



Appropriate Assessment Screening

Project: N69 Mungret & Boland's Cross Road Safety Improvement Scheme

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1 Introduction

Flynn Furney Environmental Consultants have been commissioned by Clandillon Civil Consulting to carry out a Stage 1 Appropriate Assessment Screening Report for the proposed works in Mungret, Co Limerick. This screening exercise aims to determine whether the proposed works have the potential to significantly impact upon the conservation objectives and overall integrity of any Natura 2000 sites. This assessment is based upon a desk study and field work carried out by suitably qualified ecologists.

This report has been completed to provide information regarding the ecological status of the proposed sites of works. The report includes a general ecological assessment of the potential impacts of the proposed works on the ecology of the surrounding area, including designated sites. This report has been completed to provide the information necessary to allow the competent authority to conduct an Article 6[3] Appropriate Assessment (AA) Screening of the proposed development. The legislation and methodology for which is detailed in the following sections.

Section 4 of the report comprises the AA Screening that specifically focuses on the potential for impacts on Natura 2000 sites deemed to be at risk from the proposed development.

1.1 Summary of Proposed Works

Works will take place within approximately 1.2km of National and Regional Road. The study area is approximately 1.2km in length extending from the priority T-junction of the N69 and the L1403 (Boland's Cross) to the existing segregated cyclists and pedestrian facility at Moore's Road (L1438) junction. It also includes the tie in connections of the L1403, R859 and the local road (L1437) from the Westward Ho Bar and Restaurant junction to the internal roundabout towards Mungret. Mungret Village is 6km southwest of Limerick and it is a suburb of the city that is undergoing a major residential expansion. Within this study area, approximately 790m of road surface works are proposed together with another 1,040m of shared use or dedicated pedestrian surface.



Figure 1: Site location and proposed works area.

1.2 Site Location

The N69 Mungret & Boland's Cross scheme is approximately 1.2km long and is located on the western side of Mungret village from the junction with the L1403 local road (Boland's Cross) along the N69 for approximately 500m to Mungret Cross and then a further 500m approximately to the eastern edge of Castlemungret Soccer Pitch at Moore's Road junction. The scheme also encompasses 149m along the R859 from Mungret Cross to the roundabout as well as the L1437 from the northern arm of the roundabout to the N69 (approximately 45m). Overall scheme length is approximately 1.2km.

1.3 Statement of Authority

This Appropriate Assessment Screening has been carried out by suitably qualified and experienced professionals of Flynn Furney Environmental Consultants. These were: Louis Peacock BSc, Billy Flynn BSc, MSc, MCIEEM, CEnv. and David McCormick, BSc, PhD.

2 Background to Screening for Appropriate Assessment

2.1 Designated Sites

Sites designated for the conservation of nature in Ireland include:

- Special Areas of Conservation (SACs) and:
- Special Protection Areas (SPAs).
- Natural Heritage Areas (NHAs)
- proposed Natural Heritage Areas (pNHAs)

SPAs and SACs form the *Natura 2000* network of sites. It is these sites that are of relevance to the screening process for this Appropriate Assessment Screening.

SPAs and SACs are prime wildlife conservation areas in the country, considered to be important on a European as well as Irish level. SPAs and SACs are designated under EU Habitats Directive, transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended.

2.2 Legislative context

The methodology for this screening statement is set out in a document prepared for the Environment DG of the European Commission entitled 'Assessment of plans and projects significantly affecting Natura 2000 (European) sites: Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC' (European Commission, 2019). This report and any contributory fieldwork were carried out in accordance with guidelines given by the Department of Environment, Heritage and Local Government (2009, amended 2010).

The process is given in Articles 6(3) and 6(4) of the Habitats Directive and is commonly referred to as 'Appropriate Assessments' (which in fact refers to Stage 2 in the sequence under the Habitats Directive Article 6 assessment). Article 6 of the Habitats Directive sets out provisions which govern the conservation and management of Natura 2000 sites. Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment:

"Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, 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 and, if appropriate, after having obtained the opinion of the general public."

Article 6(4) of the same directive states: 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, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

It is the responsibility of the proponent of the plan or project to provide the relevant information (ecological surveys, research, analysis etc.) for submission to the 'competent national authority'. If satisfied that the information is complete and objective, the competent authority will use this information to screen the project, i.e. to determine if an AA is required and to carry out the AA, if one is deemed necessary. The competent authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned.

The appropriate assessment process has four stages. Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site, there is no requirement to proceed further. The four stages are:

1. Screening to determine if an appropriate assessment is required
2. Appropriate assessment
3. Consideration of alternative solutions
4. Imperative Reasons of Overriding Public Interest/Derogation

2.3 Stage 1 Screening for Appropriate Assessment

This report provides stage one: Screening for Appropriate Assessment. It aims to establish whether a plan or project is likely to have an effect on any Natura 2000 sites. The study is based on a preliminary impact assessment using both publicly available data and data collected during site visits and ecological surveys. This is followed by a determination of whether there is a risk that the effects identified could significantly impact any Natura 2000 sites, and if so an Appropriate Assessment (AA) is required. The need to apply the precautionary principle in making any key decisions in relation to the tests of AA has been confirmed by European Court of Justice case law (see below). Therefore, where significant effects are likely, possible or uncertain at screening stage, AA will be required.

2.3.1 Case Law

The European Court of Justice has made a number of relevant rulings in relation to when an Appropriate Assessment is required and its purpose: *"Any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects"* and that the plan or project may only be authorised *"where no reasonable scientific doubt remains as to the absence of such effects"*.

2.3.2 Guidance Documents

This report has been prepared with regard to the following guidance documents on Appropriate Assessment, where relevant:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, 2010 revision);
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10;
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General, 2001 and updates April 2015 and September 2021). The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive;
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC (EC Environment Directorate-General, 2018); and
- Communication from the Commission on the precautionary principle. European Commission (2000).
- OPR (2021) Appropriate Assessment Screening for Development Management. Practice Note PN01. Office of the Planning Regulator. March 2021.

2.3.3 Methodologies

This screening report was informed by a desk study of all relevant environmental information and also included a review of the ecological field survey data recorded in 2022. The screening then incorporated the following steps (broadly based on EC [2000]):

- Determine if the proposed works are directly connected with or necessary to the management of the site;
- Describe the proposed works;
- Describe the baseline environment;
- List 'Relevant' European sites which are those sites potentially connected to the proposed works by source-pathway-receptor linkages; and
- Conclude if linkages to 'Relevant' sites have the potential to give rise to Likely Significant Effects (LSE).

2.3.4 The Source-Pathway- Receptor Model

The 'source-pathway-receptor' conceptual model is a standard tool in environmental assessment and has been employed in this assessment. In order for an effect to occur, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism means there is no likelihood for the effect to occur. An example of this model is provided below:

- Source (s); – e.g. Piling;
- Pathway (s); e.g. Vibration; and
- Receptor (s); e.g. Underground otter resting site at risk of collapse

The model evaluates the receptors as the qualifying interests (QIs) for which individual European sites are designated, with reference to the latest conservation objectives from the National Parks and Wildlife Service (NPWS) website, or substitute detailed objectives from other European sites where only generic objectives are available.

European sites are at risk of significant effects as a result of the proposed works where a source-pathway-receptor link exists between any elements of the proposed works and the European site. In order for an impact to occur there must be a risk enabled by having a 'source' (e.g. proposed works), a 'receptor' (e.g. a SAC/SPA or their QI habitats/species), and a pathway between the source and the receptor (e.g. a watercourse which connects the impact source at a site of proposed works to a SAC/SPA). The risk of the impact does not automatically mean it will occur, nor that it will be significant. However, identification of the risk does mean that there is a possibility of ecological or environmental impact occurring, with the level and significance of the impact depending upon the nature and exposure to the risk, and the characteristics of the receptor.

2.3.5 The Precautionary Principle

The Precautionary Principle has been defined by the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2005) as: "When human activities may lead to morally unacceptable harm [to the environment] that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm. The judgement of plausibility should be grounded in scientific analysis". Reasoned application of the 'Precautionary Principle' is fundamental to the Screening Stage (and AA). The precautionary principle is referenced in Article 191 of the Treaty on the Functioning of the European Union (TFEU). It relates to an approach to risk management whereby if there is the possibility that a given policy or action might cause harm to the public or the environment and if there is still no scientific consensus on the issue, the policy or action in question should not be pursued.

The precautionary principle prevails where 'reasonable scientific doubt' cannot be ruled out. Known threats to QIs of relevant sites are analysed to avoid overlooking subtle or far-field effect pathways. The duration of potential effects is a key consideration, in particular because the European Court of Justice has recently ruled—albeit in specific reference to priority habitats—those effects to site integrity must be "lasting".

3 Ecological Assessment

3.1 Desk Study

A desktop study was carried out as part of this screening process. This included a review of available literature on the site and its immediate environs. Sources of information included the National Biodiversity Data Centre and National Parks and Wildlife Service databases on protected sites and species data, and from the Environmental Protection Agency on watercourses.

3.2 Data used to carry out the assessment

The following sources of data were employed:

- Environmental Protection Agency Database
- EPA Maps (to identify watercourses, hydrology and Natura 2000 site boundaries)
- NPWS protected species database and online mapping
- National Biodiversity Data Centre Database
- Limerick City and County Council ePlanning Website

3.3 Stakeholder Consultation

To date consultations with the following stakeholders has taken place. These are summarised in Table 1 below.

Table 1: Summary of Consultations

Stakeholder	Nature of Consultation	Outcome
Clandillon Civil Consulting	Email communications. Nature of works detailed. Need for this assessment agreed.	This report generated.

3.4 Natura Sites Within 15km of the Proposed Works

All designated Natura sites connected to or within 15km of the proposed works or otherwise relevant were considered during the desktop study stage of this screening assessment in order to assess the potential for significant effects upon their Qualifying Interests / Special Conservation Interests and Conservation Objectives. This stage of the process is used to determine whether any of the Natura sites may be 'screened out.' That is, that they can be regarded as not being relevant to the process, having no potential to be significantly affected or impacted upon. All designated sites within 15km of the proposed works or otherwise relevant are listed in Table 2.

Table 2: Designated Sites within 15km of or connected to Project Works Area.

Site Code	Site Name	Designation	Distance from Proposed Works (m)	Potential Effect from Proposed Works	Screening Rationale
002165	Lower River Shannon SAC	SAC	1060	None identified	<ul style="list-style-type: none"> No hydrological connectivity with works area. Distance from works area. Proposed works are to remain within already existing road infrastructure
004077	River Shannon and Fergus SPA	SPA	1060	None identified	<ul style="list-style-type: none"> No hydrological connectivity with works area. Distance from works area. Proposed works are to remain within already existing road infrastructure.
002279	Askeaton Fen complex	SAC	10,090	None identified	<ul style="list-style-type: none"> Distance from the works area to this protected site. Proposed works are to remain within already existing road infrastructure
000174	Curraghchase SAC	SAC	11,980	None identified	<ul style="list-style-type: none"> Distance from the works area to this protected site. Proposed works are to remain within already existing road infrastructure
000439	Tory Hill SAC	SAC	10,075	None identified	<ul style="list-style-type: none"> Distance from the works area to this protected site. Proposed works are to remain within already existing road infrastructure



Figure 2: Natura 2000 sites within 15km of or connected to proposed work area. Red polygon indicates site location.

Table 3: Natural Heritage Area (pNHA & NHA) sites within 15km of the proposed Project work area.

Site Name	Distance from Proposed Works (m)	Connectivity	Potential Effect from Proposed Works
Woodcock Hill Bog NHA	8364	Nil	None identified
Adare Woodlands pNHA	9085	Nil	None identified
Tory Hill pNHA	10,128	Nil	None identified
Skoolhill pNHA	12,846	Nil	None identified
Curraghchase Woods pNHA	11,529	Nil	None identified
Dromore and Bleach loughs pNHA	7102	Nil	None identified
Inner Shannon Estuary- South shore pNHA	1108	Nil	None identified
Fergus Estuary and Inner Shannon- North Shore pNHA	2064	Nil	None identified
Garrannon Woods pNHA	7120	Nil	None identified
Loughmore Common Turloughs pNHA	1244	Nil	None identified
Clonlara house pNHA	11,789	Nil	None identified
Castleconnell Domestic Dwelling pNHA	13,494	Nil	None identified
Knockaligheen Marsh pNHA	6496	Nil	None identified

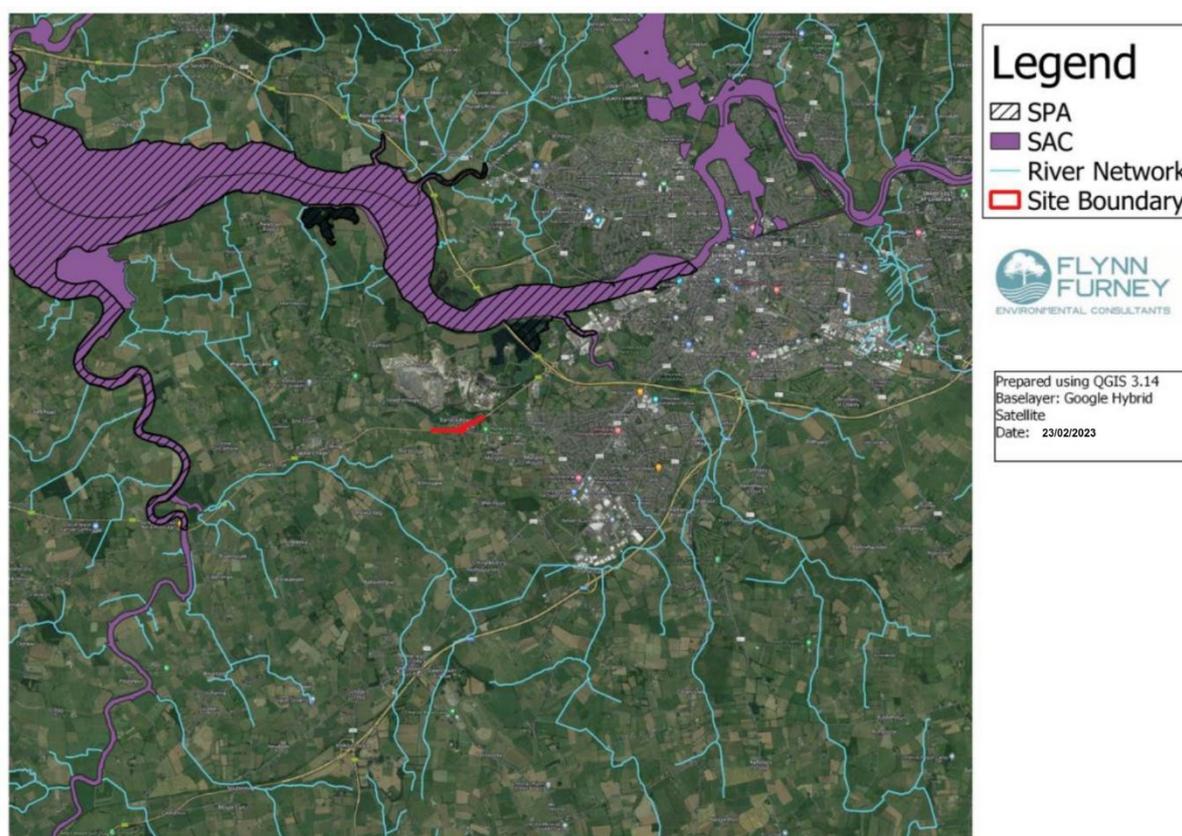


Figure 3: Natura 2000 sites and river network

3.5 Field Surveys

An initial site visit and walkover survey was carried out on 4th of February 2022. Baseline ecological conditions were assessed. Habitats were classified according to Fossitt (2000). Where applicable, the habitat types and species usage were recorded (Smith et al. 2011; Scannell and Synnott, 1987; Wyse Jackson et al. 2016). Habitats were classified and dominant plant species noted according to the guidelines given by the Joint Nature Conservation Committee (2010) with reference to Smith et al. (2011).

3.6 Habitats Description

Habitat types present within and in close proximity to the project area are dominated by buildings and artificial surfaces (BL3) as the proposed works area is largely within or along an existing road network with dwelling houses and to a lesser extent farms situated on either side of the road.

Amenity grassland (GA2) occurs in conjunction with the above dwellings as lawns or gardens and makes up a substantial proportion of the habitats adjacent the area proposed for works. The farmland surrounding the route is almost all improved agricultural grassland (GA1), a species-poor habitat. These agricultural fields tend to be bound by hedgerows (WL1) which also line some of the roadside areas. Treelines (WL2) also make up a proportion of the roadside boundary areas. A variety of tree species occur here. Ash (*Fraxinus excelsior*) and Sycamore (*Acer pseudoplatanus*) are the most frequent broadleaved trees and Leyland Cypress (*Cupressus X Leylandii*) occurs within one treeline to the east. Stone walls and other stonework (BL1) make

up the remainder of the roadside boundary areas. Areas of scrub (WS1) are present adjacent to the existing road network and extend some distance into disused lands. Some ornamental borders (BC4) occur at the hard landscaped area at the main junction. Adjacent this is there is an area of recolonising bare ground (ED3). Realignment and path works will largely take place along pre-existing road (BL3) with the exception of Boland's Cross where some treelines will require removal.

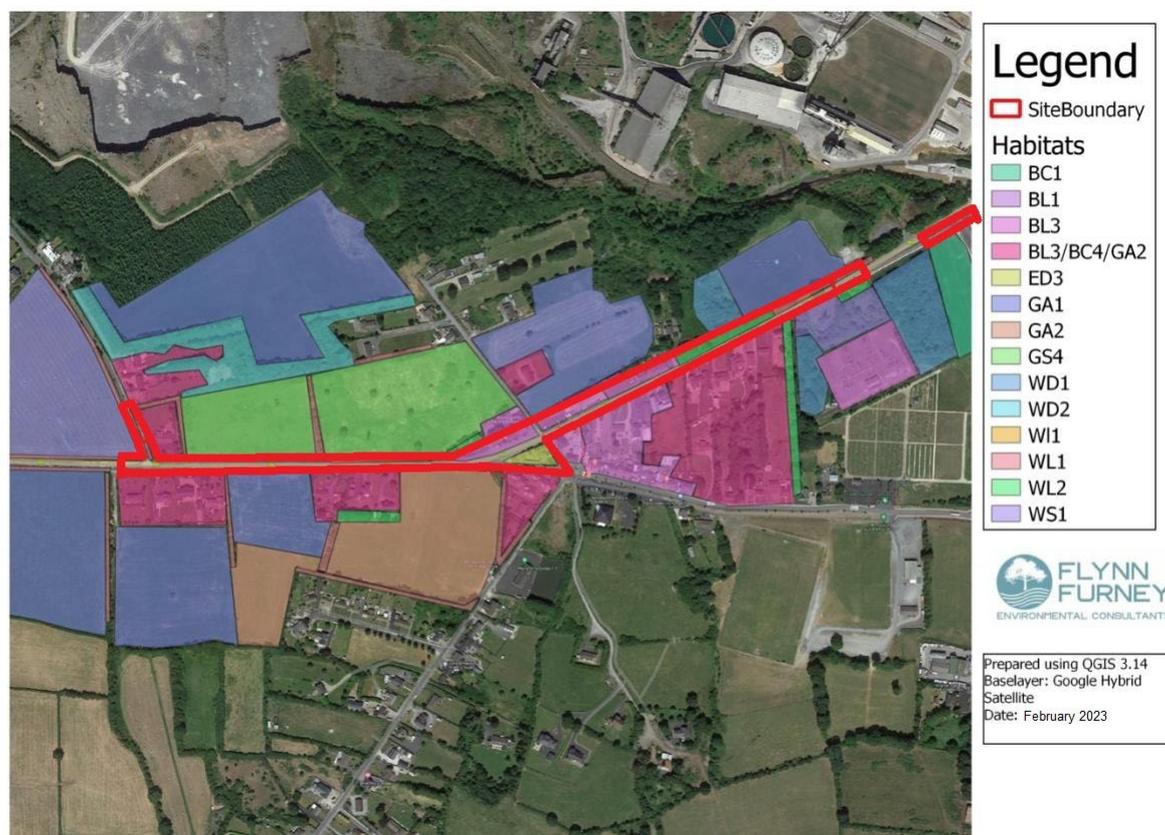


Figure 4: Habitats surrounding the works area (See Appendix 4, Table 9)

3.7 Mammal Activity

There were no signs of protected mammal species recorded during the field survey. However, there were multiple European Rabbit (*Oryctolagus cuniculus*) burrows within the hedgerow adjacent to the N69. In addition, a rabbit was noted within the hedgerow/improved grassland during the survey. No protected mammal species will be affected by any works to existing roadside boundary areas.

3.8 Birds

All bird species that were identifiable were noted and recorded. No Special Conservation Interest (SCI) species of the nearest SPA were recorded. Vegetation clearance will be required along the section where realignment works are required at the T junction (L1403) and alongside the N69 where the paths are to be constructed. This habitat is of no value to Qualifying Interests of adjacent Natura 2000 sites. It should be noted that it is illegal to disrupt or interfere with birds nesting in Ireland between the 1st of March and 31st of August. Therefore, if works require hedge cutting or removal then a dedicated bird survey would be required to ascertain if any birds are nesting within the hedgerow which requires management.

Table 4: Bird species recorded during the field survey

Species	Scientific name
Wood Pigeon	<i>Columba palumbus</i>
Hooded Crow	<i>Corvus cornix</i>
Jackdaw	<i>Corvus Monedula</i>
Rook	<i>Corvus frugilegus</i>
Magpie	<i>Pica pica</i>
Goldcrest	<i>Regulus regulus</i>
Fieldfare	<i>Turdus pilaris</i>
Mistle Thrush	<i>Turdus viscivorus</i>
Redwing	<i>Turdus iliacus</i>
Blackbird	<i>Turdus merula</i>
Song Thrush	<i>Turdus philomelos</i>

3.9 Amphibians

Amphibians were not recorded during the field surveys. The lack of drains or wet patches within the surrounding area make it unsuitable for breeding amphibians. The wet grassland adjacent to the road would provide suitable foraging habitat for the Common Frog (*Rana temporaria*).

3.10 Invasive Species

No third schedule invasive plant species were recorded within the works area. However, there were three non-native invasive plant species recorded, these are Fuchsia (*Fuchsia magellanica*), Montbretia and Snowberry (See Photographs 3 -5, Appendix 1). Two of these plants have been classed as an invasive species by the National Biodiversity data centre. While there is no legal requirement to eradicate or control these species, care should be taken to halt the further spread or movement of these within or off the site.

3.10.1 Fuchsia *Fuchsia magellanica*

Fuchsia is an introduced shrub typically used for hedging and as an ornamental plant within gardens. Fuchsia is capable of both sexual and a-sexual reproduction, this species does produce seeds contained within fruit and it can propagate from cuttings. The impact of this species is that it outcompetes native plants, this is particularly evident when it forms dense stands.

3.10.2 Snowberry *Symphoricarpos albus*

Snowberry was originally introduced into Ireland as a ornamental species, and it was also planted amongst woodlands to provide dense vegetation cover for game birds. It is a bushy rhizomatous plant which forms dense thickets where stems can reach 2-3m in height. This species is deciduous meaning it redraws its nutrients into the rhizomes over winter and detaches its leaves. It flowers between Spring- Summer, the flowers consist of small, bright pink, bell-like flowers approximately 6mm in length. White berries began to form in late summer and typically remain for the duration of winter as they are unrecognisable by our native bird species. This species can spread rapidly due to its ability to reproduce asexually, it does this through a process of suckering (process of creating a new stem & root system from

a creeping stem or root). The main impact of this species is the shading out of native vegetation and therefore, it lowers plant diversity. In addition to this issue, it is also considered poisonous to humans.

3.10.3 Montbretia *Crocasmia x crocosmiiflora*

Montbretia is an introduced, herbaceous plant which was the product of hybridisation for horticultural purposes. This species is capable of both asexual and sexual reproduction, it can produce seeds but typically they are not viable. More commonly, this plant is spread by vegetative reproduction through rhizomes and corms (bulb like structures). This species is considered invasive as it can out-compete native vegetation, dense colonies can prevent regeneration of native vegetation as they smother seedlings and it can increase erosion, where the plants may be located on a riverbank as the rhizomes and corms can become very heavy and cause destabilisation.

4 Article 6(3) Screening Assessment

This screening assessment questionnaire (EC, 2001) is used to assess whether this project has the potential to impact upon Natura 2000 sites. The consideration criteria of potential for impacts on Natura 2000 sites is detailed below.

4.1 Article 6(3) Assessment Criteria

Description of any Likely Direct, Indirect or Secondary Impacts of the Project on the Natura 2000 Site.

Any likely direct, indirect or secondary impacts of the proposed development, both alone and in-combination with other plans or projects, are detailed in the Table 5 below.

Table 5: Assessment of Likely Impacts

Assessment of Likely Impacts	
Size and scale	The proposed project involves the realignment of the T junction which joins the L1403 and the N69. The project includes the construction of pedestrian & cycle path alongside the N69. No impacts are predicted arising from the size or scale of this proposed project.
Land-take	Land-take within any Natura 2000 site is nil as no works will take place within any Natura 2000 site.
Distance from the Natura 2000 site or key features of the site;	The project works are 1.06km away from the nearest Natura 2000 site.
Resource requirements (water abstraction etc.);	There will be no resource requirement from any Natura 2000 site. Water will be utilised from the local network.
Emissions (disposal to land, water or air);	There will be no additional emissions to land, air or water beyond those typical of any small-scale road maintenance project. No emissions are predicted that will impact upon the local environment or any Natura 2000 sites.
Excavation requirements;	This project will not require any excavation within any Natura 2000 site.
Transportation requirements;	Site is accessible by existing road network. No transportation requirements are required which may impact upon any Natura 2000 site.
Duration of construction, operation, etc.;	The duration of works is not known at time of writing.
Timing of works	The date works are scheduled to commence is not known at time of writing.
Cumulative or In-combination Impacts with other Projects and Plans	A number of plans were reviewed on compiling this AA Screening. The greater majority of these were small-scale developments or alterations to properties (e.g. File No. 20779). However, some larger developments such as the proposed new 2 nd level school at Caheranardrish (File No.20738) were also noted. However, no other projects which could give rise to any cumulative or in combination effects of this project on any Natura site were identified.

4.2 Description of Any Likely Changes to the Natura 2000 Sites.

Table 6: Likely changes to the Natura 2000 site.

Potential Impacts to the Natura 2000 Site	
Reduction of habitat area	Works will not alter the size of any Natura 2000 site. Therefore no reduction of habitat area of any Natura 2000 site is possible.
Disturbance to key species	All works are outside of the adjacent Natura 2000 site boundary lines. Works will largely be taking place within an existing road network which is unsuitable for Qualifying Interests of adjacent Natura 2000 sites. There will therefore be no disturbance to key species.
Habitat or species fragmentation	There will be no modification to any habitat within any Natura 2000 site. Works will not lead to any fragmentation of any Qualifying Interests or habitats associated with adjacent Natura 2000 sites.
Reduction in species density	Works will not lead to any reduction in species density of any Qualifying Interests associated with adjacent Natura 2000 sites.
Changes in key indicators of conservation value (water quality etc.);	Changes in key indicators of conservation value is unlikely to occur in any adjacent Natura 2000 sites.
Climate change	No damage to any Natura 2000 sites as a result of or in combination with climate change is predicted as a consequence of the proposed works.
Likelihood of Interference with the key relationships that define the structure and function of the Natura 2000 Site as a whole:	There will be no interference with the key relationships that define the structure of any Natura 2000 site as a result of the proposed works.
Description of the individual elements of the project likely to give rise to impacts on the Natura 2000 site.	It is considered that no individual elements of the proposed project will likely give rise to impacts on any adjacent Natura 2000 site. This is due to lack of pathways for impact, duration, distance from boundary of nearest Natura 2000 site and scale.
Description of any Likely Significant Impacts or Indeterminate Impacts of the Project on the Natura 2000 Site	Based on a consideration of the proposed works in relation to the relevant Natura 2000 sites, impacts on adjacent, nearby or otherwise relevant Natura 2000 sites are not considered likely to be significant or indeterminate.

5 Findings of No Significant Effects

Table 7: Finding of No Significant Effects

Finding of No Significant Effects Matrix	
Name of Project	N69 Mungret & Boland's Cross Road Safety Improvement Scheme
Name and Location of Natura 2000 site	Project is proposed outside of Natura 2000 sites. Nearest Natura 2000 sites are Lower River Shannon SAC and Lower River Shannon & River Fergus SPA.
Description of Project	The proposed project involves the realignment of the T junction which joins the L1403 and the N69. The project includes the construction of pedestrian & cycle path alongside the N69. The study area is approximately 1.2km in length extending from the priority T-junction of the N69 and the L1403 (Boland's Cross) to the existing segregated cyclists and pedestrian facility at Moore's junction. It also includes the tie in connections of the L1403, R859 and the local road from the Westward Ho Bar and Restaurant junction to the internal roundabout towards Mungret Village.
Is the project directly connected or necessary to the management of the site?	Project is not directly connected or necessary to the management of the site.
Are there other projects or plans that together with project being assessed could affect the site?	No plans or projects were found that are likely to lead to cumulative, or in combination impacts to any Natura 2000 site.
The Assessment of Significance of Effects	
Describe how the project is likely to affect the Natura 2000 site	It is considered that the proposed project will not have any negative impacts upon the Qualifying Interests of adjacent Natura 2000 sites.
Explain why these effects are not considered significant	<ul style="list-style-type: none"> • The distance from Natura sites to the works area. • No drains/watercourses cross the proposed works area and therefore, there is no hydrological connectivity from the site to surrounding environment. There is therefore no complete source-pathway-receptor chain. • Nature of the proposed works, relatively small scale. • The proposed works route is restricted to an existing road network and the surrounding habitats are unsuitable for Qualifying Interests of adjacent Natura 2000 sites.
Describe how the project is likely to affect species designated under Annex II of the Habitats Directive	It is considered that the proposed project is not likely to have any negative effects on species designated under Annex II of the Habitats Directive.
Data Collected to Carry out the Assessment	
Who carried out the assessment?	Louis Peacock, Environmental Consultant for Flynn Furney Environmental Consultants. This Appropriate Assessment Screening has been carried out by suitably qualified and experienced professionals of Flynn Furney Environmental Consultants. These were: Louis Peacock BSc, Billy Flynn BSc, MSc, MCIEEM, CEnv. and David McCormick, BSc, PhD.
Sources of Data	EPA, NPWS, IFI, Limerick City and County Council, National Planning Application Database, An Bord Pleanála's online database.
Level of Assessment Completed	Stage I Appropriate Assessment Screening
Where can the full results of the assessment be accessed and viewed	Full results included in this present reporting.

5.1 Conclusion

In our professional opinion and in view of the best scientific knowledge and in view of the conservation objectives of the Natura 2000 sites reviewed in the screening exercise, the proposed development individually/in combination with other plans and projects (either directly or indirectly) is not likely to have any significant effects on any of the European sites. Therefore, it is recommended to Limerick City and County Council that Stage II Appropriate Assessment is not required.

6 References

European Commission (2018) *Assessment of plans and projects significantly affecting Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.*

Fossitt, J.A. (2000) *A Guide to Habitats in Ireland.* The Heritage Council, Kilkenny.

JNCC (2010) *Handbook for Phase 1 Habitat Survey.* Joint Nature Conservation Committee, Peterborough, UK.

National Roads Authority (2009) *Ecological Surveying Techniques for Protected flora and fauna during the Planning of National Road Schemes.* NRA (now Transport Infrastructure Ireland), Dublin.

NPWS (2012) *Conservation Objectives: Lower River Shannon SAC 002165. Version 1.0.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht

NPWS (2012) *Conservation Objectives: River Shannon and River Fergus Estuaries SPA 004077. Version 1.0.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2018) *Conservation Objectives: Curraghchase Woods SAC 000174. Version 1.* National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS (2018) *Conservation Objectives: Tory Hill SAC 000439. Version 1.* National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

NPWS (2018) *Conservation Objectives: Askeaton Fen Complex SAC 002279. Version 1.* National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

Scannell, M J P and Synott, D M, 1987, *Census Catalogue of the Flora of Ireland.* Stationary Office, Dublin.

Smith, G.F., O'Donoghue, P., O'Hora, K. and Delaney, E., 2011. *Best practice guidance for habitat survey and mapping.* The Heritage Council: Ireland.

Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016) *Ireland Red List No. 10: Vascular Plants.* National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.

7 Appendices

Appendix 1: Photographs from Field Surveys



Photograph 1: A photo of the T junction linking the L1403 and N69 (Looking eastwards) taken during the field surveys.



Photograph 2: A photo of the N69 facing Eastwards towards Mungret village taken during field surveys.



Photograph 3: Montbretia stand located just outside the proposed area of works.



Photograph 4: Snowberry stand within the hedgerow located across from Boland Cross.



Photograph 5: Fuchsia stand just outside the proposed area of works (Taken from Google street view).



Photograph 6: Rabbit burrows present within the hedgerow beside the N69.



Photograph 7: Another example of a Rabbit burrow noted from the field surveys

Appendix 2: Natura 2000 Site Information (* denotes a priority habitat)

Site Code (00)	Site Name	Distance From Proposed Works (m)	Qualifying Interests (QI's)	Site Conservation Objectives
2165	Lower River Shannon SAC	1060	<p>Sandbanks which are slightly covered by sea water all the time [1110]</p> <p>Estuaries [1130]</p> <p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Coastal lagoons [1150]</p> <p>Large shallow inlets and bays [1160]</p> <p>Reefs [1170]</p> <p>Perennial vegetation of stony banks [1220]</p> <p>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260]</p> <p>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410]</p> <p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p> <p><i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</p> <p><i>Petromyzon marinus</i> (Sea Lamprey) [1095]</p> <p><i>Lampetra planeri</i> (Brook Lamprey) [1096]</p> <p><i>Lampetra fluviatilis</i> (River Lamprey) [1099]</p> <p><i>Salmo salar</i> (Salmon) [1106]</p> <p><i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349]</p> <p><i>Lutra lutra</i> (Otter) [1355]</p>	https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002165.pdf

4077	River Shannon and Fergus SPA	1060	<p>Cormorant (<i>Phalacrocorax carbo</i>) [A017]</p> <p>Whooper Swan (<i>Cygnus cygnus</i>) [A038]</p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Wigeon (<i>Anas penelope</i>) [A050]</p> <p>Teal (<i>Anas crecca</i>) [A052]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Scaup (<i>Aythya marila</i>) [A062]</p> <p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Lapwing (<i>Vanellus vanellus</i>) [A142]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Curlew (<i>Numenius arquata</i>) [A160]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Greenshank (<i>Tringa nebularia</i>) [A164]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Wetland and Waterbirds [A999]</p>	https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004077.pdf
2279	Askeaton Fen complex SAC	10,090	<p>Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210]</p> <p>Alkaline fens [7230]</p>	https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002279.pdf

0174	Curraghchase SAC	11,980	<p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p> <p><i>Taxus baccata</i> woods of the British Isles [91J0]</p> <p><i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]</p> <p><i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat) [1303]</p>	https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000174.pdf
0439	Tory Hill SAC	10,075	<p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210]</p> <p>Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210]</p> <p>Alkaline fens [7230]</p>	https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000439.pdf

Appendix 3: National Biodiversity Data Centre (NBDC) Record Review**Table 8:** Recorded species from the National Biodiversity Data Centre

Feature name	Species group	Species name	Record count	Date of last record	Title of dataset	Designation
Custom	Terrestrial Mammal	Brown Rat (Rattus norvegicus)	1	31/10/2013	Mammals of Ireland 2016-2025	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Custom	Terrestrial Mammal	Irish Hare (Lepus timidus subsp. hibernicus)	1	25/10/2013	Mammals of Ireland 2016-2025	

Appendix 4: Fossitt Habitat Codes

Table 9: Fossitt codes and corresponding habitat

Fossitt code	Habitat
GA1	Improved Agricultural Grassland
GA2	Amenity Grassland
GS4	Wet Grassland
WD2	Mixed Broadleaf & Conifer Woodland
WL1	Hedgerows
WL2	Treelines
BL1	Stone Walls and other Stonework
BL3	Buildings and Artificial Surfaces
BC4	Flowerbeds and Borders
ED3	Recolonising Bare Ground
BC1	Arable Crops
WS1	Scrub