

KERRY ECOLOGICAL SERVICES

Appropriate Assessment Screening for works at Ardrahan North, Co. Galway

Ciaran Ryan M.Sc.

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On behalf of: O'BF_A Architects

TABLE OF CONTENTS

- 1. INTRODUCTION**
 - 1.1 General**
 - 1.2 Description of project**
 - 2. LEGISLATION AND STATUTORY CONTEXT**
 - 2.1 Environmental Impact Assessment**
 - 2.2 Appropriate Assessment**
 - 2.3 Screening Statement**
 - 3. ECOLOGICAL STATUS**
 - 3.1 General background**
 - 3.2 Ardrahan Grassland SAC**
 - 4. SURVEY**
 - 4.1 General**
 - 4.2 Habitats**
 - 4.3 Fauna**
 - 4.4 Rare plants / notable species**
 - 5. SCREENING**
 - 5.1 Natura 2000 site**
 - 5.2 Identification of potential impacts**
 - 5.3 Assessment of direct impacts**
 - 5.4 Assessment of indirect impacts**
 - 5.5 Assessment of impacts on relevant fauna**
 - 5.6 Wastewater treatment**
 - 5.7 Assessment of cumulative impacts**
 - 5.8 Screening assessment conclusion**
- **Appendix 1: Matrix of Screening for Appropriate Assessment elements**
 - **References and Bibliography**

1. INTRODUCTION

1.1 General

Works are proposed within the village environs of Ardrahan North, Co. Galway, approximately 17km east of Galway City. The location and more complete details are given in associated architectural reports.

The site is approximately 0.5km south-east of Ardrahan Grassland Special Area of Conservation (SAC site code 2244). It is also < 2km south of Castletaylor Complex SAC (code 0242), < 5km south-east of Kiltiernan Turlough SAC (code 2185) and Lough Fingal Complex SAC (code 0606).

Galway County Council has requested further information on the application, including a Habitats Directive Screening Report given the proximity to the Ardrahan Grassland SAC.

It is considered owing to the limited nature of the development and separating distance to the other SACs, with a railway line, roads, farm fields and dwelling houses intervening, these sites can be screened out with respect to any detrimental impact.

The overall objectives of this assessment are:

- To assess any likely impacts that may impact on any existing Natura 2000 site i.e. Ardrahan Grassland 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 20 years experience in general ecological survey, Natura 2000 site assessments and reports and environmental consultancy.

1.2 Description of project

The total area of proposed site is 0.4 hectares. The proposed works are within a greenfield site to the east of the R458 road and immediately north-east of an existing housing development. There are several private house located immediately to the south and south-east of the site. The northern portion of the site is bounded by the Galway-Sligo Railway Line.

The project involves the construction of 10 no. residential units in Caisleán Raithin, Ardrahan for Galway County Council.

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).

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 first step in an AA is a Screening for an AA. 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.

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.

2.3 Screening Statement/ Natura Impact Assessment

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.

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 must be conducted.

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.

This report complies with a Screening Statement 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.

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.

3. ECOLOGICAL STATUS

3.1 General background

The proposed activity is close to a Natura 2000 site i.e. approximately 0.5km south-east of Ardrahan Grassland SAC site. 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 Ardrahan grassland SAC (site code 2244)

This site lies immediately west and north of Ardrahan in south Co. Galway. It is dominated by a large flat limestone area with a mosaic of calcareous habitats including limestone pavement, alpine heath, Juniper scrub and species rich dry grasslands. In contrast, the south-west of the site consists of a small marl lake and adjoining fens and marshes, with Juniper heath frequent on the higher ground. Soils associated with limestone pavement are generally thin rendzina, deeper pockets are more mineral rich and support limestone grassland and scrub in places.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[4060] Alpine and Subalpine Heaths
[5130] Juniper Scrub
[8240] Limestone Pavement*

The site contains a good example of limestone pavement, a priority habitat listed on Annex I of the E.U. Habitats Directive, a small though excellent example of the Annex I habitat alpine heath, along with one other Annex I habitat, Juniper scrub. Of particular note is the abundance of Bearberry (*Arctostaphylos uva-ursi*) and Juniper (*Juniperus communis*) in association with a typical Burren flora including species such as Mountain Avens (*Dryas octopetala*), Spring Gentian (*Gentiana verna*) and various orchid species including Fly Orchid (*Ophrys insectifera*). The southern and western part of the area is of significant interest due to the low intensity of management in the area. Both Mountain Avens and Bearberry alpine heaths occur at this site, where they form a mosaic with Juniper scrub, limestone pavement and calcareous grasslands.

This site contains a relatively small but fine example of limestone pavement, which occurs in a mosaic with other habitats. Common species include Blue Moor-grass (*Sesleria albicans*), Wild Thyme (*Thymus praecox*), Flea Sedge (*Carex pulicaris*),

Quaking-grass (*Briza media*), Devil's-bit Scabious (*Succisa pratensis*) and Heather (*Calluna vulgaris*). Pockets of Hazel (*Corylus avellana*) scrub have developed, and there are lesser amounts of Blackthorn (*Prunus spinosa*), Bracken (*Pteridium aquilinum*) and Hawthorn (*Crataegus monogyna*).

At the north of the site Juniper scrub forms a dense mat over limestone pavement along with Bearberry and Mountain Avens. Further south it occurs on higher undulating ground over a species rich calcareous heath with Wild Thyme, Carline Thistle, Tormentil (*Potentilla erecta*), Bloody Cranesbill (*Geranium sanguineum*), Black Bog-rush (*Schoenus nigricans*), Heather and occasional Bearberry.

Brackloon Lough occurs in the south of the site and is a fine example of a small shallow marl lake, one of very few in this locality. This open lake has a pronounced whitish appearance and a flora of lime-encrusted Thread-leaved Water-crowfoot (*Ranunculus trichophyllus*) and a little Curled Pondweed (*Potamogeton crispus*).

Shoreweed (*Littorella uniflora*) is locally abundant on the shoreline, where it grows with Many-stalked Spike-rush (*Eleocharis multicaulis*), Pink Water-speedwell (*Veronica catenata*), Lesser Water-plantain (*Baldellia ranunculoides*) and some Amphibious Bistort (*Polygonum amphibium*). Although small the lake seems in a relatively natural state.

*Ecological Screening Assessment for a proposed works at Ardrahan North, Co. Galway
(November, 2022)*

There are two small turloughs present within the site. Both are well grazed and consist of a short-turf peaty vegetation with Common Sedge (*Carex nigra*), Lesser Spearwort (*Ranunculus flammula*), Creeping Buttercup (*Ranunculus repens*) (turlough form), Lesser Marshwort (*Apium inundatum*), Cuckooflower (*Cardamine pratensis*), Marsh Pennywort (*Hydrocotyle vulgaris*) and Water Mint (*Mentha aquatica*), along with Common Marsh-bedstraw (*Galium palustre*), Creeping Bent (*Agrostis stolonifera*), Jointed Rush (*Juncus articulatus*) and Common Spike-rush (*Eleocharis palustris*).

Bird species recorded from the site include Snipe, Mute Swan and Curlew.

Land use at this site consists mainly of the traditional practise of winter grazing by cattle. This is a low intensity farming practise generally confined to the Burren in Ireland and one that is vital to the maintenance of the high scientific interest of this site. However, recent agricultural improvement has damaged the scientific interest of part of the site through loss of habitat in the turlough and limestone pavement areas. Intensification of the land usage around Brackloon Lough could lead to a deterioration in the water quality of the lake.

Ardrahan Grassland contains a mosaic of calcareous habitats including good examples of three habitats listed on Annex I of the E.U. Habitats Directive - limestone pavement, alpine heath and Juniper scrub. The presence of a relatively unpolluted marl lake adds further diversity and interest of this important site.

4. **SITE SURVEY**

4.1 **General**

The site has an elevation of between 29m OD and 32m OD and gently slopes in a south-westerly direction. Regionally, the topography ranges from a high point of 338m OD, 12km southeast of Ardrahan, to approximately 0m OD, at the coastline of Kinvara Bay, approximately 9km west of the Ardrahan village. The topographical relief in the vicinity of the site is also gently sloping.

The site was agricultural land until the first phase of the housing development was built as shown on Aerial Map 2005 – 2012. The surrounding land saw the expansion of Ardrahan village and some local rural one-off housing.

4.2 **Habitats**

The existing habitat present would be categorised as rough/rank grassland (GS4/GS1) with some encroaching Willow (*Salix* sp.) scrub (WS1). The vegetation comprises typical grasses (e.g. *Holcus lanatus*, *Agrostis stolonifera*, *Anthoxanthum odoratum*, *Festuca rubra*, *Agrostis tenuis*), Creeping Buttercup (*Ranunculus repens*), Dandelion (*Taraxacum officinale* agg.), Bramble (*Rubus fruticosus*), Bracken (*Pteridium aquilinum*) and some Soft Rush (*Juncus effusus*). Overall, the land is species-poor.

Along the northern site boundary, there is poorly developed hedgerow (WL1) of mostly Bramble (*Rubus fruticosus*) and occasional cut trees (e.g. *Salix* sp., *Crataegus monogyna*).

It should be noted that there are no watercourses or drainage channels present within the site or along the site boundaries.

4.3 **Fauna**

The site would support little fauna, with no notable species present. The tree species present in the general area are too scattered and small to support any fauna of note.

4.4 **Rare plants / species**

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

Photographs of the site have been submitted with other related documents.

5. SCREENING

5.1 Natura 2000 site(s)

Habitats, flora and fauna present within the SAC are detailed in section 3. Of most relevance to this site are the habitats and species present within Ardrahan Grassland notably alpine and subalpine heath, juniper scrub and limestone pavement.

The conservation objectives of the SAC are to maintain or restore the favourable conservation status of Annex I Habitats present (refer section 3).

5.2 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

The development site is not hydrologically linked with Ardrahan Grassland SAC (or any of the other nearby Natura 2000 sites) and is considered sufficiently distant from Ardrahan Grassland (and all the other sites), with embankments, hedgerow, a railway line, a farm field and a public road intervening, to not impact on its conservation objectives.

5.3 Assessment of direct impacts

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

5.4 Assessment of indirect impacts

- **Surface water run-off / pollution**

Contaminated surface water run-off hosting sediment, nutrients and/ or pollutants from this development at the application site is a potential source of impact. This can occur owing to proposed works and general operation of machines. While the application site is not situated within the nearby SAC, it is located approximately 500m south-east of this site. Any drains or watercourses on site could potentially act as a conduit for the transfer of dust, sediment, hydrocarbons and other potential pollutants from the application site to the SAC. Silt and sediment laden surface water run-off and dust deposits could potentially have a negative impact on important and sensitive habitats and species that are found within the SAC e.g. alpine and subalpine heath, juniper scrub and limestone pavement. Disturbance or displacement of species could potentially occur within the SAC arising from the development if surface water was contaminated with runoff from construction activities.

However, there are no watercourses on site, and the site is not hydrologically linked to the nearby Ardrahan Grassland SAC. Also, it is separated from the SAC by embankments, hedgerow, a raised railway line, a farm field and a public road.

Therefore, it is considered that there is minimal to nil potential for surface water run-off of sediment or polluting material entering the SAC. As such, this development will not impact on its conservation objectives.

5.5 Assessment of impacts on relevant fauna

The site comprises rank grassland with no fauna of note. It is not within an SAC and as such cannot have any direct impact here. The potential for impact on the SAC is mostly indirect, as described above. However, as determined above, it is not expected to have any indirect impact on Ardrahan Grassland SAC via the aquatic environment and any resident fauna residing therein. Disturbance is also not considered to be a factor, as works will occur within the greater area of Ardrahan village, adjacent to existing dwelling houses, roads and a railway line.

5.6 Wastewater treatment

It is proposed to replacing the tertiary filter system by digging out the existing system and building up a new filter to be designed in accordance with current EPA standards.

The Updated Tier 2 Hydrogeological Report (Mitchell, 2022) states “the existing treatment plant is considered to be suitably sized to cater for the additional 10 no. dwellings proposed by Galway County Council i.e. calculated PE BOD5 load of 91.8 g/day for a 100 PE system.”

1. Investigation of the tertiary treatment filter confirmed the following:

- The filter is effectively a gravel distribution bed only and is not a soil or sand filter as originally understood. The filter was also not constructed in line with the EPA Code of Practice, 2009. However, it is noted that it was constructed prior to the 2009 guidance document.
- Wastewater from the WWTP is currently not being pumped to the gravel bed with all wastewater being discharged into the French drain along the eastern side of distribution bed. This wastewater is seeping into the surrounding soils and eventually into the bedrock aquifer likely via discontinuities within the low permeability silts and clays that have not been identified to-date.
- A newly constructed filter bed is required to be constructed in line with the Code of Practice.

*Ecological Screening Assessment for a proposed works at Ardrahan North, Co. Galway
(November, 2022)*

2. Infiltration testing of the overburden in proximity to filter and its general environs recorded very low permeabilities across the site. This is consistent with the percolation testing within the overburden undertaken in 2019 at the site entrance. The permeabilities do not conform with the EPA Code of Practice and are deemed inappropriate to facilitate the infiltration of treated wastewater to groundwater. However, it is noted that the lack of any surface water features in proximity to the site and the lack of any ponding of disposed wastewater to ground suggests that some form of infiltration is occurring at the site, most likely via preferential pathways or localised permeable zone(s) within the overburden not identified to-date.
3. Hydraulic testing of the bedrock aquifer suggests suitable hydraulic capacity to facilitate infiltration of treated wastewater within the bedrock aquifer.
4. Groundwater quality across the site was found to be of a good quality with no impact on groundwater quality by the existing WWTP identified. All groundwater abstracted from the abstraction well within the Caislean Rathlin development is also of good quality. This water is treated within the treatment building (Chlorine dosing only) also located within the grounds of the development.
5. A preliminary Zone of Contribution (ZOC) Assessment was undertaken for the current abstraction borehole considering the proposed additional houses being considered for development. The ZOC assessment was based on desk study, limited well information and is a preliminary assessment only. The extent of the ZOC was estimated to encompass an area that includes the WWTP and its discharge to ground.
6. Groundwater assimilation capacity has been simulated (using bedrock aquifer data only) with no consideration of overburden conditions and shown to be compliant with the Groundwater Regulations (2010). This simulation provides an indication of the ability of the bedrock aquifer to cater for the existing and proposed additional hydraulic and chemical loadings. As the overburden across the site comprises very low permeability subsoils, where investigated, the simulation calculations are based on the theoretical assumption that the subsoils are sufficiently permeable or will be suitably permeable as part of site redevelopment works and does not represent current site conditions of wastewater discharging to these subsoils.
7. The main identified receptors posed by the WWTP discharge are to the Clarinbridge GWB and the drinking water well supply to Caislean Rathlin development. As the WWTP discharge is located within the preliminary delineated ZOC for the well, the risks to this supply are considerably increased and considered to be high. However, the following salient points and 'lines-of-evidence' are noted that significantly reduce the risk posed:
 - Based on 2 no. rounds of groundwater monitoring in the vicinity of the WWTP and the abstraction well, no impact to groundwater quality has been identified to-date. This is a very positive consideration given the fact that the WWTP is not functioning as designed and the tertiary treatment has not been appropriately constructed nor is functioning as a tertiary treatment system. This would suggest that there is significant dilution capacity within the groundwater system underlying the discharge zone.
 - Water quality discharge from the WWTP does not indicate significantly elevated contaminants with slightly elevated levels of Ammonia only identified to-date. Phosphate levels appear within the typical range for the WWTP.
 - Overburden across the site has been confirmed as low permeability thereby facilitating a form of filtration of the wastewater posed WWTP.
 - Water from the abstraction well for drinking water purposes is treated using chlorination thereby providing an additional layer of protection to human health from the WWTP

discharge. Given the lack of any impact to water quality within the bedrock aquifer in the vicinity of the WWTP and the good quality groundwater recorded, the risk posed to the Clarinbridge GWB is considered to be low. Reconstruction of the tertiary filter bed in line with the EPA Code of Practice in the future will further treat the wastewater before it enters the GWB, thereby minimising the risk posed.

8. This updated Tier 2 Assessment confirms that the proposed additional 10 no. houses planned for connection to the existing WWTP is unlikely to impact on the Clarinbridge GWB or groundwater quality to the abstraction well of the housing development. In addition, assimilative capacity assessments confirm that there is sufficient capacity within the bedrock aquifer to cater for the proposed additional discharge.
9. A series of recommendations have been provided to address the issues surrounding the existing gravel bed and the low permeability subsoils in the vicinity of the WWTP. Once implemented, the report could conclude that the updated WWTP is in line with the EPA Code of Practice, will not pose a risk to the quality of groundwater nor will pose a risk to identified sensitive receptors (Mitchell, 2022).

5.7 Assessment of cumulative impacts

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. Considering that it can be shown that this current project will have little to nil impact on the SAC (refer above), it would therefore contribute little to any potential cumulative/combination impacts with other potential developments. It should also be borne in mind that this project is within the village of Ardrahan, adjacent to existing dwelling houses.

5.8 Screening Assessment Conclusion

Based on the above assessment, there is no expected impact on any Natura 2000 site hosting designated and notable habitats and species, notably Ardrahan Grassland SAC (as outlined in section 3.2). This SAC is considered to be the only Natura 2000 site that could be potentially impacted by the proposed development (refer 1.1). As such, there will be no impact on the Conservation Objectives for Ardrahan Grassland (as per NPWS database).

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

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

Brief description of the project	Construction of dwelling houses at Ardrahan North, Co. Galway.
Brief description of Natura 2000 site	The works occur within c. 500m south-east of Ardrahan Grassland SAC. This site has been designated for alpine and subalpine heath, juniper scrub and limestone pavement.
Assessment criteria	
Describe the individual elements of the project (either alone or along with other projects) likely to give rise to impacts on the Natura 2000 site	The works involves the construction of new buildings and ancillary facilities. This could lead to sediment and polluting material run-off into the SAC 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. 500m from the SAC. • There are no resource requirements. • Save minor sediment run-off, there will be no other emissions. • Excavations require the construction of new house units. • Transportation involves importation of building materials. • Approximately 12 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 sites e.g. designated habitats and species will not be affected. • No impact on climate change

*Ecological Screening Assessment for a proposed works at Ardrahan North, Co. Galway
(November, 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	The limited scale of the proposed works, along with minimal to nil expected impacts with respect to this SAC, will not result in any interference with the key relationships defining the structure or function of the site.
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 works occur outside the site boundary. • Disturbance is restricted to a very small area for a limited time period (c. 12 months), 500m from the SAC within a urban location. • No changes to key elements of the site anticipated.
Describe from above, those elements of the project, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known	No significant impacts expected considering the low conservation value of the affected habitats, the separation distance to the SAC and the lack of any hydrological link to the SAC.
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 building 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.	The proposed works could impact on the SAC due to run-off of sediment or polluting material. Possible some short-term disturbance to fauna.
Explain why these effects are not considered significant	The land is some 500m from the SAC separated by hedgerow, a railway line, a farm field and a public road. There is no hydrological link to the SAC. The site is within an urban location.
List of agencies consulted	NPWS.
Response to consultation	Positive
Data collected to carry out assessment	
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: It is considered that the proposed development 500m from Ardrahan Grassland SAC, will have no significant impact on the flora and fauna, conservation interests and the integrity of this, and any other designated Natura 2000 site.	

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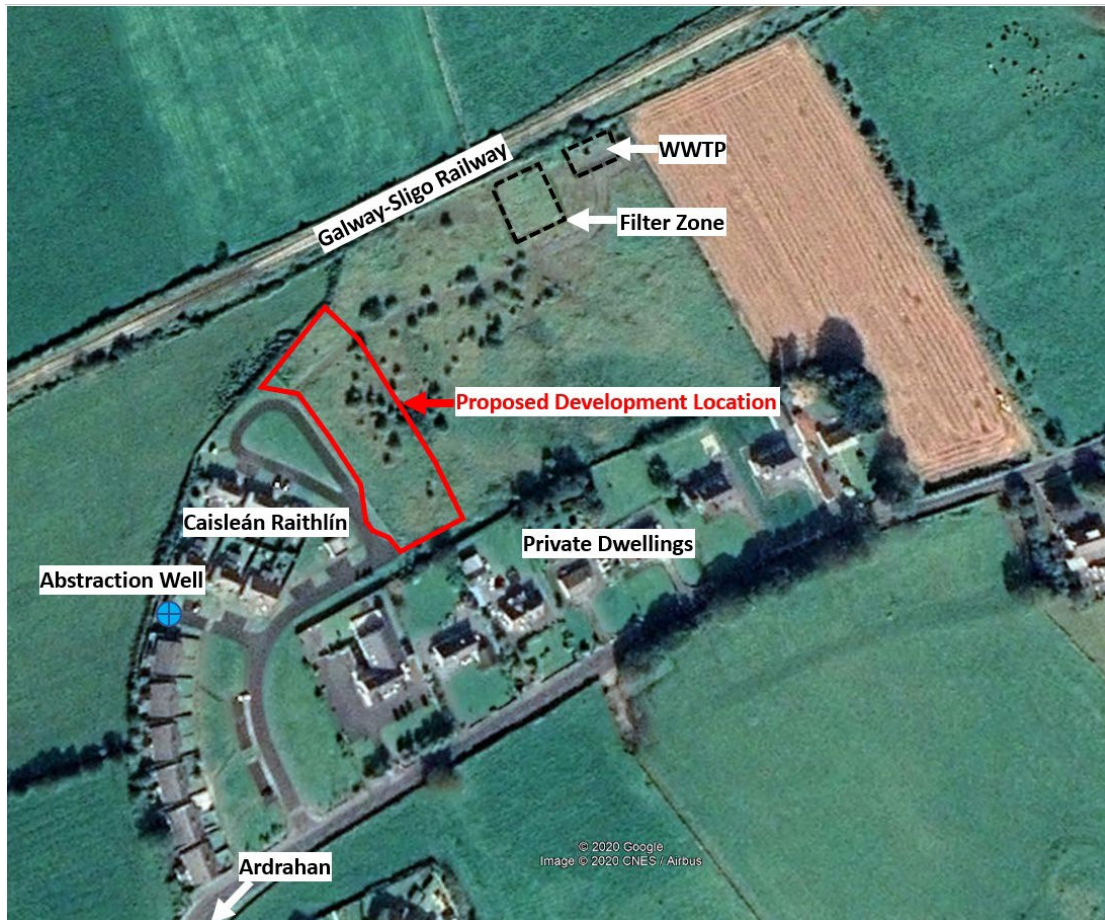


Figure 1: Site location and setting