

No. 6 & No. 7 Colbert Terrace, Abbeyfeale, Co. Limerick

Prepared by: Beo Ecology Prepared for: TA Group



Sheila Murphy B.Sc. M.Sc. MCIEEM trading as Beo Ecology.

Office: Shrule, Co. Mayo Contact: info@beoecology.ie

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1 Introduction

Beo Ecology has been commissioned by TA Group to carry out a Screening for Appropriate Assessment for the proposed construction of two residential houses at No. 6 and No. 7 Colbert Terrace, Abbeyfeale, Co. Limerick. The location of the proposed works is presented in **Figure 1-1**. See **Appendix A** for site location and site layout drawings.

This Screening for Appropriate Assessment (AA) has been prepared to provide the competent authority, Limerick County Council, the relevant scientific information to conduct the Appropriate Assessment (AA). This information will allow Limerick County Council to determine, in view of best scientific knowledge, if the proposed project, individually or in combination with other plans and projects is likely to have a significant effect on a European site and, where necessary, to ascertain whether or not the proposed project would adversely affect the integrity of a European site.

1.1 Statement of Authority

Sheila Murphy trading as Beo Ecology holds a B.Sc. (Hons) in Environmental Science, and M.Sc. in Biodiversity and Conservation, she has over 12 years' experience in her field. She has extensive experience in the area of Screening of Appropriate Assessments and report writing for a range of projects including road developments, wastewater treatment plants and one-off housing developments. She is a Full Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM).

1.2 Legislative Context for Appropriate Assessment

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000.

Natura 2000 sites are defined under the Habitats Directive (Article 3) as a coherent European ecological network of special areas of conservation, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. In Ireland, these sites are designated as European Sites and include Special Protection Areas (SPAs), established under the EU Birds Directive (79/409/EEC, as codified by 2009/147/EC) for birds and Special Areas of Conservation (SACs), established under the Habitats Directive 92/43/EEC for habitats and species.

The Habitats Directive has been transposed into Irish law by Part XAB of the Planning and Development Act, 2000 - 2015 and the European Communities (Birds and Natural Habitats) Regulations 2011 (SI ros477/2011) as amended.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to adversely affect the integrity of European Sites (Annex 1.1).

Article 6(3) establishes the requirement for Appropriate Assessment (AA):

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 or 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 implications 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(3) of the Habitats Directive, transposed into Irish Law relevant to this project includes Part XAB of the Planning and Development Act, 2000-2019 and the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

Natura 2000 sites in Ireland (herein referred to as European sites) that form part of the Natura 2000 network of protected sites include Special Areas of Conservation (SACs) designated due to their significant ecological importance for species and habitats protected under Annexes I and II respectively of the Habitats Directive, and Special Protected Areas (SPAs), designated for the protection of populations and habitats of bird species protected under the EU Birds Directive (Council Directive 2009/409/EEC). Features for which SACs and SPAs are designated are termed Qualifying Interests and Special Conservation Interests respectively. Collectively, Qualifying Interests and Special Conservation Interests are herein referred to as Qualifying Features. As the proposed project is not directly connected with or necessary to the management of any European Site, Limerick County Council as the competent authority, is obliged to assess, in view of best scientific knowledge, if the proposed development, individually or in combination with other plans or projects, is likely to have a significant effect on European Sites.

The staged assessment process undertaken to meet Article 6(3) obligations is described in Section 2 below.



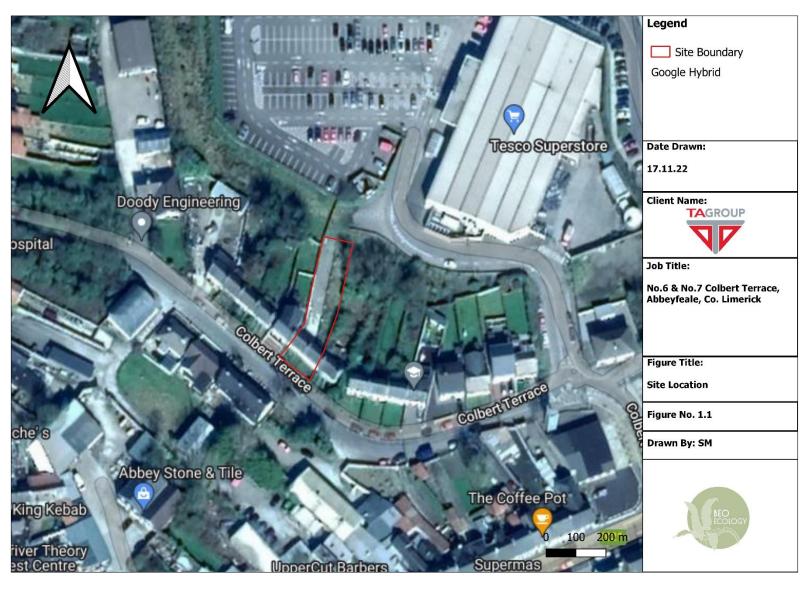


Figure 1-1: Site Location of the Proposed Works



2 Methodology

2.1 Stage 1: Screening for Appropriate Assessment

Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

Whether a plan or project is directly connected to or necessary for the management of the site, and whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). Screening should be undertaken without the inclusion of mitigation, unless potential impacts clearly can be avoided through the modification or redesign of the plan or project, in which case the screening process is repeated on the altered plan. The greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no impact.

2.2 Stage 2: Appropriate Assessment (Natura Impact Statement)

The aim of Stage 2 of the AA process is to identify any adverse impacts that the plan or project might have on the integrity of relevant European sites. As part of the assessment, a key consideration is 'in combination' effects with other plans or projects. Where adverse impacts are identified, mitigation measures can be proposed that would avoid, reduce or remedy any such negative impacts and the plan or project should then be amended accordingly, thereby avoiding the need to progress to Step 3.

This stage considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. The proponent of the plan or project will be required to submit a Natura Impact Statement, i.e. the report of a targeted professional scientific examination of the plan or project and the relevant European sites, to identify and characterise any possible implications for the site in view of the site's conservation objectives, taking account of in-combination effects. This should provide information to enable the public authority to carry out the AA.

The information required in a Natura Impact Statement, is outlined in Regulation 42(5) (a) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) as amended, as follows: A Natura Impact Statement shall, in addition to addressing the issues referred to in the interpretation contained in Regulation 2(1), include such information or data as the public authority considers necessary, and specifies in a notice given under paragraph (3), to enable it to ascertain if the plan or project will affect the integrity of the site.

Where appropriate, a Natura Impact Statement shall include, in addition—

- i. the alternative solutions that have been considered and the reasons why they have not been adopted,
- ii. the imperative reasons of overriding public interest that are being relied upon to indicate that the plan or project should proceed notwithstanding that it may adversely affect the integrity of a European site,
- iii. the compensatory measures that are being proposed.

If the assessment is negative, i.e. adverse effects on the integrity of a site cannot be excluded, then the process must proceed to Stage 3, or the plan or project should be abandoned. The competent authority must make a determination to that effect before proceeding to the next stage.



2.3 Guidance

This Screening for AA and NIS report has been prepared with regard to the relevant provisions of the EU Council Directive 92/43/EEC and Ireland's EU (Birds and Natural Habitats) Regulations 2011 (as amended).

The methodology followed for this assessment has had regard to the following guidance and legislation;

- EC (2000). Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg;
- EC (2018). Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg;
- CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland. Chartered Institute of Ecology and Environmental Management;
- DoEHLG (2009, rev. 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government;
- European Commission (EC) (2018), Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats Directive' 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission;
- EC (2002) 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, Office for Official Publications of the European Communities, Luxembourg. European Commission;
- EC (2007a) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. European Commission;
- **EC**, (2007b), Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. European Commission;
- EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission;
- Chartered Institute of Ecology and Environmental Management (CIEEM) Version 1.1 (September 2019), Guidelines for Ecological Impact Assessment in the UK and Ireland;
- The European Communities (Birds and Natural Habitats) Regulations 2011 as amended;
- European Union (Environmental Impact Assessment and Habitats) Regulations 2011 S.I No 473/2011 as amended,
- NPWS (2013). Ireland's Summary Report for the period 2008 2012 under Article 12 of the Birds Directive. National Parks and Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland;
- NPWS (2019), The Status of EU Protected Habitats and Species in Ireland. Habitat Assessments Volume 2. Version 1.0. Unpublished Report, National Parks and Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland;
- NPWS (2019), The Status of EU Protected Habitats and Species in Ireland. Species Assessments Volume 3, Version 1.0. Unpublished Report, National Parks and Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland;
- Office of the Planning Regulator (March 2021), Appropriate Assessment Screening for Development Management. OPR Practice Note PN01;
- The Planning and Development Act 2000-2019;
- The Planning and Development Regulations 2001-2019; and
- Recent Irish and European case law on the Habitats Directive.



2.4 Information Consulted for this Report

A desk study was undertaken as part of this assessment. This has been informed by the following sources of data;

- Information on the location, nature and design of the proposed project as provided by the client;
- Department of Housing, Planning, Community and Local Government (DHPCLG) online land-use mapping (www.myplan.ie/en/index.html);
- Office of Public Works (OPW) National Flood Hazard Mapping website (www.floodmaps.ie);
- Environmental Protection Agency (EPA) geoportal mapping tool (https://gis.epa.ie/EPAMaps/);
- EPA Catchments interactive online mapping and data (https://www.catchments.ie/);
- National Parks and Wildlife Service protected site and species information and data (https://www.npws.ie/protected-sites);
- National Biodiversity Data Centre (<u>www.biodiversityireland.ie</u>);
- Geohive online environmental sensitivity mapping tool (https://airomaps.geohive.ie/ESM/);
- Ordnance Survey of Ireland mapping and aerial photography (<u>www.osi.ie</u>);
- Geological Survey Ireland online mapping and data (https://www.gsi.ie/en-ie/Pages/default.aspx);
 and,
- Limerick County Development Plan 2022-2028.



3 Stage 1: Screening for Appropriate Assessment

This section provides the information required for the competent authority (Limerick County Council) to undertake a Screening for AA and determine in view of best scientific knowledge, whether the proposed works, individually or in combination with other plans and projects, is likely to have a significant effect on the European site. Specifically, it aims to:

- Provide information on, and assess the potential for the proposed works to significantly impact on European sites; and
- Determine whether the activities proposed, alone or in combination with other projects, are likely to have significant effects on European sites in view of their Conservation Objectives.

This screening assessment provides information to address the following elements:

- 1. Description of the plan or project, and local site or plan area characteristics. The description covers the full scope of the proposed plan or project (i.e. construction phase and operational phase).
- 2. Description of the receiving environment setting of the proposed plan or project and its surrounds.
- 3. Identification of relevant European sites within the projects the potential zone of influence. A preliminary assessment to determine connectivity between the proposed works and receptors (i.e. European sites and/ or features for which the sites are designated). Where connectivity exists, the receptors in question are brought forward in the screening assessment process.
- 4. For receptors that exhibit potential connectivity to the proposed work a screening assessment is undertaken to establish whether the plan or project is likely to have a direct, indirect or cumulative effect on receptors based on a consideration of likely impacts (i.e. an assessment of significance of effect).
- 5. Screening statement with conclusions on whether or not an AA is necessary for the relevant a Qualifying Feature.

3.1 Project Description

Limerick Housing Department have a requirement for two new builds three bedroom dwellings as part of Rural Limerick Housing Development. The existing site of 0.059 hectares is accessed directly off Colbert Terrace, which is northwest of main street Abbeyfeale. A pedestrian footpath borders the site on the southeastern Elevation (Colbert Terrace). The West and Eastern boundary is adjacent to a neighbouring property. The northern boundary is bounded by open ground immediately adjacent to the access road to Tesco.

The accommodation requirement is for two 3-bedroom units. The design requirements are as follows:

- Parking required for each unit in the form of a driveway
- Private open space in the form of gardens to the rear and/or side.
- The proposal allows for:
 - 118sqm for Unit no 6 and Unit no 7.
 - 170sgm Private open space of unit no 6.
 - 162sqm Private open space of unit no 7.
- Space provision calculations based on "Quality Housing for Sustainable Communities" and comply with the following:
 - Area of single bedroom minimum of 7.1 sqm
 - Are of a double bedroom is a minimum of 11.4 sgm
 - Area of main bedroom should be minimum 13 sqm in dwelling designed to accommodate more than 3 people.



3.2 European Sites within the Project Zone of Influence

This stage of the screening for AA process describes European Sites within the Zone of Influence (ZoI) of the proposed project. A 15km buffer zone is recommended as per *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (DoEHLG, 2009, rev. 2010), however given the nature and scale of the proposed development it is does not necessitate the adoption of this 15km buffer zone.

3.2.1 Zone of Influence

A Zone of Influence for a project is established on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors within vicinity of the proposed development. The ZoI takes into account the potential for connectivity to ecological receptors through the Source- Pathway-Receptor (S-P-R) model.

The model identifies the source of likely significant impacts, if any, the pathway (land, air, hydrological, hydrogeological pathways, etc) along which those impacts may be transferred from the source to the receiving environmental receptors (i.e. European Sites and/ or features for which the sites are designated). Functional pathways can also include the use of an application site for foraging by a QI/SCI species of an SAC or SPA i.e. otter or migratory birds.

Given the size, scale and nature of this project and the proposed construction methodology it is considered for the purpose of this screening exercise that the Zone of Influence is the zone immediately surrounding the proposed development works and any hydrologically or hydrogeologically connected European Sites downstream of the works, where distances would be dependent on the qualifying interests of the site. For the purposes of this Screening for Appropriate Assessment, the Zone of Influence includes European Sites supporting downstream hydrological connectivity and those located within the same WFD surface water sub-catchment (e.g. Feale_SC_020) as the proposed works.

Following the above rationale, the following two European sites are located within the ZoI (WFD subcatchment Feale_SC_020) of the proposed works (See **Figure 3-1**):

- Lower River Shannon SAC (site code: 002165)
- Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA (site code: 004161)

Where it is evident that there is no connectivity between the proposed work and receptors (i.e. European Sites and/ or features for which the sites are designated), the receptors are excluded from the AA process. Similarly, where connectivity exists between the proposed work and receptors but is deemed not to result in likely significant effects to the receptor, the receptor can be screened out (i.e. likely significant effects to receptors excluded; receptor not considered further in AA process).

Table 3-1 below lists the European sites within the ZoI and their Qualifying Interests (QI). **Figure 3-1** shows the European sites within the ZoI and downstream of the proposed works location.

3.3 Summary of Connectivity

There are two European sites located within the ZoI (WFD sub-catchment Feale_SC_020) of the proposed works; Lower River Shannon SAC (site code: 002165) and Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA (site code: 004161).

There is no hydrological connectivity between the proposed site location to European sites downstream. The Lower River Shannon SAC is located approximately 220m west of the proposed site location, supporting the River Feale (IE_SH_23F010310).



Due to existing on-site barriers, the proposed dwelling sites do not support connectivity to any features, such as drainage channels or watercourses or groundwater conduits that could transfer potential pollutant sources from the project footprint and Zone of Influence to the wider environment and its associated European sites.

The identified site does not support connectivity to the proposed works, this is due the lack of source-pathway-receptor in the form of hydrological or hydrogeological conduits and significant distances between the proposed works and the European sites. Therefore, there is no potential for the proposed works to have potential significant negative impacts on designated European sites and surrounding environment.

Table 3-1: European Sites within the Zol of the Proposed Development

Site Code	Site Name	Qualifying Interests (Habitats/Species)/ Special Conservation Interest Species	Distance from Study Area	Connectivity
		Qualifying Habitat Sandbanks which are slightly covered by sea water all the time [1110]		
		Estuaries [1130]		
		Mudflats and sandflats not covered by seawater at low tide [1140]		
		Coastal lagoons [1150]		
		Large shallow inlets and bays [1160]		
		Reefs [1170]		
		Perennial vegetation of stony banks [1220]	Located 220m west of the proposed works	No Connectivity. Due to the lack of source-pathway-receptor vectors there is no potential for connectivity between the site location and the SAC.
	Lower River Shannon SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]		
		Salicornia and other annuals colonising mud and sand [1310]		
002165		Atlantic salt meadows (Glauco- Puccinellietalia maritimae) [1330]		
		Mediterranean salt meadows (Juncetalia maritimi) [1410]		
		Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]		
		Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]		
		Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]		
		Qualifying Species Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]		





Site Code	Site Name	Qualifying Interests (Habitats/Species)/ Special Conservation Interest Species	Distance from Study Area	Connectivity
		Petromyzon marinus (Sea Lamprey) [1095] Lampetra planeri (Brook Lamprey) [1096] Lampetra fluviatilis (River Lamprey) [1099] Salmo salar (Salmon) [1106] Tursiops truncatus (Common Bottlenose Dolphin) [1349] Lutra lutra (Otter) [1355]		
004161	Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA	Qualifying Species Hen Harrier (Circus cyaneus) [A082]	Located approximately 2.5km north of the proposed works.	No Connectivity. Due to the lack of source-pathway-receptor vectors there is no potential for connectivity between the site location and the SAC.



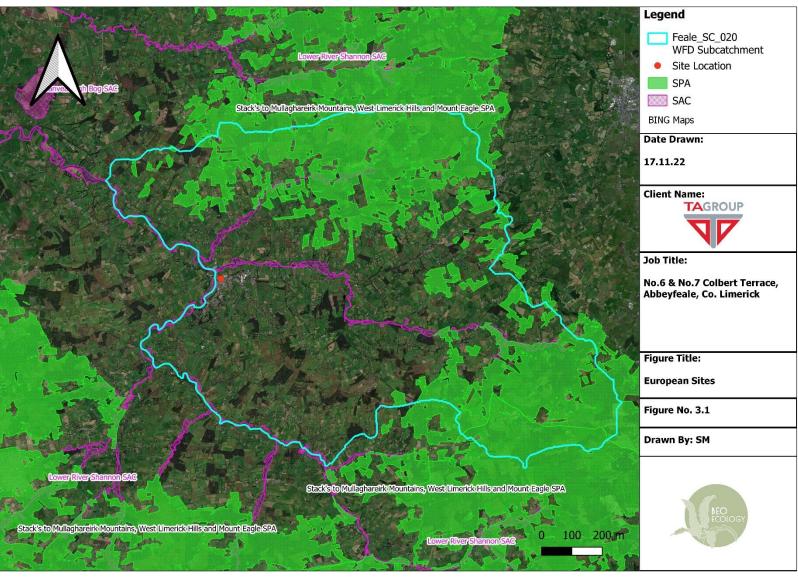


Figure 3-1: European Sites within the Zol of the Proposed Works



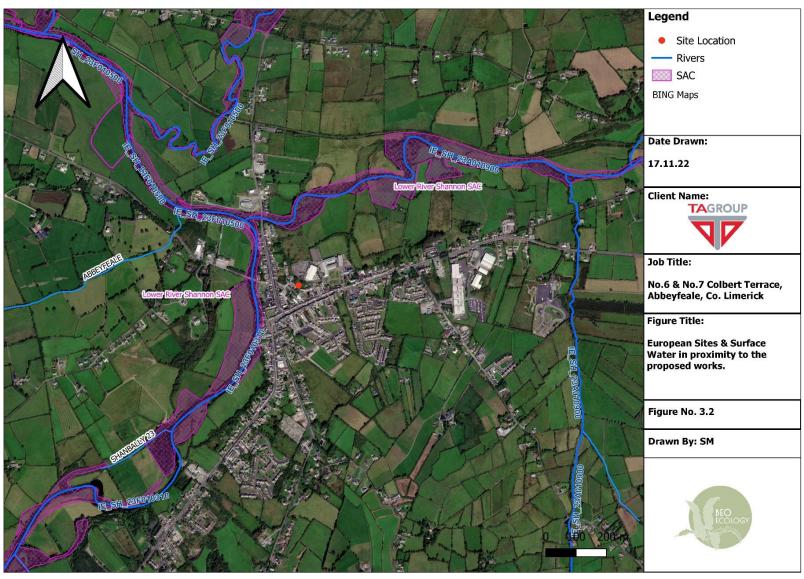


Figure 3-2: Surface Water at Site Location



3.4 European Site Descriptions

There are two European sites within the project ZoI, none of which support potential connectivity to the proposed development works. The site synopsis of each SAC and SPA is outlined below.

3.4.1 Lower River Shannon SAC¹

This site is of great ecological interest as it contains a high number of habitats and species listed on Annexes I and II of the E.U. Habitats Directive, including the priority habitats lagoon and alluvial woodland, the only known resident population of Bottle-nosed Dolphin in Ireland and all three Irish lamprey species. A good number of Red Data Book species are also present, perhaps most notably the thriving populations of Triangular Club-rush. A number of species listed on Annex I of the E.U. Birds Directive are also present, either wintering or breeding. Indeed, the Shannon and Fergus Estuaries form the largest estuarine complex in Ireland and support more wintering wildfowl and waders than any other site in the country. Most of the estuarine part of the site has been designated a Special Protection Area (SPA), under the E.U. Birds Directive, primarily to protect the large numbers of migratory birds present in winter (NPWS,2013).

3.4.2 Stack's to Mullahgareirk Mountains, West Limerick Hills & Mount Eagle SPA²

The Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA is of ornithological importance because it provides excellent nesting and foraging habitat for breeding Hen Harrier and is one the top sites in the country for the species. The presence of three species, Hen Harrier, Merlin and Shorteared Owl, which are listed on Annex I of the E.U. Birds Directive is of note (NPWS, 2015).

3.5 Conservation Objectives of European Sites

European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status areas designated as SAC and SPA. 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, are stable or increasing; and
- The specific structure and functions which 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 dynamics data on the species concerned indicate that it is maintaining itself on a longterm basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is 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.

The integrity of a European site (referred to in Article 6.3 of the EU Habitats Directive) is determined based on the conservation objectives and of the site. The Qualifying Interests (QI) and Special Conservation Interests (SCI) are obtained through a review of the most recently published (web published or otherwise)

¹ Site Synopsis: Lower River Shannon SAC

² Site Synopsis: Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA



Conservation Objective supporting documents and Site-Specific Conservation Objectives documents (where available) for the European site.

Table 3-2 below provides details on the Conservation Objectives of the proximal Europeans site identified within the ZoI of the proposed residential dwelling development.

Table 3-2: Conservation Objectives of Proximal European Sites

European Site	Conservation Objectives
Lower River Shannon SAC	The detailed conservation objectives for the Lower River Shannon SAC are provided in the Conservation Objectives document available on the NPWS website, as follows; https://www.npws.ie/sites/default/files/protected-sites/conservation objectives/CO002165.pdf
Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA	The detailed conservation objectives for Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA are provided in the Conservation Objectives document available on the NPWS website, as follows; https://www.npws.ie/sites/default/files/protected-sites/conservation objectives/CO004161.pdf



4 Existing Environment

4.1 Site Description

An ecological site walkover was conducted on the 1st December 2022 by Ecologist Sheila Murphy BSc. MSc. MCIEEM. The habitats identified on site were classified in accordance with "A Guide to Habitats in Ireland" (Fossitt, 2000).³ The site buildings were demolished and cleared approximately 11 months prior to the ecological walkover. See **Image 4-1** to **Image 4-4** of the site location.

The site consists primarily of a gravelled-out area (ED1) with sections supporting recolonising bare ground (ED3) towards the northern and southern ends. The north-eastern end of the site is bound by a palisade fence with some minor scrub development consisting of willow (Salix sp.), colt's foot (Tussilago farfara), creeping buttercup (Ranunculus repens), bent grass (Agrotis sp.), montbretia (Crocosmia), Yorkshire fog (Holcus lanatus) and immature stems of snowberry (Symphoricarpos albus), a low impact invasive species. Adjoining recolonising bare ground supports species such as ragwort basal leaves (Jacobaea vulgaris), plantain (Plantago lanceolata), docks (Rumex sp.), cat's ear (Sonchus arvensis), rushes (Juncus sp.) and vetches. The northern end also supports a small patch of brambles (Rubus fruticosus) and box hedge. The entrance to the site is also gravelled out with aspects of recolonising bare ground. Scattered stems of butterfly bush (Buddleja davidii) are located to the northeast of the site entrance, this is outside the site boundary. This is a medium impact invasive species.

The eastern boundary of the site is bound by a stake and rail timber fence. An immature stem of cherry laurel (*Prunus laurocerasus*) is growing along the fence line, a high-risk impact species. A clearance spoil heap is located to the south of the site, this consists of immature willow regrowth, abundant scattered montbretia plants, willowherb (*Epilobium sp.*), docks, immature privet stems (*Ligustrum ovalifolium*), sycamore (*Acer speudoplatanus*), and abundant grasses. Garden ornamentals and escapees were also identified on site including garden lily (*Zantedeschia aethiopica*). It should be noted the following species identified onsite are invasive:

- Montbretia (*Crocosmia*) Low risk impact
- Snowberry (Symphoricarpos albus) Low risk impact
- Cherry Laurel (Prunus laurocerasus) High risk impact (511538 626916 ITM)
- Butterfly bush (Buddleja davidii) Medium risk impact (located adjoining site entrance to the north)

³ <u>A Guide to Habitats in Ireland (Fossitt, 2000)</u>. Alphanumeric codes for habitat classification are provided in accordance with '*A Guide to Habitats in Ireland*' (Fossitt, 2000)







Image 4-1: View of the site, north to south.

Image 4-2: Spoil heap and re-growth to the south of the site.



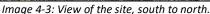




Image 4-4: Willow dominated scrub to the north of the site.

4.2 Surface Water

The EPA online mapping data (https://gis.epa.ie/EPAMaps/) was consulted for the water quality status of waterbodies identified within the study area. The Feale (IE_SH_23F010310) watercourse is located approximately 240m west of the proposed works location. The waterbody flows northwards into the Shannon Estuary south of Ballybunion town.

Table 4-1: Surface Water Status within by Study Area

٧	<i>N</i> aterbody	WFD River Waterbody Risk Status	EPA Latest River Q Values	River Waterbody WFD Status 2013-2018
F	Feale (IE_SH_23F010310)	Not at Risk	Station: FEALE - Bridge in Abbeyfeale (R16): Q4 Good	Good

4.3 Flooding

A search of the Office of Public Works (OPW) National Flood Hazard Mapping website (www.floodmaps.ie) was performed to obtain information on the flood history in the vicinity of the study area. One past



17

recurring flood event was recorded approximately 470m south of the proposed works, however neither are located within the immediate vicinity of the proposed works.

The Flood Info database (<u>www.floodinfo.ie</u>) was also consulted to identify Predictive Flood Risk Areas (PFRA) mapped as part of the Catchment Flood Risk Assessment and Management (CFRAM) programme for the study area. **Figure 4-1** below provides the mapped area for the Annual Exceedance Probability (AEP) ranging from 1-1000-, 1-100- and 1-10-year, flooding probability.

4.4 Geology, Hydrology and Hydrogeology

The Geological Survey of Ireland (GSI) online⁴ database was consulted for available edaphic, geological and hydrological information of the site and its environs.

- The underlying bedrock of the proposed works is the Central Clare Group which consists of sandstone, siltstone and mudstone.
- The groundwater vulnerability of the site is a combination of moderate vulnerability. No karst features are located in the vicinity of the proposed works.
- The EPA online database was searched for available information of the groundwater bodies and vulnerability.⁵ The study site is located within the Abbeyfeale Groundwater Body (IE SH G 001).
- The Water Framework Directive (WFD) ground waterbody risk classifies this groundwater body as not at risk.
- The WFD ground waterbody status 2013-2018 states the water body has a "Good" status.
- The site overlays a Locally Important Aquifer Bedrock which is Moderately Productive only in Local Zones (LI).

Groundwater and surface water interactions⁶ of Abbeyfeale Groundwater Body (IE_SH_G_001) is described as follows; "Shallow groundwater flow paths are short (30-300 m), with groundwater discharging to the streams and small springs. Artesian conditions and deep inflow levels indicate that there are lower parts of the aquifer that are confined by low permeability layers in the rock succession. Confined flow path lengths may be considerable. Local flow directions are determined by local topography and drainage patterns. Overall, groundwater flow is to the west.

Due to the shallow groundwater flow in this aquifer the groundwater and surface waters are closely linked. The streams crossing the aquifer are gaining."

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⁴ https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228

⁵ <u>https://gis.epa.ie/EPAMaps/</u> Accessed: November 2022

⁶ Abbeyfeale Groundwater Description



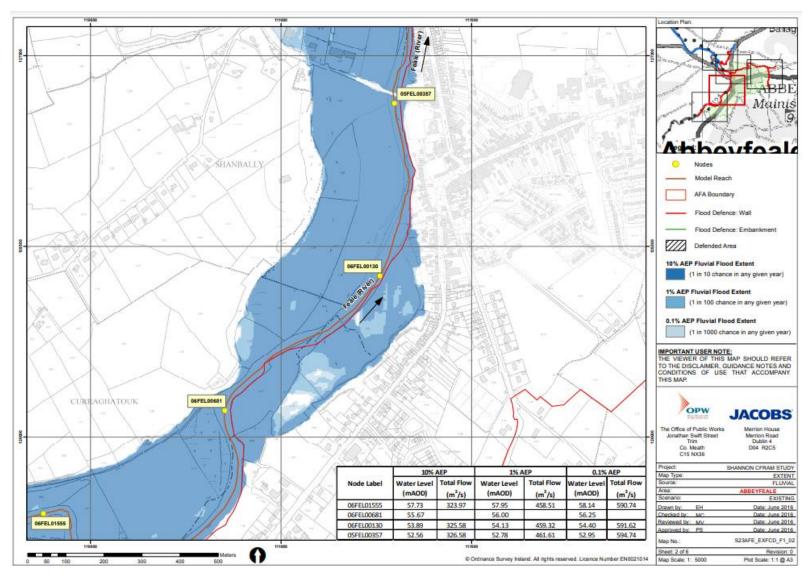


Figure 4-1: CFRAM Map for the Proposed Works area.

Table 5-1 presents Screening Assessment Criteria considering the proposed development.

Table 5-1: Screening Assessment Criteria

Screening Assessment Criteria Screening Questions	Impacts
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European Sites.	There are two European sites within the proposed works ZoI; Lower River Shannon SAC and Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA. The proposed works do not support connectivity to the European sites. The Feale (IE_SH_23F010310) watercourse is located approximately 240m west of the proposed works location, however due to the distance and the existing barriers on site in the form of built surfaces and vegetated areas, it is not anticipated for the proposed works to give rise to impacts to European sites. Surface water run-off from the building's hard surfaces will be directed to a storm water soakaway area within the proposed residential site. The site will be connected to the local public wastewater treatment plant (Abbeyfeale WwTP) facilities and the wastewater generated during the project operational phase will be treated appropriately.
Likely direct, indirect or secondary impacts	of the project on the European Sites:
Size and Scale	The size and scale of the proposed works are small when compared with the surrounding environment. The proposed works area is a total of 0.059ha.
Land Take	The proposed development will not result in land take of Annex I habitats within a SAC and or SPA. It will not result in land take from a European Site.
Distance from European Sites or Key Features of the Site	There are two European sites within the proposed works ZoI; Lower River Shannon SAC and Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA. The proposed works do not support connectivity to the European sites. The closest European site to the proposed works Lower River Shannon SAC, located 220m west of the proposed works. The SPA is located approximately 2.5km north of the proposed works. Given the nature and location of the works there is no potential for direct or indirect impacts to arise to European sites.
Resource Requirements	The proposed works will require use of standard construction methods and materials. The use of these materials will not contribute to significant negative effects to European sites as there are no European sites located within the project ZoI or supporting connectivity to the proposed works.
Emissions	Aqueous emissions are the key item to be considered in this assessment and are considered below under construction and operational phases of the proposed development. Construction phase:



Screening Assessment Criteria Screening Questions	Impacts
	The proposed works will require use of standard construction methods and materials. Waste material will be appropriately disposed of via skips to a licenced waste facility.
	Operational Phase: The units will be connected to the local public wastewater treat plant (WwTP) (Abbeyfeale WwTP) and all surface water run-off associated with the site will be directed to localised soak pits.
	It is envisioned minimal localised excavations within the proposed footprint will be required during the project's construction phase.
Excavation Requirements	Excavations will be readily confined to the project footprint; where removal is required from site, materials will be exported to a suitably licensed waste facility. There will be limited stockpiling of materials on-site.
	Excavations will be undertaken in line with the project description as per Section 3.1 . There will be no significant effects to European Sites as a result of excavations.
Transport Requirements	Transport requirements as part of the proposed development construction will utilise the existing road network. Transport of construction materials will be ad-hoc, intermittent and restricted to working hours during the project's construction phase. Such requirements will be small scale and localised and will not impact European Sites within the project ZoI.
Duration of construction, operation and decommissioning	Duration of construction will be approximately 12months. The project's operational phase will be medium to long term; i.e. > 50 years. The construction compound for the project will be located to the rear (north) of the site, within the site boundary.
Cumulative impact with other plans and projects in the area	As part of the Appropriate Assessment, in addition to the proposed development, other relevant projects and plans in the area must also be considered at this stage. These plans and projects are considered further in this respect in Table 5-2 below.

Table 5-2: In-combination Effects associated with the Proposed Development

Programmes, Plans and Projects	Potential for In-combination Effects
	A number of strategies, policies and objectives are set out in the <i>Limerick County Development Plan 2022-2028</i> with the aim of protection of the counties natural heritage and biodiversity.
	A number of policies and objectives provide for the protection of the integrity of sites designated under European and National legislation and ecological works. Such policies highlight the council's policy to support the protection, conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of European sites. The below outlines a selection of such policies:
	Policy EH P1: Protection of Natural Heritage and Biodiversity It is a policy of the Council to: a) Protect and conserve Limerick's natural heritage and biodiversity, in particular, areas designated as part of the European Sites Natura 2000 network, such as Special Protection Areas (SPAs) and Special Areas of Conservations (SACs), in accordance with relevant EU Directives and national legislation and guidelines. b) Maintain the conservation value of all Natural Heritage Areas and proposed Natural Heritage Areas (pNHAs) for the benefit of existing and future generations.
Limerick County Development Plan 2022 - 2028	Objective EH O1: Designated Sites and Habitats Directive It is an objective of the Council to ensure that projects/plans likely to have significant effects on European Sites (either individually or in combination with other plans or projects) are subject to an appropriate assessment and will not be permitted under the Plan unless they comply with Article 6 of the Habitats Directive. The Council, will through the planning enforcement process where applicable, seek to restore the ecological functions of designated sites, where they have been damaged through inappropriate development.
	Objective EH O3: Ecological Impact Assessment It is an objective of the Council to require all developments where there are species of conservation concern, to submit an ecological assessment of the effects of the development on the site and nearby designated sites, suggesting appropriate mitigation measures and establishing, in particular, the presence or absence of the following species: Otter, badger, bats, lamprey and protected plant species such as the Triangular Club Rush, Opposite Leaved Pond Weed and Flora Protection Order Species generally.
	The adherence and implementation of this plan within the Development Plan area will ensure that European sites are protected, and that Appropriate Assessment is undertaken for all plans, projects or programmes that have the potential for significant effects to European sites.
River Basin Management Plan for Ireland 2022-2027	The implementation of the RBMP seeks compliance with the environmental objectives set under the plan, which will be documented for each water body. This includes compliance with the European Communities (Surface Waters) Regulations S.I. No. 272 of 2009 (as amended). The implementation of the RBMP and achievement or maintenance of environmental objectives which will be set for the receiving water bodies will have a positive impact on water dependent habitats and species within European sites.
Inland Fisheries Ireland Corporate Plan 2021 - 2025 The Inland Fisheries Act 2010	The implementation and compliance with key environmental issues and objectives of this corporate plan will result in positive in-combination effects to European sites. The implementation of this corporate plan will have a positive impact for biodiversity of inland fisheries and ecosystems. It will not contribute to in-combination or cumulative impacts with the proposed development.



Programmes, Plans and Projects	Potential for In-combination Effects
Local Planning Applications	Adherence to the policies and objectives of <i>Limerick County Development Plan</i> 2022-2028 ensure that local planning applications and subsequent grant of planning comply with the core strategy of proper planning and sustainability and with the requirements of relevant EU Directives and environmental considerations, there is no potential for adverse in-combination effects on European Sites.

5.1 Conclusion of Cumulative Impact Assessment

Provided adherence to the overarching policies and objectives of the plans and programmes and best practice and mitigation measures* are implemented for individual projects, there is no potential for the mentioned plans and projects to have a cumulative impact to European sites, in combination with the proposed development (*this refers to projects which were permitted via full Stage 2 Appropriate Assessment).

Screening Assessment Criteria is further assessed in Table 5-3 below.

Table 5-3: Screening Assessment Criteria

Screening Assessment Criteria Screening Questions		
Describe any likely changes to the site arising as a result of the following;		
Reduction of Habitat	The works will not result in a reduction of habitat associated with European Sites within the project Zone of Influence i.e. Annex I habitats designated as qualifying interests.	
Disturbance to Key Species	The proposed development will not result in the disturbance of key species associated with European Sites within the project Zone of Influence.	
Habitat or Species Fragmentation	The proposed works will not result in habitat or species fragmentation to European Sites within the project Zone of Influence. The works will not result in habitat or species fragmentation with European Sites within the project Zone of Influence i.e. Annex I habitats or Annex II species designated as qualifying interests.	
Reduction in Species Diversity	The proposed works will not result in the reduction in species diversity to European Sites within the project Zone of Influence.	
Changes in Key Indicators of Conservation Value	The proposed development works will not contribute to changes in Key Indicators of Conservation Value to European sites within the project Zone of Influence as it has been concluded that substantive pathways for transmission of hydrological impacts into do not exist. Therefore, there will no impact to European sites that could influence the key indicators of conservation value of the site.	
Climate Change	The proposed works will not result in significant negative effects contributing to climate change that could in turn affect the	





Screening Assessment Criteria Screening Questions				
	conservation objectives of those European Sites within the project Zol.			
Describe any likely impacts on the European sites as a while in terms of Interference with key relationships that define the structure and function of the site;	There will no impact to European sites that could influence the structure and function of the site. Pollution events would need to be large scale and sustained to contribute towards negative effects to downstream European sites during the project's construction phase.			
Provide Indicators of Significance as a resu	ılt of the identification effects set out above in terms of;			
Loss	There will be no direct or indirect loss of habitats or species of European Sites within the project footprint of its ZoI.			
Fragmentation	The proposed works do not support qualifying habitats or species of European Sites within the potential project Zone of Influence. Therefore, the proposed development site will not result in fragmentation to European Sites or their associated species and habitats of Qualifying Interest.			
Disruption	There will be no direct or indirect disruption of habitats or species of European Sites within the project Zol. The site primarily does not support habitats or species of European Sites within the potential project Zone of Influence. Therefore, the proposed works will not result in disturbance of disruption to European Sites or their associated species and habitats of Qualifying Interest.			
Disturbance	There will be no direct or indirect disturbance of habitats or species of European Sites within the project ZoI. The site does not support habitats or species of European Sites within the potential project Zone of Influence. Therefore, the proposed works will not result in disturbance of disruption to European Sites or their associated species and habitats of Qualifying Interest.			
Changes to Key elements of the site	It has been concluded that substantive pathways for transmission of impacts European sites do not exist. Therefore, the proposed development works will not contribute to Changes to Key Elements of European sites within the project's Zone of Influence.			
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 are not known.	It has been concluded that substantive pathways for transmission to European sites do not exist. Therefore, there will be no changes to key elements of European Sites and no potential for in-combination effects to arise.			



5.2 Screening for AA Conclusion

This screening for AA identifies and assesses potential significant effects which are likely to occur as a result of the proposed construction of two residential houses at No. 6 and No. 7 Colbert Terrace, Abbeyfeale, Co. Limerick.

The screening identified two European sites located within the zone of influence of the proposed works. However, there are no ecological or environmental vectors linking the proposed development works to European Sites.

Through an assessment of the Source-Pathway-Receptor model, which considered the ZoI of effects from the proposed works and the potential in-combination effects with other plans or projects, the following findings have been reached:

- The application site is not directly connected with, or necessary to, the management of any European site;
- The proposed development works do not support direct connectivity with any European site via ecological or environmental vectors;
- Substantive pathways for transmission of impacts into European sites do not exist; and
- The proposed project will not give rise to likely significant effects on the qualifying interests of any European Site, in view of best scientific knowledge and in view of the conservation objectives of the European sites concerned.

On the basis of objective scientific information, this Screening for Appropriate Assessment finds that the proposed development works, either individually or in combination with other projects and plans, is not likely to have a significant effect on any European site.



	Findings of No Significant Effects Matrix		
Name of Plan or Project	The proposed construction of two residential houses at No. 6 and No. 7 Colbert Terrace, Abbeyfeale, Co. Limerick.		
Names and locations of relevant Natura 2000 sites	There are two European sites located within the project's ZoI, Lower River Shannor SAC and Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA. No European sites were identified to support indirect or direct connectivity via hydrological pathways to the proposed works.		
Description of Plan or Project	The proposed construction of two residential houses at No. 6 and No. 7 Colbert Terrace, Abbeyfeale, Co. Limerick.		
Is the project or plan directly connected with or necessary to the management of the site (provide details)?	No		
Are there other projects or plans that together with the project or plan being assessed could affect the site (provide details)	No		
The Assessment of Significance of Effects:			
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.	There are two European sites located within the project's Zol, Lower River Shannor SAC and Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA. No European sites were identified to support indirect or direct connectivity via hydrological pathways to the proposed works, therefore it is not anticipated that impacts will occur to European sites as a result of the proposed works.		
Explain why these effects are not considered significant	There are two European sites located within the project's ZoI, Lower River Shannon SAC and Stack's to Mullaghareirk Mountains, West Limerick Hills & Mount Eagle SPA. No European sites were identified to support indirect or direct connectivity via hydrological pathways to the proposed works. No impacts to European sites as a result of the works were identified.		
List of agencies consulted: provide contact name and telephone or e-mail address	N/A		
Response to consultation.	N/A		

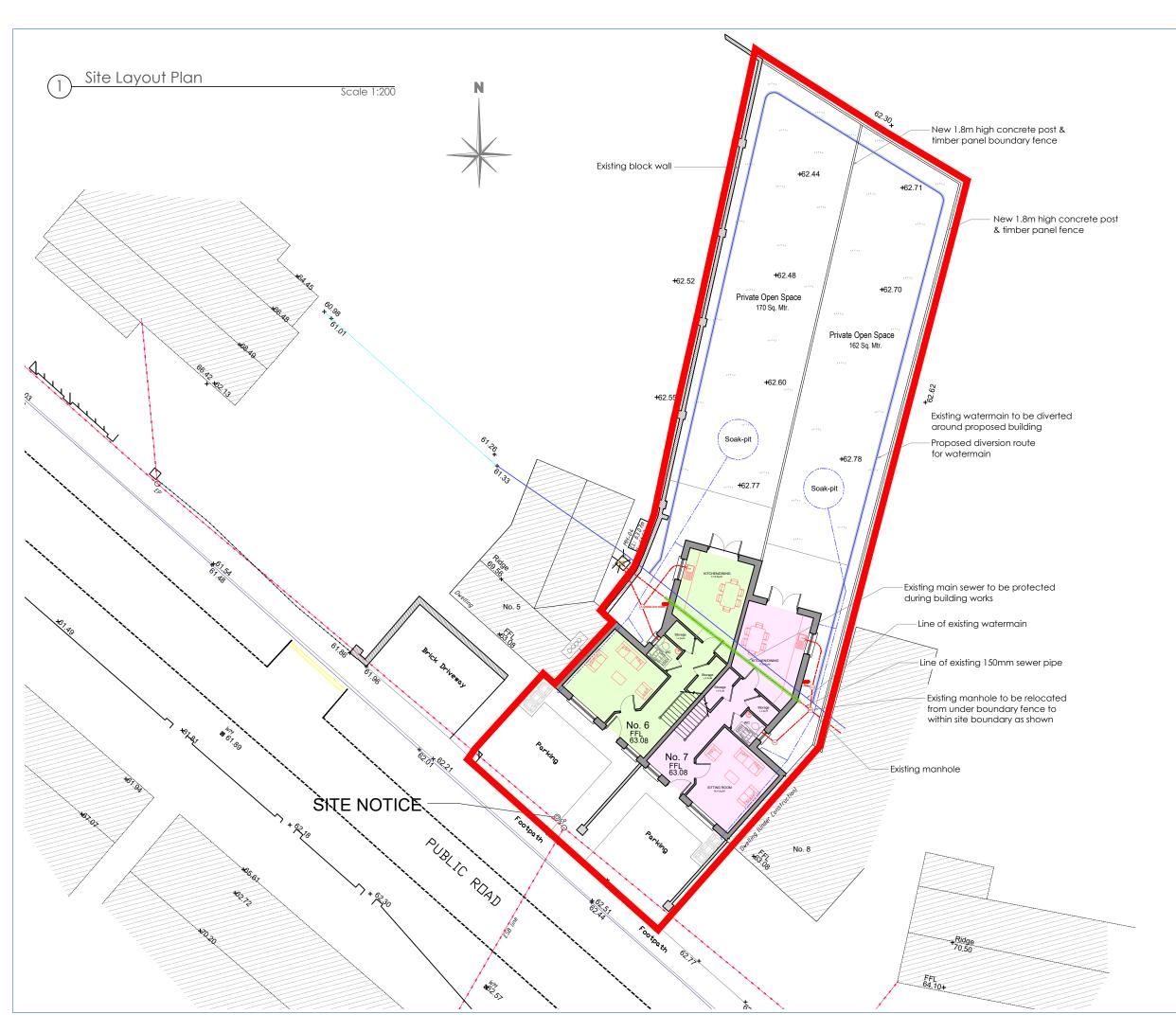
Data Collected to Carry Out the Assessment:

Who carried out the assessment?	Sources of Data	Level of Assessment	Where can the full results of the completed assessment be accessed and viewed?
Sheila Murphy B.Sc. M.Sc. MCIEEM	 Site visit conducted on the 1st December 2022. NPWS Site Synopses, Conservation Objectives and backing documents and NATURA 2000 Forms for the relevant Natura 2000 sites Remote sensing images and aerial photographs. Drawings and information of the proposed works as supplied by the client. 	Stage 1 Screening for Appropriate Assessment	The full results of the completed assessment should be available to be viewed through Limerick County Council.

Appendix A – Proposed Works Site & Layout

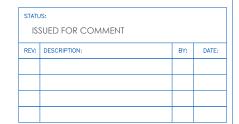
Site Location Map 627813 Station National Mapping Agency TAGROUP CENTRE COORDINATES: tcampbell@tagroup ITM 511534.626905 PUBLISHED: ORDER NO .: Proposed Construction of 2 No. 25/10/2022 50298943 1 3 Bed Units MAP SERIES: MAP SHEETS: 6 & 7 Colbert Terrace. Abbeyfeale, 6 Inch Raster KY018 6 Inch Raster LK042 AREA OF SITE: 0.059Ha SITE LOCATION MAP 1:10560 26.10.2022 GG TCCE-2022-058-01-D300 COMPILED AND PUBLISHED BY: Church Ordnance Survey Ireland. Phoenix Park, St. Mary's Convent Dublin 8. Ireland. Unauthorised reproduction SHE NOTICE R.C. Chapel St. Mary B.C. Chur infringes Ordnance Survey Ireland and Government of Ireland copyright. Parochial House ABBEYFEALE All rights reserved. No part of this publication may be copied, reproduced or transmitted in any form or by any means without the prior written permission of the copyright owners. The representation on this map of a road, track or footpath is not evidence of the existence of a right of way. Ordnance Survey maps never show legal property boundaries, nor do they show ownership of physical features. © Suirbhéireacht Ordanáis Éireann. © Ordnance Survey Ireland, 2022 www.osi.ie/copyright FEALE Ordnance Survey-Iréland WEST 625996 CAPTURE RESOLUTION: The map objects are only accurate to the resolution at which they were captured. OUTPUT SCALE: 1:10,560 LEGEND: Output scale is not indicative of data capture scale. http://www.osi.ie; 0 200 400 600 800 1.000 Feet Further information is available at: search 'Large Scale Legend' http://www.osi.ie; search 'Capture Resolution'

Planning Pack Map National Mapping Agency TAGROUP Co Mayo. CENTRE F12 YA41 COORDINATES: Tel: 094 9041049 511534.626905 tcampbell@tagroup.ie www.tagroup.ie Abbeyfeale School PUBLISHED: ORDER NO .: Superstore 25/10/2022 50298943 1 Proposed Construction of 2 No. Colbert Terrace 3 Bed Units MAP SERIES: MAP SHEETS: 1:1.000 5341-05 6 & 7 Colbert Terrace. Abbeyfeale, Co Limerick. SITE LOCATION MAP 1:1000 COMPILED AND PUBLISHED BY: 26.10.2022 1:1000 PROJECT NO: Ordnance Survey Ireland, TCCE-2022-058-01-D301 Phoenix Park. Dublin 8. SITE Ireland. AREA OF SITE: 0.059Ha Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. SITEMOTICE All rights reserved. 16 No part of this publication may 70 be copied, reproduced or transmitted in any form AN OCHOLBARDAIGH or by any means without the prior written permission of the copyright owners. The representation on this map Fire Station of a road, track or footpath is not evidence of the existence of a right of way. Ordnance Survey maps never show legal property boundaries, nor do they show ownership of AN TERAID MHOR physical features. @ Suirbhéireacht Ordanáis Éireann. © Ordnance Survey Ireland, 2022 www.osi.ie/copyright 626819 CAPTURE RESOLUTION: 0 10 20 30 40 metres The map objects are only accurate to the resolution at which they were captured. OUTPUT SCALE: 1:1,000 LEGEND: Output scale is not indicative of data capture scale. http://www.osi.ie: 20 40 60 80 100 Feet Further information is available at: search 'Large Scale Legend' http://www.osi.ie; search 'Capture Resolution'



SITE LAYOUT PLAN

OS MAP NO. = 5341-05 SITE AREA = 0.059 Ha.





Tel: 094 9041049 tcampbell@tagroup.ie

CLIENT:

Comhairle Cathrach
6 Contae Luimnigh
Limerick City
6 County Council
CITY HALL
MERCHANTS QUAY
Limerick

SITE: 6 & 7 Colbert Terrace, Abbeyfeale, Co. Limerick

T:

Construction of 2 No. 3 Bed Units

| SITE LAYOUT PLAN | SCALE AT A3: | DATE: | DRAWN: | CHECKED: | 1:200 | 25.10.2022 | G.G. | T.C. | DRAWING NO: | REVISION: | TCCE-2022-058-01-D302 | | |