Appropriate Assessment Screening

2 Semi-Detached Dwellings

Main St., Borris, Co. Carlow

Housing Department, Carlow County Council

Version 1.0

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1 INTRODUCTION

1.1 BACKGROUND

Lisa Dowling MCIEEM was commissioned by the housing department of Carlow County Council to prepare a Stage 1 Appropriate Assessment Screening Report for a Part VIII proposal for 2 No. semi-detached dwellings at Main St., Borris, Co. Carlow. This report was requested due to the proposed site being located within 1km distance of the River Barrow and River Nore Special Area of Conservation (SAC) (sitecode: 002162) where it includes the Dinin (Black) and Mountain Rivers at Borris Bridge downstream of the site. SACs are part of the Natura 2000 network of sites. The EU Habitats Directive requires that any proposed development which potentially may impact either directly or indirectly on a Natura 2000 site be subjected to Stage 1 Screening.

Lisa Dowling has over fourteen years environmental consultancy experience, specialising in the areas of Ecological Impact Assessment and Geographic Information Systems. She obtained an honours degree in Applied Ecology in 1995 from University College Cork; a masters degree in Environmental Resource Management in 1997 from University College Dublin; and a Certificate in Biological Recording and Species Identification from University of Birmingham in 2005. She is a full member of the professional body, the Chartered Institute of Ecology and Environmental Management (CIEEM) since 2006 and is nominated vice-county recorder of the Botanical Society of Britain and Ireland (BSBI) for County Carlow.

1.2 LEGISLATIVE CONTEXT

The Habitats Directive (*Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora*) provides legal protection for habitats and species of European importance. The main aim of this Directive is *"to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States to which the Treaty applies*". In order to meet the aims of the Directive, actions must be designed "*to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*" (Habitats Directive).

Under the Habitats Directive, Special Areas of Conservation (SAC) or candidate Special Areas of Conservation (cSAC) have been selected as important examples of habitat types listed in Annex I, and the habitats of certain species listed in Annex II of the Habitats Directive. SACs (including cSACs) together with Special Protection Areas (SPAs) (including proposed SPAs) make up a network of European sites called the Natura 2000 network. SPAs are designated under the *Council Directive on the Conservation of Wild Birds (79/409/EEC)*, otherwise known as the "Birds Directive".

Appropriate Assessment is required under the Habitats Directive for any plan or project likely to have a significant effect on a Natura 2000 site. Article 6, paragraphs 3 and 4 of the Directive state:

"6(3) - Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 site) *but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the 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.*

6(4)- If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a 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."

1.3 STAGES OF APPROPRIATE ASSESSMENT

This Stage 1 Appropriate Assessment Screening Report has been prepared in accordance with:

- *"Assessment of Plans and Projects Significantly affecting Natura 2000 sites – Methodological Guidance on the Provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC"* (EC, 2001).
- *"Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities"* (DEHLG, 2010).
- Advocate General Sharpston's rulings (2013 and 2014) on the assessments of the implications for protected sites of a plan or project.

Articles 6(3) and 6(4) of the Habitats Directive lay down a step by step procedure to be followed with respect to proposed plans or projects that may impact on Natura 2000 sites. This procedure comprises four principal stages which are presented in Appendix 1. For the purposes of this document we are only concerned with the first stage, Stage 1 Screening. Screening is undertaken to determine the necessity for a more detailed Stage 2 Appropriate Assessment where potential impacts are deemed to be of significance. This Stage 1 Screening Report will comprise the following four steps:

1. Description of the project and local site characteristics;
2. Identification of Natura 2000 sites potentially affected, and compilation of information on their qualifying interests and conservation objectives;
3. Assessment of likely effects – direct, indirect and cumulative; and
4. Screening statement with conclusions.

2 DESCRIPTION OF THE PROJECT

2.1 PROPOSED WORKS

The proposed works will be carried out at a 0.058ha site on Main St., Borris, Co. Carlow and will include the following:

- Removal of existing shed;

- Construction of 2 No. 2-bedroomed semi-detached dwellings;
- New concrete post and timber panel fence;
- 4 No. car parking spaces to front; and
- All associated site works.

See Proposed Site Layout Plan contained in Appendix 2 for further details of the development.

2.2 LOCAL SITE CHARACTERISTICS

The proposed site is a long narrow parcel of land which is located adjacent to the post office on Main St. in Borris which is a busy thoroughfare to other villages in south Co. Carlow. A site visit was conducted on 20th January 2020. Habitats within the site were classified in accordance with the Heritage Council's "*A Guide to Habitats in Ireland"* (Fossitt, 2000) and "*Best Practice Guidance for Habitat Survey and Mapping*" (Smith *et al.*, 2011). The site wholly comprised artificial and highly modified habitats including 'Spoil and Bare Ground' (ED1) habitat to front and rear, and 'Buildings and Artificial Surfaces' (BL3) comprising the existing shed.

The nearest watercourse to the proposed site is a second-order stream which flows in a southerly direction c.500m east of the proposed site at its closest point. This stream flows into the Dinin (or Black) River which continues in a predominantly southerly direction before its confluence with the Mountain River. The lower reaches of the Dinin River and the Mountain River are included within the River Barrow and River Nore Special Area of Conservation (SAC). The Mountain River flows in a south/south-westerly direction for a further c. 1.5km before its confluence with the River Barrow (See Figure 1).

EPA monitoring data for the Mountain River, just downstream of its confluence with the Dinin River and upstream of its confluence with the Barrow (Station ID: RS14M010200) indicated good water quality (Q-value of 4) during the latest year monitored in 2009 (EPA, 2020).

3 NATURA 2000 SITES

This section identifies any Natura 2000 site within the likely zone of impact of the plan or project. A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson *et al.*, 2006). DEHLG guidance also recommends that in the case of Natura sites with water dependent habitats or species, it may be necessary to consider the full extent of the upstream and/or downstream catchment where a project or plan may impact on water quality or quantity (DEHLG, 2010).

For projects, the distance could be much less than 15km, and in some cases less than 100m, but National Parks and Wildlife Service guidance (DEHLG, 2010) advises that this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects. Each Natura 2000 site within 15km or downstream of the proposed site are briefly summarised below. Where there is no potential pathway for impacts from the development, such Natura sites may be objectively excluded from the Screening process. Natura sites with a potential pathway with the development are considered in subsequent sections.

3.1 IDENTIFICATION OF NATURA SITES

River Barrow and River Nore SAC (002162)

This large SAC includes the freshwater stretches of the Barrow and Nore Rivers and many of their tributaries. The SAC is located at its closest point c.770m southeast of the proposed site where it includes the lower reaches of the Dinin (Black) River and the Mountain River. The proposed development is situated within the catchment of the Mountain River which is included within the River Barrow and River Nore SAC. Therefore, there is a hydrological pathway for potential impacts between the proposed development and the SAC (see Figure 1). This Natura site and its conservation objectives will be considered further in subsequent sections.

Blackstairs Mountains SAC (000770)

The Blackstairs Mountains are located along the border of Counties Wexford and Carlow, forming a mountain chain that runs in a north-east/south-west direction for c. 22km, including 6 peaks over 520m elevation. This SAC is selected for wet heath and dry heath habitats. It is located c.6.5km east of the proposed site. There is no pathway for potential impacts on this Natura site, and therefore, it may be excluded from the Screening process at this stage.

Slaney River Valley SAC (000781)

This site comprises the freshwater stretches of the Slaney as far as the Wicklow Mountains, and includes a number of tributaries, the estuary at Ferrycarrig and Wexford Harbour. The Slaney River Valley SAC where it includes the River Clody, is located c.13.7km east of the proposed site. This Natura site is not hydrologically connected with the proposed site, thus there is no pathway for potential impacts. This site may be excluded from the Screening process at this stage.

River Nore SPA (004233)

The River Nore SPA is a long linear site that includes much of the main channel of the River Nore, as well as sections of its tributaries including the Delour, Erkina, River Goul and Kings Rivers. This Natura site is located c. 14.8km south-west of the proposed development. There is no hydrological connection between the proposal and this Natura site, and therefore this site may be excluded from the Screening process at this stage.

Overview

Natura 2000 sites identified as within the potential zone of influence of the project are limited to the River Barrow and River Nore SAC. All other Natura 2000 sites can be excluded from the screening process due to the localised nature of the project, absence of an impact pathway and the distance between the project and other Natura 2000 sites.

3.2 RIVER BARROW AND RIVER NORE SAC

This large SAC comprises the freshwater stretches of the Barrow and Nore river catchments, from the Slieve Bloom Mountains where both rivers rise, through their confluence north of New Ross, all the way to Creadun Head in Co. Waterford. The site passes through eight counties in total: Offaly, Kildare, Laois, Carlow, Kilkenny, Tipperary, Wexford and Waterford. Many tributaries of both rivers are included within the SAC designation and include the Lerr, Fushoge, Madlin, Mountain, Aughavaud, Owenass, Boherbaun and Stradbally Rivers which are tributaries of the River Barrow.

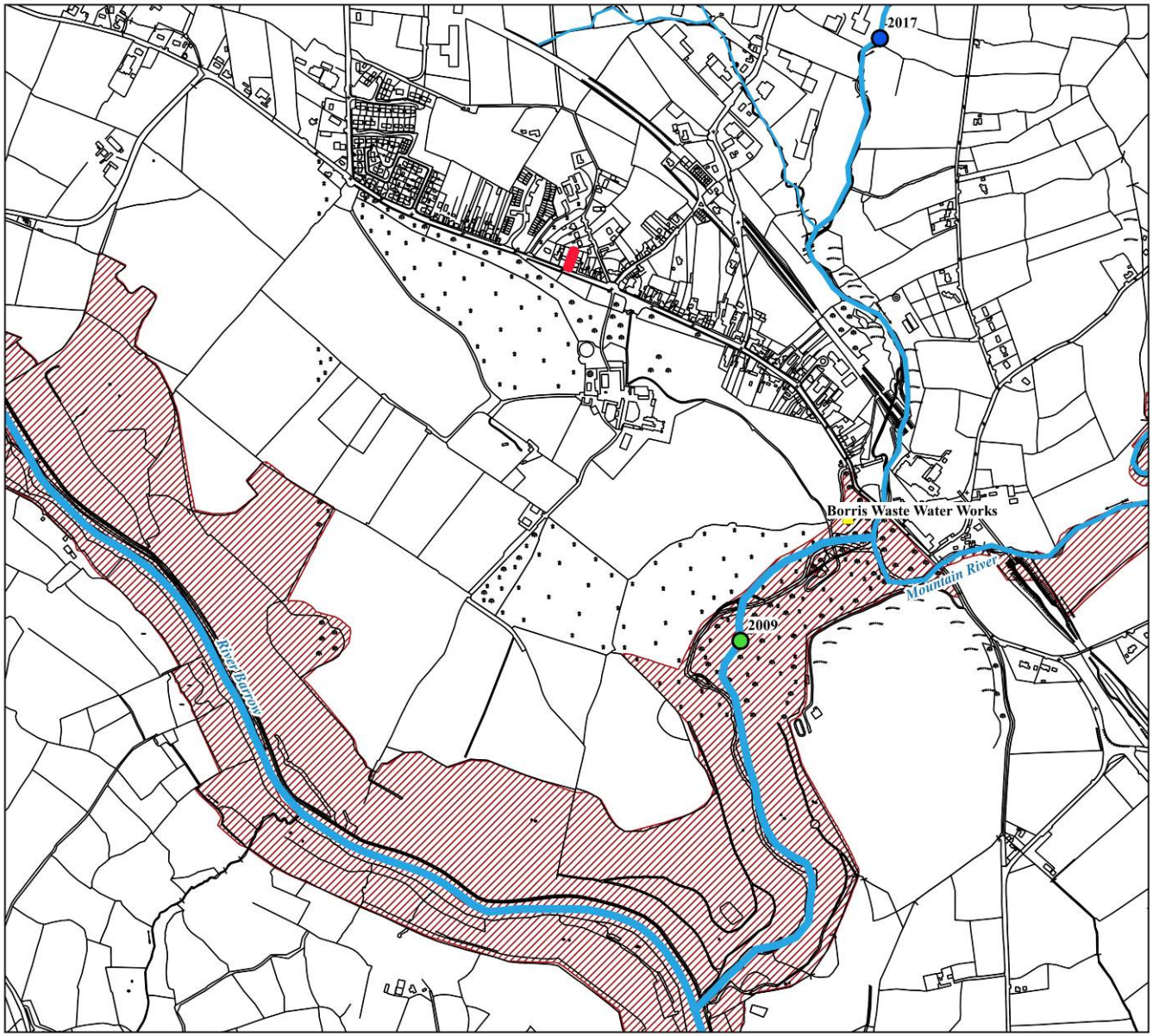

Figure 1. Proposed Site & Local Surface Waters

Appropriate Assessment Screening

Proposed Part VIII Dwellings,
Main St.,
Borris,
Co. Carlow

Drawn By: LD
Data Sources: NPWS & EPA webistes;
© Ordnance Survey Ireland
Date:31/01/20

0 250 500 m

Proposed Site Boundary
Special Area of Conservation (SAC)
Wastewater Treatment Plant
EPA Q Values
4
4-5

This Natura site is of considerable conservation importance for the occurrence of good examples of habitats, and populations of plant and animal species, that are listed in Annexes I and II of the Habitats Directive respectively. Good examples of the priority habitat, alluvial wet woodlands, are found along short stretches of both the tidal and freshwater reaches of the site. The site also supports a total of seventeen Red Data Book plant species and five Red Data Book vertebrate species. Furthermore, the SAC site is of ornithological importance for the number of bird species, which are listed in Annex I of the Birds Directive that it supports.

The site is very important for the presence of a number of EU Habitats Directive Annex II animal species including Freshwater Pearl Mussel (both *Margaritifera margaritifera* and *M. m. durrovensis*). This is the only site in the world for the hard water form of the Freshwater Pearl Mussel, *M. m. durrovensis* (only occurs in R. Nore) and one of only a handful of spawning grounds in the country for Twaite Shad.

The main threats to this Natura site include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, over-grazing within the woodland areas, and invasion by non-native species (NPWS, 2016).

3.2.1 Qualifying Interests

The River Barrow and River Nore SAC is selected for 11 No. habitat types (two of which are priority habitats) listed in Annex I of the Habitats Directive, and 10 No. animal species and 1 No. plant species listed in Annex II of the same Directive. These qualifying interests are presented in Table 3.1.

3.3 CONSERVATION OBJECTIVES

A site-specific conservation objective (Natura sites) aims to define favourable conservation condition for a particular habitat or species at that site.

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 (NPWS, 2011).

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 long-term basis as a viable component of its natural habitats, and
- 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 (NPWS, 2011).

The National Parks and Wildlife Service (NPWS) site-specific objectives for the River Barrow and River Nore SAC detail specific parameters by which each qualifying species and habitat may be measured and stipulate specific targets to be achieved in order to 'restore the favourable conservation condition' of the species or habitat within the Natura 2000 site. See www.npws.ie for further details.

Table 3.1 Qualifying Interests of River Barrow and River Nore SAC (NPWS, 2011)

Code	Qualifying Interest	Code	Qualifying Interest
1016	Desmoulin's whorl snail (*Vertigo moulinsiana*)	**1330**	Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
1029	Freshwater pearl mussel (*Margaritifera margaritifera*)	**1355**	Otter (*Lutra lutra*)
1092	White-clawed crayfish (*Austropotamobius pallipes*)	**1410**	Mediterranean salt meadows (*Juncetalia maritimi*)
1095	Sea lamprey (*Petromyzon marinus*)	**1421**	Killarney fern (*Trichomanes speciosum*)
1096	Brook lamprey (*Lampetra planeri*)	**1990**	Nore freshwater pearl mussel (*Margaritifera durrovensis*). Hard water form.
1099	River lamprey (*Lampetra fluviatilis*)	**3260**	Water courses of plain to montane levels with the *Ranunculion fluitantis and Callitricho-Batrachion* vegetation
1103	Twaite shad (*Alosa fallax*)	**4030**	European dry heaths
1106	Atlantic salmon (*Salmo salar*) (only in fresh water)	**6430**	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
1130	Estuaries	**7220***	Petrifying springs with tufa formation (*Cratoneurion*)
1140	Mudflats and sandflats not covered by seawater at low tide	**91A0**	Old sessile oak woods with *Ilex* and *Blechnum* in British Isles
1310	*Salicornia* and other annuals colonizing mud and sand	**91E0***	Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)

***Indicates a priority habitat on Annex I of Habitats Directive**

4 IMPACT ASSESSMENT

4.1 SCREENING MATRIX

Assessment Criteria
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 Natura 2000 site.
The proposal will include a new connection to the public foul sewer network which transfers effluent to Borris WWTP for treatment. Inadequate treatment of effluent from the plant could lead to the cumulative deterioration of water quality within the Mountain River, and Barrow River downstream with potentially resultant negative effects on the range and densities of water-dependent qualifying interests of the SAC.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:	
Land-take, size and scale;	The proposed development is not located within or adjacent to any Natura site, and will therefore not result in any reduction in area of the Natura 2000 network.
Distance from the Natura 2000 site or key features of the site;	The proposed development is c. 770m upstream of the River Barrow and River Nore SAC where it includes the lower reaches of the Dinin River and the Mountain River.
Resource requirements (water abstraction etc.);	The proposed development will connect to the public water mains network which sources water from the Mountain River. This expected increase in demand of potable water will be minor with resultant negligible effects on the River Barrow and River Nore SAC.
Emissions (disposal to land, water or air);	As the proposed site is located c. 500m distance from the nearest watercourse, no construction-related indirect effects on waterbodies are expected. The proposal will include 2 No. new connections to the public foul sewer network with effluent treated at Borris Wastewater Works. A single discharge point of treated effluent from this Plant is located on the Mountain River within the SAC (See Figure 1). The wastewater discharge licence for Borris Wastewater Works (D0248-01) states that the WWTP was designed to cater for a population equivalent of 1500 at the time of grant of license in 2014 (EPA, 2014). The current p.e. is estimated at 1025. The latest available Annual Environmental Report (2017) stated that the Plant was non-compliant with the Emission Limit Values set in the wastewater discharge licence with regard to one sample in relation to Ammonia N (mg/l). However, no negative impact was observed on the water quality nor on the Water Framework Directive status of the receiving waters (Mountain River SAC) downstream of the Plant as a result of this non-compliance (Irish Water, 2018). The increase in wastewater arising from the 2 new dwellings to the Plant will be minor and will be met by the design capacity. Upgrade works are planned to Borris WTTP which are envisaged to be completed by 2021 (Irish Water, 2019). No negative impact on the water quality of the SAC is therefore anticipated with regard to treatment of wastewater effluent, either alone or cumulatively.
Excavation and Transportation requirements;	There are no concerns in relation to excavation or transportation requirements associated with the proposed development and the Natura 2000 site in question.
Duration of construction, operation, decommissioning, etc.;	Duration of construction will not affect level of impact in consideration that no potential indirect impacts are anticipated on the SAC downstream during the construction phase.
Other.	None.
Describe any likely changes to the site arising as a result of:	
Reduction of habitat area;	The proposed development is c. 770m upstream of the Natura site, therefore, no reduction of habitat area within the SAC will occur.
Disturbance to key species;	No disturbance to key species will occur.

Habitat or species fragmentation;	There will be no habitat or species fragmentation within the Natura site as a result of the proposed development.
Reduction in species density;	No reduction in species density will occur within the SAC as a result of the proposed development.
Changes in key indicators of conservation value (water quality etc.);	No change in water or habitat quality within the River Barrow catchment is anticipated as a result of the proposed development either alone or in combination with other projects.
Climate change.	Not applicable.
Describe any likely impacts on the Natura 2000 site as a whole in terms of:	
Interference with the key relationships that define the structure of the site;	The proposed development will not interfere with the key relationships that define the structure of the Natura site.
Interference with key relationships that define the function of the site.	The proposed development will not interfere with the key relationships that define the function of the Natura site.
Provide indicators of significance as a result of the identification of effects set out above in terms of:	
Loss;	Not applicable.
Fragmentation;	Not applicable.
Disruption;	Not applicable.
Disturbance;	Not applicable.
Change to key elements of the sites (e.g. water quality etc.).	Not applicable.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.	
	As discussed above, it can be objectively concluded that the proposed development will have negligible impacts on the River Barrow and River Nore SAC downstream either alone or in combination with other projects.

4.2 FINDING OF NO SIGNIFICANT EFFECTS MATRIX

Name of project or plan	Proposed Part VIII Semi-Detached Dwellings, Main St., Borris, Co. Carlow.
Name and location of Natura 2000 site	River Barrow and River Nore SAC, c. 770m downstream of proposed site where it includes the lower reaches of the Dinin River and the Mountain River.
Description of the project or plan	Construction of 2 No. semi-detached 2 bedroomed dwellings, new connections to foul water, stormwater and water supply networks and all associated site works.

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)?	In accordance with the EC guidance document on conducting Appropriate Assessment (EC, 2001), other projects or plans in the area must be considered in combination with the project to determine the potential for having any significant cumulative effects on the Natura 2000 sites within the zone of influence of the project. Potential effects of the project on the SAC are primarily related to indirect cumulative effects arising from increased loading of the Borris WWTP and the quality of the final effluent discharged to the Mountain River. Carlow County Council planning website was consulted with respect to granted or proposed developments within Borris WWTP agglomeration boundary and within the last five years which may have cumulative effects with the proposed development. Identified projects likely to increase loading to the WWTP are limited to small to medium scale developments such as construction of a new dwelling (pl. ref. no. 18/418), small extensions to local schools (pl. ref. nos. 15/322 and 18/54), change of use from retail to café/shop (pl. ref. no. 17/10), change of use from shop to one bed apartment (pl. ref. no. 18/213), development of existing public house and adjoining premises to encompass 12 no. dwelling units and a commercial unit (18/103 and 19/423-pending), extensions of dwellings (pl. ref. nos. 18/180, 18/226 and 19/43) and a Part VIII 9 house development at Pound Lane. Cumulative increased loading arising from these developments is predicted to be relatively small and will fall well within the design capacity of WWTP. Planned upgrade works at the WWTP, will further reduce the likelihood of cumulative indirect effects arising from the project with other projects/plans occurring on the SAC.
The assessment of significance of effects	
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 sites	Potential overloading of Borris WTTP could lead to nutrient enrichment of receiving waters.
Explain why these effects are not considered significant.	The waste water discharge licence for Borris Waste Water Works (D0248-01) states that the WWTP was designed to cater for a population equivalent of 1500 at the time of grant of license. The current p.e. is estimated at 1025. The proposal will result in a minor increase in wastewater to the Plant which will be easily met by the design capacity. Furthermore, upgrade works at the WWTP are planned and envisaged to be completed by 2021.
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 this assessment?	Lisa Dowling BSc (Hons.) MSc (Ag.) MCIEEM

Sources of data	Data collected during site visit. Ordnance survey historical mapping. Ordnance survey aerial photography. NPWS site synopsis, objectives, data forms. NPWS conservation designation mapping. EPA surfacewater monitoring data. Carlow County Council planning database. Annual Environmental Report 2017 – Borris WTTP
Level of assessment completed	Desktop assessment and field survey of site.
Where can the full results of the assessment be accessed and viewed?	Full results of this assessment are contained within this Screening Report. This Report will be available at Carlow County Council offices as part of Part VIII planning.

5 SCREENING STATEMENT

In order to determine the potential impacts, if any, of proposed semi-detached dwellings at Main St., Borris, Co. Carlow on the River Barrow and River Nore SAC, Appropriate Assessment Screening was undertaken. In view of best scientific knowledge, and in consideration of the conservation objectives of the Natura site, the proposed development will not, in the absence of any mitigation, result in any likely significant effects on the River Barrow and River Nore SAC (Natura 2000 site), either during construction or operational phases, either alone or in combination with other projects or plans. It is concluded that as no adverse impacts are foreseen on any Natura site, this project may be excluded from the Appropriate Assessment process. There is no necessity to undertake a Stage 2 Appropriate Assessment.

Table 4.1 Potential Impacts on Qualifying Interests of River Barrow & River Nore SAC

Qualifying Interest [Code]	Conservation Objectives: Targets	Distance from project site	Does the project have the potential to interact with this Qualifying Interest	Likelihood of Impact
Desmoulin's whorl snail (*Vertigo moulinsiana*) [1016]	Lives in permanently wet, usually calcareous, swamps, fens and marshes. Targets include no decline in distribution/densities, preferred habitat quality and moisture levels.	Known site Borris Bridge along the Barrow, c. 2.6km upstream of its confluence with the Mountain River.	No	None
Freshwater pearl mussel (*Margaritifera margaritifera*) [1029]	The status of *M. Margarifera* as a qualifying species for the SAC is currently under review.	The Mountain River is designated for its population of FWPM. Living mussels are no longer present downstream of Borris WWTP.	Yes	Unlikely
White-clawed crayfish (*Austropotamobius pallipes*) [1092]	Targets include Q3-4 at all EPA sampled sites, no decline in habitat heterogeneity and no instances of disease.	Present almost throughout SAC. Records on Barrow upstream of Borris at Goresbridge, and downstream of Borris at Graiguenamanagh.	Yes	Unlikely
Sea lamprey (*Petromyzon marinus*) [1095]	Targets include channel accessibility from estuary and no decline in spawning beds (clean gravels).	Low densities of sea lamprey recorded in Acore and Duiske tributaries of R. Barrow.	Yes	Unlikely
Brook lamprey (*Lampetra planeri*) [1096] River lamprey (*Lampetra fluviatilis*) [1099]		Juvenile lamprey (Brook or River) were recorded at high densities in the Mountain and Black Rivers (King, 2006).	Yes	Unlikely
Twaite shad (*Alosa fallax*) [1103]	Known to spawn in the upper tidal limit of the River Barrow downstream of St Mullins, Co. Carlow. Targets include 75% of main channel accessible from estuary, no decline in extent & distribution of spawning habitats and maintenance of stable gravel substrate with very little fine material.	c.16km downstream	No	None
Atlantic salmon (*Salmo salar*) (only in fresh water) [1106]	Targets include no decline in number and distribution of spawning redds due to anthropogenic causes, accessibility of channel from estuary, and at least Q4 at all sites sampled by EPA.	The Barrow is an important spring salmon and sea trout fishery.	Yes	Unlikely

Otter (*Lutra lutra*) [1355]	Targets include no significant decline in distribution, no decline in distribution of habitat (terrestrial, freshwater & marine) and no decline in fish biomass availability.	Nearest confirmed record on Mountain River just before confluence with Barrow. May use nearby watercourses for foraging purposes.	Yes	Unlikely
Killarney fern (*Trichomanes speciosum)* [1421]	Targets include no loss of suitable habitat (e.g. shaded rock crevices, caves or gullies) in or near to known colonies, no loss of woodland canopy at or near to known locations and maintenance of suitable hydrological conditions.	>11km downstream. No pathway for impacts.	No	None
Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410]	Targets for these habitats would not be influenced by the project as these qualifying habitats are dominated by maritime influences.	>16km downstream.	No	None
Nore freshwater pearl mussel (*Margaritifera durrovensis*). Hard water form. [1990]	Targets include restoration of water quality, restoration of substratum quality (at most trace filamentous algae; also, stable cobble & gravel substrate), restoration of appropriate hydrological regimes, and maintenance of sufficient juvenile salmonid hosts.	Not hydrologically linked to subject site as only present in Nore catchment.	No	None
Water courses of plain to montane levels with the *Ranunculion fluitantis and Callitricho-Batrachion* vegetation [3260]	Targets include maintenance of appropriate hydrological regimes, maintenance of sufficiently low concentration of suspended solids, and maintenance of sufficiently low nutrient levels in the water column.	Distribution within SAC unknown but likely patches within Mountain River and R. Barrow downstream of the site.	Yes	Unlikely
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	Targets include maintenance in current distribution, appropriate hydrological regimes, sward height and species composition.	Unknown but likely to occur in the River Barrow downstream of the site.	No	None

European dry heaths [4030] Petrifying springs with tufa formation (*Cratoneurion*) [7220*] Old sessile oak woods with *Ilex* and *Blechnum* in British Isles [91A0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0*]	Targets for these habitats would not be impacted by the project as these qualifying interests are chiefly terrestrial in nature, and are not hydrologically linked to the proposed site.	Not hydrologically linked to site.	No	None

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APPENDICES

APPENDIX 1

PRINCIPAL STAGES OF THE APPROPRIATE ASSESSMENT PROCEDURE

Stage One: Screening – the process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment – the consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

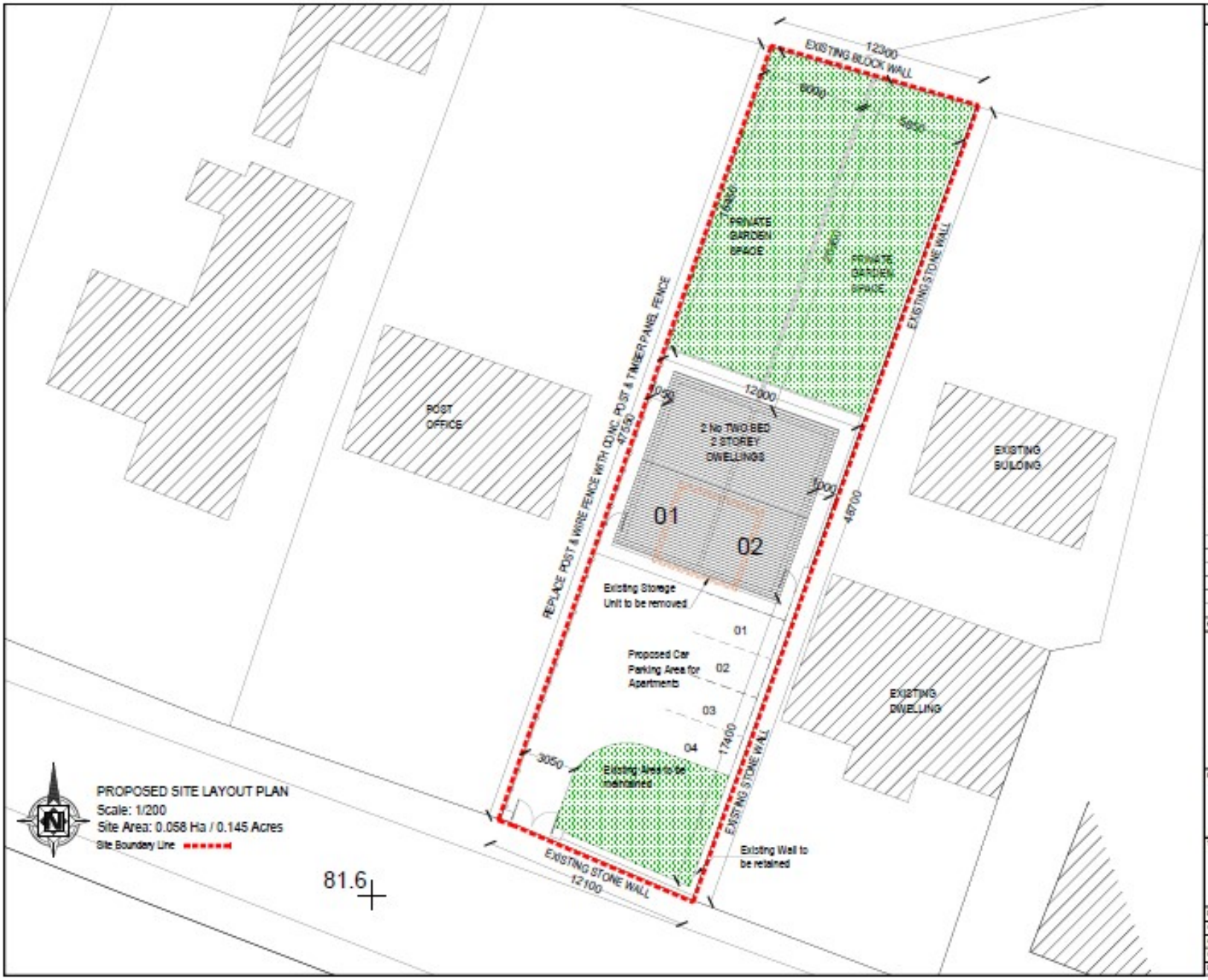
Stage Three: Assessment of Alternative Solutions – the process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain – an assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

From "*Assessment of Plans and Projects Significantly Affecting Natura 2000 sites – Methodological Guidance on the Provisions of Articles 6 (3) and (4) of the Habitats Directive 92/43/EEC*" (EC, 2001).

APPENDIX 2

PROPOSED SITE LAYOUT PLAN


EXISTING BLOCK WALL
12300
6000
5850
6350
PRIVATE GARDEN SPACE
PRIVATE GARDEN SPACE
EXISTING STONE WALL
REPLACE POST & WIRE FENCE WITH CONC. POST & TIMBER PANEL FENCE
47550
12000
2 No TWO BED 2 STOREY DWELLINGS
01
02
1000
48100
POST OFFICE
EXISTING BUILDING
Existing Storage Unit to be removed
01
Proposed Car Parking Area for Apartments
02
03
04
17400
3050
Existing Area to be maintained
EXISTING STONE WALL
12100
Existing Wall to be retained
EXISTING DWELLING
81.6
PROPOSED SITE LAYOUT PLAN
Scale: 1/200
Site Area: 0.058 Ha / 0.145 Acres
Site Boundary Line
NOTES
1. This drawing is the property of Carlow County Council. It is a confidential document and must not be copied, used, or its content divulged without prior written consent.
2. DO NOT SCALE use figured dimensions only.
Ordnance Survey
Site Layout Plan Updated
CARLOW COUNTY COUNCIL
HOUSING DEPARTMENT
2No 2 BED 2 STOREY DWELLINGS AT MAIN STREET, BORRIS, CO. CARLOW.
PROPOSED SITE LAYOUT PLAN
18-02-102
A