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ENVIROPLAN CONSULTING
LIMITED

Title

APPROPRIATE ASSESSMENT
SCREENING REPORT

Development Description

"Permission for the construction of a new Fire station building, together with associated training tower, shed, signage, landscaping, parking and yard areas, revised boundary treatments, connections to existing services and all associated site development works"

Location

St. Lawrencesfields, Loughrea, Co. Galway.

Applicants

Galway County Council

Prepared by:

*Colette Casey (B.SC) in partnership with
James O' Donnell (BA, MRUP, Dip APM)*

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APPENDICES

APPENDIX A Site Layout Plan

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Note: The scope of this report is to provide the necessary information to the competent authority, to assess whether the proposed development alone and in combination with other projects, could have significant effects on Natura 2000 sites in the area in view of the sites conservation objectives, in accordance with Article 6 of the Habitats Directive, and does not purport to be an ecological assessment of the subject site.

1 INTRODUCTION

This Appropriate Assessment Screening Report has been prepared by Colette Casey (BSc) in partnership with James O' Donnell, Planning Consultant (BA, MRUP, Dip APM) on behalf of Galway County Council who are applying for planning *"for the construction of a new Fire station building, together with associated training tower, shed, signage, landscaping, parking and yard areas, revised boundary treatments, connections to existing services and all associated site development works"*. at St Lawrencesfields, Loughrea, Co. Galway.

This Appropriate Assessment Screening Report has been informed by the Flood Risk Assessment prepared by Flood Risk Consulting.

Colette Casey is an experienced and qualified ecologist. She has obtained a Bachelor's degree in Environmental Science (BSc Hons) at the National University of Ireland, Galway. She has been involved in the completion of numerous Appropriate Assessment Screening Reports (AASR's), Natura Impact statements (NIS's), Construction Environmental Management Plans (CEMP's), Otter, Hen Harrier and Bat Surveys in the Republic of Ireland. She is an active member of Birdwatch Ireland, Bat conservation Ireland. Colette is a registered member of CIEEM and has been issued a Bat Surveying license by National Parks and Wildlife services.

James O' Donnell is a qualified Town Planner and Project Manager with over 24 years planning experience in both the public and private sector in the west of Ireland, including 6 years' experience as a local authority planning officer. James has particular experience in the project management and delivery of a wide range of complex planning applications requiring environmental and ecological assessment, in accordance with the requirements of the EU Habitats Directive and EIA Directives.

The application site (outlined in red) is 600 meters from the Lough Rea SAC and 609 meters from Lough Rea SPA, which has been designated under the EU Habitats Directive and EU Bird Directive, and so it is necessary that the potential impacts of the proposed works be assessed by the competent authority, in accordance with Article 6 of the Habitats Directive. This report provides the information necessary for the competent authority to complete an Appropriate Assessment of the potential impacts of the proposed works on sites of European importance in the area. This report has also had regard to the provisions of the March 2021 publication entitled *"OPR Practice Note PN01- Appropriate Assessment Screening for Development Management"*.

Table 1.1: Step One: Description of the project/proposal and local site characteristics

Brief description of the project plan	<i>"Permission for the construction of a new Fire station building, together with associated training tower, shed, signage, landscaping, parking and yard areas, revised boundary treatments, connections to existing services and all associated site development works"</i>
Brief description of site characteristics	The subject site is located within the urban envelope of Loughrea town, at the western edge of the settlement. The site is currently in greenfield condition and is bounded by multiple residential development. The site has road frontage onto the R380 Athenry road and the Lough Rea Hotel and Spa is located across the road to the north.

1.1 LEGISLATIVE BACKGROUND

1.1.1 EU Nature Conservation Legislation and Natura 2000 Sites.

There are three main types of designation for nature conservation in Ireland: Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Natural Heritage Areas (NHAs). NHAs are designated under the Irish Wildlife Act 1976 (amended 2000). SACs and SPAs are designated under European legislation, the EU Habitats Directive 92/43/EEC (transposed into Irish law in the European Union (Natural Habitats) Regulations, 1997 as amended in 1998 and 2005) and the EU Birds Directive 79/409/EEC, respectively. These European designated sites (SACs and SPAs) are also known as Natura 2000 sites. This means that they are part of the Natura 2000 Network, a network of important ecological sites across the European Union.

Sites are designated on the basis of the presence of certain 'Qualifying Features', i.e. the habitats listed under Annex I and the species listed under Annex II of the EU Habitats Directive.

Once a site is designated as a SAC and publicly advertised it is legally protected and becomes a proposed candidate SAC (pcSAC). A three-month period follows during which landowners may lodge an objection to the designation. Details of each proposed SAC are then given to the EU Commission, and thereafter the site is called a "candidate SAC". Once the sites are approved by the commission, they are formally designated by the Minister.

1.1.2 Appropriate Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites

Due to the proximity of the proposed development to a candidate Special Area of Conservation, also known as a Natura 2000 site, an Appropriate Assessment may be required under the Habitats Directive 92/43/EEC, Article 6(3) and (4), Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites. Such assessments are required where it is identified that a proposed plan or project could have significant impact on a Natura 2000 site. Articles 6(3) and (4) of the Directive, state the following;

6.3 *'Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives... the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned....'*

6.4 *'If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest... the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected...'*

2 METHODOLOGY

The screening exercise will be conducted in line with the recommendations and protocol set out in the Guidance from the Commission (EC, 2002). This protocol involves a four-stage process to complete an Appropriate Assessment. At each stage, the findings of certain issues and tests will determine whether the next stage in the process is required.

2.1.1 Appropriate Assessment Stages

The four stages in the Appropriate Assessment process are outlined below:

Stage 1: Screening

This step consists of examining the likely potential impacts of a project or plan, alone or in combination with other projects, upon a Natura 2000 site or sites, and considers whether these impacts may be considered significant. If no significant impacts are foreseen, then a 'finding of no significant effects' (FONSE) statement is issued to the appropriate authority, and the process is complete. If the effects are considered significant or their significance is unknown, then the process moves on to Stage 2.

Stage 2: Appropriate Assessment

Where the screening process has identified potential impacts which are considered significant or unknown, this process examines these potential impacts in detail, in relation to the conservation interests of the Natura 2000 site or sites. Mitigation measures may be suggested to reduce the likelihood or severity of these impacts. If the impacts are still considered to be significant or unknown after this stage is complete, then alternative solutions must be considered (Stage 3).

Stage 3: Assessment of Alternative Solutions

If the potential impacts are still considered to be significant or unknown after the Appropriate Assessment stage, then alternative ways of implementing the project are considered at this stage. If no alternative solutions are possible, then it is considered whether the project or plan may go ahead regardless, if imperative reasons of overriding public interest (IROPI) are found.

Stage 4: Imperative Reasons of Overriding Public Interest (IROPI)

If significant negative impacts on the Natura 2000 site are unavoidable, and no alternative solutions may be found, then this stage involves the consideration of whether the project or plan may go ahead despite these effects, for 'imperative reasons of overriding public interest' (IROPI).

The results of a Stage 1 (Screening) Exercise are detailed in **Section 3** of this report.

3 STAGE 1: SCREENING FOR APPROPRIATE ASSESSMENT

3.1 DESCRIPTION OF THE PLAN OR PROJECT

For planning permission “for the construction of a new Fire station building, together with associated training tower, shed, signage, landscaping, parking and yard areas, revised boundary treatments, connections to existing services and all associated site development works”. A Site Layout Plan is included as **Appendix A** to this report.

3.2 DESCRIPTION OF THE EXISTING ENVIRONMENT

3.2.1 Site Location in Relation to Natura 2000 Sites

The proposed site is located at St Lawrencesfields, Loughrea, Co. Galway. (Grid Ref - Easting:160817.79, Northing:216957.15). The site for the proposed development lies approximately 600 meters from the Lough Rea SAC and 609 meters from Lough Rea SPA (see **Figure 3.1** below).

All Natura 2000 sites within a 15km buffer of the proposed development are listed in **Table 3.1** and **Figure 3.2**.

Table 3.1: Step Two: Identification of relevant Natura 2000 sites using Source-Pathway-Receptor Model and Compilation of information on QI and Conservation Objectives

European Site (Code)	List of Qualifying Interest/Special Conservation Interest	Distance from the proposed development (km)	Receptor/Connection	Screen In – Yes/No
Lough Rea SAC (Site code 000304)	QI's 1 Habitat http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000304.pdf	600 meters	No-due to the lack of connectors/receptors and significant distance from the proposed site. <u>Construction Phase</u> No impacts are predicted during the construction phase due to the lack of receptor/connector pathways. <u>Operational Phase</u> The proposed development will connect to the existing public sewer. Confirmation of feasibility has been provided by Irish Water (see appendix 4 of Engineering Report Planning Stage). Therefore, no impacts are predicted in this regard. The proposed surface drainage system for the development is to	No

			connect to the existing storm sewer network in place in Loughrea. Surface water run-off will flow into an Klargestor NSBE015 or similar (petrol interceptor) and then into an attenuation tank, before discharging into the public surface water sewer network. Confirmation of feasibility has been provided by Irish Water (see appendix 4 of Engineering Report Planning Stage). Therefore, no impacts are predicted in this regard.	
Sonnagh Bog SAC (Site code 001913)	QIs – 1 Habitat http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001913.pdf	8.17km	No-due to the lack of connectors/receptors and significant distance from the proposed site	No
Rahasane Turlough SAC (Site code 000322)	QIs – 1 Habitat http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000322.pdf	10.92 km	No-due to the lack of connectors/receptors and significant distance from the proposed site	No
Peterswell Turlough SAC (Site code 000318)	QIs – 2 Habitats http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000318.pdf	11.35km	No-due to the lack of connectors/receptors and significant distance from the proposed site	No
Castletaylor Complex SAC (Site code 000242)	QIs- 5 Habitats http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000242.pdf	14.39km	No-due to the lack of connectors/receptors and significant distance from the proposed site	No
Lough Coy SAC (Site code 002117)	QIs – 1 Habitat http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002117.pdf	14.87 km	No-due to the lack of connectors/receptors and significant distance from the proposed site	No
Lough Rea SPA (Site code 004134)	QIs 2 Bird Species and 1 Habitat http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004134.pdf	609 meters	No. Construction Phase This is due to the lack of connectors/receptors and significant	No

	sites/conservation_objectives/CO004134.pdf		distance between the SPA and the subject site. <u>Operational Phase</u> The intervening-built environment consists of a number of residential estates, and there is a lack of intervisibility between the subject site and the SPA. It should also be noted that the height of the Loughrea Hotel and Spa Building is, c. 8.18m higher than the proposed training tower. In this regard, it is considered that the addition of the proposed training tower is unlikely to impact on bird feeding and flight behaviours associated with the SPA.] No, given that the proposed development will connect to the existing public sewer and the intervening urban environment, No impacts are predicted. The proposed surface drainage system for the development is to connect to the existing storm sewer network in place in Loughrea. Surface water run-off will flow into an Klargestor NSBE015 or similar (petrol interceptor) and then into an attenuation tank, before discharging into the public surface water sewer network. Confirmation of feasibility has been provided by Irish Water (see appendix 4 of Engineering Report Planning Stage). Therefore, no impacts are predicted in this regard.	
Slieve Aughty Mountains SPA (Site code 004168)	QI's 2 Bird Species http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004168.pdf	4.43km	No-due to the lack of connectors/receptors and significant distance from the proposed site. Hen Harriers are generally biased towards moorland/grassland mosaic habitats which support larger numbers of hen harrier preferred prey species, such as meadow pipit (<i>Anthus pratensis</i>) and skylark	No

			(<i>Alauda arvensis</i>). Therefore, owing to the highly managed grassland area at the application site, it has a low suitability to Hen Harrier for foraging. Hen Harriers are also unlikely to be found within 100 meters of active buildings.	
Rahasane Turlough SPA (Site code 004089)	QI's 5 Bird species and 1 Habitat http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004089.pdf	10.98km	No-due to the lack of connectors/receptors and significant distance from the proposed site	No



Figure 3.1: Site Location (Red X) in Relation to the Lough Rea SAC & SPA Natura 2000 Sites



Figure 3.2: Site Location (outlined in red)

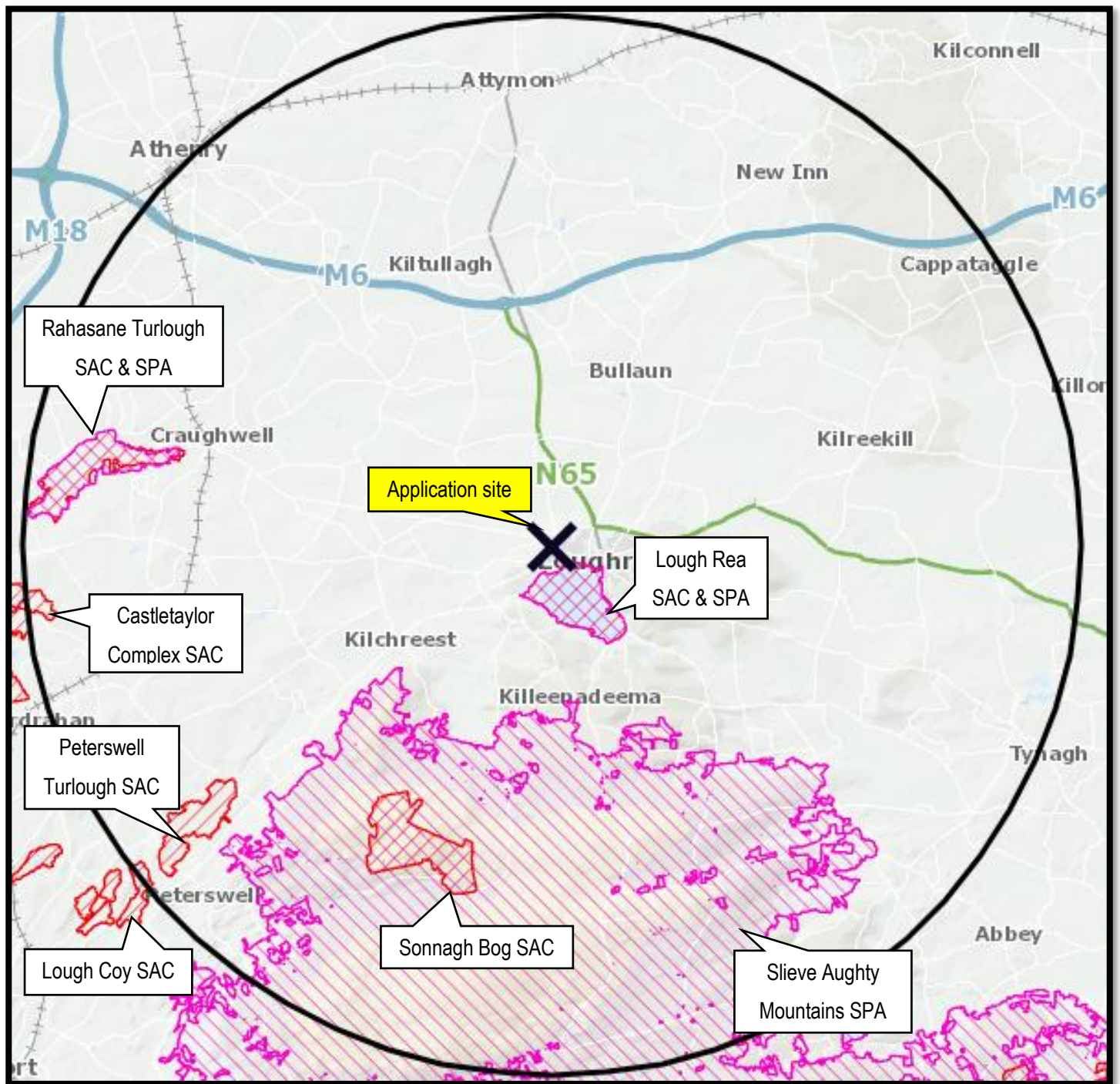


Figure 3.2: 15km Buffer Surrounding Site

4 BRIEF DESCRIPTION OF THE NATURA 2000 SITES WHICH MAY BE AFFECTED

Qualifying Features

Natura 2000 sites are designated on the presence of certain habitats and species which are afforded protection under the Birds and Habitats Directives. These habitats and species are regarded as 'qualifying features' of the Natura 2000 sites. The following section provides details on the qualifying features of the Natura 2000 sites in question – Lough Rea SAC & SPA Natura 2000 site. The NPWS site synopses for the designated sites are given as Appendix B and Appendix C to this report.

Table 4.1 Lough Rea SAC Habitat Information

Habitat code	Habitat name	Cover (ha)	Representativity ¹
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	307.07	B

For species, a value is given for 'Population Significance'. This value is based on the relative density or size of the population of that species within the Natura 2000 site with that of the national population. Population Significance is ranked on a scale from A to D where A - 100% >= p > 15%, B - 15% >= p > 2%, C - 2% >= p > 0% and D - Non-significant population. The SCI species found in the Lough Rea SPA Natura 2000 sites are outlined in Table 2.3 below. The Lough Rea SAC is not designated for the presence of any QI species.

Table 4.2 Lough Rea SPA SCI Species Information

Species code	Latin name	English name	Population significance
A056	<i>Anas clypeata</i>	Shoveler	B
A125	<i>Fulica atra</i>	Coot	B

¹ The degree of representativity gives a measure of 'how typical' a habitat type is. If need be, this assessment should likewise consider the representativity of the habitat type concerned on the site in question, either for a group of habitat types or for a particular combination of different habitat types. If the field data, namely quantitative data, for the comparison do not exist or if measurement of the criterion is not feasible, the 'best expert judgment' may be used to rank the habitat type. The following ranking system should be used: A: excellent representativity B : good representativity C : significant representativity

Potential Pressures and Threats to the Natura 2000 Sites

The European Nature Information System (EUNIS) website contains data on all Natura 2000 sites, including details of the main threats to and pressures on their qualifying features. Potential threats to and pressures on the qualifying features of the Lough Rea SAC and the Lough Rea SPA Natura 2000 sites are listed in **Tables 4.3 & 4.4**

Table 4.3 Potential Pressures and Threats to the Lough Rea SAC Natura 2000 Site

Activity	Location	Intensity	Influence
Agricultural Intensification	Inside/Outside	Medium	Negative
Storage of materials	Inside/Outside	Medium	Negative
Disposal of inert materials	Inside/Outside	High	Negative
Forest Planting on open ground (Native trees)	Inside	Low	Negative
Continuous urbanisation	Inside	High	Negative
Pollution to surface waters by storm overflows	Inside/Outside	Low	Negative
Diffuse pollution to surface waters due to household sewage and waste waters	Inside/Outside	High	Negative
Flooding and rising precipitations	Inside/Outside	Low	Negative
Removal of hedges and copses or scrub	Inside/Outside	Medium	Negative
Invasive non-native species	Inside	Low	Negative

Table 4.4 Potential Pressures and Threats to the Lough Rea SPA Natura 2000 Site

Activity	Location	Intensity	Influence
Hunting	Inside	Low	Negative
Leisure fishing	Inside	Medium	Negative
Urbanised areas, human habitation	Outside	High	Negative
Silviculture, forestry	Outside	Medium	Negative
Nautical sports	Inside	Low	Negative
Fertilisation	Outside	Medium	Negative

Conservation Objectives of the Natura 2000 Sites

Once a site has been designated as a Natura site, a management plan should be put together for the site which sets out the Conservation Objectives for the site. Every effort should then be made to ensure that these objectives are fulfilled, in order to prevent potential impacts to the qualifying features of the site and maintain as far as possible their favourable conservation status.

European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status sites designated as Special Areas of Conservation and Special Protection Areas. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

Favourable conservation status of a habitat is achieved when:

its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

Population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Management plans have been published for the Lough Rea SAC and the Lough Rea SPA Natura 2000 sites. Qualifying interests and objectives (bulleted) are listed below

Lough Rea SAC (Site Code 000304)

QI- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.

Objective: To maintain the favourable conservation condition of Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. in Lough Rea SAC, which is defined by the following list of attributes and targets:

- Habitat and distribution stable or increasing subject to natural processes
- Typical species present, in good condition, and demonstrating typical abundances and distribution
- All vegetation characteristic zones should be present, correctly distributed and in good condition
- Maintain maximum depth of vegetation subject to natural processes
- Maintain appropriate hydrological regime necessary to support the habitat
- Maintain appropriate substratum type, extent and chemistry to support the vegetation
- Maintain appropriate Secchi transparency. There should be no decline in Secchi depth/transparency
- Maintain/restore the concentration of nutrients in the water column to sufficiently low levels to support the habitat and its typical species
- Maintain appropriate water quality to support the habitat, including high chlorophyll a status
- Maintain appropriate water quality to support the habitat, including high phytoplankton composition status
- Maintain trace/absent attached algal biomass (<5% cover)
- Maintain high macrophyte status
- Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the habitat, subject to natural processes
- Maintain appropriate water colour to support the habitat
- Maintain appropriate organic carbon levels to support the habitat
- Maintain appropriate turbidity to support the habitat
- Maintain the area and condition of fringing habitats necessary to support the natural structure and functioning of lake habitat 3140

Lough Rea SPA (Site Code 004134)

A site-specific management plan has not yet been published for the Lough Rea SPA. However, generic conservation objectives have been published by NPWS for each Natura 2000 site in the country.

- To maintain or restore the favourable conservation conditions of the bird species listed as Special Conservation Interests for this SPA: 1) Shoveler (Bird code- A056)
2) Coot (A125)
- To maintain or restore the favorable conservation conditions of the wetland habitats at Lough Rea SPA as a resource for the regularly occurring migratory waterbirds that utilize it.

Conclusions

There is no likely impact due to the proposed development on the Lough Rea SAC & SPA, due to the distance between the application site and Natura 2000 site and with no identifiable connectors/receptors. Therefore, no impacts are predicted on the conservation objectives of the Lough Rea SAC & SPA due to the proposed development and can be screened out and no significant impacts/effects are predicted.

The Lough Rea SPA Qualifying Interest of Shoveler (*Anas clypeata*) and Coot (*Fulica atra*), both of which favor feeding in or on the shores of water bodies. Coots nest in shallow bodies of waters and shoveler favor waterside vegetation to nest in. However, the latter habitats are not found at the subject site. Instead, the subject site is located within an urban area experiencing high levels of anthropogenic impacts (i.e. noise, lighting, and disturbance) generated from the public road, commercial and residential buildings in the immediate area. Therefore, changes to the European Site area unlikely as a result of the proposed development. No impacts are predicted on the Shoveler (*Anas clypeata*) and Coot (*Fulica atra*) feeding, breeding and population numbers due to the proposed development

There is no identifiable connector/receptor pathway from the application site to the Qualifying habitats on Lough Rea SPA of wetlands and waterbirds. There is no intervisibility, hydrological link and/or ecological connector, therefore no impacts are predicted on wetlands and waterbirds.

5 SOILS, GEOLOGY & HYDROGEOLOGY

The Geological Survey of Ireland (GSI) website was consulted for available geological / hydrological information. The site is underlain by Limestone till (Carboniferous) .Topsoil on site consists of Grey Brown Podzolics, Brown Earths. The groundwater vulnerability within the site is rated as E- Extreme. Vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease at which groundwater may be contaminated by human activities.

Table 5.1- Details information gleaned from catchments.ie on the water status of the groundwater waterbody. This concludes that the groundwater is rated as good overall status.

Rahasane Turlough Waterbody Information	
Name	Rahasane Turlough
Code	IE_WE_G_0100
WFD Catchments	25C Lower Shannon 26D Upper Shannon 29 Galway Bay South East 30 Corrib
Longitude	53.2506634
Latitude	-8.5894601
Cycle 1 RBD	Western
Local Authority	Galway County Council
Waterbody Category	Groundwater
WFD Risk	At risk
Protected Area	N/A
High Status Objective	No
Heavily Modified	N/A
Artificial	N/A
Area (km ²)	N/A
Length (km)	N/A
Transboundary	No
Canal	No
GW 2013-2018 Overall Groundwater Status	Good

6 OTHER PLANS AND PROJECTS IN THE AREA

It is a requirement of the Appropriate Assessment process to consider the 'in combination' effects of the proposed development with other plans and projects in the area. **Table 6.1** below gives details of the other plans and projects in the area which may be affecting the Lough Rea SAC & SPA Natura 2000 site.

Table 6.1 Other Plans and Projects Affecting the Natura 2000 Site

Name of Plan or Project	Key policies/issues/objectives directly related to the relevant Natura 2000 sites	Potential cumulative or in-combination effects on the relevant Natura 2000 sites
Galway County Development Plan 2022-2028	Designated Sites, Habitats and Species Policies and Objectives, Natural Heritage and Biodiversity Policies and Objectives, Natural Water Systems Policies Improve water quality, nature conservation/ biodiversity. The integration of Green/Blue Infrastructure and ecosystems services	Positive Impact
Draft Loughrea Local Area Plan 2024-2030	Designated Sites, Habitats and Species Policies and Objectives, Natural Heritage and Biodiversity Policies and Objectives, Natural Water Systems Policies Improve water quality, nature conservation/ biodiversity. The integration of Green/Blue Infrastructure and ecosystems services	Positive Impact
All Ireland Pollinator Plan	Reverse declines in pollinating insects. Pollinators are impacted by the actions of everyone ranging from the local authorities to community groups, farmers, schools, gardeners and businesses	Positive Impact
Galway County Heritage and Biodiversity Plan 2017 – 2022	Improve Biodiversity & both natural and built heritage in Galway County. Conservation of areas of value	Positive Impact
River Basin Management Plan for Ireland 2018 - 2021	The River Basin Management Plan for Ireland, issued in April 2018, sets out a number of objectives and measures for all national water bodies which aim: (1) to prevent the deterioration of water bodies and to protect, enhance and restore them with the aim of achieving at least good status and (2) to achieve compliance with the requirements for designated protected areas.	Positive impact
NPWS Conservation Management Plans	A Conservation Management Plan is in place for the Lough Rea SAC & SPA Natura 2000 site and its aims and objectives are outlined from page 14.	Positive impacts

Inland Fisheries Ireland (IFI) Corporate Plan 2016-2020	Goals: To improve the protection and conservation of the resource. To develop and improve wild fish populations. To increase the number of anglers. To generate a better return for Ireland from the resource	Positive impact
Planning Applications in the area	A search was carried out on Galway County Council's online planning query system. It was ascertained that there have been 9 planning applications granted within a 300m radius of the site in the past 5 years, which are listed below Planning Reference: 171552- for the construction of a residential development comprising of: 1. The construction of 14 residential units consisting of two storey dwellings containing 8 semi-detached houses and 6 Townhouses. 2. All ancillary site works, services, roads, footpaths, public parking, shared surfaces, street lighting, hard and soft landscaping and level playing area. 3. The provision of landscaped public open spaces and children's play area. 4. The connection of the development to the public sewer and for all ancillary works <u>69 meters west of the development</u> Planning Reference: 171773-for 1) Construction of a two storey dwellinghouse, and domestic garage, 2) Construction of a new entrance and access road onto the Athenry Road, and all associated services. Gross floor space of proposed works 268.9sqm. <u>126 meters north of the development</u> Planning Reference: 18318- and completion of a new first floor level (1,128 sqm) over an existing department store unit (previously granted PL Ref. No. 08/2505) including associated access stairs works, openings within the northern elevation and roof alterations. Planning permission is also sought for the use of the new first floor level as offices to include the creation of a lightwell, provision of new windows to north, south & west elevations at first floor level, erection of associated signage, extension of the existing <u>148 meters north east of the development</u> Planning Reference: 191910- and completion of a ground floor extension to an existing supermarket incorporating 64 M2 of the adjacent unit 2 retail use at Supervalu, unit 1, Loughrea Shopping Centre on behalf of Greenstream ULC. Gross floor space of proposed works: 64 sqm. Gross floor space of work to be retained: 64 sqm <u>268 meters west of the development</u> Planning Reference: 19333- or the provision of a 192.09 kWp roof mounted solar photovoltaic (PV) installation for the purposes of generating on site green electricity to reduce the applicant's energy consumption and all associated external works at Supervalu, Unit 1, Loughrea Shopping Centre <u>268 meters west of the development</u> Planning Reference: 19160- for development to the existing Loughrea Hotel & Spa consisting of: 1. Construction of new hotel suite building	Neutral Impact

	adjacent to existing hotel which will form part of existing hotel complex, consisting of 8 new bedroom suites along with amenity spaces and all associated services. 2. Demolition of existing unoccupied dwelling on site to accommodate same. 3. Construction of new parking area adjacent to hotel, accessed from existing parking area, to provide additional parking spaces to include all <u>148 meters north east of the development</u> Planning Reference: 19697- for the construction of a residential development comprised as follows: 1. The construction of 13 residential units consisting of two storey dwellings containing 1 detached house, 6 semi-detached houses and 6 Townhouses. 2. All ancillary site works, services, roads, footpaths, public parking, shared surfaces, street lighting, hard and soft landscaping and level playing areas. 3. The provision of landscaped public open spaces and children's play area. 4. The connection of the development to <u>66 meters west of the development</u> Planning Reference: 20928- for the provision of a new exit / access door to the side of existing supermarket at Supervalu, Unit 1, Loughrea Shopping Centre, Athenry Road, Loughrea, Co. Galway. <u>268 meters west of the development</u> Planning Reference: 201735- For [1] Demolition of existing service station building / shop, canopy and fuel dispensing pump islands, adjacent tyre store building, storage building to rear, existing car wash, and removal of associated forecourt equipment. [473.2 msq] [2] Construction of a new two storey service station building [460msq] comprising of retail area [92 msq] with ancillary off license section, deli / food offer, seating area, toilets, cash room, and ancillary storage and food preparation area to ground floor <u>179 meters east of the development</u> Planning Reference: 211508- for the construction of a new Leisure Centre building with swimming pool, along with new service connections, and access, with all ancillary associated site works and services. Gross floor space of proposed works: 2445 sqm. <u>229 meters north of the development</u> Planning Reference: 212208-<i>for the development to existing hotel consisting of: 1. Construction of new hotel suite building adjacent to the existing Loughrea Hotel & Spa which will form part of existing hotel complex, consisting of 18 new hotel suites, 2. Construction of new parking area adjacent to hotel, accessed from existing parking area, to provide additional parking spaces, 3. Retention permission for the demolition of derelict cottage on site, 4. To include all associated ancillary site works, services and utilities with connections to existing services on site.</i> <u>78 meters northeast of the development</u> Planning Reference: 23244- <i>for the development that will consist of (1) permission to demolish existing sub-standard dwellinghouse (2) construct</i>	
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	<i>new two storey guesthouse (3) associated car parking, landscaping, connection to public sewer & (4) all associated site works & services</i> <u>155 meters east of the development</u> Planning Reference: 2260899- <i>of variations to existing service station building as constructed (as granted previously - 20/1735), along with retention permission for variations of all associated site layout and development works including services as constructed, this is also to include variations to forecourt site development works and overall site layout, to include revised forecourt canopy, lighting, building-and-site signage, substation, outbuildings, parking, EV charging points and all associated services as constructed to same, previous planning reference no. 20/1735. Gross floor space of work to be retained 125.00 sq m.</i> <u>110 meters east of the development</u> Planning Reference: 2460973- <i>to construct (1) a new two storey extension to the rear of existing dwelling house (2) minor alterations to existing dwelling house (3) associated landscaping, connection to public sewer and (4) all associated site works and services. Gross floor space of proposed works: 234.20 sqm</i> <u>116 meters east of the development</u> <u><i>This application has not been decided on as of the 12th of August 2024.</i></u>	
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7 SCREENING MATRIX FOR APPROPRIATE ASSESSMENT IN LINE WITH EU COMMISSION GUIDANCE

Having established the extent of the proposed project and the details of the Lough Rea SAC & SPA Natura 2000 site, a screening assessment for possible impacts can be generated. This section follows the format of the Screening Matrix provided in Annex 2 of the following document;

“Assessment of plans and projects significantly affecting Natura 2000 sites- Methodology guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission, 2001”.

Table 7.1: Step Three: Assessment of Likely Significant Effects

Identify all potential direct and indirect impacts that may have an effect on the conservation objective of a European site taking into account the size/scale of the project under the following headings:	
Impacts:	Possible significance of Impacts (Duration/Magnitude)
Construction Phase (Examples) • Vegetation Clearance • Demolition • Surface water runoff from excavation/infill • Dust, noise, vibration • Lighting disturbance • Impact on groundwater • Storage of excavation/construction materials • Access to site • Pests	There are no predicted impacts/effects on the Lough Rea SAC & SPA, due to the significant distance between the application site and the Natura 2000 sites. With a lack of ecological/hydrological connectors and receptors no impacts are predicted. The surrounding area consists of an existing built-up urban environment; therefore, no impacts are identified in this regard. The Lough Rea SPA Qualifying Interest of Shoveler (<i>Anas clypeata</i>) and Coot (<i>Fulica atra</i>), both of which favor feeding in or on the shores of water bodies. Coots nest in shallow bodies of waters and shoveler favor waterside vegetation to nest in. However, the latter habitats are not found at the subject site. Instead, the subject site is located within an urban area experiencing high levels of anthropogenic impacts (i.e. noise, lighting, and disturbance) generated from the public road, commercial and residential buildings in the immediate area. Therefore, changes to the European Site area unlikely as a result of the proposed development. Furthermore, the Wintering Bird Survey carried out in November 2022 on site concluded that there were no signs of wintering birds utilizing the application site and there was no recorded sightings of either Shoveler or/and Coot onsite. As such no impacts are predicted on the qualifying interest of the Lough Rea SPA during the construction phase. Therefore, significant indirect impacts/effects can be ruled out from the construction phase of the proposed development.

Operation Phase (Examples) • Direct emissions to air and water • Surface water runoff containing contaminant/sediment • Lighting Disturbance • Noise/vibration • Changes to water/groundwater due to drainage/abstraction • Presence of people, vehicles and activities • Physical presence of structures (collision risks) • Potential for accidents/incidents	There are no impacts/effects predicted to arise during the operational phase. The proposed development will connect to the existing public sewer. Confirmation of feasibility has been provided by Irish Water (see appendix 4 of Engineering Report Planning Stage). Therefore, no impacts are predicted in this regard. The proposed surface drainage system for the development is to connect to the existing storm sewer network in place in Loughrea. Surface water run-off will flow into an Klargester NSBE015 or similar (petrol interceptor) and then into an attenuation tank, before discharging into the public surface water sewer network. Confirmation of feasibility has been provided by Irish Water (see appendix 4 of Engineering Report Planning Stage). Therefore, no impacts are predicted in this regard. Based off the November 2022 Wintering Bird Survey no impacts are predicted on wintering birds due to the operational phase of the development. In this regard no wintering birds were recorded feeding, nesting, or utilizing the application site, therefore, no impacts are predicted due to habitat reduction, loss of suitable feeding and/or nesting areas. Given the intervening-built environment consisting of a number of residential estates, the lack of intervisibility between the subject site and the SPA, together with the significant intervening distance, no impacts are predicted on the SPA. The Lough Rea Hotel and Spa, located to the North of the site stands at a height of circa 20.21 meters (5 stories), given the existing skyline and urban environment, no impacts are predicted in terms of flight paths and/or visibility for wintering birds. No live fire training is to be conducted at the proposed station as it is not certified for same. Therefore, there will be no possibility of smoke migration from the station site. There are no chemicals stored on site as no chemicals are used as part of fire service operations. The exceptions are as follows: • Fuel to be contained in the fire appliance fuel tanks. There is no spare fuel to be stored on site. • Cleaning products – minor amounts of normal household cleaning products are to be stored on site. • Between 50 and 100 litres of firefighting foam concentrate stored on fire appliances. The County Councils fire service have recently converted to environmentally friendly (PFOA free) foam. There is no spare foam stored on site. Given that no live fire training is to be conducted on site, no adverse environmental impacts are predicted in relation to chemical usage on site.
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	The predicted increase demand on the watermain is not predicted to result in an impact or effects on the surrounding Natura 2000 sites or the environment.
In combination/ other:	No likely significant in-combination effects are identified.
Describe any likely changes to the European site:	
Examples of the type of changes to give consideration to include: • Reduction/fragmentation of habitat • Disturbance to QI species • Habitat/species fragmentation • Reduction/fragmentation in species density • Changes in key indicators of conservation status value • Changes to areas of sensitivity/threats to QI • Interference with the key relationships that define the structure or ecological function of the site	There are no predicted likely changes to occur to the Natura 2000 site due to the proposed development. The Lough Rea SPA Qualifying Interest of Shoveler (<i>Anas clypeata</i>) and Coot (<i>Fulica atra</i>), both of which favor feeding in or on the shores of water bodies. Coots nest in shallow bodies of waters and shoveler favor waterside vegetation to nest in. However, the latter habitats are not found at the subject site. Instead, the subject site is located within an urban area experiencing high levels of anthropogenic impacts (i.e. noise, lighting, and disturbance) generated from the public road, commercial and residential buildings in the immediate area. Therefore, changes to the European Site area unlikely as a result of the proposed development. The Wintering Bird Survey conducted on the 14th of November 2022, reported no sightings or signs of wintering birds using the application site to feed, forage, nest and/or breed. Therefore, no impacts are predicted on wintering birds due to the development. Therefore, no impacts are predicted due to habitat reduction, loss of suitable feeding and/or nesting areas as a result of the proposed development. The site is of low suitability to bird, due to the existing level of anthropogenic impacts, levels of disturbance and noise and the lack of suitable vegetation and habitats. Although not a qualifying interest, Hen Harriers are generally biased towards moorland/grassland mosaic habitats which support larger numbers of hen harrier preferred prey species, such as meadow pipit (<i>Anthus pratensis</i>) and skylark (<i>Alauda arvensis</i>). Therefore, the highly managed grassland area that is the application site has a low suitability to Hen Harrier for foraging. Hen Harriers are also unlikely to be found within 100 meters of active buildings. The significant distance between the proposed development and any European sites, is such that the proposal will not result in any likely changes to the European sites that comprise part of the Natura 2000 network during the operational phase. There is no impacts predicted during the construction phase of the proposed development due to the existing level of development in the area and the

	distance of the application site from both the Lough Rea SAC and the Lough Rea SPA
Are 'mitigation' measures necessary to reach a conclusion that likely significant effects can be ruled out at screening?	
☐ Yes ☒ No	

The findings of the screening matrix are summarised in **Table 7.2** below.

Table 7.2-Stage 1 - Screening Matrix for the Proposed Development

Brief Description of the Project or Plan
Location: The proposed site is in St Lawrencesfields, Loughrea, Co. Galway. (Grid Ref: Easting:160817.79, Northing:216957.15). Distance from Designated Site: The site for the proposed development lies approximately 600 meters from Lough Rea SAC and 609 meters from Lough Rea SPA. Brief Description of the Project: Planning permission is being sought <i>"for the construction of a new Fire station building, together with associated training tower, shed, signage, landscaping, parking and yard areas, revised boundary treatments, connections to existing services and all associated site development works"</i> A Site Layout Plan for the proposed development is included as Appendix A to this report.
Brief Description of the Natura 2000 Site
Site Designation Status: The Lough Rea SAC is designated under EU Habitats Directive (92/43/EEC). The Lough Rea SPA is designated under the EU Birds Directive (79/409/EEC). Qualifying Features The Lough Rea SAC is of conservation significance due to the presence of a Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. habitat which is listed under Annex I of the EU Habitats Directive. The Lough Rea SPA is designated for the presence of 2 bird species listed on Annex I of the EU Birds Directive (see below). <u>Qualifying Habitats</u> Lough Rea SAC 3140- Hard oligo-mesotrophic waters with benthic vegetation of Chara spp <u>Qualifying Species</u> Lough Rea SPA A125-<i>Fulica atra</i> A056-<i>Anas clypeata</i>

(EU Habitats Directive 92/43/EEC / EU Birds Directive 79/409/EEC).

Habitats and Species of Interest

Full details of the sites are found in the Lough Rea SAC Site Synopses included as Appendix B to this report. Full details of the sites are found in the Lough Rea SPA Site Synopses included as Appendix C to this report.

Unit Size:

Lough Rea SAC; 364.59ha

Lough Rea SPA; 365.41ha

ASSESSMENT CRITERIA

Describe the individual elements of the project likely to give rise to impacts on the Natura 2000 site.

No impacts are expected on the Natura 2000 sites in question. There is a significant distance between the application site and the Lough Rea SAC & SPA and the surrounding area consist of a built-up urban environment. With no identifiable connectors/receptors between the application site and Natura 2000 network the proposed development can be screened out and no significant impacts are expected.

Describe any likely direct, indirect or secondary impacts of the project on the Natura 2000 site by virtue of the following;

- Size and Scale

The application site comprises an overall area of **0.4213 ha**, with the proposed floor area of the development **379.7sqm**. At this size and scale, and due to the fact that the works will be located entirely outside the designated area, it is not expected that the development will have any significant impact (direct, indirect or secondary in nature) on the Natura 2000 site in this regard.

- Land-Take

The proposed works will be entirely located outside the designated site and so there will be no impacts in this regard.

- Distance from Natura 2000 site or key features of the site

The site for the proposed development lies approximately 600 meters from the Lough Rea SAC and 609 meters from the Lough Rea SPA. There are no hydrological/ecological pathways from the proposed site to the Natura 2000 site, therefore no impacts are predicted in this regard.

- Resource Requirements

It is not expected that the proposed development will have any significant impact (direct, indirect or secondary in nature) on the designated sites in this regard.

- Emissions

The proposed development will connect to the existing public sewer. Confirmation of feasibility has been provided by Irish Water (see appendix 4 of Engineering Report Planning Stage). Therefore, no impacts are predicted in this regard.

The proposed surface drainage system for the development is to connect to the existing storm sewer network in place in Loughrea. Surface water run-off will flow into an Klargester NSBE015 or similar (petrol interceptor) and then into

an attenuation tank, before discharging into the public surface water sewer network. Confirmation of feasibility has been provided by Irish Water (see appendix 4 of Engineering Report Planning Stage). Therefore, no impacts are predicted in this regard.

No live fire training is to be conducted at the proposed station as it is not certified for same. Therefore, there will be no possibility of smoke migration from the station site.

There are no chemicals stored on site as no chemicals are used as part of fire service operations. The exceptions are as follows:

- Fuel to be contained in the fire appliance fuel tanks. There is no spare fuel to be stored on site.
- Cleaning products – minor amounts of normal household cleaning products are to be stored on site.
- Between 50 and 100 litres of firefighting foam concentrate stored on fire appliances. The County Councils fire service have recently converted to environmentally friendly (PFOA free) foam. There is no spare foam stored on site.

Given that no live fire training is to be conducted on site, no adverse environmental impacts are predicted in relation to chemical usage on site.

- **Excavation Requirements**

No impacts are expected on the Natura 2000 site in this regard.

- **Transportation Requirements**

During the construction phase of the proposed development, there will be a slight increase in the volume of traffic in the area for a short time. It is not expected that this slight increase will result in direct, indirect or secondary impacts on the Natura 2000 site.

- **Duration of construction, operation, decommissioning**

The construction phase of the proposed development will last approximately 12 -24 months. It is expected that the development will remain in use for at least 50 years. Neither the construction, operation nor the eventual decommissioning of the proposed development is likely to result in direct, however indirect impacts on the Natura 2000 site cannot be ruled out at this stage.

During the operational phase it is not expected that there will be any impacts/effects on the Natura 2000 network. The increased demand on water due to the nature of the proposed development is not predicted to affect the Natura 2000 network.

Describe any likely changes to the site arising as a result of the following;

- **Reduction of Habitat**
There will be no changes in this respect.
- **Disturbance to Key Species**
There will be no changes in this respect.
- **Habitat or Species Fragmentation**
There will be no changes in this respect.
- **Reduction in species density**
There will be no changes in this respect.
- **Changes in key indicators of conservation value**
There will be no changes in this respect.
- **Climate change**
There will be no changes in this respect.

Describe any likely impacts on the Natura 2000 site as a whole in terms of the following;

- **Interference with key relationships that define the structure and function of the site**
No potential impacts which are likely to interfere with the key relationships that define the structure or function of the site are expected.

Provide Indicators of significance as a result of the identification of effects set out above in terms of the following;

- **Loss**
No loss is expected.
- **Fragmentation**
No fragmentation is expected.
- **Disruption**
No disruption is expected.
- **Disturbance**
No disturbance is expected.
- **Change to key elements of the site**
No change is expected

Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.

It is not considered that the proposed development will have any significant direct impacts on the Lough Rea SAC & SPA alone or in combination with the other plans or projects in the area (outlined in Section 6 of this report).

8 CONCLUSIONS

Planning is being sought *“for the construction of a new Fire station building, together with associated training tower, shed, signage, landscaping, parking and yard areas, revised boundary treatments, connections to existing services and all associated site development works”* in the townland of St Lawrencesfields, Loughrea, Co. Galway. A Site Layout Plan for the proposed development is included as **Appendix A** to this report. The screening exercise examined impacts on the Lough Rea SAC & SPA Natura 2000 site.

The proposed development will connect to the existing public sewer. Confirmation of feasibility has been provided by Irish Water (see appendix 4 of Engineering Report Planning Stage). Therefore, no impacts are predicted in this regard.

The proposed surface drainage system for the development is to connect to the existing storm sewer network in place in Loughrea. Surface water run-off will flow into an Klargestor NSBE015 or similar (petrol interceptor) and then into an attenuation tank, before discharging into the public surface water sewer network. Confirmation of feasibility has been provided by Irish Water (see appendix 4 of Engineering Report Planning Stage). Therefore, no impacts are predicted in this regard.

No live fire training is to be conducted at the proposed station as it is not certified for same. Therefore, there will be no possibility of smoke migration from the station site.

There are no chemicals stored on site as no chemicals are used as part of fire service operations. The exceptions are as follows:

- Fuel to be contained in the fire appliance fuel tanks. There is no spare fuel to be stored on site.
- Cleaning products – minor amounts of normal household cleaning products are to be stored on site.
- Between 50 and 100 litres of firefighting foam concentrate stored on fire appliances. The County Councils fire service have recently converted to environmentally friendly (PFOA free) foam. There is no spare foam stored on site.

Given that no live fire training is to be conducted on site, no adverse environmental impacts are predicted in relation to chemical usage on site.

This report has been informed by the Flood Risk Assessment submitted as a part of this application. Which has stated that the application site is located in a flood zone C and *“The full extent of the proposed site is located outside of the predicted 100 year and 1000-year floodplains”* Therefore, in regard to Lough Rea SAC & SPA no hydrological connection has been identified in respect to a flood plain or zone. In particular from the SSFR submitted, no flood mitigation measures are proposed.

The site for the proposed development lies 600 meters from the Lough Rea SAC and 609 meters from Lough Rea SPA. At this distance, it is not expected that the proposed development will give rise to any direct impacts on the Natura 2000 sites in question. The Wintering Bird Survey conducted on the 14th of November 2022, reported no sightings or signs of wintering birds using the application site. No wintering birds were recorded feeding, nesting, or utilizing the application site, therefore, no impacts are predicted due to habitat reduction, loss of suitable feeding and/or nesting areas. The site is of low suitability to bird, due to the existing level of anthropogenic impacts, levels of disturbance and noise and the lack of suitable vegetation and habitats.

The Lough Rea SPA Qualifying Interest of Shoveler (*Anas clypeata*) and Coot (*Fulica atra*), both of which favor feeding in or on the shores of water bodies. Coots nest in shallow bodies of waters and shoveler favor waterside vegetation to nest in. However, the latter habitats are not found at the subject site. Instead, the subject site is located within an urban area experiencing high levels of anthropogenic impacts (i.e. noise, lighting, and disturbance) generated from the public road, commercial and residential buildings in the immediate area. Therefore, changes to the European Site area unlikely as a result of the proposed development. No impacts are predicted on the Shoveler (*Anas clypeata*) and Coot (*Fulica atra*) feeding, breeding and population numbers due to the proposed development.

There is no identifiable connector/receptor pathway from the application site to the Qualifying habitats on Lough Rea SPA of wetlands and waterbirds. There is no intervisibility, hydrological link and/or ecological connector, therefore no impacts are predicted on wetlands and waterbirds.

Hen Harriers are a qualifying interest of the Slieve Aughty SPA. These have been considered further in response to concerns raised in the third party EIA Determination submission. Hen Harriers are generally biased towards moorland/grassland mosaic habitats which support larger numbers of hen harrier preferred prey species, such as meadow pipit and skylark. Therefore, the highly managed grassland area that is the application site has a low suitability to Hen Harrier for foraging. Hen Harriers are also unlikely to be found within 100 meters of active buildings.

Therefore, the conclusion of this screening exercise is that no significant effects are expected on the qualifying interests or conservation objectives of the surrounding Natura 2000 sites, as a result of the proposed development in question, alone or in combination with the other plans and projects in the area. This report is therefore issued as a 'Finding of No Significant Effects' (FONSE) statement, in accordance with the EU Commission's methodological guidance (EC, 2001)

[illegible]

APPENDIX B-NPWS Site Synopses for Lough Rea SAC

Site Name: Lough Rea SAC

Site Code: 000304

Lough Rea is a hard water lake situated directly south of the town of Loughrea, Co. Galway. The lake is 2.5 km at its longest axis. The underlying geology of the area is of Carboniferous limestone and water transparency is very high. The lake, which is fed by springs and by a stream, reaches a maximum depth of 15 m. 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):

[3140] Hard Water Lakes

Some species of stonewort (a type of alga) characteristic of calcareous waters have been recorded in Lough Rea, including *Chara curta* and *C. contraria*. The Red Data Book species *C. tomentosa* has also been found here. Other aquatic plants present include Slender-leaved Pondweed (*Potamogeton filiformis*), Lesser Pondweed (*P. pusillus*), Fennel Pondweed (*P. pectinatus*), Spiked Water-milfoil (*Myriophyllum spicatum*), Least Bur-reed (*Sparganium minimum*), Amphibious Bistort (*Polygonum amphibium*) and the alga *Chaetomorpha incrassata*. On the sheltered western and south-eastern shores of the lake some areas of reedswamp, wet grassland and wet woodland are included in the site.

Lough Rea is of considerable ornithological interest. Internationally important numbers of Shoveler overwinter at the site (max. 467, 1995/96) and nationally important numbers of Tufted Duck (max. 406, 1995/96) and Coot (max. 1256, 1996/97) have also been reported. A further 10 species of waterfowl reach regionally or locally important numbers. Brown Trout (*Salmo trutta*) are present in the lake.

The site is largely surrounded by intensively farmed pasture and consequently the main threat to the lake comes from agricultural run-off. The lake is also vulnerable to nutrient input from the town of Loughrea. Boating activities may have some impact on the site and may need to be monitored. An area has been planted with conifers to the east of the lake, but this does not appear to be adversely affecting the ecology of the lake.

Lough Rea is a hard water lake, a habitat listed on Annex I of the E.U. Habitats Directive. The lake is also important for birds, and holds nationally and internationally important numbers of a number of species.

APPENDIX C- NPWS Site Synopses for Lough Rea SPA

Site Name: Lough Rea SPA

Site Code: 004134

Lough Rea, a hard water lake, is situated directly south of the town of Loughrea, Co. Galway. The lake is 2.5 km at its longest axis. The underlying geology of the area is of Carboniferous limestone and water transparency is very high. The lake, which is fed by springs and by a stream, reaches a maximum depth of 15 m.

Some species of stonewort (a type of alga) characteristic of calcareous waters have been recorded in Lough Rea, including *Chara curta* and *C. contraria*. The Red Data Book species *C. tomentosa* has also been found here. Other aquatic plants present include Slender-leaved Pondweed (*Potamogeton filiformis*), Lesser Pondweed (*P. pusillus*), Fennel Pondweed (*P. pectinatus*), Spiked Water-milfoil (*Myriophyllum spicatum*), Least Bur-reed (*Sparganium minimum*), Amphibious Bistort (*Polygonum amphibium*) and the alga *Chaetomorpha incrassata*. On the sheltered western and south-eastern shores of the lake some areas of reedswamp, wet grassland and wet woodland are included in the site.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Shoveler and Coot. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Lough Rea is of considerable ornithological interest. Nationally important numbers of Shoveler overwinter at the site (264); numbers of this species at the site have exceeded the international threshold level on two occasions in recent years (2002/03 and 2006/07). Nationally important numbers of Coot (1,172) also occur. A further 10 species of waterfowl reach regionally or locally important numbers - all population sizes are the mean of peak counts for the five years, 1995/96-1999/2000.

Lough Rea is an important ornithological site for the nationally important populations of Shoveler and Coot and the regionally/locally important populations of a further ten species that it holds.