

Draft Loughmacask Masterplan

Appropriate Assessment Screening and Natura Impact Report

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Client: **Kilkenny County Council**

Date: **26 July 2022**

DOCUMENT CONTROL SHEET

6682_RPAA1_Appropriate Assessment Screening and Natura Impact Report

Project No. 6682
Client: Kilkenny County Council
Project Name: Draft Loughmacask Masterplan
Report Name: Appropriate Assessment Screening and Natura Impact Report
Document No. RPAA1
Issue No. 03
Date: 26/07/2022

This document has been issued and amended as follows:

Issue	Status	Date	Prepared	Checked
01	Draft	25 May 2022	MH	MH
02	Final draft	04 Jul 2022	MH	MH
03	Final draft - updated	26 Jul 2022	MH	MH



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1 Appropriate Assessment Screening

1.1 Introduction

1.1.1 Background

This document comprises a Natura Impact Report, prepared in order to support the Appropriate Assessment of the Draft Masterplan for the Loughmacask development lands in Kilkenny City (as identified in the *Kilkenny City and County Development Plan 2021 – 2027*), in line with the requirements of Article 6(3) of the EU Habitats Directive.

The term Draft Masterplan is used in this report to refer to the lands which have been identified in the *Kilkenny City and County Development Plan 2021 – 2027* as the subject of the non-statutory Draft Loughmacask Masterplan. The *Kilkenny City and County Development Plan 2021 – 2027* already provides for land use, zoning and objectives for the Loughmacask area. The development plan also includes a specific objective (Z8 – City Zoning Objectives) to prepare a masterplan for the Loughmacask area. It is noted that during its preparation, the *Kilkenny City and County Development Plan 2021-2027*, including the Loughmacask area, was subject to full SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA)¹.

The potential impacts on European sites (also known as Natura 2000 sites), both as a result of the Draft Masterplan and in-combination with other plans and projects, are appraised in this report.

This report should be read in conjunction with the Draft Loughmacask Masterplan and the Strategic Environmental Assessment (SEA) – Environmental Report prepared by Brady Shipman Martin.

1.1.2 Expertise and Qualifications

This report has been prepared by Ecologist Matthew Hague BSc MSc Adv. Dip. Plan. & Env. Law CEnv MCIEEM. Matthew is an Associate with Brady Shipman Martin and is a highly experienced and qualified ecologist, with a master's degree in Ecosystem Conservation and Landscape Management. He has 20 years of experience in ecological and environmental consultancy, across a wide range of sectors. He has prepared numerous reports for AA Screening as well as Natura Impact Statements, for projects of all scales, from small residential developments to nationally important infrastructure projects.

Matthew is a Chartered Environmentalist (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Matthew has also completed an Advanced Diploma in Planning and Environmental Law, at King's Inns and is a member of the Irish Environmental Law Association (IELA).

1.1.3 Legal requirement for Appropriate Assessment

European sites make up a network of sites designated for nature conservation under Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the "Habitats Directive") and Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the "Birds Directive"). The requirements for Appropriate Assessment are set out under *Article 6 of the Habitats Directive*, transposed into Irish law by the *European Union (Birds and Natural Habitats) Regulations 2011-2015*² (the "Birds and Natural Habitats Regulations") and the *Planning and Development Act, 2000 - 2021* (the "Planning Acts").

¹ <https://www.kilkennycoco.ie/eng/services/planning/development-plans/city-and-county-development-plan/adopted-city-and-county-development-plan.html>

² SI No. 477 of 2011

European sites are also known as Natura 2000 Sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPA)). As defined in section 177R of the Planning Acts “European site” means:

- (a) a candidate site of Community importance,
- (b) a site of Community importance,
- (ba) a candidate special area of conservation,
- (c) a special area of conservation,
- (d) a candidate special protection area and
- (e) a special protection area.

Article 6(3) of the Habitats Directive states that:

(3) Any plan or project not directly connected with or necessary to the management of the 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 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.

The first test is to establish whether, in relation to a particular plan or project, appropriate assessment is required. Sections 177U of the Planning Acts requires that the AA screening test must be applied to the Draft Masterplan, as follows:

- To assess, in view of best scientific knowledge, if the development, individually or in combination with another plan or project is likely to have a significant effect on the European site;

An appropriate assessment is required if it cannot be excluded, on the basis of objective information, that the development (plan or project), individually or in combination with other plans or projects, will have a significant effect on a European site.

1.1.4 Baseline data collection

This report takes the following guidance documents into account:

- *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (Department of Environment, Heritage and Local Government, 2010 revision);
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular NPWS 1/10 & PSSP 2/10;
- *Assessment of Plans and Projects Significantly Affecting European sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission Environment Directorate-General, 2001);
- *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*. Guidance issued by the European Commission (21st November 2018);
- *Practice Note PN01 Appropriate Assessment Screening for Development Management* Office of the Planning Regulator, March 2021).

Information was collated from the organisations and websites listed below:

- Data on European sites and rare and protected plant and animal species contained in the following databases:

- The National Parks and Wildlife Service (NPWS) of the Department of Culture, Heritage and the Gaeltacht (www.NPWS.ie);
- The National Biodiversity Data Centre (NDBC) (www.biodiversityireland.ie);
- BirdWatch Ireland (www.birdwatchireland.ie);
- Bat Conservation Ireland (www.batconservationireland.org).
- Information on land-use zoning from the online mapping of the Department of Housing, Planning and Local Government (<http://www.myplan.ie/en/index.html>);
- Recent and historical OSi mapping and aerial photography, including www.geohive.ie;
- Information on local watercourses from www.catchments.ie;
- Information on water quality in the area (www.epa.ie);
- Information on soils, geology and hydrogeology in the area (www.gsi.ie);
- Information on the Status of EU Protected Habitats and Species in Ireland (Article 17 report) (NPWS, August 2019);
- Third National Biodiversity Plan 2017 – 2021 (Department of Culture, Heritage and the Gaeltacht, 2017);
- Kilkenny City and County Development Plan 2021 – 2027 and the accompanying reports;

The report has regard to the following legislative instruments:

- Planning Acts;
- Birds and Natural Habitats Regulations.

The report takes full account of the details of the Draft Masterplan and a detailed examination of all relevant elements was undertaken. The Strategic Environmental Assessment Report (Brady Shipman Martin, 2022) was also reviewed in the preparation of this report.

1.2 Screening for Appropriate Assessment - Methodology

1.2.1 Background

The first part of the Appropriate Assessment process is the screening phase. Screening identifies the likely effects of the Draft Masterplan on European sites that could arise, either alone or in combination with other plans or projects, and considers whether these impacts are likely to have a significant effect on the European site in view of the site's conservation objectives.

In accordance with section 177U of the Planning Acts, screening for appropriate assessment must be carried out:

- To assess, in view of best scientific knowledge, if the development, individually or in combination with another plan or project is likely to have a significant effect on the European site;
- An appropriate assessment is required if it cannot be excluded, on the basis of objective information, that the development, individually or in combination with other plans or projects, will have a significant effect on a European site.

Screening must be undertaken without the inclusion of mitigation and it is in this context that this AA Screening Report is prepared.

Following screening therefore, if there is a possibility of there being a significant effect on a European site, this will generate the need for an appropriate assessment for the purposes of Article 6(3) of the Habitats Directive. This means that if the conclusions at the end of the screening exercise are that significant effects on any European sites, as a result of the Draft Masterplan, either alone or in combination with other plans and projects, are likely, uncertain or unknown, then an Appropriate Assessment must be carried out. This is in accordance with established precedent and case law.

1.2.2 Potential Zone of Influence

For the risk of a significant effect to occur there must be a 'source', such as a construction site; a 'receptor', such as a designated site for nature conservation; and a pathway between the source and the receptor, such as a watercourse that links the construction site to the designated site. A construction site or completed development may also create a barrier to movement, for example by preventing the migration of fauna along a river corridor, or by obstructing the migration of birds.

Although there may be a risk of an impact it may not necessarily occur, and if it does occur, it may not be significant.

Identification of a potential effect means that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the potential effect and the characteristics of the receptor.

There are no set recommended distances for projects to consider European sites as being relevant for assessment. Rather, for a project NPWS (2010) recommends that '*Any Natura 2000 sites within the likely zone of impact of the plan or project*' should be appraised. For projects '*the distance should be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects*'.

In the case of plans, such as the *Draft Loughmacask Masterplan*, the guidance states that '*A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et al. 2006)*³'.

In addition, the guidance states that '*Natura 2000 sites that are more than 15km from the plan or project area depending on the likely impacts of the plan or project, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. In the case of sites with water dependent habitats or species, and a plan or project that could affect water quality or quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment.*'

Therefore, in some instances where there are hydrological connections a whole river catchment or a groundwater aquifer may need to be included. Similarly where bird flight paths are involved the impact may be on an SPA more than 15 km away. Taking the guidance into account, as a starting point a search was carried out for all European sites within 15km of the Draft Masterplan area. This search was then extended in order to ensure that all European sites with any potential links to the Draft Masterplan area (i.e. those within the Zone of Influence) were accounted for in the study.

Throughout the preparation of the Draft Masterplan the contents were reviewed in the context of Article 6(3) of the Habitats Directive.

1.2.3 Description of the Receiving Environment

The description of the receiving environment presented in this section has been based on a desktop study of relevant available information, as cited in the text.

³ Scott Wilson, Levett-Therivel Sustainability Consultants, Treweek Environmental Consultants and Land Use Consultants. 2006. Appropriate Assessment of plans.

1.2.3.1 The Draft Masterplan area

The Loughmacask Masterplan area is situated on the western periphery of Kilkenny City, the largest urban centre in the County and the seat of local government. Kilkenny County Council proposes to develop the land as a new residential neighbourhood delivering a significant number of residential units. The development lands are predominantly comprised of intensive agricultural land, but also contain existing residential areas along the eastern margin, an existing industrial facility (Grassland Fertilisers, a SEVESO III site), sports grounds (including Dicksboro GAA), and two distinct pockets of semi-natural habitats / 'green infrastructure' at Lough Macask and in the riparian corridor of the River Breagagh. 'The Butts', a 20th century residential development and early example of Local Authority housing, is situated in the south-eastern portion of the Masterplan area, at its interface with the city centre. Other existing residential developments are situated on Lord Edward Street and Lousybush Lane; and at Ayrfield, Talbot's Court and Talbot's Gate.

The landbank is bordered by Kilkenny City immediately to the east, by the River Breagagh corridor to the south, and by rural hinterland to the west and north. The lands generally rise in a north-westerly direction, affording vistas of Kilkenny City, with localised undulations. Kilkenny Airfield or aerodrome is situated c. 1 km south-west of the Masterplan lands. There is a limestone quarry c. 900 m to the west.

Kilkenny City is served by rail, being situated on the Dublin – Waterford and Waterford – Limerick Junction lines. The station, Kilkenny (MacDonagh), is situated on the Dublin Road, approx. 1.3 km south-east of the nearest point in the Masterplan area. At present, the Masterplan lands are served by the existing road infrastructure, principally the Granges Road, Dunningstown Road, Lord Edward Street, Tullaroan Road (which bisects the lands), Lousybush Lane, Water Barrack and Kenny's Well Road. Planned new roads to serve the area have been discussed in Section 3.3, above.

The bedrock geology in the Masterplan area is shown in **Figure 1**. It shows that the area is underlain by limestone bedrock. This is a karstic area, and St. Canice's holy well at the southern margin of the Masterplan lands has been identified as a karst feature in the GSI databases.

The Masterplan area is situated in the Nore_SC_090 Water Framework Directive (WFD) subcatchment, within the greater Nore WFD catchment. In terms of groundwater, the Masterplan area is predominantly underlain by a regionally important, karstified, gravel aquifer, the Killkenny-Ballynakill Gravels (WFD code IE_SE_G_163). This groundwater body has been consistently rated as having 'good' status for all parameters, and is 'not at risk' of failing to achieve its WFD objectives / good status by 2027. The groundwater vulnerability is predominantly rated as being 'high' across the Masterplan area.

The River Breagagh (WFD code BREGAGH (KILKENNY) 030) traverses the southern portion of the Masterplan area before entering the River Nore (WFD code NORE_170) a distance of c. 650 m east of the Masterplan area boundary. Where it passes through the Masterplan area, the River Breagagh is of 'poor' status (WFD 2013 – 2018) and 'at risk' of failing to achieve its WFD objectives / good status by 2027. The associated identified significant pressures are industry, hydromorphology (channelisation and embankments) and pastoral agriculture. The River Nore is of consistently 'good' status, with its level of risk under review at present.

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Figure 1: Geology (© Bing Maps, 2021)

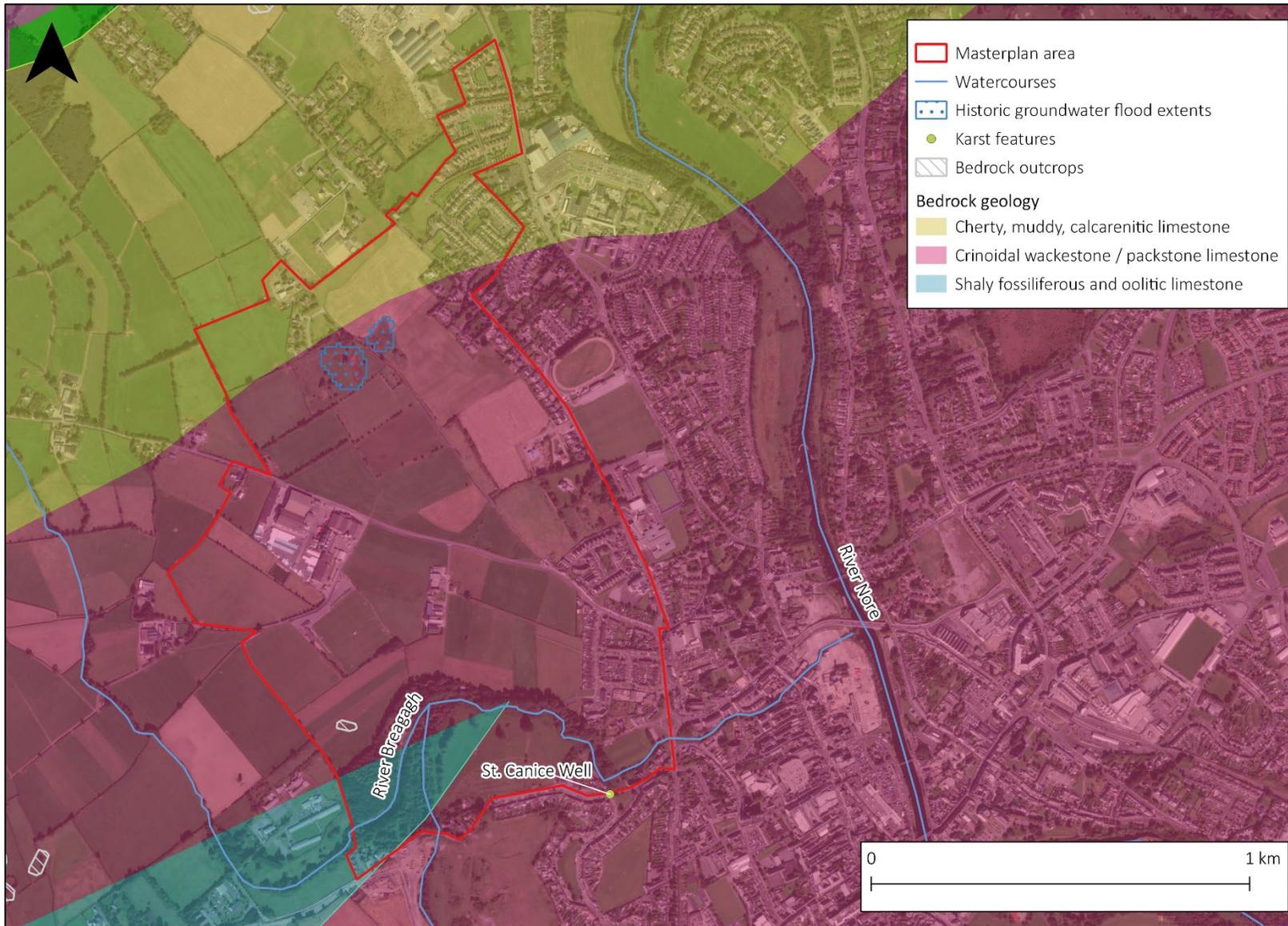
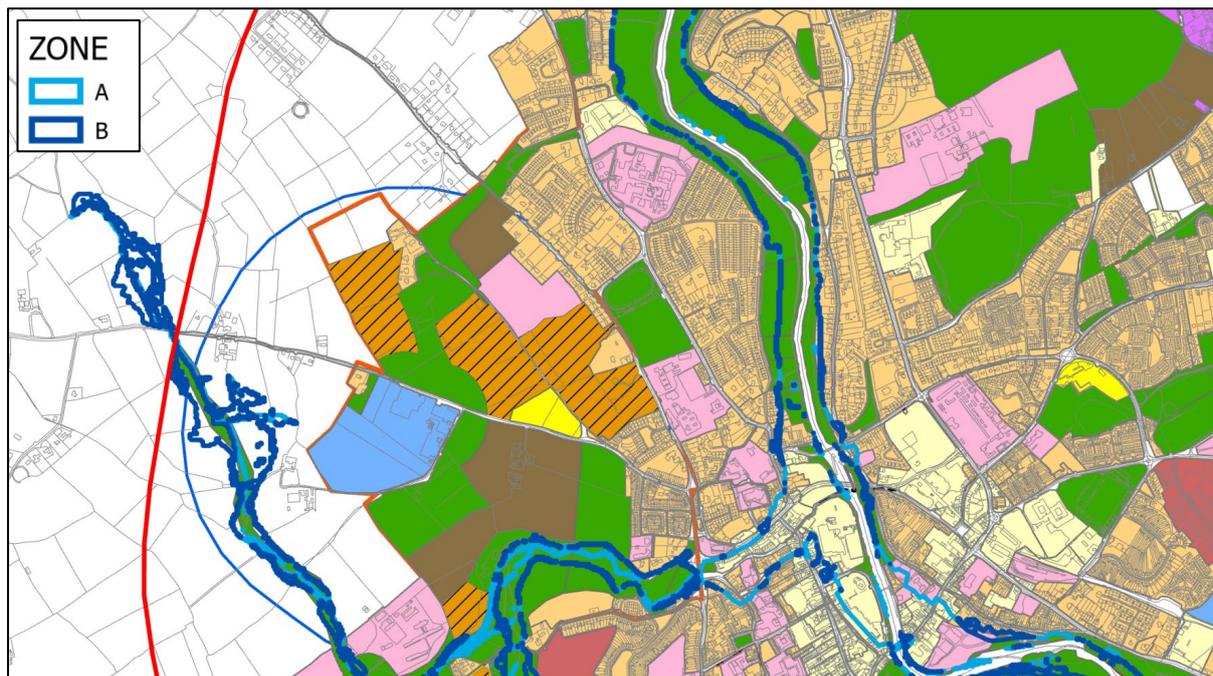


Figure 2: Flood Zones A and B in relation to the Masterplan area (Kilkenny County Council, 2021)



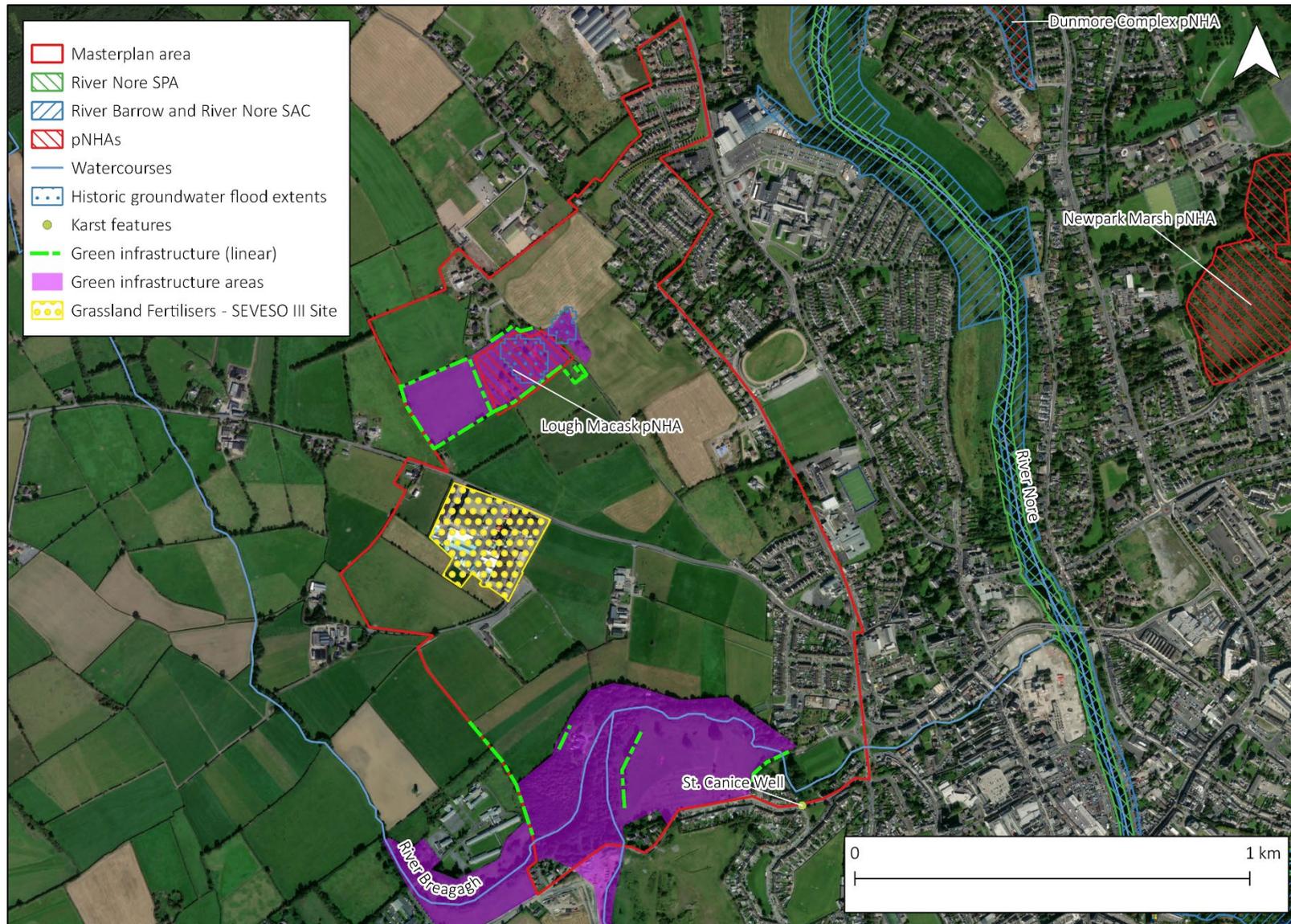
Localised groundwater flooding is known to occur at Loughmacask, producing the fluctuating waterbody at this location, which has been designated as a proposed Natural Heritage Area (pNHA) (discussed further below). A Strategic Flood Risk Assessment (SFRA) has been carried out for the purposes for the *Kilkenny City and County Development Plan 2021 – 2027*. **Figure 2**, above, shows an excerpt from Figure 23B of the SFRA, showing Flood Zones A and B overlain on the Development Plan land use zoning, as adopted. It shows that parts of the River Breagagh corridor are flood prone. However, all of the lands earmarked for residential development within the Masterplan area under the Development Plan are situated in Flood Zone C, where there is a low probability of flooding, and where development of this nature is regarded as being appropriate, as per the OPW flood risk management guidelines.

In 2010, a habitat survey of Kilkenny City and environs was carried out on behalf of Kilkenny County Council (Smith *et al.*, 2010). It described Lough Macask as follows:

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Figure 3: Key environmental features (© Bing Maps, 2021)



“Lough Macask is an isolated patch of Green Infrastructure within an intensive agricultural matrix. The main wetland on the west side of a small road is proposed for designation as an NHA (Lough Macask pNHA). The area identified as Green Infrastructure is slightly larger than this, as it also includes a small pocket of wet grassland on the east side of the road. Lough Macask itself is a wetland in two basins connected by a channel that was occupied by wet grassland at the time of surveying. The northern of the two basins is dominated by branched bur-reed emerging from open water, and the southern basin is dominated by pondweeds. The wetlands are surrounded by improved grassland grazed by cattle, and there is a small transition zone in between where the wetlands grade into marsh and then wet grassland. [...]

We saw Mallard and Moorhen using the wetlands during the habitat survey, and information gathered at the public consultation meeting confirmed that Water Rail has been recorded in Lough Macask. The ecological survey for the Lough Macask Local Area Plan 2008-2014 reports that the lough regularly supports dragonflies in the summer and small numbers of wintering waterfowl (Biosphere Environmental Services, 2005). It is likely that the pond is suitable for spawning frogs and perhaps smooth newt.

The habitat classification of the Lough Macask wetlands is confused by the fact that water levels fluctuate over the course of a year, similar to turloughs (Goodwillie, 1995). [...] We considered that it was not sufficiently similar to a “classic” turlough in that it does not drain and fill relatively quickly through underground channels joining the basin at a single point. Thus, we have classified the northern basin as reed and large sedge swamp (FS1^[4]) and the southern basin as a eutrophic pond (FL5).

The proposed Kilkenny Central Access Scheme is likely to impact the Green Infrastructure area, as the proposed road will run through the wet grassland pocket to the east of the existing road. This would result in the loss of this habitat, and the proximity of the road to Lough Macask pNHA may impact on water quality and hydrology. However, the EIS prepared for the road scheme concludes that impacts are unlikely, provided suitable mitigation is implemented (MORSW, 2008).” (p. 32)

In addition to the green infrastructure identified at Lough Macask, the Development Plan has also earmarked land and hedgerows / treelines in the River Breagagh corridor as green infrastructure, as illustrated in Figure 3. In this area, Smith *et al.* (2010) noted mixed broadleaved woodland (WD1), dry meadows (GS2), scattered trees and parkland (WD5) and artificial lakes / ponds (FL8) in association with the River Breagagh (depositing / lowland river, FW2) (**Figure 4**). The invasive species Japanese Knotweed (*Fallopia japonica*) and Himalayan Balsam (*Impatiens glandulifera*) were noted growing alongside the river (Smith *et al.*, 2010). Smith *et al.* (2010) made the following observations in relation to the value of the River Breagagh:

“The Breagagh River represents a valuable habitat resource for birdlife within the study area, including Kingfisher, a species listed on the EU Birds Directive, whilst Dipper, Reed Bunting and Grey Wagtail are also often sighted there (P. Durkin, pers. comm.). Grey Heron and Moorhen have been identified along the river near the Dominic Street Bridge, whilst consistent pipistrelle bat activity also occurs within this area. Indeed some of the older houses in the area may currently act as bat roosts (O. Duggan, pers. comm.).

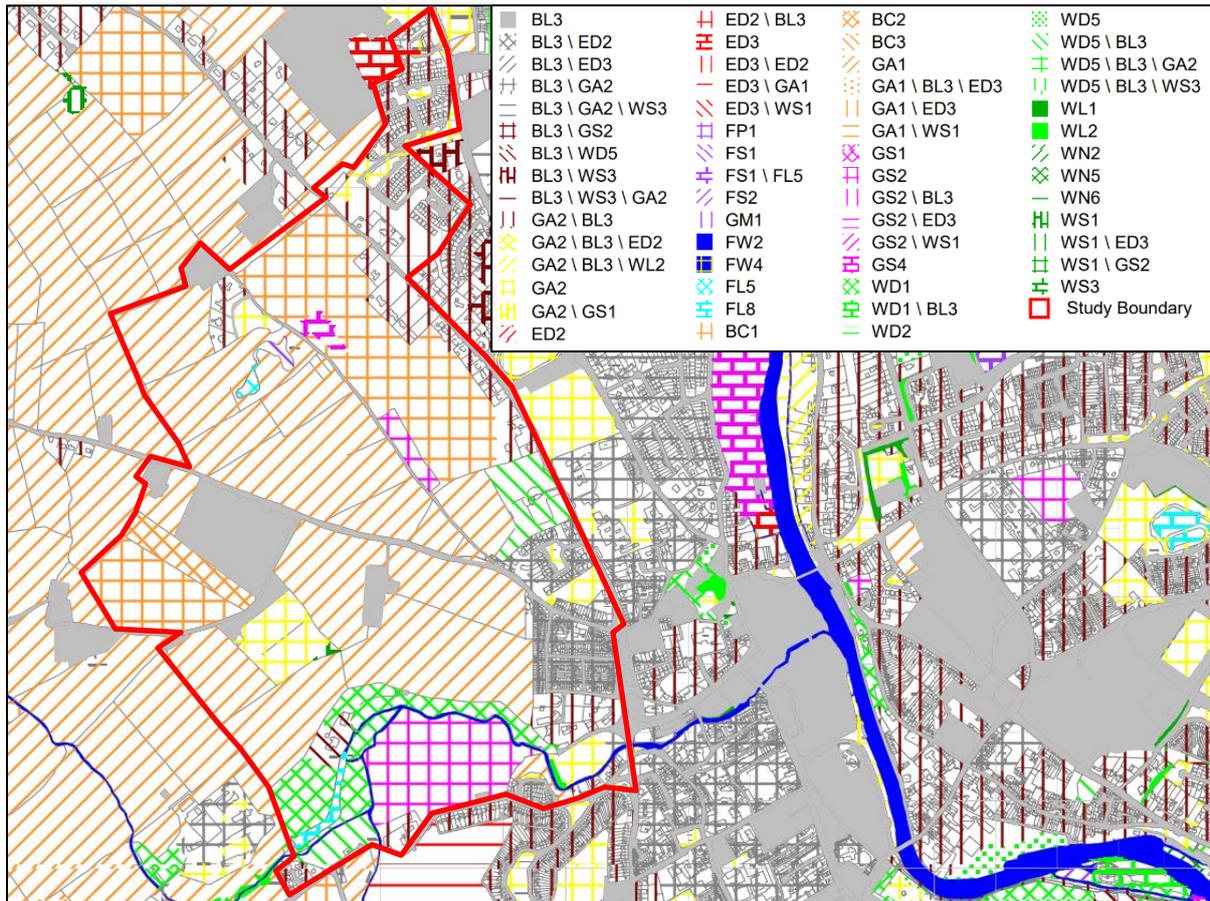
The Breagagh River provides valuable amenity services in the form of fishing and casual recreation. The Breagagh River is also a local water source and provides for the control of surface water in the surrounding areas. In addition to acting as a wildlife habitat in its own right, it has the potential to act as a corridor, allowing movement of plants and animals through an otherwise hostile landscape of intensive agriculture and built land.” (p. 36)

“The River Nore is a strong piece of Green Infrastructure acting as an ecological corridor across the city from north to south. However, east to west ecological linkage across the city and to the River Nore is much weaker [...]. Strategic planning should aim to strengthen east-west ecological linkages with the Nore where possible. The Breagagh River provides an opportunity for strengthening these linkages.” (p. 42)

⁴ Habitat codes follow Fossitt (2000)

With the exception of the semi-natural habitats noted above, the remainder of the Masterplan area is dominated by relatively intensive agricultural land and previously developed land (i.e. buildings and artificial surfaces), crisscrossed by hedgerows, treelines and roads. Not including previously developed areas defined by buildings and artificial surfaces, the predominant habitat types recorded by Smith *et al.* (2010) in the Masterplan area (Figure 4) were improved agricultural grassland (GA1) and arable crops (BC1); with improved amenity grassland (GA2), horticultural land (BC2) and dry meadows (GS2) also noted. The ecological value of old stone walls in Kilkenny City and environs was also noted by Smith *et al.* (2010), who highlighted the potential importance of these features for invertebrates and other fauna.

Figure 4: Habitat mapping at Masterplan area – Kilkenny City Habitat Survey (Smith *et al.*, 2010)



1.2.3.2 European sites

While there are no European (Natura 2000) sites within the Masterplan area, the River Breagh drains into the River Nore, which supports: the *River Nore Special Protection Area (SPA)* (site code 004233) and *River Barrow and River Nore Special Area of Conservation (SAC)* (site code 002162), both of which are c. 600 m downstream of the Masterplan lands via the Breagh. Thus, there is a hydrological pathway linking the Loughmacask Masterplan lands with these European sites (see **Figure 5**).

The Department of the Environment (2009) Guidance on AA recommends a 15 km buffer zone to be considered. Although sites beyond this buffer zone would be considered if relevant, a review of all sites in the area has allowed a determination to be made that in the absence of significant hydrological links the characteristics of the Plan will not impose effects beyond the 15 km buffer.

The sites examined were as follows:

- Thomastown Quarry SAC (site code 002252), c.15.5km to the south east. This site is designated for petrifying springs with tufa formation (a priority Annex I habitat);

- Spahill and Clomantagh Hill SAC (site code 000849), c.18.2km to the north west. This site is designated for semi-natural dry grasslands and scrubland facies on calcareous substrates;
- The Loughans SAC (site code 000407), c.19km to the north west. This site is designated for turloughs (a priority Annex I habitat);
- Cullahill Mountain SAC (site code 000831), c.20.5km to the north west. This site is designated for semi-natural dry grasslands and scrubland facies on calcareous substrates;
- Lisbigney Bog SAC (site code 000869), c.23km to the north. This site is designated for calcareous fens (a priority Annex I habitat) and Desmoulin's whorl snail;
- Hugginstown Fen SAC (site code 000404), c.24.5km to the south. This site is designated for alkaline fens;
- Lower River Suir SAC (site code 002137), c.25.1km to the south. This site is designated for a range of coastal, freshwater and terrestrial habitats and species;
- Galmoy Fen SAC (site code 001858), c.26.2km to the north west. This site is designated for alkaline fens;
- Blackstairs Mountains SAC (site code 000770), c.29.3km to the east. This site is designated for heath habitats;
- Slaney River Valley SAC (site code 000781), c.36.1km to the east. This site is designated for a range of coastal, freshwater and terrestrial habitats and species;
- Ballyprior Grassland SAC (site code 002256), c.37.1km to the north. This site is designated for semi-natural dry grasslands and scrubland facies on calcareous substrates;
- Knockacoller Bog SAC (site code 002333), c.38.8km to the north. This site is designated for bog/peatland habitats;
- Coolrain Bog SAC (site code 002332), c.41.2km to the north. This site is designated for bog/peatland habitats;
- The Slieve Bloom Mountains SPA (site code 004160), c.43km to the north. This site is designated for one species (hen harrier);

However, there are no realistic or likely pathways between the Draft Masterplan area and these sites or any other European site, with the exception of the River Nore SPA and the River Barrow and River Nore SAC. Therefore, only these two sites are considered further in this report.

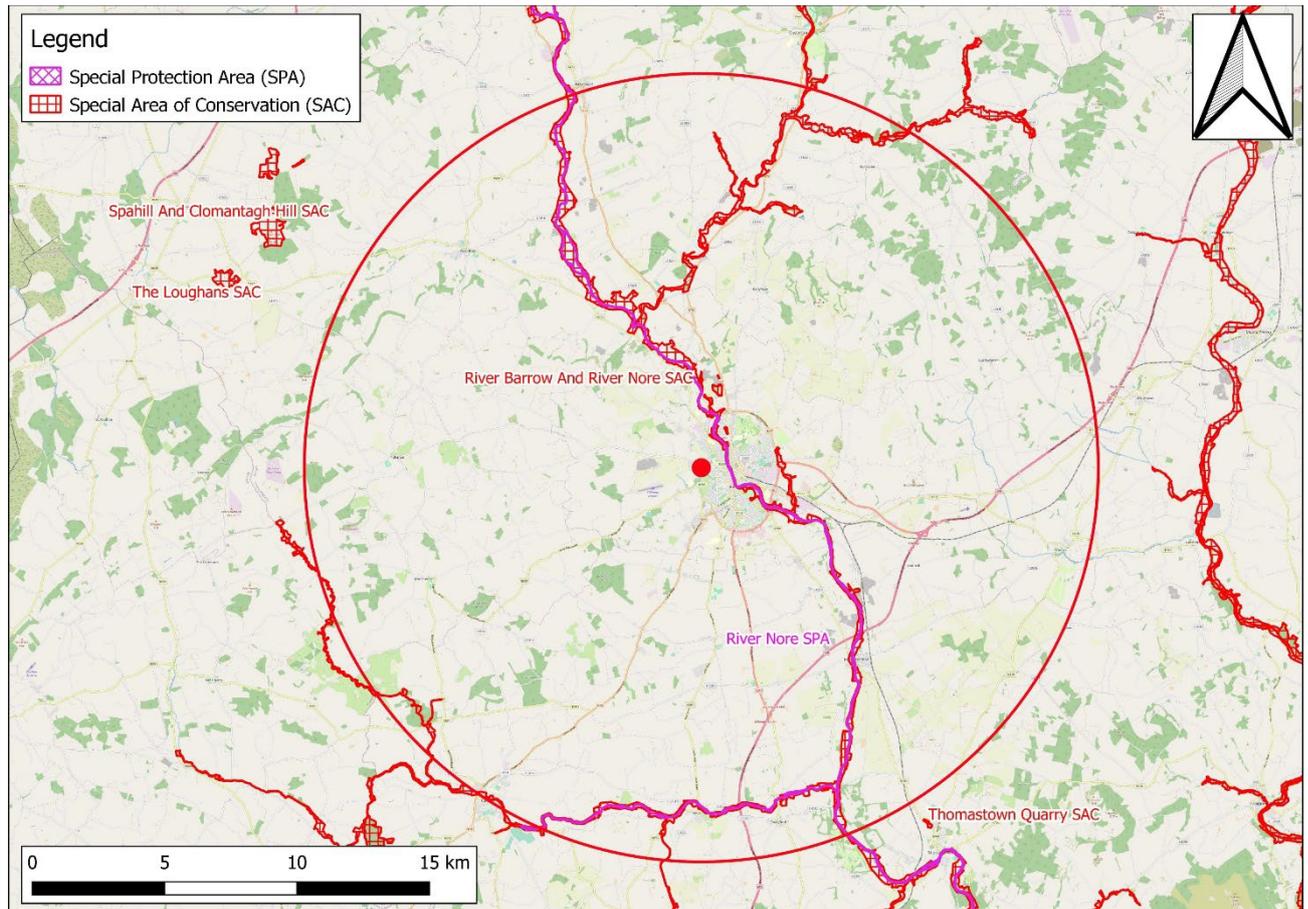
The Qualifying Interests (QIs) / Special Conservation Interests (SCIs) of the two sites located within the potential zone of influence of the Draft Masterplan are as follows:

- River Nore SPA:
 - Kingfisher, *Alcedo atthis* [A229]
- River Barrow and River Nore SAC:
 - Estuaries [1130]
 - Mudflats and sandflats not covered by seawater at low tide [1140]
 - Reefs [1170]
 - Salicornia and other annuals colonising mud and sand [1310]
 - Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) [1330]
 - Mediterranean salt meadows (*Juncetalia maritimi*) [1410]

- Water courses of plain to montane levels with the *Ranuncion fluitantis* and *Callitricho-Batrachion* vegetation [3260]
- European dry heaths [4030]
- Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]
- Petrifying springs with tufa formation (*Cratoneurion*) [7220]
- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]
- *Vertigo moulinsiana* (Desmoulin's Whorl Snail) [1016]
- *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]
- *Austropotamobius pallipes* (White-clawed Crayfish) [1092]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra planeri* (Brook Lamprey) [1096]
- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Alosa fallax fallax* (Twaiite Shad) [1103]
- *Salmo salar* (Salmon) [1106]
- *Lutra lutra* (Otter) [1355]
- *Trichomanes speciosum* (Killarney Fern) [1421]
- *Margaritifera durrovensis* (Nore Pearl Mussel) [1990]

Mobile species associated with these sites may also use the River Breagagh and associated riparian habitats, e.g. kingfisher, white-clawed crayfish and otter.

Figure 5: European designated sites within and adjacent to the Draft Masterplan area



1.2.3.3 Other designated areas (other than European sites)

There is one pNHA within the Masterplan area, the Lough Macask pNHA (site code 001914), whose location is mapped in **Figure 3**, above. The area of the pNHA takes in the pond known as ‘Lough Macask’ and immediately adjacent terrestrial margin. Land immediately east and west of Lough Macask pNHA (and several associated hedgerows / treelines) has been earmarked as part of Kilkenny City’s green infrastructure network in the Development Plan, as illustrated in Figure 3.

The levels in the pond fluctuate throughout the year with a portion remaining permanently flooded year-round. According to the NPWS’s site synopsis for the pNHA (2009), the pond is “isolated from the underlying limestone by glacial till” and is, therefore, not regarded as a turlough, although it is considered to be “similar in some ways”. The land adjacent to the pond is grazed, resulting in poaching at the pond margin when water levels are high. The flora of the site is understood to be typical and not including any rare or protected species. However, it is noted that greater duckweed (*Spirodela polyrhiza*), which has been recorded at the site, is rare elsewhere in the County (NPWS, 2009; Smith *et al.*, 2010).

No impacts are expected on Lough Macask pNHA, nor on any features that are undesignated but may potentially qualify for designation under the habitats or birds directives.

1.2.3.4 Rare and protected species

The NBDC database was consulted with regard to rare species (Curtis & McGough, 1988) and species protected under the *Flora Protection Order* (2015). There are no records of a number of protected species within the 10km grid square (S45) that covers the Draft Masterplan area, and none are known to occur within the Draft Masterplan area.

1.2.3.5 Fisheries and water quality

In its submission in response to the SEA Scoping Exercise undertaken for the Draft Masterplan (letter dated 15 March 2022), Inland Fisheries Ireland (IFI) noted that the lower Breaghagh River “currently has an Ecological Status of Poor and is At Risk of not reaching Good Status by 2027. In addition to Agriculture, the significant pressures for the Breaghagh are Industry and Hydromorphology (Channelisation and Embankments)”.

IFI also noted in relation to biodiversity that the “identification and protection of significant habitats should pay particular attention to aquatic habitats, particularly channels which have been degraded by poor planning and design. Impacts from the construction of new water crossings or upgrade of existing crossings should be considered. IFI should be consulted at the design stage for any works which have the potential to impact the aquatic habitat”.

IFI further noted that the “Masterplan should permit and contribute to the restoration of the Breaghagh River to Good ecological status within the third cycle of the River Basin management Plan” and stated that “reference should be made to Inland Fisheries Ireland’s Guidelines on Protection of Fisheries during construction works in and adjacent to Waters when construction works are being planned or carried out.

1.3 Outline description of the Draft Loughmacask Masterplan

This section provides an overview of the content of the Draft Loughmacask Masterplan, prepared by Brady Shipman Martin. The reader is referred to the Draft Loughmacask Masterplan for further details.

1.3.1 Vision

The stated vision for Loughmacask is as follows:

- Loughmacask will be an exemplar and plan-led new residential quarter of Kilkenny City, characterised by sustainable mobility connecting people to high quality housing, local facilities and amenities and the city centre and set within a distinctive landscape and historic city context;
- Distinctive and vibrant neighbourhood, building on the existing locality and communities and providing an excellent quality of life with urban and rural amenities;
- A walkable urban quarter with day-to-day facilities and amenities within a 10 minute walk of homes – reducing private transport dependency and strengthening local communities;
- A new urban quarter that expands on and is integral with the historic city centre as well as the natural landscape of the Nore and Breaghagh river corridors;
- Excellent provision of open space, green networks and local facilities that cater for local need, foster community growth and support health and well-being;
- Responding to climate change, through sustainable transport, energy efficient building technologies, and a strong green infrastructure network.

1.3.2 Key Principles

In order to achieve the above-stated vision for Loughmacask, the Draft Masterplan has set out the following key principles, which have been informed by national and local planning policy:

- **Compact growth and integration:** Loughmacask will establish a new urban quarter at Kilkenny City that is fully integrated with the City.
- **10-minute city quarter:** Residents should be able to access local services such as shops, schools and parks within a 10-minute walk or cycle from their homes.
- **Ease of access and movement:** A significant difference between the Loughmacask LAP 2008 and this Masterplan is the removal of through traffic from the area by the reconfiguration of the road objectives for

the area and the re-routing of through traffic. The primary vehicular access will be from the east or the west into but not through Loughmacask.

- **Sustainable land use:** New residential development will be the primary land use and a new secondary school will be provided at Lousybush Lane. The local centre will include an appropriate sized local supermarket, in accordance with the Development Plan Retail Strategy, and a number of smaller retail and commercial units that cater for the day-to-day need of the local community.

1.3.3 Key Considerations

The following factors have been taken into consideration in the preparation of the Draft Masterplan:

- The policies and objectives of the National Planning Framework, Southern Regional Spatial and Economic Strategy and *Kilkenny City and County Development Plan 2021 – 2027*;
- Planned, proposed and permitted infrastructural projects, including the Central Access and Western Bypass road projects, and the planned relocation of the CBS school and associated access road;
- The guiding principle of the 10-minute city;
- The landscape character, particularly the urban-rural interface;
- The presence of the industrial facility (Grassland Fertilisers), which is subject to the provisions of the SEVESO III Directive;
- Archaeological and architectural heritage constraints;
- Flood risk; and
- The protection of ecological features, particularly the Breaghagh Valley, Lough Macask and field boundaries.

1.3.4 Nature and Extent of Planned Development

The land use strategy set out in the Draft Masterplan provides for predominantly residential use, in a matrix of green space / links, and with smaller areas reserved for a local centre, existing industrial use, community use and the relocated CBS.

In terms of residential density, the Draft Masterplan states that higher densities will be concentrated around the local centre, *“so as to underpin the establishment of a vibrant local community and local centre and to ensure a core population in proximity to the newly planned secondary school”*, with lower densities proposed for the western margin of the lands, *“to provide appropriate interfaces”* with the rural hinterland (p. 33).

The Draft Masterplan has defined seven distinct residential character areas, as follows:

1. Loughmacask Village, immediately south and north-west of the local centre;
2. Ayrfield, immediately north and south-east of the school and adjoining the existing Ayrfield residential development;
3. Kilcreene, between Dicksboro GAA / industrial area and the Breaghagh corridor;
4. Crokers Hill, immediately south of the Central Access Scheme and Breaghagh corridor;
5. Lousybush, north-west of Lough Macask;
6. The Butts, between Loughmacask village and Kilkenny City Centre; and
7. Kilcreene Woods, between Kilcreen and the Breaghagh corridor.

It highlights the potential for the regeneration of ‘the Butts’, a 20th century residential development and early example of Local Authority housing, situated in the south-eastern portion of the Masterplan area, at its interface with the city centre.

As per the land use zoning in the Development Plan, the Masterplan has earmarked lands at the intersection of the Tullaroan Road and Lousybush Lane (i.e. the centre of the Masterplan lands) for a local centre, to include an

appropriately sized local supermarket and several smaller retail and commercial units. Lousybush Lane will provide car-free access to the eastern side of the local centre, while the Tullaroan Road will facilitate local vehicular access.

In accordance with the Development Plan objectives, lands have been reserved between Lousybush Lane and the Dunningstown Road for the relocation of the CBS school. Lousybush Lane is intended as the primary access to the school, and will provide for pedestrian and cyclist access; while vehicular access will be provided via the Dunningstown Road.

A north-south green spine (which will also serve as a walking and cycling connection) is proposed, linking the Nore Valley (outside of the Masterplan lands), Lough Macask, the Dicksboro GAA ground, the Breagagh corridor and existing green infrastructure to the south of the Masterplan lands. This will form part of a wider green network across the Masterplan lands, linking passive and active open spaces and amenity areas, which are expected to “substantially eliminate the need for local car journeys” (p. 20) and will also have the effect of buffering future residential development from the existing industrial facility.

In relation to the facility, it is stated that “It is acknowledged that Grassland Fertilizers will continue to operate in its current location for the foreseeable future, however - should the facility ever be relocated in the future, the lands could accommodate additional residential development or alternative employment uses as appropriate” (p. 22).

The Draft Masterplan states that a park, the River Breagagh Park, will be developed in the existing green area between the Breagagh River and the Central Access Scheme to the south, with pedestrian and cycle links provided to connect the residential areas of Loughmacask with the park. It is not clear whether any crossings of the River Breagagh will be required in this regard.

1.3.5 Differences between the Draft Masterplan and the Adopted Development Plan

There are proposed changes between the Loughmacask Masterplan strategy (Figure 6) and the land use zoning in the Development Plan, as follows:

- Lands designated as ‘Open Space’ immediately west of the Butts in the Development Plan have been partially changed to ‘Residential’ to provide for the integration of the well-established Butts community into the planned Loughmacask development;
- Lands designated as ‘Strategic Reserve’ to the north-east of the Dicksboro GAA in the Development Plan have been partially changed to ‘Open Space / Recreation’ to provide additional recreational amenities that could operate in tandem with existing GAA grounds;
- Lands designated as ‘Open Space’ and ‘Strategic Reserve’ to the south-west of the Dicksboro GAA grounds in the Development Plan have been changed to ‘Residential’ to facilitate future primary vehicular access to Loughmacask from the west which in turn will create a new gateway at this location;
- Under the Masterplan, ‘Open Space’ has been extended more widely throughout the development lands (e.g. through the retention of hedgerows, inclusion of pocket parks or unlocking River Breagagh Park), to provide for greater connectivity between green spaces, providing for ecological corridors and for ease of movement by pedestrians and cyclists throughout the area.

In terms of access and movements, the Masterplan envisions “a high quality, walkable and connected new residential quarter” that will be “notably different from many residential developments with highly visible walking and cycling facilities throughout and with local access points for vehicular traffic quickly transforming to homezone style shared streets” (p. 27). The envisaged access network features the following characteristics:

- Ultimately, primary vehicular access will be from the west (e.g. via the future Western Bypass and / or a new road linking the Freshford and Kilmanagh Roads), rather than the city centre. In the interim, primary vehicular access will continue to be via the existing road network (i.e. the east);

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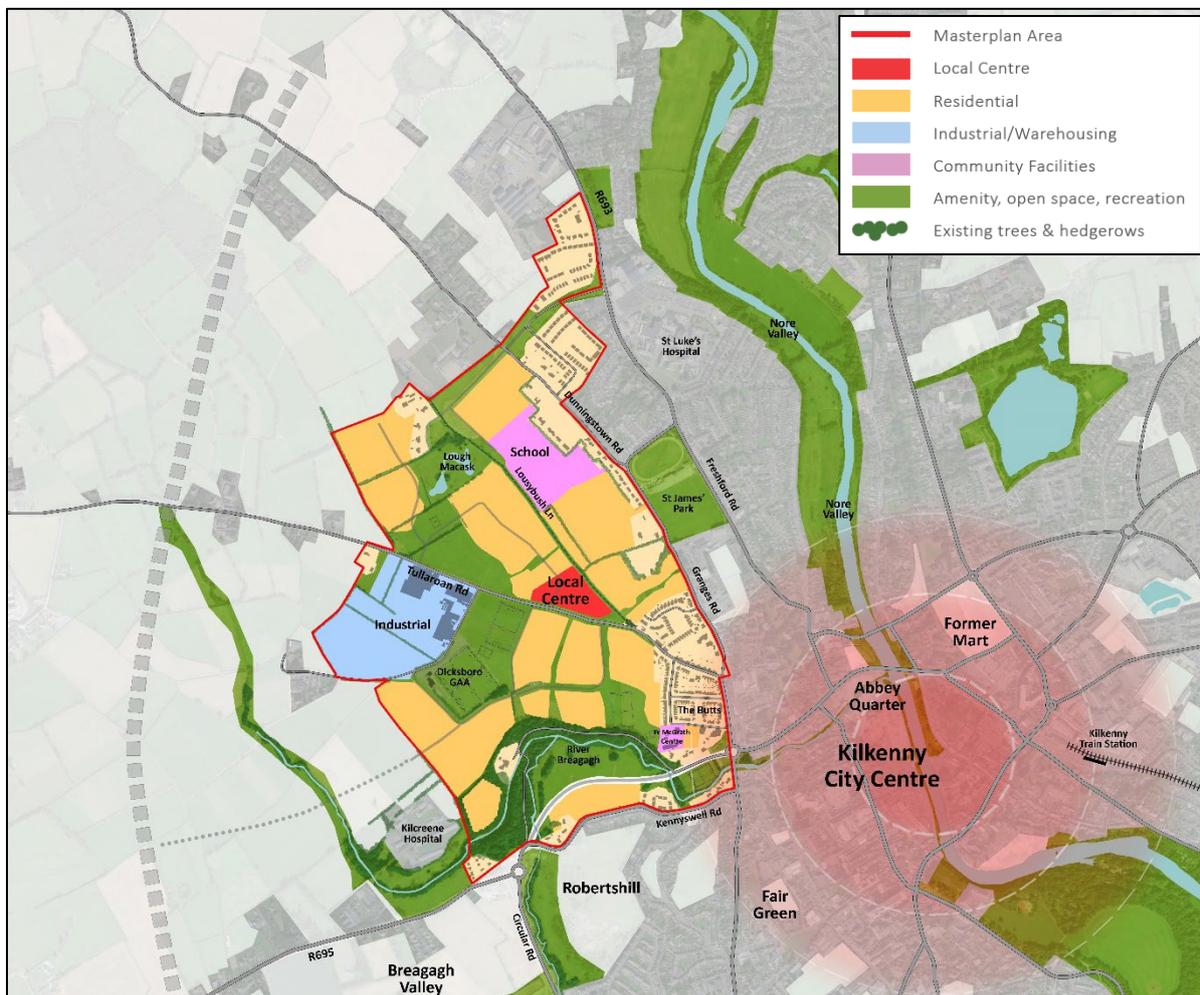
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- Local access (e.g. between Loughmacask and the city centre) will be via the existing road network, with pedestrian and cyclist mobility prioritised;
- Lousybush Lane is to be a primary internal green link, reserved for pedestrian and cyclist use only.

In this regard, the Draft Masterplan states that “A significant difference between the Loughmacask LAP 2008 and this Masterplan is the removal of through traffic from the area by the reconfiguration of the road objectives for the area and the re routing of through traffic” (p. 22).

The Draft Masterplan include a high-level sustainable urban drainage system (SuDS) strategy. In accordance with the OPW guidelines, *The Planning System and Flood Risk Management: Guidelines for Planning Authorities* (2009), SuDS will be a requirement of future development in the Masterplan lands. It is stated that “SuDS features will aim to replicate the natural characteristics of rainfall runoff by providing control of run-off at source” (p. 39). An indicative network of bio-retention swales is illustrated.

Figure 6: Loughmacask Draft Masterplan – Land Use



1.4 Potential impacts from the Draft Masterplan, including in-combination effects

1.4.1 Is the Draft Masterplan necessary for the management of European sites?

As set out in the Habitats Directive, plans that are directly connected with or necessary to the management of a European site do not require Appropriate Assessment. Management in this context means management for nature conservation and the qualifying interests of the European site, specifically the conservation objectives – to maintain or restore the favourable conservation condition of the habitats and species for which the site has been selected.

While the Draft Masterplan has been developed with biodiversity and sustainability as core elements its purpose is to develop a new walkable residential quarter. It is rooted in national and local planning policy, however its primary purpose is not the nature conservation management of the sites, but to provide for development.

The Draft Masterplan is not directly connected with or necessary to the management of European designated sites.

1.4.2 Are there elements of the Draft Masterplan with potential to give rise to significant effects on European sites?

As set out in the Draft Masterplan, the primary land use will be residential, comprising a range of housing typologies and densities that respect, extend and integrate with established residential areas. A neighbourhood centre will be built and a new secondary school will be located towards the northern end of Lousybush Lane. A network of open spaces will be provided for amenity and leisure ranging from the larger green spine linking Lough Macask to the River Breaghagh Valley via Dicksboro GAA and including additional smaller pocket parks, green links and play areas. The existing Grasslands factory will be separated from residential use by the green spine. Should the Grasslands factory ever be relocated, the masterplan can readily accommodate additional residential development or alternative employment uses on its lands.

The Draft Masterplan also proposes to build on the location, identity and strong community character of the area known as The Butts, to establish a predominantly pedestrian and cycling connection from the City Centre to the Draft Loughmacask Masterplan area.

Loughmacask will have highly visible walking and cycling facilities throughout and with local access points for vehicular traffic quickly transforming to homezone style shared streets. Lousybush Lane will be a primary green link that is free of vehicles and providing a convenient and attractive route for local journeys from homes to the local centre, schools, community facilities and amenity spaces. This will be replicated elsewhere in the street network so that all of Loughmacask will be served by a network of green, safe and walkable links.

The open space network at Loughmacask will be informed by the existing features such as Lough Macask, Dicksboro GAA grounds, the Seveso zoning at Grasslands, the community playing field at the Fr. McGrath Centre and the Breaghagh Valley. A primary north-south green spine will be established by connecting these spaces and secondary green links will lead between this green spine and each of the residential areas and secondary open spaces. The River Breaghagh Park will be developed between the Breaghagh River and the Central Access Scheme link road and pedestrian and cycle links will connect the residential areas of Loughmacask with the park. The existing playing fields and walking track -west of the Fr. McGrath Centre and at Water Barrack will be modified to accommodate new access infrastructure but will continue to provide the same quantum of facilities at this established location. Additional playing fields will be provided within the green spine.

It is proposed to use a SUDS approach to storm-water management throughout the masterplan lands. SUDS implementation aims to provide an effective system to mitigate the adverse effects of urban stormwater runoff on the environment by reducing runoff rates, volumes and frequency, reducing pollutant concentrations in stormwater, contributing to amenity, aesthetics and biodiversity enhancement and allowing for the maximum collection of rainwater for re-use where possible. SUDS features will aim to replicate the natural characteristics of rainfall runoff by providing control of run-off at source.

The over-arching character of Loughmacask will be of a high quality, walkable and connected new quarter of Kilkenny City. Green pedestrian and cycle links, together with homezone style streets, will be readily apparent and will underpin the sense of place at Loughmacask. The masterplan area will incorporate a number of distinct neighbourhoods that will be differentiated by the style of buildings within each area - including established residential areas. The Butts, a long established and distinctive character area, will be prominent at the city gate to Loughmacask and further enhanced by the provision of local access links into Loughmacask as well as by regeneration of the council lands to the south of St Joseph's Road. Additional neighbourhood areas will be established around the local centre, Lousybush Lane, the River Breagagh Valley and Lough Macask so as to ensure diversity, attractiveness and distinctiveness throughout Loughmacask.

The Draft Masterplan notes that, while planning permission exists for approximately 300 houses on the lands, no significant development has taken place due to a lack of wastewater infrastructure and accessibility issues. Over 15ha of the proposed lands for housing in the Loughmacask masterplan area are a subject to planning permissions and are currently extant and could be activated in early phases. Development of the lands are subject to the provision of necessary infrastructure as set out in previous LAPs and carried through in successive Development Plans.

The Draft Masterplan, if implemented, will provide a high quality, new residential neighbourhood, designed with sustainability as a priority. Nevertheless, in order to implement the Draft Masterplan significant new development will be required, on a phased basis, over several years. Any such development has the potential to give rise to impacts on European sites, via demolition and construction, habitat loss/replacement (both temporary and permanent), increased risk of pollution of surface water and, potentially disturbance due to an increase in human activity in the vicinity of European sites.

1.4.3 Direct, indirect or secondary impacts?

None of the actions in the Draft Masterplan require any land take from any European site, and there are no resource requirements from any European site as a result of any of the actions contained within the Draft Masterplan area.

No European sites are located either within the Draft Masterplan area, however at its closest point – the north eastern corner of the Draft Masterplan area – it is within c.150m of the two River Barrow and River Nore SAC and within c.300m of the River Nore SPA. Despite this proximity there is no direct pathway to the Nore at this point.

As noted in this report, the Breagagh River Valley, located in the southern part of the Draft Masterplan area, links the site with the River Nore, which is located approximately c.600m downstream to the east. A crossing of the River Breagagh may be required in the future.

Any development, whether related to the Draft Masterplan or not, has the potential to impact on the qualifying interests of River Barrow and River Nore SAC, should it result in any reduction in water quality. Development could, for example, lead to siltation, sedimentation and contamination or pollution of the River Breagagh or minor field ditches and drains. Any such pollution could adversely affect the habitats and species listed as qualifying interests in the SAC, many of which rely on good water quality. In addition, the habitats, but particularly species such as otter, may be sensitive to disturbance (and, potentially, loss of breeding habitat) arising as a result of any proposed development.

The River Nore SPA is designated for just a single species, kingfisher. Kingfisher is equally dependent on good water quality, and susceptible to disturbance (and, potentially, loss of breeding habitat) caused by human activity.

Potential pathways for impacts to European sites are presented in **Table 1**.

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Table 1 Relevant sites and reasons for designation

European site (site code)	Reasons for designation (information correct as of 24 May 2022)	Source-pathway-receptor
Special Areas of Conservation		
River Barrow and River Nore SAC (002162)	<ul style="list-style-type: none"> ■ 1130 Estuaries ■ 1140 Mudflats and sandflats not covered by seawater at low tide ■ 1170 Reefs ■ 1310 Salicornia and other annuals colonising mud and sand ■ 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) ■ 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) ■ 3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation ■ 4030 European dry heaths ■ 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels ■ 7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)* ■ 91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles ■ 91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)* ■ 1095 Sea Lamprey (<i>Petromyzon marinus</i>) ■ 1016 Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>) ■ 1103 Twaite Shad (<i>Alosa fallax fallax</i>) ■ 1099 River Lamprey (<i>Lampetra fluviatilis</i>) ■ 1096 Brook Lamprey (<i>Lampetra planeri</i>) ■ 1106 Salmon (<i>Salmo salar</i>) ■ 1092 White-clawed Crayfish (<i>Austropotamobius pallipes</i>) ■ 1029 Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) ■ 1990 Nore Pearl Mussel (<i>Margaritifera durrovensis</i>) ■ 1421 Killarney Fern (<i>Trichomanes speciosum</i>) ■ 1355 Otter (<i>Lutra lutra</i>) <p>According to the SAC's Natura 2000 information (updated 10-2020) the site comprises most of the freshwater stretches of the Barrow/Nore River catchments. The Barrow is tidal as far upriver as Graiguenamanagh while the Nore is tidal as far upriver as Inishtioige. The site also includes the extreme lower reaches of the River Suir and all of the estuarine component of Waterford Harbour extending to Creadan Head. The larger of the many tributaries include the Lerr, Fushoge, Mountain, Aughavaud, Owenass, Boherbaun and Stradbally Rivers of the Barrow and the Delour, Dinin, Erkina, Owveg, Munster, Arrigle and King's Rivers on the Nore. Both rivers rise in the Old Red Sandstone of the Slieve Bloom</p>	<p>There is a potential link between the Draft Masterplan Area and the SAC, specifically the habitat and species Qualifying Interests for which the site is designated, via disturbance (human activity) and emissions to water during construction and operation.</p> <p>There is no potential for habitat loss within the SAC.</p>

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European site (site code)	Reasons for designation (information correct as of 24 May 2022)	Source-pathway-receptor
	<p>Mountains. They traverse limestone bedrock for a good proportion of their routes, though the middle reaches of the Barrow and many of the eastern tributaries run through Leinster Granite. A wide range of habitats associated with the rivers are included within the site, including substantial areas of woodland (deciduous, mixed), dry heath, wet grassland, swamp and marsh vegetation, salt marshes, a small dune system, biogenic reefs and intertidal sand and mud flats. Areas of improved grassland, arable land and coniferous plantations are included in the site for water quality reasons.</p> <p>The site supports many Annexed habitats including the priority habitats of alluvial woodland and petrifying springs. Quality of habitat is generally good. The site supports a number of Annex II animal species and a range of rare plants and invertebrates are found in the woods along these rivers and rare plants are also associated with the saltmarsh.</p>	
Special Protection Areas		
River Nore SPA (004233)	<p>■ A046 Kingfisher (<i>Alcedo atthis</i>)</p> <p>According to the SPA's Natura 2000 information (updated 10-2020) the SPA is a long linear site that includes the following river sections: the River Nore from the bridge at Townparks, (north-west of Borris in Ossory) to Coolnamuck (approximately 3 km south of Inistioge) in Co. Kilkenny; the Delour River from its junction with the River Nore to Derrynaseera bridge (west of Castletown) in Co Laois; the Erkina River from its junction with the River Nore at Durrow Mills to Boston Bridge in Co. Laois; a 1.5 km stretch of the River Goul upstream of its junction with the Erkina River; the Kings River from its junction with the River Nore to a bridge at Mill Island Co. Kilkenny. The site includes the river channel and marginal vegetation.</p> <p>The River Nore support nationally important numbers of kingfisher (<i>Alcedo atthis</i>). Other species which occur within the site include mute swan (<i>Cygnus olor</i>), mallard (<i>Anas platyrhynchos</i>), cormorant (<i>Phalacrocorax carbo</i>), grey heron (<i>Ardea cinerea</i>), moorhen (<i>Gallinula chloropus</i>), snipe (<i>Gallinago gallinago</i>) and sand martin (<i>Riparia riparia</i>).</p>	<p>There is a potential link between the Draft Masterplan area and the SPA, specifically the bird species (kingfisher) Special Conservation Interests for which the site is designated, via disturbance (human activity) and emissions to water during construction and operation.</p> <p>There is no potential for habitat loss within the SPA.</p>



1.4.4 Other plans or projects

It is a requirement of Article 6(3) of the Habitats that when considering whether a plan or project will adversely affect the integrity of a European site the assessment must take into account in-combination effects with other current or reasonably foreseeable plans and projects.

If it can be clearly demonstrated that the plan or project will not result in any impact on the integrity of a European site then the plan or project should proceed without considering the in-combination test; further, If there are identified effects arising from the plan or project even if they are perceived as minor and not likely to have an impact on the integrity of a European site alone, then any such impacts must be considered 'in-combination' with the effects arising from other plans and projects.

As noted in Section 1.1 of this Natura Impact report, the *Kilkenny City and County Development Plan 2021 – 2027* already provides for land use, zoning and objectives for the Loughmacask area. The development plan also includes a specific objective (Z8 – City Zoning Objectives) to prepare a masterplan for the Loughmacask area. It is noted that during its preparation, the *Kilkenny City and County Development Plan 2021-2027*, including the Loughmacask area, was subject to full SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA).

All projects within the Plan area and receiving environment will be considered in combination with any and all lower tier projects that may arise due to the implementation of the Plan. This includes the potential for other pollution sources within the Nore WFD catchment and any other catchments that also drain to the River Nore to cumulatively affect water quality in the receiving aquatic environments.

This includes the other Masterplans referenced in the Development Plan; namely the masterplans for the Abbey Quarter, the Fair Green, Canice's, the former mart site, and the Breagagh Masterplan. The Abbey Quarter Masterplan has already been prepared, and the preparation of the other Masterplans for Kilkenny are included as objectives in the Development Plan.

An NIR was prepared for the Masterplan for the Abbey Creative Quarter that addressed the potential impacts to QI and SCI habitats and species within the Zol of the projects (and the European sites within), and subsequent mitigation measures to ensure there is no risk of affecting the conservation objectives, or the favourable conservation condition, of the QI/SCI species of European sites within (CAAS Ltd., 2015).

The potential for in combination effects to arise in the River Nore from any existing or proposed land use plans or developments is regulated and controlled by the environmental protection policies and objectives of the Kilkenny City and County Development Plan 2021-2027. All the Masterplans cited above will be subject to Appropriate Assessment as part of their preparation.

Land use plans for the other local authorities (e.g. Waterford County Council, Carlow County Council) whose functional areas include surface water features which drain to the River Nore, were examined and analysed and those land use plans also include protective environmental protection policies to protect European sites and the receiving surface water environments.

The Draft Masterplan and this Natura Impact Report have had full regard to the Development Plan. It has also had regard to EU Environmental Directives and National Planning and Environmental policy, as well as local plans and programmes including the following:

As well as EU and National Plans and Programmes, the Draft Loughmacask Masterplan and SEA Environmental Report and associated documentation has had regard to a series of local and other plans and programmes including:

- *Kilkenny County Council Pollinator Programme 2019;*
- *Kilkenny Local Economic and Community Plan;*
- *Kilkenny Noise Action Plan 2019 – 2023;* and
- *Loughmacask Local Area Plan 2008.*

1.4.5 Screening for Appropriate Assessment - summary

According to the draft Guidance published by the European Commission (*Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*, 21st November 2018) the “integrity of a site” relates to the site’s conservation objectives. For example, it is possible that a plan or project will adversely affect the site only in a visual sense or only affect habitat types or species other than those listed in Annex I or Annex II. In such cases, the effects do not amount to an adverse effect for the purposes of Article 6(3). If none of the habitat types or species for which the site has been designated is significantly affected then the site’s integrity cannot be considered to be adversely affected.

In addition, plans or projects or applications for developments which have “no appreciable effect” on the protected site are excluded from the requirement to proceed to appropriate assessment⁵ (Opinion of Advocate General Sharpston in *Sweetman*, para. 48).

In other words, if, following Screening, there is a possibility of there being a significant effect on a European site, this will generate the need for an appropriate assessment for the purposes of Article 6(3) of the Habitats Directive.

Given the location of the Draft Masterplan area at Loughmacask, as well as its nature and scale, and connections to services including water supply and surface water/foul infrastructure, it is possible to rule out potential significant adverse effects arising out of the development on most European sites (i.e. sites with no pathway to the Draft Masterplan area).

These sites are at such a distance from the Draft Masterplan Area site that there would not be any significant effects on them as a result of:

- Habitat loss and/or fragmentation;
- Impacts to habitat structure;
- Disturbance to species of conservation concern;
- Mortality to species (such as roadkill);
- Noise pollution;
- Emissions to air;
- Emissions to water.

European sites not connected to the Draft Masterplan area can be screened out (Appropriate Assessment Screening) and they are not considered any further in this report

However, the Draft Masterplan is not connected with or necessary for the management of a European site, and has the potential to have significant impacts on two European sites

- The River Barrow and River Nore SAC;
- The River Nore SPA.

Applying the precautionary principle therefore, and in accordance with Article 6(3) of the Habitats Directive, Stage 2 Appropriate Assessment is required.

⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62011CC0258>

2 Natura Impact Statement (Appraisal of potential Impacts on European Sites (Appropriate Assessment))

2.1 Introduction

As set out in Section 1.4, the implementation of the Draft Masterplan has the potential to impact on two European sites, the River Nore SPA and the River Barrow and River Nore SAC.

In Stage 2, Appropriate Assessment, is necessary to determine whether the Draft Masterplan would result in *significant adverse impacts on the integrity of any European site* with respect to the site's structure, function, and/or conservation objectives.

These potential adverse effects may arise either alone or in-combination with other plans or projects.

The Draft Loughmacask Masterplan is an overarching plan that will guide the future development of the Loughmacask lands in line with national and local policy. It is driven by sustainability. Nevertheless, as set out in the preceding sections, there is the potential that the implementation of the Draft Masterplan could lead to pollution or other impacts on water quality and/or disturbance to key species via increased human activity, or via construction.

It is not expected that there will be any direct reduction of habitat area, or any loss of habitat within any European site. However, any development works adjacent to the River Nore, including in the Breagagh Valley, has the potential to cause habitat loss or a reduction in habitat quality, with indirect effects on the European sites themselves. Similarly no works are expected within any European sites that would lead to fragmentation (breakup) of habitats, resulting in impacts on site integrity. No works are proposed that would interfere with known breeding sites in the River Nore SPA for kingfisher.

There is the possibility of disturbance to key species arising as a result of the implementation of the Draft Masterplan. In the case of the European sites this particularly applies to otter and kingfisher, both of which species are sensitive to disturbance from noise, light, vibration and other construction activities including inappropriately timed works, as well as from recreational and amenity activity. White-clawed crayfish, which is another species for which the SAC is designated, is similarly sensitive to disturbance. Although no works are expected within the European sites themselves, any works in or near the Breagagh Valley could lead to disturbance of these species.

There is the possibility of changes to key indicators of conservation value arising as a result of the implementation of the Draft Masterplan, should water quality be affected in any way. There are direct pathways between the Draft Masterplan area and the River Nore, via the River Breagagh. Implementation of the Draft Masterplan may result in changes to the hydrological regime. The potential for run off of silt and other pollutants may arise from development works within the plan area. In addition to otter and white-clawed crayfish any pollution-related impacts on the other species for which the SAC is designated (including several fish species) could adversely affect the integrity of the site. In particular, the presence of both the freshwater pearl mussel and the Nore pearl mussel in the Nore highlight the importance of maintaining good water quality in the Nore system.

2.2 Conservation objectives, threats and vulnerabilities of the European Sites

A key aim of the Habitats Directive is to '*maintain or restore the favourable conservation status of habitats and species of community interest*'. Site-specific conservation objectives aim to define favourable conservation condition for particular habitats or species within a European site. In the case of European sites for which site-specific conservation objectives have not yet been prepared, generic conservation objectives have been provided by NPWS.

The integrity of a site is the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

Site specific conservation objectives for **River Barrow and River Nore SAC** were published on 19 July 2011 (Version 1.0). The conservation objectives are:

- To maintain or restore the favourable conservation condition of each of the Qualifying Interests (habitats and species), as defined by the range of attributes and targets set out;
- Although this SAC includes a wide range of qualifying interests (both habitats and species), of particular importance (i.e. the habitats and species with the potential to suffer adverse effects as a result of the implementation of the Draft Masterplan are:
 - Floating river vegetation;
 - River lamprey;
 - Brook lamprey;
 - Otter;
 - Atlantic salmon;
 - White-clawed crayfish.

A generic conservation objective for **the River Nore SPA** was published on 26 January 2022 (Version 9.0). The conservation objectives are:

- To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.
 - The single species for which the SPA is designated is kingfisher.

2.3 Mitigation measures

Despite the fact that the Draft Masterplan has been designed with a focus on sustainability and environmental quality, it cannot be demonstrated that there will be no adverse effects arising as a result of the implementation of the Draft Masterplan. Therefore, mitigation measures are required, which are consistent with the requirements of the *Kilkenny City and County Development Plan 2021 – 2027* and with the Draft Loughmacask Masterplan Strategic Environmental Assessment – Environment Report.

All development projects arising from the Draft Loughmacask Masterplan will be subject to Appropriate Assessment Screening. If necessary, applications for development within the Draft Masterplan area will be accompanied by a Natura Impact Statement. Permission for development will only be granted if the Competent Authority is satisfied that the proposed development will not have any significant effects on a European site (at screening stage), or that the proposed development will not give rise to significant adverse effects on the integrity of a European site (following Appropriate Assessment), taking project-specific mitigation measures into account.

No projects will be permitted that could give rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects, either individually or in combination with other plans or projects.

All development proposals will have regard to the ecological sensitivity of the overall Draft Masterplan area, particularly features that have the potential to act in support of the European sites. All construction works will be required to have regard to all relevant guidelines such as Inland Fisheries Ireland's *Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters* (2016) when construction works are being planned or carried out.

All development proposals will incorporate measures to ensure that water is managed appropriately, both during construction and operation, with sustainable urban drainage systems (SuDS) a key part of every development.

The Draft Masterplan comes under the *Kilkenny City and County Development Plan 2021 – 2027* in the planning and development hierarchy. As such all development proposals arising will be required to comply with the relevant policies and objectives of the Development Plan. Section 5 of the Natura Impact Report prepared for the Development Plan includes measures intended to mitigate against potential effects on European sites. Such measures that may be applied to the implementation of the Draft Masterplan include requirements to ensure that any plan or project within the functional area of the Planning Authority is subject to appropriate assessment in accordance with the *Guidance Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009* and is assessed in accordance with Article 6 of the Habitats Directive in order to avoid adverse impacts on the integrity and conservation objectives of the site. Other measures include those related to sustainability, climate resilience, housing policy, development of tourism (trails, walkways, cycleways, linear parks, blueways and greenways), protected habitats and species, biodiversity protection outside of designated areas, green infrastructure, hedgerows, wetlands, pollinators, lighting, flooding, water quality and air quality.

As detailed in the Site Specific Flood Risk Assessment (SSFRA) prepared in respect of the Draft Masterplan, there are areas of localised flood risk associated with the River Breaghagh and Lough Macask. All of the lands marked for residential development within the Masterplan area under the Development Plan are situated in Flood Zone C, where there is a low probability of flooding, and where development of this nature is regarded as being appropriate, as per the OPW flood risk management guidelines.

Nevertheless, for development units located within Flood Zone C, but adjoining or in close proximity to Flood Zone A or B (i.e., River Breaghagh Park) there could be a risk of flooding associated with factors such as future scenarios (climate change). Development of the Masterplan lands will incorporate a network of SuDS measures to storm-water management throughout the masterplan lands. SuDS features will aim to replicate the natural characteristics of rainfall runoff by providing control of run-off at source and will involve setting finished floor levels to a height that is above the 1 in 100 year fluvial flood level, with an allowance for climate change and freeboard, or to ensure a step up from road level to prevent surface water ingress.

The Draft Masterplan has been informed by the sensitivities of the receiving environment as identified both in this NIR and in the SEA Environmental Report. Various characteristics of the Draft Masterplan proposals that will have the effect of avoiding and / or minimising potential adverse environmental effect comprise the following:

- The Draft Masterplan provides the framework for a compact, planned new urban neighbourhood adjoining and integrated with the existing city centre; avoiding unplanned, one-off scattered or ribbon development at the urban-rural interface – and, therefore, minimising the impacts of unplanned urban sprawl and greenfield development, e.g. habitat loss;
- Vegetated setbacks and buffers will be retained around the River Breaghagh and Lough Macask, providing for habitat conservation, reduced flood risk and safeguarding of water quality;
- The proposed green spine will buffer future residential development from the existing industrial facility (a Seveso site), Grassland Fertilizers;
- Mature hedgerows and treelines will be retained, and a network of green infrastructure created, safeguarding ecological corridors;
- The Draft Masterplan proposals will promote sustainable mobility and reduce through traffic, thereby minimising environmental effects (including greenhouse gas emissions, noise and air quality impacts) associated with vehicles with internal combustion engines;
- Development of the Draft Masterplan lands will incorporate a network of SuDS measures, including bio-retention swales, reducing flood risk and safeguarding water quality;
- The existing ‘Butts’ community will be integrated into the Masterplan area, avoiding community severance that may otherwise arise.

The Draft Masterplan sits at a lower level in the planning and development hierarchy than the *Kilkenny City and County Development Plan 2021 – 2027*. The Masterplan lands are subject to the policies and objectives contained in the Development Plan, as well as the measures set out in the corresponding Natura Impact Report (NIR), SEA Environmental Report / Statement and Strategic Flood Risk Assessment (SFRA).

Many of the policies, objectives and development management requirements set out in the Development Plan will have the effect of mitigating the potential environmental effects of future development, as follows:

- Strategic Objective 2D: *To integrate appropriate mitigation and adaptation considerations and measures into all forms of development.* (p. 17)
- Strategic Objective Objective 2F: *To adopt nature-based approaches and green infrastructural solutions as viable mitigation and adaptation measures to reduce greenhouse gas emissions where feasible. The Council will promote and support physical activity, active recreation and an active lifestyle.*
- Development Management Requirement: *To protect and where possible enhance wildlife habitats and landscape features which act as ecological corridors/networks and stepping stones, such as river corridors, hedgerows and road verges, and to minimise the loss of habitats and features of the wider countryside (such as ponds, wetlands, trees) which are not within designated sites.* (p. 130)
- Development Management Requirement: *To ensure that appropriate mitigation and/or compensation measures to conserve biodiversity, landscape character and green infrastructure networks are required in developments where habitats are at risk or lost as part of a development.* (ibid.)
- Development Management Requirement: *Require all developments in the early pre-planning stage of the planning process to identify, protect and enhance ecological features and habitats, and making provision for local biodiversity (e.g. through protection of existing breeding sites, and provision of appropriate new infrastructure such as swift, bat and barn owl boxes, bat roost sites, green roofs, etc.) and provide links to the wider Green Infrastructure network as an essential part of the design process.* (p. 131)
- Development Management Requirement: *To protect existing woodlands, trees and hedgerows which are of amenity or biodiversity value and/or contribute to landscape character of the county, and to ensure that proper provision is made for their protection and management, when undertaking, approving or authorising development.* (p. 133)
- Development Management Requirement: *To retain hedgerows, and other distinctive boundary treatment such as stone walls, when undertaking, authorising or approving development; where the loss of the existing boundary is unavoidable as part of development, to ensure that a new hedgerow is planted using native species, and species of local provenance to replace the existing hedgerow and/or that the wall is rebuilt using local stone and local vernacular design.* (ibid.)
- Policy: *It is Council policy to ensure the protection of architectural heritage by including all structures considered to be of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in the Record of Protected Structures.* (p. 146)
- Objective 10B: *To implement the measures of the River Basin Management Plan, including continuing to work with communities through the Local Authority Waters Programme to restore and improve water quality in the identified areas of action.* (p. 177)
- Policy: *It is Council policy to adopt a comprehensive risk-based planning approach to flood management to prevent or minimise future flood risk. In accordance with the Planning System and Flood Risk Management – Guidelines for Planning Authorities, the avoidance of development in areas where flood risk has been identified shall be the primary response. The Council will ensure that new developments do not reduce the effectiveness or integrity of any existing or new flood defence infrastructure, and will facilitate the provision of new, or the reinforcement of existing, flood defences and protection measures where necessary.* (p. 185)

2.4 Summary and conclusions

This Natura Impact Report has considered the potential impacts of the implementation of the Draft Loughmacask Masterplan on the integrity of the relevant European sites.

This report concludes on the best scientific evidence that it can be clearly demonstrated that no elements of the Draft Masterplan will result in any impact on the integrity or Qualifying Interests/Special Conservation Interests of any relevant European site, either on their own or in-combination with other plans or projects, in light of their conservation objectives, provided mitigation measures are implemented.

Various measures have been integrated into the Masterplan to facilitate this (see Section 2.3).

3 References

- Council of the European Communities (1992) Council Directive of 21 May 1992 on The Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC). O. J. L 206/35, 22 July 1992
- DoEHLG (2010) Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, Rev. Feb 2010)
- DoCHG (2017) Third National Biodiversity Plan 2017-2021
- Environmental Protection Agency (2022). *Guidelines on the information to be contained in Environmental Impact Assessment Reports*. Environmental Protection Agency. Wexford
- Environmental Protection Agency (2015). Revised (Consultation Draft) Advice Notes on Current Practice (in the Preparation of Environmental Impact Statements)
- European Commission (EC) (2000). Managing Natura 2000 sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000)
- European Commission (EC) (2001). Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General)
- European Commission (EC) (2018). Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC. (Guidance issued by the European Commission, November 2018)
- European Communities (Birds and Natural Habitats) Regulations 2011-2015
- NPWS (2010). Circular NPW 1/10 & PSSP 2/10 Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, March 2010)
- NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volumes 1-3. Department of Culture, Heritage and the Gaeltacht, Dublin, Ireland
- Online data available on European sites as held by the National Parks and Wildlife Service (NPWS) (www.npws.ie/protectedsites)
- Office of the Planning Regulator. Practice Note PN01 Appropriate Assessment Screening for Development Planning and Development, Act 2000, as amended.

4 Appropriate Assessment Screening Determination



Appropriate Assessment (AA) Screening Determination under the Planning and Development Acts 2000-2021 for:

Loughmacask Masterplan

An Appropriate Assessment (AA) Screening determination has been made by Kilkenny County Council regarding the Draft **Loughmacask Masterplan** in accordance with the EU's Habitats Directive 6(3) and Section 177U of the Planning and Development Act 2000 (as amended).

The Masterplan sets out the vision and direction for the future development of the Loughmacask area. Proposed land use plans must undergo a formal 'test' or 'screening' to ascertain whether they are likely to result in any significant adverse effects on specific sites designated for their nature conservation importance. These sites are those designated under the European Commission's Natura 2000 network of sites (hereafter termed 'European sites'). European sites are designated on the basis of the presence of certain habitats and species that are deemed to be of international importance. The Irish Government, and planning authorities, have a legal obligation to protect these sites. The Habitats Directive requires the screening of plans and projects. If the screening process results in a judgement that likely significant effects cannot be ruled out, then a more detailed assessment is required.

The AA screening process for this Masterplan has found that the proposals leads to uncertainty on the potential for an impact on the River Nore/River Barrow SAC and the River Nore SPA and it is therefore required that a full Appropriate Assessment be undertaken to demonstrate compliance with the Directive in accordance with the methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

Taking into account the findings of the AA process that are detailed in the AA Screening Report that accompanies this Determination, Kilkenny County Council has determined that due to uncertainty on potential impacts, the Loughmacask Masterplan may, individually or in combination with other plans, potentially have effects on European Sites and consequently Stage 2 AA is required.

Signed *Davin W. Kane*

Kilkenny County Council

Date *3/6/2022*

5 Natura Impact Report Determination



**NATURA IMPACT REPORT DETERMINATION
UNDER
SECTION 177V OF THE PLANNING AND DEVELOPMENT ACT 2000, AS AMENDED,
FOR THE
LOUGHMACASK MASTERPLAN**

A Natura Impact Report on the Draft Loughmacask Masterplan was carried out under Article 6(3) of the Habitats Directive. This determined that the Draft Loughmacask Masterplan will not adversely affect the integrity of any Natura 2000 sites. While it was identified that the implementation of the Masterplan may have the potential to adversely affect the integrity of a Natura 2000 site, mitigation measures have been included which will negate any such adverse effects on the integrity of the Natura 2000 sites in view of their conservation objectives.

Signed Denis Malone

Denis Malone
A/Director of Services
Kilkenny County Council

Date 26/7/22

Appendices

Appendix 1 – Background to Appropriate Assessment

The European⁶ network is a Europe-wide network of ecologically important sites (SPAs and cSACs – also known as ‘European Sites’ or ‘Natura 2000 sites’) that have been designated for protection under either the EU Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds) or the EU Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna).

The main aim of the Habitats Directive is *“to contribute towards ensuring biodiversity through the conservation of natural habitats of wild fauna and flora in the European territory of the Member States to which the treaty applies”*. Any actions taken must be designed to *“maintain or restore, at a favourable conservation status, natural habitats and species of wild fauna and flora of Community interest”*. Under Article 6 of the Habitats Directive, an assessment is required where a plan or project may give rise to significant effects upon a European site.

In addition, it is a matter of law that candidate SACs (cSACs) and Sites of Community Importance (SCI) are considered in this process;

Article 6 (paragraphs (3) and (4)) of the Habitats Directive states that:

(3) Any plan or project not directly connected with or necessary to the management of the 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.

(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 social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of European 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.

The requirements of the Habitats Directive are transposed into Irish law by means of the *European Communities (Birds and Natural Habitats) Regulations 2011-2015* (hereafter referred to as the *Birds and Habitats Regulations*)⁷ and by the *Planning and Development Act 2000*, as amended.

In Ireland, the statutory agency responsible for the designated areas is NPWS.

⁶ The EU Habitats Directive, Article 3.1, states “A Coherent European ecological network of Special Areas of Conservation and Special Protection Areas pursuant to Directive 79/409/EEC shall be set up under the title European”

⁷ SI No. 477 of 2011 and subsequent amendments

Stages in the assessment

European Commission guidance (2001)⁸ sets out the principles on how to undertake decision making in applying the Habitats Directive. The requirements of the Habitats Directive comprise four distinct stages:

Stage 1: Screening is the process which initially identifies the likely significant effects upon a European site of a project or plan, either alone or in combination with other projects or plans. It is important to note that the burden of evidence is to show, on the basis of objective information, that there will be no significant effect; if the effect may be significant, or is not known, that would trigger the need for an Appropriate Assessment. There is European Court of Justice case law to the effect that unless the likelihood of a significant effect can be ruled out on the basis of objective information, then an Appropriate Assessment must be made.

Stage 2: Appropriate Assessment is the detailed consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's conservation objectives and its structure and function. This is to determine with scientific certainty whether or not there will be adverse effects on the integrity of the site in light of its conservation objectives. This stage also includes the development of mitigation measures to avoid or reduce any possible impacts.

Stage 3: Assessment of alternative solutions is the process which examines alternative ways of achieving the objectives of the project or plan that would avoid impacts on the integrity of the European site, should avoidance or mitigation measures be unable to cancel out adverse effects.

Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain. At Stage 4 an assessment is made with regard to whether or not the development is necessary for imperative reasons of overriding public interest (IROPI) and, if so, of the compensatory measures needed to maintain the overall coherence of the European network.

Conservation objectives of European sites

The conservation objectives for a European Site are intended to represent the aims of the Habitats and Birds Directives in relation to that site. To this end, habitats and species of European Community importance should be maintained or restored to 'favourable conservation status' (FCS), as defined in Article 1 of the Habitats Directive below:

The conservation status of a natural habitat will be taken as 'favourable' when:

- Its natural range and the area it covers within that range are stable or increasing;
- 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;
- Conservation status of typical species is favourable as defined in Article 1(i).

The conservation status of a species will be taken as favourable 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;

⁸ European Commission (2001) *Assessment of Plans and Projects Significantly Affecting European Sites: Methodological Guidance on the Provisions of Article 6 (3) and (4) of the Habitats Directive 92/43/EEC*

- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future;
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Guidance from the European Commission⁹ indicates that the Habitats Directive intends FCS to be applied at the level of an individual site, as well as to habitats and species across their European range. Therefore, in order to properly express the aims of the Habitats Directive for an individual site, the conservation objectives for a site are essentially to maintain (or restore) the habitats and species of the site at (or to) FCS.

The European Commission guidance recommends that screening should fulfil the following steps:

- 1** Determine whether the plan (or policy) is directly connected with or necessary for the management of European sites;
- 2** Describe the plan and describe and characterise any other plans or projects which, in combination, have the potential for having significant effects on European sites;
- 3** Identify the potential effects on European sites;
- 4** Assess the likely significance of any effects on European sites.

⁹ Managing European sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC. (European Commission 2000)

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