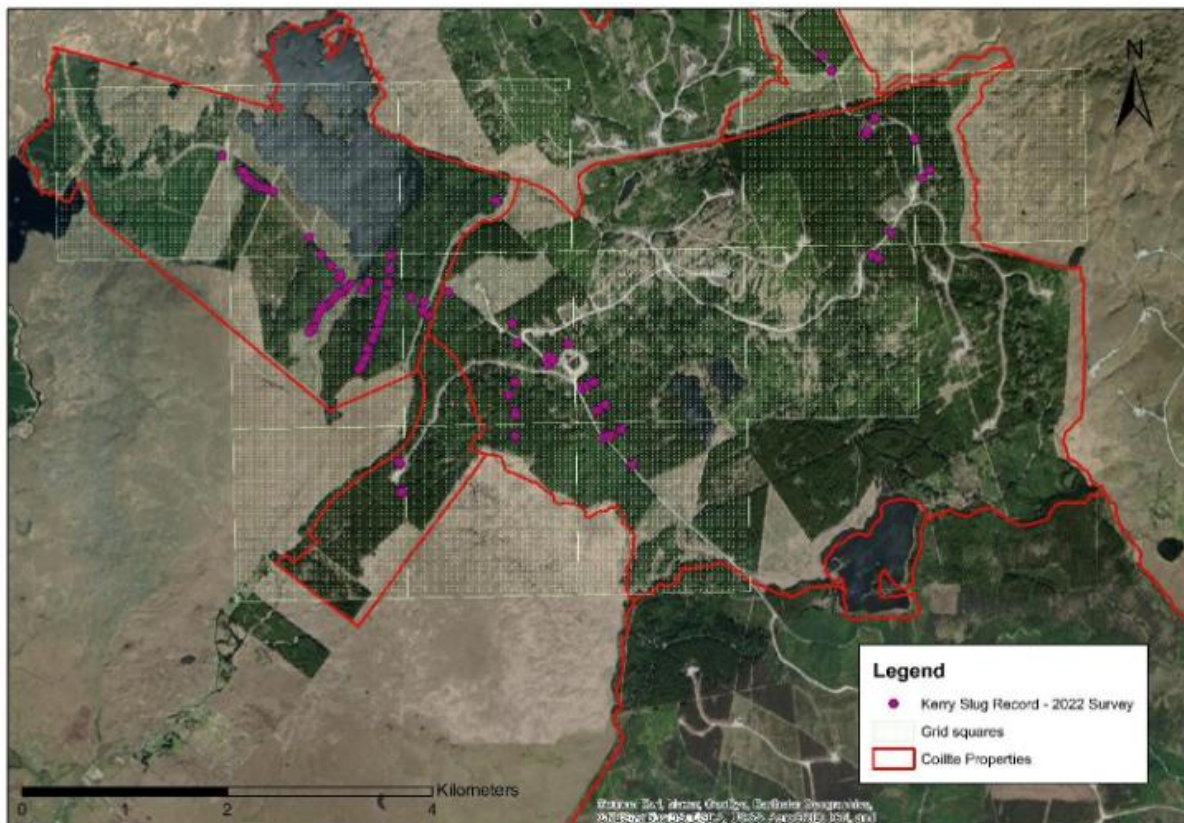


Figure 3. Aerial photo of Cloosh Valley Kerry slug records recorded in Dr. Inga Reich's 2022 survey commissioned by Coillte. Kerry slug were recorded in 13 1x1km squares in this area in 2022.

3.2 2024 Surveys

Coillte commissioned MKO in 2024 to undertake Kerry slug surveys to establish its distribution and possible expansion since surveys undertaken by Dr. Reich in 2022. The study focussed on four Coillte properties: Lettercraffroe, Derradda, Seecon and Shannapheasteen.

Desk Study

An updated search of the National Biodiversity Data Centre (NBDC) records was undertaken, and a new information request was sent to NPWS. No new records for Kerry slug were received since the 2022 surveys (Figure 3).

Field Survey

Two dedicated Kerry slug surveys were undertaken on the 18th of September and the 10th of October 2024 under License No. C179/2024 issued by NPWS to Bridin Foster, C182/2024 issued to Sibéal Fallon and C180/2024 issued to Viorel Anitei.

The 2022 maps indicate areas within the relevant Coillte properties where Kerry slugs were previously recorded as well as where they were absent in 2022. These maps acted as a guideline for the 2024 surveys and helped to pinpoint the exact locations that required surveying. Areas that had previous records of Kerry slug were revisited during the September and October 2024 surveys, to confirm whether the population is stable in these areas. Areas that had no previous records of Kerry slug were also visited in order to establish if the population is expanding.

The surveys followed the methodology outlined in Mc Donnell & Gormally (2011) and consisted of a hand search and checking the traps still present from Inga Reich's 2022 study at these areas, in order to see if the Kerry slug population had expanded their range within the Cloosh Forest.

The search was mainly focused on bryophyte-covered tree trunks in mature conifer stands. Trees were inspected for Kerry slugs by searching under the moss carpets, pine needle accumulations and bark on the trees themselves as well as around the tree for 15 minutes per area. Metric refuge traps were peeled away from the trunk to inspect underneath for Kerry slugs present. These traps were manufactured by De Sangosse (Pont du Casse, France). The traps which had been left following the 2022 surveys were inspected for Kerry slugs and no new traps were set for this study. In cases where Kerry slugs were found underneath the traps, a further hand search was conducted in areas outwards from these traps.

Results

In total, forty-two Kerry slugs were recorded between hand searches and searching the metric refuge traps still present from Inga Reich's 2022 surveys. The species was recorded within the Lettercraffroe, Shannapheasteen and Seecon properties. Twenty-six Kerry slugs were found underneath traps while sixteen Kerry slugs were found via hand searching and were active on tree trunks or sheltering under moss carpets or bark.

The 2024 surveys found that the Kerry slug distribution in Cloosh Forest has not expanded when compared to the 2022 survey carried out by Dr. Inga Reich.

During the 2024 surveys in Derradda, Lettercraffroe, Seecon and Shannapheasteen, no Kerry slugs were found in any areas where they were not previously recorded in 2022. Kerry slugs were found in areas where they were previously recorded in Lettercraffroe, Seecon and Shannapheasteen. It needs to be stated that not finding Kerry slug in an area does not prove that it is absent from there.

There were no Kerry slugs recorded in Derradda during the 2024 surveys which differs from the 2022 survey. The area of mature conifer forestry that supported two Kerry slugs recorded by Inga Reich in 2022, has since been clearfelled. Therefore, there were no mature trees remaining to set up refuge traps at this location in October 2024. The mature conifer plantations further north within Derradda were subsequently surveyed, however no Kerry slugs were recorded here during the 2024 surveys.

3.3 Conclusions

Kerry slug was found to occur in large numbers within the Cloosh Valley and was recorded in three out of four properties surveyed. The properties in which Kerry slug were recorded are due to have clearfell operations in the coming year. The construction of proposed forest road (CN92957) has the potential to have significant direct and indirect effects on the species including permanent habitat loss and death due to road construction operations e.g. removal of trees, machinery traversing terrain. While there will likely be some mortality of Kerry slugs during the road construction phase, given the health of the population and the abundance of alternative suitable habitat it is unlikely to have a significant impact on the conservation status of the species.

4. Assessment of Potential Impacts



Figure 4. Map of Coillte property Shannapheasteen showing proposed forest road GY21R1026 relating to application number CN92957 (outlined in green) and records of Kerry slug (2022 and 2024)

A study by Johnston *et al.* (2018) assessed the impacts of clear felling on Kerry slug by comparing relative abundances of the species directly before and after felling and found that mean slug numbers were reduced by 95% after felling and that no slugs caught at the site prior to felling were caught again after the operation was finished while 21% were caught again after the same time frame in a control area where clear felling did not take place (as established by dye injection), indicating that the slugs had either died or moved elsewhere. They also found that mean catches of adult Kerry slug in mature forests were 11 times greater than those in clear felled areas.

It is unclear at what stage Kerry slug begin to recolonise clearfelled areas but a study by Reich *et al.* (2012) found a significant correlation between Kerry slug numbers and tree circumference at breast height as well as bryophyte and lichen cover on the tree trunk. This suggests that trees with more moss cover on trunks and more moss carpets and pine needle accumulations allow for more hiding spaces and foraging possibilities for this species. Given the limited presence of food and shelter (lichens and bryophyte carpets) in recently clearfelled areas and young plantations, it is likely it will take years if not decades until these areas become habitats of sufficient quality to support significant populations of Kerry slug.

It is worth noting that Kerry slugs are not absent from clearfell sites as seen in Johnson *et al.* (2018) who found that a very small number of slugs were captured within an area that had been clearfelled just 4 months prior to the study. As part of the same study, slugs were captured and recaptured at an adjacent stand that was felled 2 years prior in which approximately 3m high stumps were retained

as an experimental mitigation against the negative effects of clear felling on Kerry slug. Significantly more slugs were captured in the stand with retained stumps in comparison to the conventional clear fell stand suggesting retained stumps may offer suitable conditions for this species in the short-term. Similarly, a second study by Reich *et al.* (2017b) captured and recaptured Kerry slug within a site that had been felled 5 years prior to the study. The findings of these studies suggest the ability of this resilient species to recolonise recently clearfelled sites.

In the 2024 Kerry slug tree stump surveys, it was found that Kerry slugs were utilising the retained tree stumps, especially those with retained branches. These branches allowed falling pine needles and moss to accumulate in the crevices between the branches and the stumps themselves, providing suitable resting places for the Kerry slug as well as shelter from the sun. Given that higher numbers of Kerry slug were recorded on tree stumps that had large branches retained, it is recommended that when clearfelling occurs, retained tree stumps with large branches are retained in areas where Kerry slug are known to occur.

It was also noticed that Kerry slugs were more often found on Sitka spruce trees rather than Lodgepole pine. The bark of mature Sitka spruce flakes off in circular pieces and was found to provide suitable resting spaces where Kerry slugs could hide from the sun when compared with Lodgepole Pine. The bark on Lodgepole pine trees is much more tightly layered with little space for slugs to hide under. Kerry slugs were recorded on Lodgepole pine trees, however to a much lesser extent than on Sitka spruce and those that were recorded were generally seen under moss carpets or crawling on top of the trunks but not under bark.

As with the Kerry slug tree stump survey, it was noticed that this species was more often recorded on trees which had more moss cover. Trees with more moss cover on trunks and more moss carpets and pine needle accumulations allow for more hiding spaces and foraging possibilities for Kerry slugs. Therefore, fewer Kerry slugs were recorded on bare trees.

In conclusion, while there will likely be some mortality of Kerry slugs during the construction of proposed forest road (CN92957) and a small area of permanent habitat loss, given the health of the population and the abundance of suitable habitat and the fact that the species is found in clear fells a few months post felling (albeit in lower numbers), the construction of proposed forest road is unlikely to have a significant impact on the conservation status of the species.

5. Recommendations

Given that higher numbers of Kerry slug were recorded under the flaking bark of mature Sitka spruce trees that had an abundance of moss cover, and that Kerry slugs were found to utilise the retained tree stumps in the 2024 survey, it is recommended that when mitigation measures are implemented in the future, that Sitka spruce tree stumps are retained where Kerry slugs are known to be located. These tree stumps would provide more spaces under the bark for Kerry slugs to hide under. However, it is worth noting that this mitigation measure may not be possible to implement in stands which have been significantly storm damaged or windblown.

During the 2024 tree stump surveys it was noted that tree stumps with retained branches allowed for greater pine needle and moss carpet accumulations. It is therefore recommended that where possible, branches be retained on these tree stumps within the felling licence areas to allow for the hiding and foraging capabilities of the Kerry slug. It will not be possible to retain tree stumps within a

15-metre buffer of the proposed forest road as these areas will be required to be cleared for stacking of timber and turning of machinery.

Based on the above information it is highly unlikely that the construction of proposed forest road within Shannapheasteen (Figure 4) would result in a significant reduction of breeding and foraging places for the slugs. The road is approximately 255 metres in length and 5 metres in width meaning the area of permanent habitat lost is relatively small in the context of the spread of Kerry slug across the Cloosh Valley. The proposed road would be constructed before operations in the adjacent felling block commence meaning Kerry slug may be able to disperse temporarily from the road construction site into adjacent plantation reducing potential mortality rates. The retention of stumps post-clear fell in the adjacent felling licence area should enable Kerry slug to re-colonise in this area over time.

6. Evidence to support Derogation Tests

6.1 Reason for Derogation

A Derogation is required for Kerry Slug (*Geomalacus maculosus*) for the construction of a road in Coillte property Shannapheasteen in the interests of public health and public safety, including those of a social or economic nature and beneficial consequences of primary importance for the environment.

Under Coillte's "Forests for Wood" strategic pillar, the company ensures a steady supply of roundwood to support the construction, furniture, and energy sectors while balancing environmental needs. Felling the trees in these felling blocks is the only available option for these sites and no suitable alternative exists. Many of these harvest blocks have suffered significant windblow due to Storm Eowyn. In some cases, harvest blocks may be 80-90% windblown. The remaining standing trees within these blocks have reached maturity and there is a risk that if they aren't felled, they will blow over too. This will pose a threat to water quality in the area. The construction of the forest road (CN92957) is necessary to facilitate machine access, stacking of timber and removal of windblown material off site. Without this road machines would have to repeatedly traverse along the soil which may lead to rutting, soil compaction or run-off of sediment into nearby watercourses. The risk of soil degradation and water pollution may also be increased due to bird timing restrictions related to Connemara Bog Complex SPA meaning operations will have to be carried out in less favourable weather conditions. The construction of this road would minimise the risk of soil damage and water pollution. Given the proximity of the felling licence area to an active wind turbine there are hazards associated with machinery traversing the terrain such as damage and destruction to power cables running below the ground surface and potential electrocution risk for machine operators and contractors. The weight of machine haulage trucks, log haulage trucks, forwarders and harvesters driving repeatedly along the terrain could damage the associated power cables. The forest road is required to enable access for harvesting, timber stacking and haulage of timber/windblown material off site.

6.2 Absence of Alternative solutions

The only alternative solution that exists for this road is 'Do-Nothing'. This solution would be unsatisfactory as it could cause damage to the adjacent windfarm powerlines, potentially serious accidents associated with contact to damaged power cables, damage to state assets and loss of profits. This solution may also cause further environmental issues such as soil degradation and water pollution. If the proposed road cannot be constructed, Coillte may not be able to carry out

operations in Shannapheasteen. If proposed works are not carried out, there is a risk of further windblow of remaining standing mature trees and a risk to water quality in the area.

6.3 Impact of a Derogation on Conservation Status

Potential impacts arising from a Derogation includes loss of suitable habitat for foraging and shelter i.e. mature trees, lichen accumulations, layered tree bark, and death of Kerry slug through clear felling operations e.g. bark stripping or road construction activities e.g. levelling depressions, spreading base material, compaction of material.

Proposed mitigation measures for felling blocks within Shannapheasteen include retention of stumps (preferably Sitka spruce) including retained branches where possible. This mitigation measure will help improve hiding and foraging capabilities of Kerry Slug. Displaced slugs due to the construction of the proposed forest road may be able to utilise retained stumps and branches in the adjacent felling licence blocks.

7. Monitoring

Once road construction and felling and re-planting of the surrounding felling licence blocks is completed, monitoring will be undertaken to re-assess the distribution of Kerry Slug in the Cloosh Valley. Monitoring will also examine the effectiveness of the mitigations applied in these felling blocks. If the mitigation measures are successful, we would expect to find Kerry Slug in areas where they have previously been recorded.

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