

KERRY ECOLOGICAL SERVICES

Appropriate Assessment Screening for works at the Manse, Nun's Island, Galway

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On behalf of: OBFA / Galway County Council

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1. INTRODUCTION

1.1 General

Renovations and alterations are proposed at The Manse, 23 Nun's Island, Galway city. The proposed development is approximately 150m upstream of Lough Corrib Special Area of Conservation (SAC code 0297).

In this regard, a Habitats Directive Screening Report has been carried out, given the proximity to the SAC.

The overall objectives of this assessment are:

- To assess any likely impacts that may impact on any existing Natura 2000 site i.e. SAC 0297 and its associated species.
- To assess the likely impacts, if any, on the existing habitats and associated fauna, which may arise from the proposed development.

This report has been compiled by Ciaran Ryan (B.Sc. Analytical Science; M.Sc. Environmental Science) with over 25 years experience in ecological survey (including SAC & SPA designations), SAC & SPA Management Plans, Commonage Framework Plans, SAC Appeals, Natura 2000 site assessments and reports (NIS) and general environmental consultancy. I am an accredited Native Woodland Scheme ecologist.

1.2 Description of project / development

Galway City Council proposes to refurbish the existing "Manse" attached to the existing theatre at 23 Nun's Island, Galway City. There will be alterations within the existing external wall envelope of the "The Manse" with a single storey extension proposed to the north of the link structures between the "Manse" main two storey structure and the original theatre building. The roofline between the two storey "Manse" and the theatre will change from inverted butterfly form to pitched roof form so that it will be possible to integrate new platform lift, providing universal access to all levels. There will also be minor internal alterations within the existing structure theatre building to improve the accessibility of the toilets. The existing external hard landscaping areas within the site curtilage will be upgraded and improved.

2. LEGISLATIVE SCOPE OF THIS REPORT

2.1 Environmental Impact Assessment

The Habitats Directive (92/43/EEC) and EC (Natural Habitats) Regulations 1997 (S.I. 94/97), require local governments to ensure that appropriate ecological assessment of any proposed developments or works is carried out. Section 31 of the Natural Habitats Regulations stipulates that where an operation or activity is likely to have a significant effect on a European Site (i.e. an SAC or SPA), then an assessment should be carried out on the implications for that site in view of the site's conservation objectives. The Environmental Impact Regulations 1989 - 2000 stipulates the classes of development that would require an Environmental Impact Assessment (EIA).

The proposed project is sub-threshold and will not require an EIA as per the legislation.

2.2 Appropriate Assessment

The concept of Appropriate Assessment (AA) is the requirement to consider the possible nature conservation implications of any plan or project on the Natura 2000 site network, before that plan or project proceeds. The obligation to undertake an AA derives from Article 6(3) and 6(4) of the Habitats Directive. Both involve a number of steps and tests that need to be applied in sequential order. Article 6(3) is concerned with the strict protection of sites, while Article 6(4) is the procedure for allowing derogation from this strict protection in certain restricted circumstances. An AA is a focused and detailed impact assessment of the implications of the plan or projects, alone and in combination with other plans and projects, on the integrity of a Natura 2000 site, in view of its conservation objectives. Assessments should be undertaken on the basis of best scientific evidence and methods.

The Department of Environment, Heritage and Local Government (DoEHLG) has issued a document entitled *Appropriate Assessment of Plans and Projects in Ireland: guidance for planning authorities (2010)*. This document states that it is the responsibility of the competent authority to undertake the AA. The assessment should be based on sufficient relevant information such as that submitted by the proponent of the plan.

This assessment must be prepared by an ecological specialist(s) undertaking surveys, research and analysis, with input from other relevant disciplines as required e.g. engineers, hydrologists, archaeologists etc. Assessments should be undertaken on the basis of best scientific evidence and methods. Accordingly, data and information on the project and on the site must be obtained and an analysis of potential effects on the site must be undertaken.

This AA has been undertaken in accordance with the European Commission "*Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC*" and the European Commission Guidance on "*Managing Natura 2000 Sites*" and in accordance with current DoEHLG guidance. It provides the information required in order to establish whether or not the proposed development is likely to have a significant impact on any Natura 2000 site. It considers the potential impacts on local Natura 2000 sites in the context of the habitats and species for which such Natura 2000 site(s) has been selected, along with their conservation objectives. Where it is deemed relevant, recommendations or mitigation measures are proposed.

2.3 Screening Statement/ Natura Impact Assessment

The first step in an AA is a Screening Statement. This requires a description of the project, identification and description of relevant Natura 2000 sites, and an assessment of likely effects of the proposed project. If these are not deemed to be potentially significant, then there is no need to conduct a full AA. However, if any likely effects are deemed to be potentially significant, then a full AA or Natura Impact Assessment (NIS) must be conducted.

In complying with the obligations under Article 6(3) and following the above guidelines, this AA has been prepared using the following structure:

Stage 1: Screening

This includes:

- Description of the proposed development/project (and if the plan/project is necessary for the management of the Natura 2000 site(s)).
- Consultation with NPWS.
- Identification of all Natura 2000 sites potentially affected by the plan/project.
- Identification and description of individual and cumulative impacts likely to result from the plan/project.
- Assessment of the significance of the impacts identified above on site integrity.
- Exclusion of sites where it can be objectively concluded that there will be no significant effects.
- Determination of the necessity or otherwise for a Natura Impact Statement (NIS).

Screening for AA examines the likely effects of a project or plan, alone and in combination with other projects or plans, upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant. If it is determined during screening that the development may have a significant effect on a Natura 2000 site then a NIS will need to be prepared. If it is determined during screening that the development may have a significant effect on a Natura 2000 site then a Stage 2 NIS will need to be prepared.

This report complies with a Screening Statement in accordance with current DoEHLG guidance. It provides the information required in order to establish that the proposed development is not likely to have a significant impact on any Natura 2000 site. It considers the potential impacts on local Natura 2000 sites in the context of the habitats and species for which such Natura 2000 site(s) has been selected, along with their conservation objectives.

3. ECOLOGICAL STATUS

3.1 General background

The proposed development is c. 150m upstream of a Natura 2000 site(s) i.e. Lough Corrib SAC. This is part of the EU designated Natura 2000 site network.

With the introduction of the Birds Directive in 1979 (79/409/EEC) and the Habitats Directive in 1992 (92/43/EEC), came the obligation to establish the Natura 2000 network of sites of highest biodiversity importance for rare and threatened habitats and species across the EU. In Ireland, the Natura 2000 network of European sites comprises Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the qualifying interests of the sites; from these the conservation objectives of the site are derived.

SACs are to be managed in a method to maintain a favourable ecological status for the relevant Annex I habitat(s) and Annex II species listed under the Habitats Directive.

Similarly, SPAs require the maintenance of the favourable conservation status of habitats for birds listed under Annex I of the EU Birds Directive, or areas that are important to migratory bird species. Important migratory sites are graded as either of national or of international importance i.e:

- holds 1% of the estimated national population for non-Annex I migratory species,
- regularly supports 20,000 waterfowl,
- regularly sustains 1% of the all-Ireland bird population for an Annex I species,
- regularly sustains 1% of the bio-geographical (European) bird population for an non-Annex I migratory species.

3.2 Natura 2000 site(s)

3.2.1 Lough Corrib SAC (code 0297)

This SAC has been designated for:

Habitats

[3110] Oligotrophic Waters containing very few minerals
[3130] Oligotrophic to Mesotrophic Standing Waters [3140] Hard Water Lakes
[3260] Floating River Vegetation
[6210] Orchid-rich Calcareous Grassland* [6410] *Molinia* Meadows
[7110] Raised Bog (Active)*
[7120] Degraded Raised Bog
[7150] Rhynchosporion Vegetation
[7210] *Cladium* Fens*
[7220] Petrifying Springs*
[7230] Alkaline Fens
[8240] Limestone Pavement*
[91A0] Old Oak Woodlands
[91D0] Bog Woodland*

Species

[1029] Freshwater Pearl Mussel (*Margaritifera margaritifera*)
[1092] White-clawed Crayfish (*Austropotamobius pallipes*)
[1095] Sea Lamprey (*Petromyzon marinus*)
[1096] Brook Lamprey (*Lampetra planeri*)
[1106] Atlantic Salmon (*Salmo salar*)
[1303] Lesser Horseshoe Bat (*Rhinolophus hipposideros*)
[1355] Otter (*Lutra lutra*)
[1393] Slender Green Feather-moss (*Drepanocladus vernicosus*)
[1833] Slender Naiad (*Najas flexilis*)

Full site synopsis for this site can be accessed on the NPWS database, while details of the conservation objectives for this site can be accessed at:

http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000297.pdf

The qualifying interests of the SAC relevant to this development are aquatic habitats and species namely floating river vegetation, Otter, Salmon, Lamprey, White-clawed Crayfish and Freshwater Pearl Mussel within the nearby River Corrib greater SAC.

3.2.3 Conservation Objectives

The conservation objectives of the SAC are to maintain or restore the favourable conservation status of Annex I Habitats and Annex II Species.

4. SITE ASSESSMENT

4.1 Desk Survey

A desk study was carried out to determine baseline information on the development site and nearby habitats and species of ecological interest, with special reference to Natura 2000 sites and protected species (e.g. Otter). The following databases from the following organisations were assessed (where relevant):

- National Parks and Wildlife Service (www.npws.ie)
- Geohive mapview (www.geohive.ie)
- Biodiversity Ireland (www.biodiversityireland.ie)
- Environmental Protection Agency (www.epa.ie)
- Ordnance Survey Ireland (www.osi.ie)
- Geological Survey Ireland (www.gsi.ie)
- BTO Bird Atlas Records (1981- 2011)
- Teagasc Soil Map ([www.http://gis.teagasc.ie/soils/map.php](http://gis.teagasc.ie/soils/map.php))
- Wetlands Survey (www.wetlandssurveysireland.com)
- <https://enviromap.ie/>

4.2 Survey technique

The site was surveyed on the 23rd September, 2022. The site was walked, identifying habitats and species likely to be affected. The survey was carried out in accordance with the Smith *et al.*, (2011). Foulkes *et al.*, (2013) and the Institute of Ecology and Environmental Management (2011 & 2012). It was possible to classify each habitat and identify relevant species. Using the information gathered in the field, together with any published and/or local information on the site and its environs, it is considered that an adequate ecological assessment is achieved.

Survey for terrestrial mammals was carried out by means of a search within the site and immediate vicinity focusing on mammal dwellings (e.g. Badger setts, Otter holts), feeding signs or droppings and direct observations if possible. Special attention is paid to species listed under Schedule 5 of the Wildlife Act, 1976; 2000 in particular Badger or Otter. Bird sampling such as those recommended by Bibby *et al.*, (2000) were not carried out, but any bird species seen or heard were recorded. The survey also took account of the presence of any invasive species listed under the Third Schedule of the EC (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011).

4.3 Habitats

Habitats identified are categorised as per level 3 habitat mapping classification (Fossitt, 2000). The site comprises only buildings and artificial surfaces (BL3) i.e. two storey building surrounded by concrete path corridor and some gravel between the house and the river bank. This is being colonised by some vegetation (ED3) comprising species such as Dandelion (*Taraxacum officinale* agg.), Willowherb (*Epilobium montanum*), Bramble (*Rubus fruticosus*) and Ivy (*Hedera helix*). There are no non-native, invasive plant species (as listed under schedule 3 of SI no. 477 of 2011) present. There is a concrete balustrade on approximately 20cm stone plinth along the river bank boundary, which drops directly into the adjacent Corrib River Mill Race (FW1/FW2). The building is some 5m distant from the river bank.

The Mill Race is approximately 10m wide, >2m deep with a medium flow with a boulder and pebble substrate. It is vegetated with Canadian Waterweed (*Elodea canadensis*) and Pondweed (*Potamogeton pectinatus* cf.), along with Greater Pond Sedge (*Carex riparia* cf.), Common Reed (*Phragmites australis*), Great Willowherb (*Epilobium hirsutum*), Willow (*Salix* sp.), Sycamore (*Acer pseudoplanus*), Bramble and Ivy along its banks. It flows into the River Corrib (SAC) approximately 150m downstream.

4.4 Fauna

There are no notable fauna present. A Moorhen and chick was observed nesting within a small stand of large sedge swamp (FS1) along the far bank of the Mill Race. A Grey Heron was also observed in this locality. The site is not wet enough to provide suitable habitat for amphibians such as Common Frog.

A survey for bat species has already been undertaken (McInerney, 2022a). Although three species were recorded, there was no species roosting within the house. However, a Soprano Pipistrelle roost was recorded within the north-west corner of the adjacent Nuns Island Theatre building (max. 26 bats).

A Swift Survey (McInerney, 2022b) did not record any signs of nesting birds. However, there have been potential records of this species nesting at the adjacent Nun's Island Theatre in the past (McInerney, 2022b).

Species present within 1km grid (encompassing the development site and adjacent River Corrib and Mill Race) include the protected mammals Otter and bat species (Daubenton's, Pipistrelle, Soprano Pipistrelle) and range of bird species (e.g. Gulls, Pigeon, Cormorant) including Swift, Peregrine Falcon, Sand Martin and Little Grebe. None of these species are present on site.

Some native songbirds would likely occur within the general area e.g. in hedgerow e.g. Blackbird, Wren, Robin and possibly Bullfinch, Chaffinch and Willow Warbler. None of these are listed under Annex I of the EU Birds Directive or on the Birds of Conservation Concern Red List. The only other notable bird species that is considered potentially present along the watercourse is Kingfisher, which is listed for protection under Annex I of the EU Birds Directive.

4.5 Rare plants / notable species

The site does not support any of the habitats or species for which the SAC are designated, nor are there rare plants or other notable species present.

5. SCREENING

5.1 Identification of potential impacts

Only those features of the development that have the potential to impact on the integrity of the Natura 2000 site are considered. For screening purposes the potential impacts from the proposed development are examined with regard to the following:

- Habitat loss
- Alteration of habitats
- Habitat or species fragmentation
- Potential impairment of water quality
- Disturbance and/or displacement of protected species
- Cumulative impacts

5.2 Assessment of direct impacts

5.2.1 Natura 2000 site(s)

The development site is not located within a Natura 2000 site. Consequently, there is no direct loss of habitat from within the boundaries of any Natura 2000 site and as such no loss of habitat or fragmentation of habitat for the conservation interests of any site. Therefore, it can be concluded that no direct impacts will occur on any Natura 2000 site.

5.2.2 Site habitats

The development will result in some alteration to buildings and artificial surfaces. However, alterations to an existing built environment are of no ecological significance.

5.3 Assessment of indirect impacts

5.3.1 Sediment / pollutant run-off

Sediment, nutrient and pollutant run-off can occur owing to proposed works and the general operation of machines. These works could result in impacts on the semi-natural habitats present, notably any aquatic environment hydrologically linked with Natura 2000 site(s) i.e. Mill Race. The works could result in the run-off of sediment, dust, hydrocarbons and other potential pollutants into, which could transfer into a Natura 2000 site(s).

Suspended sediment and pollutants due to runoff from construction activities can negatively impact invertebrate, plant and fish life in surrounding waters. The potential destruction of the gravel beds by sediment run-off may lead to a decrease in abundance and composition of macro-invertebrates. These species constitute the diet of salmonid and other aquatic species, and their loss may lead to shifts in river ecology as other less sensitive invertebrate species begin to dominate. Suspended sediment can cause problems for Atlantic Salmon and lamprey species because this sediment can settle on spawning areas, smothering the eggs and newly hatched fish in the gravel thus leading to fragmentation, disturbance and possible displacement of the species.

The qualifying features of the SAC potentially impacted by the proposed development are aquatic habitats and species namely floating river vegetation, Otter, Salmon, Lamprey, White-clawed Crayfish and Freshwater Pearl Mussel.

5.3.2 Assessment

- (i) The majority of the works will be within the building.
- (ii) External works are small scale, with little potential for sediment run-off.
- (iii) The limited duration of the construction works.
- (iv) There are no drainage channels present on site.
- (v) The adjacent watercourse is separated by a stone plinth (c. 150-200mm high) under concrete balustrades and a small area of concrete/gravel. This stone plinth will remain in place during and after site works.
- (vi) The SAC is approximately 150m downstream from the development site.
- (vii) The SAC is accustomed to fluctuations in sediment loading (e.g. during heavy rainfall). Any additional loading would have little impact, once this loading is small.
- (viii) As with any development project, the application of good building (CIRIA guidelines) will be applied.

Considering all the above, it can be stated that there is no potential for the run-off of sediment or polluting material having a significant negative impact upon any Natura 2000 site, notably Lough Corrib SAC. As such, this development will not impact on its conservation objectives.

5.4 Assessment of impacts on relevant fauna

The site is not within any Natura 2000 site and as such cannot have any direct impact here. There are no notable resident fauna present.

The potential for impact on the SAC is mostly indirect, as described above. The Corrib River (SAC) and Mill Race may provide spawning habitat for Atlantic Salmon while other aquatic based species such as Otter may also occur. These and other aquatic species could be negatively impacted upon if sediment run-off from the works entered this watercourse. This potential impact is addressed above.

5.5 Assessment of cumulative impacts

The proposed development is considered in combination with other developments in the area that could result in cumulative impacts on Natura 2000 sites. In combination activities that could potentially impact on water quality with the proposed developments include agriculture, wastewater treatment and further development/ construction in the area.

The proposed development could result in an additional loading to the local town sewerage treatment works.

The following was undertaken:

- A search of on-line system for Galway County Council recent planning applications.
- A review of aerial photography in the vicinity of the proposed works.

The following were also accessed:

<https://galway.maps.arcgis.com/apps/webappviewer/index>.

<http://www.pleanala.ie/index.htm>

<http://www.epa.ie/licensing/>

The above indicate an urban environment, along with the River Corrib. Galway County Councils "Planning Enquiry System" indicates that there are no major development proposed within the vicinity could be considered to significantly impact on the integrity of the SAC.

The proposed development is very small and will have minimal impact on the local environment. The proposed development will not result in an additional loading to the local municipal sewerage treatment works.

Considering that it can be shown that this current project will have no significant impact on any Natura 2000 site, it would therefore contribute little to any potential cumulative /combination impacts with other potential developments. Any future development will be subject to the Appropriate Assessment process, and therefore, cumulative or in-combination impacts are unlikely to ensue.

5.6 Screening Assessment Conclusion

On the basis of the above scientific assessment, this Screening for Appropriate Assessment finds that the proposed works, either individually or in combination with other projects and plans, will not have a significant effect on any designated Natura 2000 European Union site, notably Lough Corrib SAC.

As such, there will be no impact on the Conservation Objectives of any Natura 2000 site (NPWS database).

A Screening Matrix for Appropriate Assessment elements is given in Appendix 1.

5.7 Recommendations

Notwithstanding that the proposed works are deemed to not have a significant impact on any Natura 2000 site, the following is recommended with respect to improvement in general ecology of the locality, e.g. providing a nesting/refuge and better overall ecology for birds, mammals and insects:

- Care should be taken to ensure roosting Pipistrelle bats within the adjacent theatre building are not disturbed while the connecting structure between the house and the theatre is being removed (refer McInerney, 2022a). In this regard, demolition and any scaffolding needed on the west side of this site should occur over the winter months when the bats are in hibernation. Access to their roost point should not be blocked / hindered during the maternity season.
- Appropriate lighting should be utilised so as to keep the site as dark as possible (refer McInerney, 2022a).
- Swift nest boxes should be considered e.g. along the southern gable wall / roof eaves.

Appendix 1: Matrix of Screening for Appropriate Assessment elements
(European Commission, 2001)

Brief description of the project	House renovation and alteration.
Brief description of Natura 2000 site	The works occur c. 150m from River Corrib SAC. This is designated for: [3110] Oligotrophic Waters containing very few minerals [3130] Oligotrophic to Mesotrophic Standing Waters [3140] Hard Water Lakes [3260] Floating River Vegetation [6210] Orchid-rich Calcareous Grassland* [6410] <i>Molinia</i> Meadows [7110] Raised Bog (Active)* [7120] Degraded Raised Bog [7150] Rhynchosporion Vegetation [7210] <i>Cladium</i> Fens* [7220] Petrifying Springs* [7230] Alkaline Fens [8240] Limestone Pavement* [91A0] Old Oak Woodlands [91D0] Bog Woodland* [1029] Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) [1092] White-clawed Crayfish (<i>Austropotamobius pallipes</i>) [1095] Sea Lamprey (<i>Petromyzon marinus</i>) [1096] Brook Lamprey (<i>Lampetra planeri</i>) [1106] Atlantic Salmon (<i>Salmo salar</i>) [1303] Lesser Horseshoe Bat (<i>Rhinolophus hipposideros</i>) [1355] Otter (<i>Lutra lutra</i>) [1393] Slender Green Feather-moss (<i>Drepanocladus vernicosus</i>) [1833] Slender Naiad (<i>Najas flexilis</i>)
Assessment criteria	
Describe the individual elements of the project (either along or along with other projects) likely to give rise to impacts on the Natura 2000 site	Run-off from the proposed works could enter the aquatic environment.
Describe any likely impacts of the project (either alone or in combination with other projects) on the Natura 2000 site by virtue of: <ul style="list-style-type: none"> • Size and scale • Land-take • Distance from Natura 2000 site or key features of the site • Resource requirements (e.g. water abstraction) • Emissions (land, water, air) • Excavations requirements • Transportation requirements • Duration of operation • Other 	<ul style="list-style-type: none"> • The size and scale of the operation is small. • There is no land-take involved. • The works are c. 150m from the SAC • There are no resource requirements. • Save minor sediment run-off, there will be no other emissions. • Excavations involve renovations and alterations to existing house. • Transportation involves building materials. • c. 9 months
Describe any likely changes to the site arising as a result of: <ul style="list-style-type: none"> • Reduction of habitat area • Disturbance to key species • Habitat or species fragmentation • Reduction in species density • Changes in key indicators of conservation value (e.g. water quality) • Climate change 	<ul style="list-style-type: none"> • There will be no reduction in Natura 2000 habitat area. • There will be no disturbance to key species. • Habitat/species fragmentation will not occur as outside the SAC. • There will be no reduction in species density. • There are no expected changes in the conservation value of the site e.g. designated habitats and species will not be affected. • No impact on climate change.

Ecological Screening Assessment for works at The Manse, Nun's Island, Galway (Nov., 2022)

Describe any likely impacts on the Natura 2000 site as a whole in terms of: Interference with the key relationships that define the (i) structure of the site (ii) function of the site	Although, the limited scale of the works, as well as the large size of this SAC, will likely not result in any interference with the key relationships defining the structure or function of the site, the development could result in run-off into the River Corrib (SAC)
Provide indicators of significance as a result of the identification of effects set out above in terms of: <ul style="list-style-type: none"> Loss Fragmentation Disruption/disturbance Change to key elements of the site (e.g. water quality) 	<ul style="list-style-type: none"> There will be no habitat loss. There will be no fragmentation as the development occurs outside the site boundary. There is no disturbance as outside SAC and small scale. Possible impact on water quality owing to sediment run-off from site.
Finding of no significant effects	
Is the project directly connected with or necessary to the management of the site? (- details)	No. The works relate to house renovation under the planning regulations.
Are there other projects that together with the project being assessed could affect the site? (-details)	No
Assessment of significance of effects	
Describe how the project (alone or in combination) is likely to affect the Natura 2000 site.	Run-off from the proposed works could enter the aquatic environment.
Explain why these effects are not considered significant	There are no watercourses present on site eliminating any potential for a hydrological pathway link to any Natura 2000 site. There is a stone plinth and balustrade between the works and nearby R. Corrib. The low level of the proposed works would result in only minimal sediment run-off.
Data collected to carry out assessment	
List of agencies consulted	NPWS.
Response to consultation	Positive
Who carried out assessment?	Ciaran Ryan M.Sc. (Environmental Science)
Sources of data	NPWS, refer Bibliography
Level of assessment completed	Screening Assessment / Statement
Where can the full results of the assessment be accessed?	Galway County Council
Overall conclusion: The proposed development will have no significant impact on the flora fauna, conservation interests and integrity of any Natura 2000 site, notably Lough Corrib SAC.	

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