



## **Appropriate Assessment Screening Report**

prepared for Castlethorn Construction ULC

on behalf of Stephen Little & Associates

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## Document Control

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This report has been prepared by Scott Cawley Ltd. in accordance with the particular instructions and requirements of our agreement with the Client, the project's budgetary and time constraints and in line with best industry standards. The methodology adopted and the sources of information used by Scott Cawley Ltd. in providing its services are outlined in this report. The scope of this report and the services are defined by these circumstances.

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The conclusions presented in this report represent Scott Cawley Ltd.'s best professional judgement based on review of site conditions observed during the site visit (if applicable) and the relevant information available at the time of writing. Scott Cawley Ltd. has used reasonable skill, care and diligence in compiling this report and no warranty is provided as to the report's accuracy.

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## Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site (see Figure 1)

## 1 Introduction

- 1 This report, which contains information required for the competent authority (in this instance An Bord Pleanála) to undertake a screening for Appropriate Assessment (AA), has been prepared by Scott Cawley Ltd. on behalf of the applicant. It provides information on, and assesses the potential for, the proposed development to impact on the Natura 2000 network (hereafter referred to as European sites)<sup>1</sup>. The proposed development consists of the construction of c. 415 units, a childcare facility, the inclusion of open spaces, site development and landscaping works (centred on Irish Grid reference point N 95843 52365).
- 2 An AA is required if significant effects on European sites arising from a proposed development cannot be ruled out at the screening stage, either alone or in combination with other plans or projects. It is the responsibility of the competent authority to make a decision as to whether or not the proposed development is likely to have significant effects on European sites, either individually or in combination with other plans or projects.

For the reasons set out in detail in this AA Screening Report, an **Appropriate Assessment of the proposed development is not required in this instance** as it can be concluded, on the basis of objective information, that the proposed development, either individually or in combination with other plans or projects, will not have a significant effect on any European sites.

## 2 Methodology

### 2.1 Guidance

- 3 This Appropriate Assessment Screening Report has been prepared with regard to the following guidance documents, as relevant:
  - *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities*. (Department of Environment, Heritage and Local Government, 2010 revision)
  - *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular NPW 1/10 & PSSP 2/10
  - *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2001)
  - *Communication from the Commission on the precautionary principle* (European Commission, 2000), and
  - *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019)

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<sup>1</sup> The Natura 2000 network is a European network of important ecological sites, as defined under Article 3 of the Habitats Directive 92/43/EEC, which comprises both special areas of conservation and special protection areas. Special conservation areas are sites hosting the natural habitat types listed in Annex I, and habitats of the species listed in Annex II, of the Habitats Directive, and are established under the Habitats Directive itself. Special protection areas are established under Article 4 of the Birds Directive 2009/147/EC for the protection of endangered species of wild birds. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats.

In Ireland these sites are designed as European sites - defined under the Planning Acts and/or the Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

## 2.2 Assessment Methodology

- 4 The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if an Appropriate Assessment is required, documented screening is required. Screening identifies the potential for effects on the conservation objectives of European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects (i.e. likely significant effects).
- 5 Significant effects on a European site are those that would undermine the conservation objectives supporting the favourable conservation condition of the Qualifying Interest (QI) habitats and/or the QI/Special Conservation Interest (SCI) species of a European site(s).
- 6 Screening for Appropriate Assessment involves the following steps:



- 7 If the conclusions at the end of screening are that there is no likelihood of significant effects occurring on any European sites as a result of the proposed plan or project, either alone or in combination with other plans and projects, then there is no requirement to undertake an Appropriate Assessment.
- 8 In establishing which European sites are potentially at risk (in the absence of mitigation) from the proposed development, a source-pathway-receptor approach was applied. In order for an impact to occur, there must be a risk enabled by having a source (e.g. water abstraction or construction works), a receptor (e.g. a European site or its QI(s) or SCI(s)<sup>2</sup>), and a pathway between the source and the receptor (e.g. pathway by air for airborne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.
- 9 The identification of source-pathway-receptor connection(s) between the proposed development and European sites essentially is the process of identifying which European sites are within the Zone of Influence (Zoi) of the proposed development, and therefore potentially at risk of significant effects. The Zoi is the area over which the proposed development could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI/SCI species of a European site, or on the achievement of their conservation objectives<sup>3</sup>.
- 10 The identification of a source-pathway-receptor link does not automatically mean that significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (e.g. extent and duration of construction works), the characteristics of the pathway (e.g. direction and strength of prevailing winds for airborne pollution) and the characteristics of the receptor (e.g. the sensitivities of the European site and its QIs/SCIs). Where uncertainty exists, the precautionary principle<sup>4</sup> is applied.

### 2.3 Desktop Data Review

- 11 The desktop data sources used to inform the assessment presented in this report are as follows (accessed on the 22<sup>nd</sup> July 2020):
  - Online data available on European sites and protected habitats/species as held by the National Parks and Wildlife Service (NPWS) from [www.npws.ie](http://www.npws.ie), including conservation objectives documents

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<sup>2</sup> The term qualifying interest is used when referring to the habitats or species for which an SAC is designated; the term special conservation interest is used when referring to the bird species (or wetland habitats) for which an SPA is designated.

<sup>3</sup> As defined in the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018)

<sup>4</sup> The precautionary principle is a guiding principle that derives from Article 191 of the Treaty on the Functioning of the European Union and has been developed in the case law of the European Court of Justice (e.g. ECJ case C-127/02 – Waddenzee, Netherlands).

The guidance document *Communication from the Commission on the Precautionary Principle* (European Commission, 2000) notes that the precautionary principle “covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection”.

Applying the precautionary principle in the context of screening for appropriate assessment requires that where there is uncertainty or doubt about the risk of significant effects on a European site(s), it should be assumed that significant effects are possible and AA must be carried out.

- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from [www.biodiversityireland.ie](http://www.biodiversityireland.ie)
- Information on the surface water network and surface water quality in the area available from [www.epa.ie](http://www.epa.ie)
- Information on groundwater resources and groundwater quality in the area available from [www.epa.ie](http://www.epa.ie) and [www.gsi.ie](http://www.gsi.ie)
- Ordnance Survey of Ireland mapping and aerial photography available from [www.osi.ie](http://www.osi.ie)
- Information on the location, nature and design of the proposed development supplied by the applicant's design team

## 2.4 Consultations

A consultation letter was submitted by email to Inland Fisheries Ireland on 30<sup>th</sup> July 2020. The letter included an outline description of the proposed development, and a request for any comments on the proposal. No response was been received by Scott Cawley prior to submission of the planning application for the proposed development.

## 2.5 Baseline Surveys

- 12 This section describes the ecological surveys carried out to inform the assessment of likely significant effects on European sites.

### 2.5.1 Habitats and Flora Survey

A habitat survey was undertaken of the proposed development site on the 22<sup>nd</sup> June 2020 by Síofra Quigley and Caroline Kelly both of Scott Cawley Ltd. following the methodology described in *Best Practice Guidance for Habitat Survey and Mapping*<sup>5</sup>. All habitat types were classified using the *Guide to Habitats in Ireland*<sup>6</sup>, recording the indicator species and abundance using the DAFOR scale<sup>7</sup> and recording any species of conservation interest. Vascular and bryophyte plant nomenclature generally follow that of *The National Vegetation Database*<sup>8</sup>, having regard to more recent taxonomic changes to species names after the *New Flora of the British Isles*<sup>9</sup> and the British Bryological Society's *Mosses and Liverworts of Britain and Ireland: A Field Guide*<sup>10</sup>.

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<sup>5</sup> Smith, G.F., O'Donoghue, P., O'Hora, K. & Delaney, E. (2011) *Best Practice Guidance for Habitat Survey and Mapping*. The Heritage Council Church Lane, Kilkenny, Ireland.

<sup>6</sup> Fossitt, J.A. (2000) *A Guide to Habitats in Ireland*. Heritage Council, Kilkenny.

<sup>7</sup> The DAFOR scale is an ordinal or semi-quantitative scale for recording the relative abundance of plant species. The name DAFOR is an acronym for the abundance levels recorded: Dominant, Abundant, Frequent, Occasional and Rare.

<sup>8</sup> Weekes, L.C. & FitzPatrick, Ú. (2010) *The National Vegetation Database: Guidelines and Standards for the Collection and Storage of Vegetation Data in Ireland*. Version 1.0. Irish Wildlife Manuals, No. 49. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

<sup>9</sup> Stace, C. (2019) *New Flora of the British Isles. 4<sup>th</sup> Edition*. C&M Floristics.

<sup>10</sup> Atherton, I., Bosanquet, S. & Lawley, M. (2010) *Mosses and Liverworts of Britain and Ireland: A Field Guide*. Latimer Trend & Co., Plymouth.

## 2.5.2 Fauna Surveys

### 2.5.2.1 Terrestrial Mammals (excl. Bats)

- 13 A terrestrial fauna survey (excluding bats) was undertaken on the 22<sup>nd</sup> June 2020 by Síofra Quigley and Caroline Kelly, both of Scott Cawley Ltd. The presence/absence of terrestrial fauna species were surveyed through the detection of field signs such as tracks, markings, feeding signs, and droppings, as well as by direct observation. The habitats on site were assessed for signs of usage by protected/red-listed fauna species, and their potential to support these species. Surveys to check for the presence of otter holts within the study area, and to record any evidence of use, were undertaken on the same day.

### 2.5.2.2 Breeding Birds

- 14 Breeding bird surveys were undertaken on the 16<sup>th</sup> and 22<sup>nd</sup> June 2020 by John Fox, an independent ornithologist, using a methodology adapted from the *Bird Monitoring Methods - A Manual of Techniques for Key UK Species*<sup>11</sup>. The study area covered the lands east of the M3 and north and south of the L288 road. Lands within the study area were slowly walked in a manner allowing the surveyor to come within 50m of all habitat features. Birds were identified by sight and song, and general location and activity were recorded using the British Trust for Ornithology (BTO) species and activity codes.

## 3 Provision of Information for Screening for Appropriate Assessment

- 15 The following sections provide information to facilitate the Appropriate Assessment screening of the proposed development to be undertaken by the competent authority.
- 16 A description of the proposed development and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with the proposed development to affect the receiving ecological environment (e.g. geological, hydrogeological and hydrological data).
- 17 The potential impacts are examined in order to define the potential zone of influence of the proposed development on the receiving environment. This then informs the assessment of whether the proposed development will result in significant effects on any European sites; i.e. affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

### 3.1 Description of the Proposed Development

The subject site forms part of the Applicant's wider landholding of c. 18.8 Ha extending north and beyond the Drumree Road. These lands are irregularly shaped and largely comprise two distinct sites within the western part of the Dunshaughlin Local Area Plan and are bisected by Drumree Road and Dunshaughlin Link Road and comprise a total area of c. 14.8 Ha (which includes the lands zoned F1 – Open Space).

The proposed development is set out in three character areas. Character Area 6 (c. 3.75 Ha) comprises a greenfield site which lies north of Drumree Road and to the west of the Dunshaughlin Link Road. A single private dwelling adjoins the subject site along the south eastern boundary.

Character Areas 3 & 4 (c. 8.47 Ha) are generally bounded to the west by the existing Dunshaughlin Link Road, to the south and east by lands zoned for open space, to the north by Phase 1 lands (currently under construction by the Applicant) and lands identified for neighbourhood centre use.

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<sup>11</sup> Gilbert, G., Gibbons, D.W. & Evans, J. (1998) *Bird Monitoring Methods - A Manual of Techniques for Key UK Species*. RSPB: Sandy



In summary, the proposed Strategic Housing Development broadly comprises: -

- 415no. residential units (254no. houses, 55no. duplex and 106no. apartments) in buildings ranging in height from 2 to 5-storeys;
- 1no. childcare facilities (c. 413 sq. m gross floor area);
- Provision of access from Drumree Road (Character Area 6) and Dunshaughlin Link Road – R125 (Character Areas 3 & 4) and provision of internal road network including pedestrian and cycle links.
- Provision of public open space;
- Provision of SuDS infrastructure;
- Provision of wastewater infrastructure including connections to main sewers on Drumree Road and to foul networks in permitted Phase 1 development; and
- All associated and ancillary site development and infrastructural works, hard and soft landscaping and boundary treatment works.

Surface water sewers will be laid in accordance with 'Greater Dublin Regional Code of Practice for Drainage Works' and to Meath County Council's requirements for taking into charge. As required by Meath County Council policy, BDSDS and Dunshaughlin LAP 2009-2015, the subject site will be attenuated within its own boundaries and discharged to the existing surface water network, and ultimately to the River Skane. From there, surface waters will flow c. 17.9km downstream to the River Boyne which ultimately discharges to the Boyne Estuary Plume Zone coastal waterbody via the Boyne Estuary.

#### North site (Character Area 6)

For this section of the site, underground attenuation tanks within the site, designed to attenuate the 1 in 100 year critical storm event, store and attenuate surface water runoff before draining by gravity pipes into existing 450mm stormwater pipe located on Drumree Road (south eastern boundary of the site). This pipeline carries surface water along the R125 and discharges into the River Skane.

#### South Site (Character Areas 3 & 4)

The northern portion of this site will connect at various locations into the existing surface water network throughout the site. All surface water drainage will be drained by gravity pipes into the already constructed attenuation pond (constructed during Phase I). The southern portion of this site collects surface water runoff in two underground attenuation tanks, located adjacent to the River Skane, before attenuating and discharging runoff into the River Skane.

All attenuation tanks on site will have hydrobrake manholes installed downstream of each tank as part of the works to remove suspended solids and hydrocarbons. A downstream defender unit will be installed on any networks discharging into the River Skane, mainly from the attenuation pond and from direct discharge in the lower portion of the site. This will improve the quality of the water being discharged into the existing sewer network and watercourse, by removing sediment, floatables, hydrocarbons and associated pollutants from storm water. Permeable paving and swales will also be used to filter runoff from the site.

The proposed development will result in an overall increase of 630 P.E (population equivalent) foul effluent generated from the site. This will discharge to the existing wastewater network, dependent on an upgrade to the network which will include the construction of approximately 600m of 225mm foul sewer. Foul waters will then discharge to the Dunshaughlin WWTP at Castletown, Tara for treatment. Following treatment, the effluent from Dunshaughlin drains to the River Boyne and Blackwater SAC and SPA which ultimately discharges to the Boyne Estuary Plume Zone coastal waterbody via the Boyne Estuary SPA and the Boyne Coast and Estuary SAC.

The duration of the construction activities is expected to last 24 – 36 months. There will be no piling as no basement is proposed to be included in the design. The construction activities will include the removal of small portions of hedgerows and immature trees on the western side of the southern site, and removal of

trees to accommodate the proposed development, with a number of others being assessed at a later stage for their condition.

A alternative layout as provided by the applicant, which deviates from the proposed layout by addition of a road connection between Character Areas 3 & 4, has also been considered in this assessment .

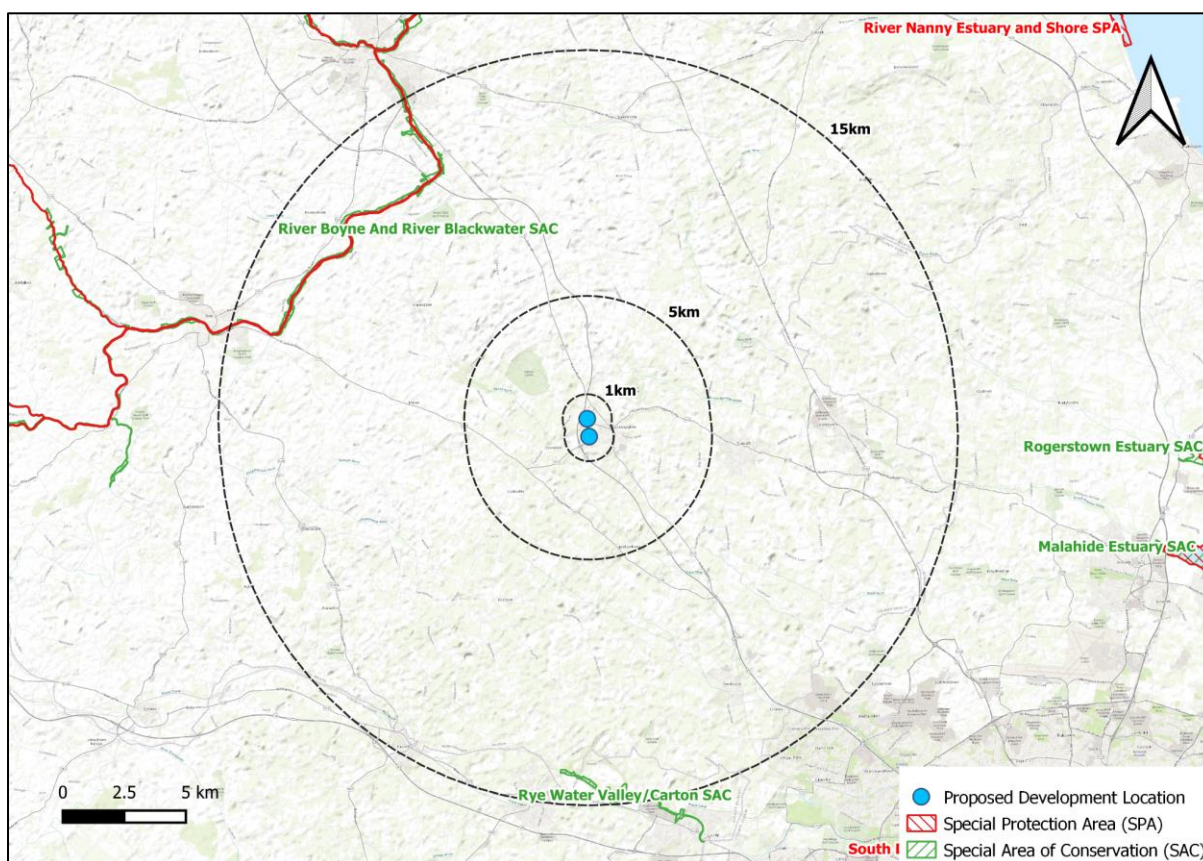
### 3.2 Overview of the Receiving Environment

#### 3.2.1 European sites

There are no European sites within or adjacent to the proposed development boundary. The nearest European site to the proposed development is The River Boyne and River Blackwater SPA [004232] and the River Boyne and Blackwater SAC [002299]; both located c.11.5km to the north-west of the proposed development site at the closest point. Surface waters within the proposed development site flow c. 17.9km downstream into the River Boyne and River Blackwater SPA and SAC. This European site flows downstream into the Boyne Coast Estuary SAC and the Boyne Estuary SPA in Drogheda, where waters ultimately discharge into the Irish Sea. The Rye Water Valley/Carlton SAC [001398] is c. 13.5km south of the proposed site, however is not hydrologically connected to the site.

- 18 All of the European sites present in the vicinity of the proposed development are shown on Figure 1 below. The QIs/SCIs of the European sites in the vicinity of the proposed development are provided in Appendix I.

**Figure 1** *European sites in the vicinity of the proposed development*



#### 3.2.2 Habitats

The proposed development site is located west of Dunshaughlin town and east of the M3 Motorway. The proposed site comprises of two sites, one to the north of Drumree road and a larger site to the south of

Drumree Road. The land within and surrounding the proposed development area is primarily used for agriculture, mainly of grazing by cattle and horses, as noted from site surveys. The following habitat types (and mosaics of these), assigned using the Heritage Council classification system<sup>12</sup>, were identified within the proposed development site:

- Buildings and artificial surfaces (BL3)
- Spoil and bare ground (ED2)
- Recolonising bare ground (ED3)
- Other artificial lakes and ponds (FL8)
- Refuse and other waste (ED5)
- Depositing/lowland rivers (FW2)
- Improved agricultural grassland (GA1)
- Dry calcareous and neutral grassland (GS1)
- Dry meadows and grassy verges (GS2)
- Immature woodland (WS2)
- Hedgerows (WL1)
- Treelines (WL2)

An attenuation pond in the southern section of the site was also identified. No Annex I habitats for which European sites listed in Appendix 1 have been designated were recorded within the proposed development site. The habitat types are described in greater detail in the Ecological Impact Assessment: Dunshaughlin SHD, Co. Meath (Scott Cawley Ltd., 2020)<sup>13</sup>.

The surrounding lands are comprised largely of similar agricultural grasslands and grassy verges habitat with roadways (R125), all located in the immediate surrounding environment. Newly built residential housing developments are present immediately to the north and east of the site, with Dunshaughlin town centre further east of the lands.

### 3.2.3 Flora and Fauna Species

The desktop study found no records of any species or habitats within the subject lands, their immediate environs, or 2km from the subject lands, for which European sites shown in Figure 1 are designated.

The desktop study returned records of two invasive mammal species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011; American Mink *Neovision vision*, and eastern grey squirrel *Sciurus carolinensis*.

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<sup>12</sup> Fossitt (2000). *A guide to habitats in Ireland*. Available from:

<https://www.npws.ie/sites/default/files/publications/pdf/A%20Guide%20to%20Habitats%20in%20Ireland%20-%20Fossitt.pdf>

<sup>13</sup> Scott Cawley Ltd. (2020). Environmental Impact Assessment – Information for Stage II. Strategic Housing Development Dunshaughlin, Co. Meath

A record of Japanese knotweed *Reynoutria japonica* also a non-native invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011, was also found in the desktop study.

No species or habitats for which European sites as shown on Figure 1 are designated for were recorded during the field surveys. No non-native invasive species, including those listed on The Third Schedule of the Birds and Habitats Regulations (2011) were noted within the subject lands during the site survey.

#### 3.2.4 Hydrology

The subject lands fall entirely within the Boyne River catchment. According to EPA Map Viewer<sup>14</sup>, the River Boyne has a WFD status of 'Good' and is 'not at risk'. The water quality of the Boyne River changes along its course, the water quality of the Boyne Estuary Plume Zone coastal waterbody is of 'Good' Status, or 'unpolluted', under the WFD classification (2010-2015). Under the Trophic Status Assessment Scheme classification of the EPA, 'Unpolluted' means there have been no breaches of the EPA's threshold values for nutrient enrichment, accelerated plant growth, or disturbance of the level of dissolved oxygen normally present (Environmental Protection Agency, 2015).

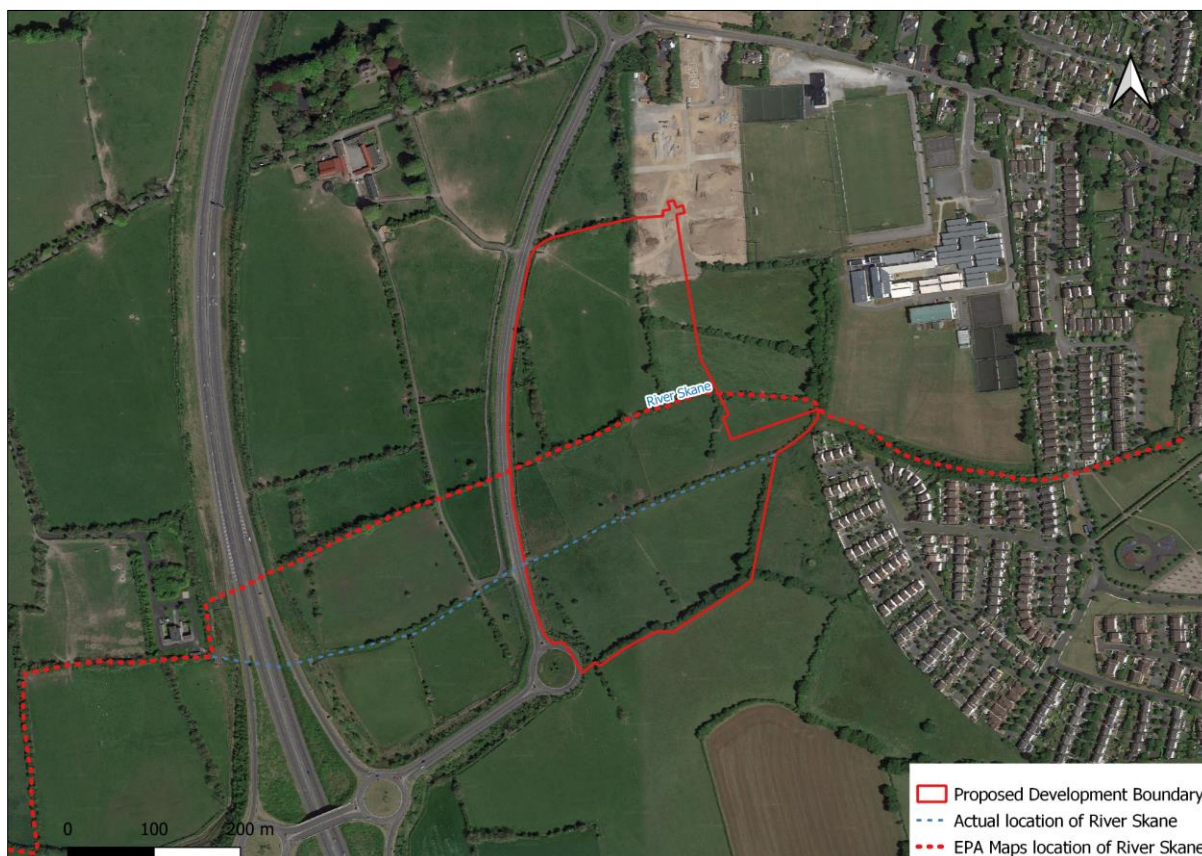
The Skane River runs through the southern portion of the lands (Figure 2), however based on field survey carried out to inform this assessment, the Skane River is located south of the EPA Maps location of the watercourse, along a field boundary bordered by hedgerows. The location of the River Skane on the EPA Website<sup>15</sup> in reality is a dry drainage ditch. The River Skane when surveyed during multidisciplinary surveys on the 22<sup>nd</sup> June 2020, had evidence of cattle poaching with little instream vegetation. Small fish fry were evident in the watercourse despite the frequent cattle usage of the watercourse. The River Skane has a 'Unassigned' WFD status and is listed as 'At risk' waterbody by the EPA. The watercourse flows downstream and channels off at various points, before joining the River Boyne and Blackwater SAC and SPA c.17.9km downstream of the proposed development site. The River Boyne and Blackwater SAC and SPA drains to the Boyne Estuary SPA and the Boyne Coast and Estuary SAC.

**Figure 2. Location of River Skane (blue dashed line), and EPA Maps location of River Skane (red dashed line).**

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<sup>14</sup> Available at <https://gis.epa.ie/EPAMaps/>. Accessed on 3 August 2020

<sup>15</sup> According to the EPA Map Viewer GSI Groundwater Data <https://gis.epa.ie/EPAMaps/> Accessed 28 July 2020



### 3.2.5 Hydrogeology

The proposed development is within the 'Trim' groundwater body (GWB) and is classified as 'Locally Important Aquifer-Bedrock which is Generally Moderately Productive'. This GWB is currently classified by the EPA as having 'Good' status and 'at risk'. The Trim GWB overlaps with the River Boyne and River Blackwater SAC, c.17.9km downstream, which is designated for its groundwater dependent habitats; Alkaline Fens and Alluvial Forests. The Rye Water Valley/Carton SAC located in proximity to the proposed development site lies within the 'Dublin' GWB and is not hydrogeologically connected to the site.

### 3.3 Assessment of Effects on European Sites

- 19 This section identifies all the potential impacts associated with the proposed development, examines whether there are any European sites within the ZoI of effects from the proposed development, and assesses whether there is any risk of the proposed development resulting in a significant effect on any European site, either alone or in combination with other plans or projects.
- 20 In assessing the potential for the proposed development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

#### 3.3.1 Habitat loss and fragmentation

The proposed development does not overlap with the boundary of any European site. Therefore, there are no European sites at risk of direct habitat loss impacts.

As the proposed development does not traverse any European sites there is no potential for habitat fragmentation to occur.

The proposed development site does not support populations of any fauna species linked with the QI/SCI populations of any European site(s).

As the proposed development will not result in habitat loss or habitat fragmentation within any European site, there is no potential for any in combination effects to occur in that regard.

### 3.3.2 *Habitat degradation as a result of hydrological impacts*

Surface water run-off and discharges from the proposed development will drain to the existing local surface water drainage network. Foul waters from the proposed development will be discharged to Dunshaughlin WWTP for treatment, via the existing public foul water drainage network, prior to discharge into the River Boyne. Therefore, the Zone of Influence (Zoi) of potential effects on water quality from the proposed development could extend to River Boyne which drains to the Boyne Estuary Plume Zone coastal waterbody and the Irish Sea.

#### *Surface Water*

Surface water run-off and discharges from the proposed development will enter the downstream receiving environment via the existing surface water drainage network.

Considering the following, the proposed development will not have any measurable effects on water quality in the River Boyne, Boyne Estuary Plume Zone, and Irish Sea:

- the scale and location of the proposed development relative to the receiving surface water network;
- the significant distance between the proposed development site and the River Boyne ( c. 17.9km);
- the relatively low volume of any surface water run-off or discharge events relative to the receiving surface water and marine environments; and
- the level of mixing, dilution and dispersion of any surface water run-off/discharges in the receiving watercourses, River Boyne and the Irish Sea.

Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, Irish Sea as a result of surface water run-off or discharges.

#### *Foul Water*

The foul waters from the proposed development will connect to the existing public foul water sewer network, located at the southern boundary of the site, which travels alongside the River Skane and discharges to the Dunshaughlin WWTP at Castletown, Tara for treatment. The treated effluent from Dunshaughlin WWTP drains to the River Boyne and Blackwater SAC and SPA which ultimately discharges to the Boyne Estuary Plume Zone coastal waterbody via the Boyne Estuary SPA and the Boyne Coast and Estuary SAC.

There are no significant effects from the foul water discharge arising from the proposed development for the following reasons:

- Dunshaughlin WWTP has a Population Equivalent (P.E) of 12,000 and is operating below capacity with a remaining P.E of 5,402 in 2017 (Irish Water, 2018). The proposed residential development has a P.E. of 630 and therefore the additional loading from the proposed development will not result in the WWTP operating above capacity; and,
- the ambient monitoring data for Dunshaughlin WWTP in 2016 has identified a slight deterioration in the water quality of the River Boyne at the WWTP upstream and downstream monitoring points, it is not known if it is or is not caused by the WWTP and, furthermore, the discharge from the WWTP does not have an observable negative impact on the water quality or the Water Framework Directive status of the River Boyne at these monitoring points (Irish Water, 2016).

Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, Irish Sea as a result of foul water discharges.

#### *In Combination*

There is potential for “*in-combination*” effects on water quality in Dublin Bay from any other projects carried out within the functional areas of the *Meath County Development Plan 2013–2019* (Meath County Council, 2013), or any other county level land use plans which can influence conditions in the River Boyne and Irish Sea, via rivers and other surface water features.

The Eastern & Midland Regional Assembly, *Regional Spatial & Economic Strategy 2019-2031*<sup>16</sup> (Eastern & Midland Regional Assembly, 2019) includes a range of policy objectives relevant to the protection of European sites and the protection of water quality in Dublin Bay, to which the relevant planning authorities must have regard to in the preparation and adoption of their development plans (included in Appendix II).

As noted under the surface water and foul water sections above, the water quality of the Boyne River changes along its course however the water quality of the Boyne Estuary Plume Zone coastal waterbody is currently unpolluted. The proposed development will not result in any measurable effect on water quality in the River Boyne, Boyne Estuary Plume Zone or in the Irish Sea.

Therefore, there is no possibility of any other plans or projects acting in combination with the proposed development to undermine the conservation objectives of any of the qualifying interests or special conservation interests of the European sites in, or associated with, the River Boyne as a result of water quality effects.

The Meath County Development Plan 2013-2019<sup>17</sup> includes the following objectives relevant to the protection of European sites in Meath, to which the relevant planning authorities must have regard to in the preparation and adoption of their development plans:

NH Policy 5: To permit development on or adjacent to designated Special Areas of Conservation, Special Protection Areas, National Heritage Area or those proposed to be designated over the period of the plan, only where an assessment carried out to the satisfaction of the Meath County Council, in consultation with National Parks and Wildlife Service, indicates that it will have no significant adverse effect on the integrity of the site.

NH Policy 6: To have regard to the views and guidance of the National Parks and Wildlife Service in respect of proposed development where there is a possibility that such development may have an impact on a designated European or National site or a site proposed for such designation.

NH Policy 7: To undertake appropriate surveys and collect data to provide an evidence-base to assist Meath County Council in meeting its obligations under Article 6 of the Habitats Directives, subject to available resources.

It is an objective of Meath County Council:

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<sup>16</sup> Eastern & Midland Regional Assembly (2019) *Regional Spatial & Economic Strategy 2019-2031*

<sup>17</sup> Meath County Development Plan 2013 – 2019 accessed here:

<https://meathcountydevelopmentplan.files.wordpress.com/2011/01/meath-county-development-plan-2013-2019-consolidated-version-written-statement-december-2016.pdf> on 10th August 2020

NH Objective 2: To ensure an Appropriate Assessment in accordance with Article 6(3) and Article 6(4) of the Habitats Directive, and in accordance with the Department of Environment, Heritage and Local Government Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009 and relevant EPA and European Commission guidance documents, is carried out in respect of any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect on a Natura 2000 site(s), either individually or in-combination with other plans or projects, in view of the site's conservation objectives.

NH Objective 3: To protect and conserve the conservation value of candidate Special Areas of Conservation, Special Protection Areas, National Heritage Areas and proposed Natural Heritage Areas as identified by the Minister for the Department of Arts, Heritage and the Gaeltacht and any other sites that may be proposed for designation during the lifetime of this Plan.

### 3.3.3 *Habitat degradation as a result of hydrogeological impacts*

An accidental pollution event during construction has the potential to affect groundwater quality locally. This would be very localised and is considered not likely to result in the degradation of existing groundwater conditions.

The nearest European site, which supports groundwater dependent terrestrial habitats and species is River Boyne and River Blackwater SAC, located c. 11.2km northwest of the proposed development. It is located in the same GWB as the proposed development site (Trim), but is considered to be too distant (c. 17.9km downstream) for its groundwater level or flow to be affected by proposed construction works. It is also buffered from the development by woodland, agricultural land and urban and residential development which separate the proposed development site and the European site

The Rye Water Valley/Carton SAC, located c. 13.5km south of the proposed development, is designated for groundwater dependent habitats and species. All of the qualifying interests of the Rye Water Valley/Carton SAC, including the priority Annex I habitat Petrifying springs and two species of whorl snail, are dependent upon the existing condition and functioning of the groundwater regime. Based on information published by Geological Survey Ireland (GSI) on the Dublin GWB<sup>18</sup>, 'The general groundwater flow direction in this aquifer is towards the coast and also towards the River Liffey and Dublin City'. As the European site is located in a different GWB than the proposed development site, there are no potential impacts due to a lack of impact pathway.

Therefore, there is no possibility of the proposed development undermining the conservation objectives of any of the qualifying interests or special conservation interests of any European sites, either alone or in combination with any other plans or projects, as a result of hydrogeological effects:

### 3.3.4 *Habitat degradation as a result of introducing/spreading non-native invasive species*

There are no species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 on the proposed development site.

The proposed development site is not in close proximity to any European site, therefore, there is no risk of non-native invasive species spreading from the proposed development site to any European site.

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<sup>18</sup> [https://secure.dccae.gov.ie/GSI\\_DOWNLOAD/Groundwater/Reports/GWB/DublinGWB.pdf](https://secure.dccae.gov.ie/GSI_DOWNLOAD/Groundwater/Reports/GWB/DublinGWB.pdf)



### 3.3.5 Disturbance and displacement impacts

Construction-related disturbance and displacement of fauna species could potentially occur within the vicinity of the proposed development. For mammal species such as otter, disturbance effects would not be expected to extend beyond 150m<sup>19</sup>. For birds, disturbance effects would not be expected to extend beyond a distance of c.300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance.<sup>20</sup> There are no European sites within the disturbance Zol; the next nearest European site to the proposed development is c.11.5km away. There are also no habitat areas within the disturbance Zol of the proposed development that support populations of qualifying/special conservation interest species of any European site.<sup>21</sup>

As the proposed development will not result in the disturbance/displacement of the qualifying/special conservation interest species of any European site, there is no potential for any in combination effects to occur in that regard.

### 3.3.6 Summary

- 21 The potential impacts associated with the proposed development do not have the potential to affect the receiving environment and, consequently, do not have the potential to affect the conservation objectives supporting the qualifying interest/special conservation interests of any European sites. Therefore, the proposed development is not likely to have significant effects on any European sites.
- 22 As the proposed development itself will not have any effects on the QIs/SCIs or conservation objectives of any European sites, and taking into account the policies and objectives of the statutory plans referred to above, it is concluded that there is no potential for any other plan or project to act in combination with it to result in significant effects on any European sites.
- 23 The potential impacts of the proposed development on the receiving environment, their Zol, and the European sites at risk of significant effects are summarised in
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- 25
- 26 Table 1 below. In assessing the potential for the proposed development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

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<sup>19</sup> This is consistent with Transport Infrastructure Ireland (TII) guidance (Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes and Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes) documents. This is a precautionary distance, and likely to be moderated by the screening effect provided by surrounding vegetation and buildings, with the actual Zol of construction related disturbance likely to be much less in reality.

<sup>20</sup> The disturbance zone of influence for waterbirds is based on the relationship between the noise levels generated by general construction traffic/works (BS 5228:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1 Noise) and the proximity of those noise levels to birds – as assessed in Cutts, N. Phelps, A. & Burdon, D. (2009) *Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance*, and Wright, M., Goodman, P & Cameron, T. (2010) Exploring Behavioural Responses of Shorebirds to Impulsive Noise. *Wildfowl* (2010) 60: 150–167. At 300m, noise levels are below 60dB or, in most cases, are approaching the 50dB threshold below which no disturbance or displacement effects would arise.

<sup>21</sup> There is a need to consider use of habitat areas outside of an SPA by SCI bird species where they support the SCI populations and the site's conservation objectives. These habitat areas can comprise alternative roosting sites, foraging areas, staging grounds or migration routes and can, but not necessarily exclusively, be situated within the immediate hinterland of the SPA, or in areas ecologically connected to it.

**Table 1** *Summary of Analysis of Likely Significant Effects on European sites*

<b>Potential Direct, Indirect In Combination Effects and the Zol of the Potential Effects</b>	<b>Are there any European sites within the Zol of the proposed development?</b>
<p><b>Habitat loss</b> Habitat loss will be confined to the lands within the proposed development boundary.</p>	<p>No There are no European sites within the proposed development boundary</p>
<p><b>Habitat degradation as a result of hydrological impacts</b> Habitats and species downstream of the proposed development site and the associated surface water drainage discharge points, and downstream of offsite wastewater treatment plants.</p>	<p>No There are no European sites at risk of hydrological effects associated with the proposed development</p>
<p><b>Habitat degradation as a result of hydrogeological impacts</b> Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the proposed development site.</p>	<p>No There are no European sites at risk of hydrogeological effects associated with the proposed development given the significant distance, presence of a significant urban and agricultural buffer as well as the fact that Ryewater lies in a separate GWB to the proposed development site</p>
<p><b>Habitat degradation as a result of introducing/spreading non-native invasive species</b> Habitat areas within, adjacent to, and potentially downstream of the proposed development site.</p>	<p>No There are no non-native invasive species present on the proposed development site and, therefore, no risk associated with the proposed development to any European sites from the spread/introduction of non-native invasive species</p>
<p><b>Disturbance and displacement impacts</b> Potentially up to several hundred metres from the proposed development boundary, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the proposed development, taking into account the sensitivity of the qualifying interest species to disturbance effects</p>	<p>No There are no European sites within the potential zone of influence of disturbance effects associated with the construction or operation of the proposed development</p>

#### **4 Conclusions of Screening Assessment Process**

- 27 Following an examination, analysis and evaluation of the best available information, and applying the precautionary principle, it can be concluded that the possibility of any significant effects on any European sites, whether arising from the project alone or in combination with other plans and projects, can be excluded, for the reasons set out in Section 3.3 above. In reaching this conclusion, the nature of the project and its potential relationship with all European sites within the zone of influence, and their conservation objectives, have been fully considered.
- 28 Therefore, it is the professional opinion of the authors of this report that the application for consent for the proposed development does not require an Appropriate Assessment or the preparation of a Natura Impact Statement (NIS).

## Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site (see Figure 1)

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<b>Special Area of Conservation (SAC)</b>	
<p><b>River Boyne and Blackwater SAC [002299]</b>            7230 Alkaline fens            91EO Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)            1099 River lamprey <i>Lampetra fluviatilis</i>            1106 Salmon <i>Salmo salar</i>            1355 Otter <i>Lutra lutra</i></p> <p>NPWS (2020) <i>Conservation objectives River Boyne and Blackwater SAC [002299]</i>. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.<sup>22</sup></p>	<p>c.11.5km northwest of the proposed development</p>
<p><b>Rye Water Valley/Carton SAC [001398]</b>            7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)*            1014 Narrow-mouthed Whorl Snail <i>Vertigo angustior</i>            1016 Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i></p> <p>NPWS (2020) <i>Conservation objectives for Rye Water Valley/Carton SAC [001398]</i>. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>c.13.5km south of the proposed development</p>
<b>Special Protection Area (SPA)</b>	
<p><b>River Boyne and Blackwater SPA [004232]</b>            A229 Kingfisher <i>Alcedo atthis</i></p> <p>NPWS (2020) <i>Conservation objectives for River Boyne and Blackwater SPA [004232]</i>. Generic Version 7.0. Department of Culture, Heritage and the Gaeltacht.</p>	<p>c.11.5km northwest of the proposed development</p>

<sup>22</sup> The versions of the conservation objectives documents referenced in this table are the most recent published versions at the time of writing

## Appendix II

### Planning polices/objectives relating to the protection of European sites and water quality

#### Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031

##### **Regional Policy Objective 3.4**

Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate. In addition the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest.

##### **Regional Policy Objective 7.2**

To achieve and maintain 'Good Environmental Status' for marine waters and to ensure the sustainable use of shared marine resources in the Region, and to promote the development of a cross-boundary and cross-border strategic management and stakeholder engagement framework to protect the marine environment.

##### **Regional Policy Objective 7.10**

Support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all water bodies in the Region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant Directives, River Basin Management plans and local authority land use plans.

##### **Regional Policy Objective 7.11**

For water bodies with 'high ecological status' objectives in the Region, local authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and areas 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to waterbodies identified as 'At Risk' as part of a catchment based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region.

##### **Regional Policy Objective 7.12**

Future statutory land use plans shall include Strategic Flood Risk Assessment (SFRA) and seek to avoid inappropriate land use zonings and development in areas at risk of flooding and to integrate sustainable water management solutions (such as SuDS, nonporous surfacing and green roofs) to create safe places in accordance with the Planning System and Flood Risk Assessment Guidelines for Local Authorities.

##### **Regional Policy Objective 7.15**

Local authorities shall take opportunities to enhance biodiversity and amenities and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned.

##### **Regional Policy Objective 7.16**

Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and local authority development plans.

##### **Regional Policy Objective 7.22**

Local authority development plan and local area plans, shall identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner and should also have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks and protected species.

##### **Regional Policy Objective 10.6**

Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network.

##### **Regional Policy Objective 10.7**

Local authority core strategies shall demonstrate compliance with DHPLG Water Services Guidelines for local authorities and demonstrate phased infrastructure – led growth that is commensurate with the carrying capacity of water services and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

**Regional Policy Objective 10.10**

Support Irish Water and the relevant local authorities in the Region to eliminate untreated discharges from settlements in the short term, while planning strategically for long term growth in tandem with Project Ireland 2040 and in increasing compliance with the requirements of the Urban Waste Water Treatment Directive from 39% today to 90% by the end of 2021, to 99% by 2027 and to 100% by 2040.

**Regional Policy Objective 10.11**

EMRA supports the delivery of the waste water infrastructure set out in Table 10.2, subject to appropriate environmental assessment and the planning process.<sup>23</sup>

**Regional Policy Objective 10.12**

Development plans shall support strategic wastewater treatment infrastructure investment and provide for the separation of foul and surface water networks to accommodate the future growth of the Region.

**Regional Policy Objective 10.15**

Support the relevant local authorities (and Irish Water where relevant) in the Region to improve storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban environment and in the development and provision at a local level of Sustainable Urban Drainage solutions.

**Regional Policy Objective 10.16**

Implement policies contained in the Greater Dublin Strategic Drainage Study (GDSDS), including SuDS.

**Regional Policy Objective 10.18**

Local authorities shall ensure adequate surface water drainage systems are in place which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans.

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<sup>23</sup> The Greater Dublin Drainage Project, the Ringsend Wastewater Treatment Plant Project, the Athlone Main Drainage Project and the Upper Liffey Valley Sewerage Scheme