Irish Water

PROJECT:

Regional Biosolids Storage Facility

DOCUMENT:

Scoping Report for Environmental Impact Assessment Report and Natura Impact Statement

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Glossary & Defined Terms

Acronym	Description
AA	Appropriate Assessment
ABP	An Bord Pleanála
BOD	Biochemical Oxygen Demand
Biosolids	Treated wastewater sludge
CAFÉ	Clean Air for Europe Directive
DCC	Dublin City Council
ECJ	European Court of Justice
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMWMP	Eastern Midlands Waste Management Plan
EPA	Environmental Protection Agency
ESB	Electricity Supply Board
EU	European Union
GDD	Greater Dublin Drainage – the proposed new wastewater network and treatment plant for north Dublin
GDSDS	Greater Dublin Strategic Drainage Study
HGV	Heavy Goods Vehicle
IPPC	Integrated pollution prevention and control
NDP	National Development Plan
NHA	Natural Heritage Area
NIS	Natura Impact Statement
NSS	National Spatial Strategy
NWSMP	National Wastewater Sludge Management Plan
OPW	Office of Public Works
PE	Population Equivalent
pNHA	Proposed Natural Heritage Area
Population Equivalent	The amount of wastewater received at a treatment plant (and its design capacity) is measured in units known as population equivalent (or PE). The wastewater received from all sources, e.g. industrial, tourism, commercial, residential, etc., is converted into these units, with one unit of PE representing the wastewater treatment load typically generated by a single person.
RBSF	Regional Biosolids Storage Facility
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SID	Strategic Infrastructure Development
Sludge	Solid by-products of wastewater treatment.
SPA	Special Protection Area
WFD	Water Framework Directive
WSSP	Water Services Strategic Plan (Irish Water)
WwTP	Wastewater Treatment Plant

Executive Summary

Irish Water are currently preparing planning applications for two significant wastewater treatment projects in Dublin, the proposed upgrade of Ringsend Wastewater Treatment Plant (WwTP) and the proposed new Greater Dublin Drainage (GDD) project. These projects are essential to support the continued social and economic growth of greater Dublin and will result in a significant increase from current biosolids volumes with a consequent increase in storage requirements.

The National Wastewater Sludge Management Plan (NWSMP), published in 2016, sets out Irish Water's strategy for managing wastewater sludge and biosolids over the next 25 years. It recommends the development of regional facilities for the storage of treated wastewater sludge (biosolids) from wastewater treatment plants. It also noted that with the establishment of Irish Water, the development of storage facilities will no longer be considered solely on a per-plant or per-county basis.

Irish Water undertook a site selection process to identify a suitable location for a new Regional Biosolids Storage Facility (RBSF) to serve the greater Dublin area. Figure 1 outlines the project roadmap of the planning application relating to the RBSF. As shown in the figure Irish Water is currently undertaking the scoping of the Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) elements.

A site located at Newtown/Kilshane, Dublin 11 has been identified as the preferred site following a three-stage site selection process. The RBSF is an element within the Ringsend WwTP Upgrade project. The planning application for the RBSF will be submitted as part of the planning application for the Ringsend WwTP Upgrade project. The impacts of the RBSF on the receiving environment will be included in the EIAR for the overall project. The proposed RBSF planning application will also be included as part of the planning application for the proposed new GDD project. The GDD project includes the development of a regional WwTP in Clonshaugh in north Dublin. Both planning applications will be submitted to An Bord Pleanála.

Biosolids is the treated sludge product arising from wastewater treatment processes. The sludge is fully treated so that it is both biologically stable and free of harmful pathogens (bacteria and viruses etc.). This treatment of wastewater sludge to produce biosolids happens before the biosolids is transported to a storage facility. Most of the biosolids produced in Ireland (about 98%) is currently reused on agricultural lands as a soil conditioner and as a fertiliser. The current spread lands for biosolids arising in the Dublin region are in south Leinster and parts of Munster. It is proposed that these spread lands will continue to be used. The use of biosolids on agriculture lands is strictly regulated by European and national law. One of the conditions of use is a strict prohibition on spreading biosolids on lands in south eastern and eastern regions over the winter period (October to January each year). This restriction means that biosolids reused in agriculture needs to be stored for certain periods over each calendar year. The preferred Newtown/Kilshane site comprises an area of 11.4 hectares and it is proposed that the principal development on the site will comprise industrial storage buildings for the purposes of storing approximately 48,000m^3 of biosolids.

For large scale infrastructure projects, a comprehensive EIAR and a NIS are required to be submitted to An Bord Pleanála as part of the planning process. The factors to be included in an EIAR are set out in national and European legislation.

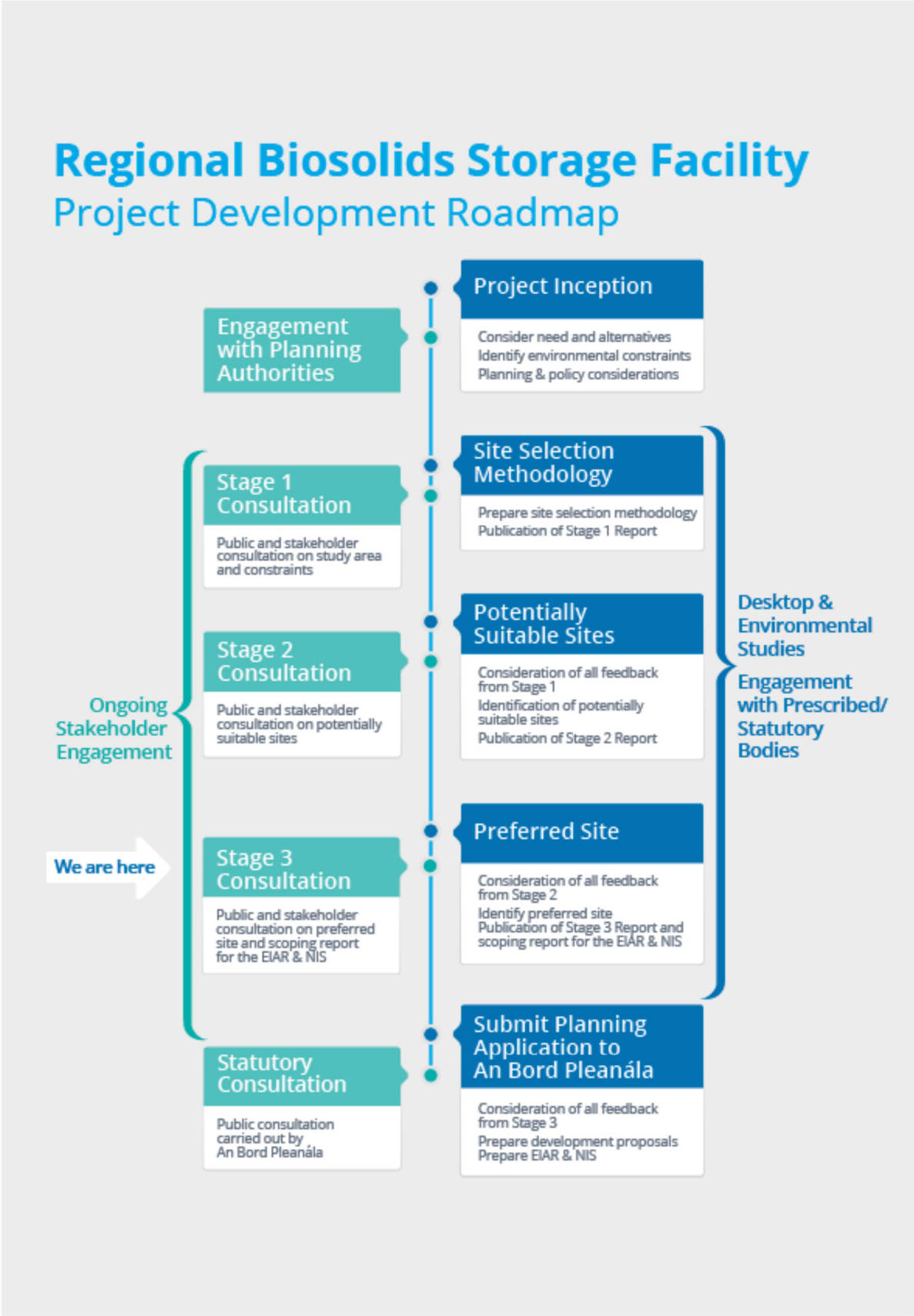


Figure 1 – RBSF Project Road Map

The scoping report is a key element of the EIA process and signifies commencement of the development of an Environmental Impact Assessment Report (EIAR). 'Scoping' is the process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. Following the publication of the scoping report, consultation with the public and key stakeholders will continue. Consultation will allow for input from the interested parties and aid in identifying areas which may require further scrutiny during the preparation of the EIAR. During the consultation process a public open day will be held, which will allow the public to inform themselves about the project and to raise any concerns or queries about it with the Irish Water Project team.

This document addresses the EIAR scoping for the RBSF element of the Ringsend WwTP Upgrade Project. The objectives of the scoping process being undertaken for the project are to:

- Provide a description of the proposed scheme and to inform the public and key stakeholders;
- Identify the potential impacts and issues that are proposed to be the focus of the EIAR;
- Define the scope of the study for each of the EIAR topics and issues to be considered;
- Identify data and information available and additional surveys and investigations required;
- Define the methods and criteria to be used in predicting and evaluating impacts;
- Identify alternatives and mitigation measures to be considered as part of the project, and to
- Determine the proposed content, structure, and format of the EIAR.

Irish Water is now inviting comment and submissions from the public and interested parties on the issues to be considered in this element of the EIAR and the NIS, as part of a six-week consultation process. The aim of the public consultation is to ensure that the EIAR and the NIS address all issues of potential impact or concern, and that the assessments of the project are as comprehensive as possible.

Section 1: Introduction

1.1 Project Background

The construction of a Regional Biosolid Storage Facility (RBSF) is an element of the Ringsend WwTP Upgrade Project and the RBSF will be submitted as part of the overall planning application for the Ringsend WwTP Upgrade project. The proposed RBSF will also be included as part of the planning application for the proposed new GDD project, which provides for the development of a regional WwTP in Clonshaugh in north Dublin. The planning applications for both wastewater treatment projects will be submitted to An Bord Pleanála. The new biosolids storage facility will form a key part of the upgraded wastewater treatment network for Greater Dublin and will facilitate its continued economic and social growth while protecting the environment.

This scoping report addresses the RBSF element of the Ringsend WwTP Upgrade project and any interactions between these.

At present, the Ringsend WwTP produces up to c. 18,000 tonnes of biosolids each year. Currently this material is spread on agricultural land as a fertiliser and soil conditioner in accordance with national regulations and EU Directives, including the European Union (Good Agricultural Practice for Protection of Waters) Regulations and the Waste Management (Use of Sewage Sludge in Agriculture) Regulations. The capacity upgrade to the Ringsend WwTP and construction of the proposed new Greater Dublin Drainage WwTP will result in an increased production of biosolids. Irish Water has identified the requirement for a new RBSF to store the biosolids arising from both projects.

The National Wastewater Sludge Management Plan (NWSMP), published in 2016, set out Irish Water's strategy for managing wastewater sludge over the next 25 years. The plan identifies the preferred disposal route for treated wastewater sludge is its beneficial use as a fertiliser and soil conditioner that can be used in agriculture. Most of the biosolids produced in Ireland (about 98%) is currently reused on agricultural lands as a soil conditioner and as a fertiliser. The current spread lands for biosolids arising in the Dublin region are in the south-east of Ireland and it is proposed that these spread lands will continue to be used. The use of biosolids on agriculture lands is strictly regulated by European and National law. There are regulatory requirements regarding metal and bacteriological content which must be achieved before land spreading can be permitted. The sludge is fully treated so that it is both biologically stable and free of harmful pathogens (bacteria and viruses etc.). In addition, the sludge is treated to reduce the moisture content to facilitate handling, transport and application. Treated sludge which meets these standards is referred to as biosolids.

One of the conditions of use is a strict prohibition on spreading biosolids on lands over the winter period (October to January each year). This restriction means that biosolids reused in agriculture needs to be stored for certain periods over each calendar year. The NWSMP recommends the development of regional facilities for biosolids storage. It also noted that with the establishment of Irish Water, the development of storage facilities will no longer be considered solely on a per-plant or per-county basis.

Irish Water has undertaken a three-stage site selection process to identify a suitable location for a new RBSF. Newtown/Kilshane is the preferred site for the proposed RBSF to serve the Greater Dublin Area. The site comprises an area of 11.4 hectares and it is proposed that the principal development on the site will comprise of buildings capable of storing approximately 48,000m^3 of biosolids.

The biosolids to be stored in the proposed facility will be biologically stable and free from harmful pathogens. No treatment will take place at the facility. Biosolids will be in the two forms. One is a treated sludge that has passed through a drying process. This dried material has a dry solids content of 92% and is referred to as Biofert. The other is a treated sludge that has not passed through a drying process. It has a dry solids content of approximately 26% and is referred to Biocake.

1.2 Regional Biosolids Storage Facility

Following a detailed site selection process, Irish Water has identified a site at Newtown/Kilshane, Dublin 11 as the preferred site for the proposed RBSF to serve the Greater Dublin area. The Irish Water Ringsend WwTP Uprade planning application to An Bord Pleanála will include the development of a biosolids storage facility based on a 20-year design horizon (up to 2040) in order to meet the anticipated 3 million PE demand in the GDSDS region. The site is sufficiently large to facilitate future expansion beyond 2040. However, further development would require separate planning consent before it could proceed.

The purpose of the proposed RBSF is for storage of biosolids during the non-spread season. Treatment of the material will continue to be at its source, the wastewater treatment plants. No treatment will take place at the proposed RBSF. Once treated at Ringsend and GDD WwTPs, the biosolid product will be transported to the RBSF in covered articulated haulage trucks. The haulage route from Rinsgend WwTP to the RBSF will be through the Port Tunnel, via the M50 motorway and N2 national road. The haulage route from GDD, at Clonshaugh, will be along the M50 motorway and N2 national road. The routes are shown in Figure 2 and the site boundaries are shown in Figure 3.

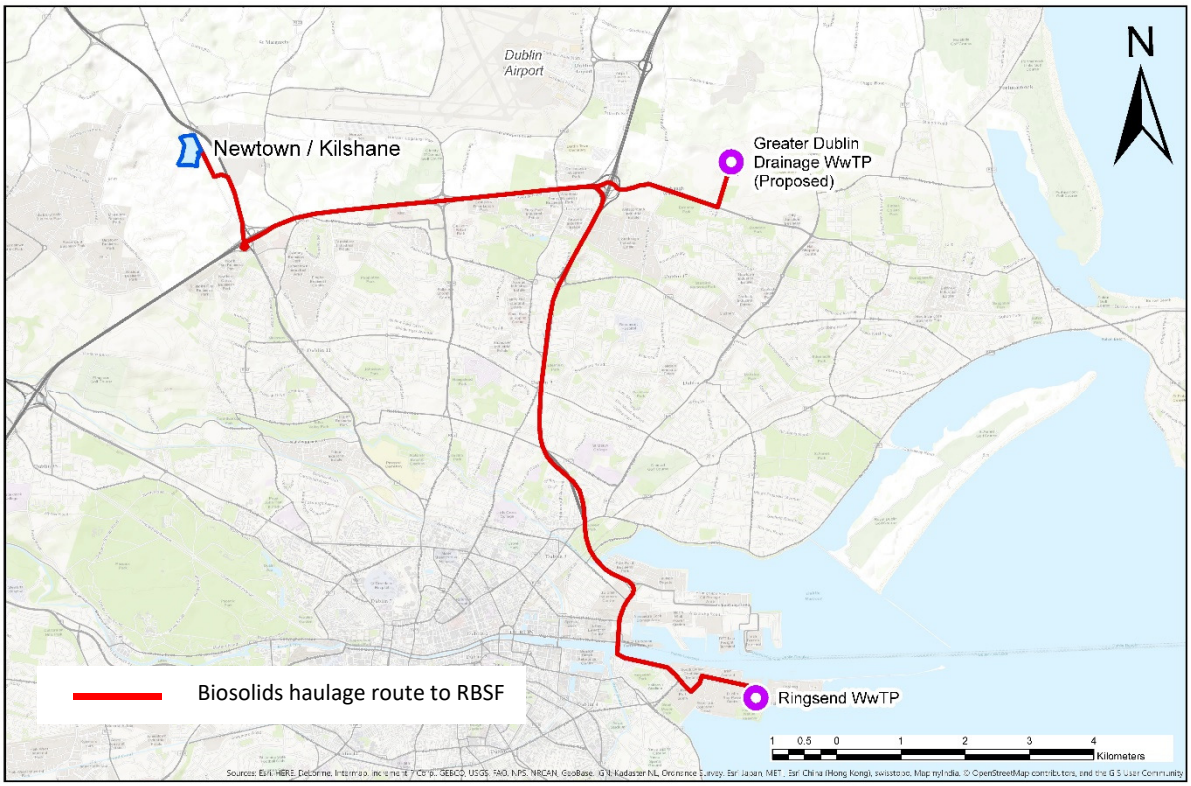


Figure 2 – Site location and haulage route

Figure 3 – Boundary of proposed site (Map Source: Google Earth)

Figure 4 – Preliminary site layout (perspective) (Map Source: Bing Maps)

As shown in the drawings contained in the Appendix and in Figure 4, the RBSF will include two biosolid storage units, each approximately 105m long and 50m wide. The height will be up to 15m. There will also be an administration building and welfare facilities. The storage buildings will be constructed

primarily of steel elements on a concrete base and will be finished with a coloured cladding, sympathetic to the local landscape. The buildings will incorporate concrete retaining structures to store the biosolids.

There is an existing internal road network on the site, which will be incorporated into the proposed development, with modifications to facilitate the specific requirements of the RBSF development. These modifications will include minor layout alterations, road resurfacing, road markings, completion of footpaths and grass verges. Other works will include the installation of a weighbridge, a marshalling area for trucks and car parking for staff. Drainage and services have been installed as part of the previous development at the site. These will be retained within the proposed design as far as reasonably possible. The installation of additional onsite drainage, which will include attenuation tanks, and service connections to the storage buildings will be required. Security measures will include palisade fencing and visual screening will be provided in the form of landscaped berms.

During the operations phase, biosolids will arrive in covered trucks and stored in the odour controlled buildings. Each building will be designed to provide separate access and egress points for HGVs. Biosolids will be loaded and unloaded within the buildings. The material will be moved to and from storage bays by a mechanical shovel. All transport trucks will be covered before leaving the building.

After leaving the RBSF, haulage trucks will transport biosolids to agricultural lands (spread lands) for use as a soil conditioner and fertilizer, in accordance with the relevant legislation.

Section 2: Regulatory Context and Planning History

The Planning Application and accompanying documentation will be prepared in line with relevant policy and legislation. The remainder of this section outlines the key legislation and policy documents to be considered.

2.1 Planning and Development Legislation

The planning system in Ireland (and the control of development) is governed by one primary piece of legislation, the Planning and Development Act 2000, and regulations made under this Act. This Act (hereafter the 'Planning Act') has been amended several times since its introduction.

The Planning and Development (Strategic Infrastructure) Act 2006 made significant amendments to the Planning Act by changing the way applications for Strategic Infrastructure Developments (SID) are managed and determined within the planning system.

SID can generally be described as development which is of strategic economic or social importance to the State or a region. It also includes development which will contribute significantly to the fulfilment of any of the objectives of the National Spatial Strategy or any regional spatial and economic strategy for an area, or which would have a significant effect on the area of more than one planning authority. The developments are listed in the 7th Schedule of the Planning Act. They are developments of a scale and type which require environmental impact assessment (EIA). Both public and private developments may be classified as SID, e.g. development by local authorities in their own functional area which requires EIA. Private development must first be confirmed by An Bord Pleanála (ABP) (under Section 37B of the Act) as meeting the above criteria before being treated as SID.

The Planning Act provides for applications for SID being made directly to ABP. Before the introduction of the SID provisions such applications were made to the local planning authority for a decision with a subsequent right of appeal to the Board.

When lodged, an SID application and its EIAR (and NIS if applicable) is made available for inspection and for purchase for a period of at least six weeks. Any person or body may make submissions to ABP within this period in relation to the implications of the proposed development for proper planning and sustainable development and for the likely effects on the environment of the proposed development. ABP may hold an oral hearing in relation to the development at its discretion. Before making its decision on the SID application ABP must consider all the submissions and observations made to it. It must also carry out an environmental impact assessment (and if applicable an appropriate assessment – see Section 2.2) before making its decision.

The requirements in respect of Environmental Impact Assessment are contained within the Planning Act and these are described in more detail in Section 4. Similar legal requirements in respect of Appropriate Assessment are also set out in the Planning Act and these are summarised in Section 2.2 below.

Irish Water proposes to submit a planning application to An Bord Pleanála which will be accompanied by an Environmental Impact Assessment Report (EIAR). The planning application submissions for both the Ringsend WwTP Upgrade and GDD projects, will include the RBSF as an element of each project.

2.2 Appropriate Assessment and Natura Impact Statement

The Birds and Habitats Directives of the European Union (EU) set out various procedures and obligations including the establishment of Special Protection Areas (SPA) and Special Area of Conservation (SAC) for the protection of specific habitats and species. Collectively, the SPAs and SACs established throughout the EU comprise a network known as Natura 2000. The Habitats Directive imposes a duty on Member States to consider the possible nature conservation implications of any project on the Natura 2000 site network before any decision is made to allow that project to proceed. These requirements have been included in the Planning and Development Act, 2000 as amended.

This assessment procedure is known as Appropriate Assessment (AA) and is similar to the EIA procedure. It is normally undertaken at planning consent stage by An Bord Pleanála. Like the EIA procedure, a document is prepared by the project proposer and submitted with its application for project consent. This document is known as a Natura Impact Statement (NIS). While there is significant overlap between the EIA and AA processes, it should be noted that the NIS and AA only consider and assess impacts on the Natura 2000 network.

Given the significant overlap in content, for the purposes of this scoping exercise only, issues affecting the Natura 2000 network will be considered in parallel with the EIAR issues in section 5 and section 6.

2.3 Planning Policy Context

2.3.1 National Wastewater Sludge Management Plan

Biosolids, and activities associated with their treatment, storage or disposal, generally fall under the provisions of Waste Management legislation, most of which stems from EU Directives, the primary one being the Waste Framework Directive (Directive 2008/98/EC) (WFD).

Under Article 28 of the WFD, EU Member States are required to draw up waste management plans for their entire geographical area. Waste management planning is the cornerstone of national, regional and local policy on waste management. For the purposes of waste management planning, Ireland is divided into three regions: Southern, Eastern-Midlands and Connacht-Ulster. The Eastern-Midlands Waste Management Plan (EMWMP) was published in May 2015 and is the relevant plan for the purposes of this Report.

The Waste Management Plan (WMP) is a statutory planning document setting out the policies for the development of waste treatment infrastructure and sits on the same planning tier as the city and county development plans. The EMWMP interacts with other statutory and non-statutory waste planning documents including the National Wastewater Sludge Management Plan (NWSMP) adopted in October 2016 by Irish Water.

The quantity of wastewater sludge generated nationally is expected to increase significantly by 2040 as new and upgraded plants are completed to treat our wastewater. The management of this wastewater sludge poses economic, planning and environmental challenges. To address these challenges and in line with the strategic objectives of the Water Services Strategic Plan (WSSP), Irish Water developed the first National Wastewater Sludge Management Plan (NWSMP). This plan was formally adopted by Irish Water in October 2016. The NWSMP is recognised as a key component of the EMWMP.

The NWSMP outlines Irish Water's strategy to ensure a nationwide standardised approach for managing wastewater sludge over the next 25 years. This national and sustainable approach to wastewater sludge management will ensure efficiency and ongoing improvements to the benefit of the public and the environment we all live in.

The NWSMP explains that sludge storage facilities will no longer be considered solely on a per-plant or per-county basis. Where appropriate, sludge storage facilities will be developed to serve a number of local plants and/or a wider regional need. It is stated in the NWSMP that the upgrade to the Ringsend WwTP and the proposed GDD WwTP will result in a significant increase from current sludge volumes with a consequent increase in storage requirements. Therefore, a dedicated biosolids storage facility should be developed in conjunction with the expansion of Ringsend WWTP to meet its requirements and take account of other future needs in the region.

2.3.2 Fingal County Development Plan 2017-2023

The Newtown/Kilshane site, which is the proposed site for the RBSF, is considered in the context of the Fingal County Development Plan 2017 – 2023, which is the statutory land-use plan governing the site. The Newtown/Kilshane site does not form part of a Local Area Plan of the Fingal County Development Plan 2017 – 2023. The site is zoned 'HI' the objective of which is: - *"Provide for heavy industry."* A Waste Disposal and Recovery Facility (High Impact) is a use 'permitted in principle' under 'HI' zoning. The Fingal County Development Plan 2017 – 2023 states the following in relation to lands zoned 'HI': -

"Facilitate opportunities for industrial uses, activities and processes which may give rise to land use conflict if located within other zonings. Such uses, activities and processes would be likely to produce adverse impacts, for example by way of noise, dust or visual impacts. HI areas provide suitable and accessible locations specifically for heavy industry and shall be reserved solely for such uses."

The development of a biosolids storage facility would be compatible with the land-use designation for the site. Relevant planning policy considerations contained within the Fingal County Development Plan 2017 – 2023 include: -

Planning Objectives

Objective WT03 – *Facilitate the provision of appropriately sized and located waste water treatment plants and networks including a new Regional Wastewater Treatment Plant and the implementation of other recommendations of the Greater Dublin Strategic Drainage Study, in conjunction with relevant stakeholders and services providers, to facilitate development in the County and Region and to protect the water quality of Fingal's coastal and inland waters through the provision of adequate treatment of wastewater.*

The above objective as set out in the Fingal County Development Plan 2017 – 2023 supports the development of appropriate infrastructure including waste water infrastructure and associated storage of biosolids that can support the proper and sustainable growth of the County.

Local Objective 78 – *Facilitate the development of infrastructure for waste management, including construction and demolition waste processing, biological treatment of organic waste, a sludge treatment facility and a waste transfer station.*

Airport Safety Objectives

Objective DA10 – *Restrict development which would give rise to conflicts with aircraft movements on environmental or safety grounds on lands in the vicinity of the Airport and on the main flight paths serving the Airport, and in particular restrict residential development in areas likely to be affected by levels of noise inappropriate to residential use.*

Objective DA16 – *Continue to take account of the advice of the Irish Aviation Authority with regard to the effects of any development proposals on the safety of aircraft or the safe and efficient navigation thereof.*

Development at the Newtown/Kilshane site will need to take into consideration airport safety through engagement with the Irish Aviation Authority and implement any mitigation measures as appropriate.

Seveso Site

The Huntstown Power Station is the only Seveso site in the vicinity of the proposed RBSF site.

Objective DSM 180 – *Have regard to the provision of the 'Major Accident Directive' (Seveso II) (European Council Directive 96/82/EC (as amended by Directive 105/2003/EC or any updated relevant documents) and impose restrictions in consultation with the HSA, on developments abutting or within proximity of a Seveso site. The extent of restrictions on development will be dependent on the type of risk present and the quantity and form of the dangerous substance present or likely to be present.*

Objective DMS 185 – *Have regard to the advice of the Health and Safety Authority when proposals for new Seveso sites are considered and for all planning applications within the consultation distances stated in Table 12.13 (300m in relation to Huntstown Power Station).*

Development at the Newtown / Kilshane site will take into consideration compatibility and safety with regard to development in proximity to a SEVESO site through engagement with the Health and Safety Authority and implement any mitigation measures as appropriate.

2.4 EIA Amending Directive (2014/52/EU)

On 14th April 2014, the EIA Directive was adopted which amends Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. Article 2 of this directive requires Member States to bring it into force by 16th May 2017. This Directive generally clarifies aspects of the EIA Directive to bring it in line with ECJ Judgements and introduces some additional provisions and procedural options. Accordingly, compliance with the amending directive will automatically ensure compliance with Directive 2011/92/EU. On that basis, it is proposed to prepare the EIAR for the development in accordance with Directive 2011/92/EU as amended by Directive 2014/52/EU.

2.5 Planning History & Current Usage of Site

Planning permission (PLO6F.EL.2045) was granted by An Bord Pleanála to Fingal County Council in 2006 for a recycling park on this site comprising a wastewater sludge hub, a construction and demolition waste facility, waste transfer facility and a composting facility. These facilities were not subsequently developed on the site, although Fingal County Council as owner of the site, carried out the initial site preparation including constructing internal roads and services on the site.

In relation to Planning Permission PLO6F.EL.2045. An Bord Pleanála stated that once compliance with the conditions of the permission were met and the proposed Recycling Park being constructed and operated in accordance with a Waste Licence from EPA, then the proposed development *"would not have an unacceptable impact on the amenities of residential properties in the vicinity, would not seriously injure the visual amenities of the area, would not interfere to any significant extent with exiting land uses in the vicinity, would not be likely to result in significant adverse effects on the environment, would not have a significant effect on the archaeological heritage of the area, would be acceptable in terms of traffic safety and convenience, would not be contrary to the proper planning and sustainable development of the area."*

Section 3: Study Area

3.1 Site Location

The Newtown/Kilshane site is located adjacent to the N2 national road and within the townland of the Newtown. It is 11.4 hectares in area is situated to the east of Roadstone property and to the northeast of Huntstown power station as shown in Figure 5. Dublin Airport is 1.2km to the east of the site. The site is accessible via the R135 regional road from the Coldwinters exit on the N2, which is 700m to the south. Vehicles returning towards the M50 motorway, access the N2 from junction 2 St. Margaret's, some 700m from the site. A residential property is located at the eastern boundary of the proposed site.

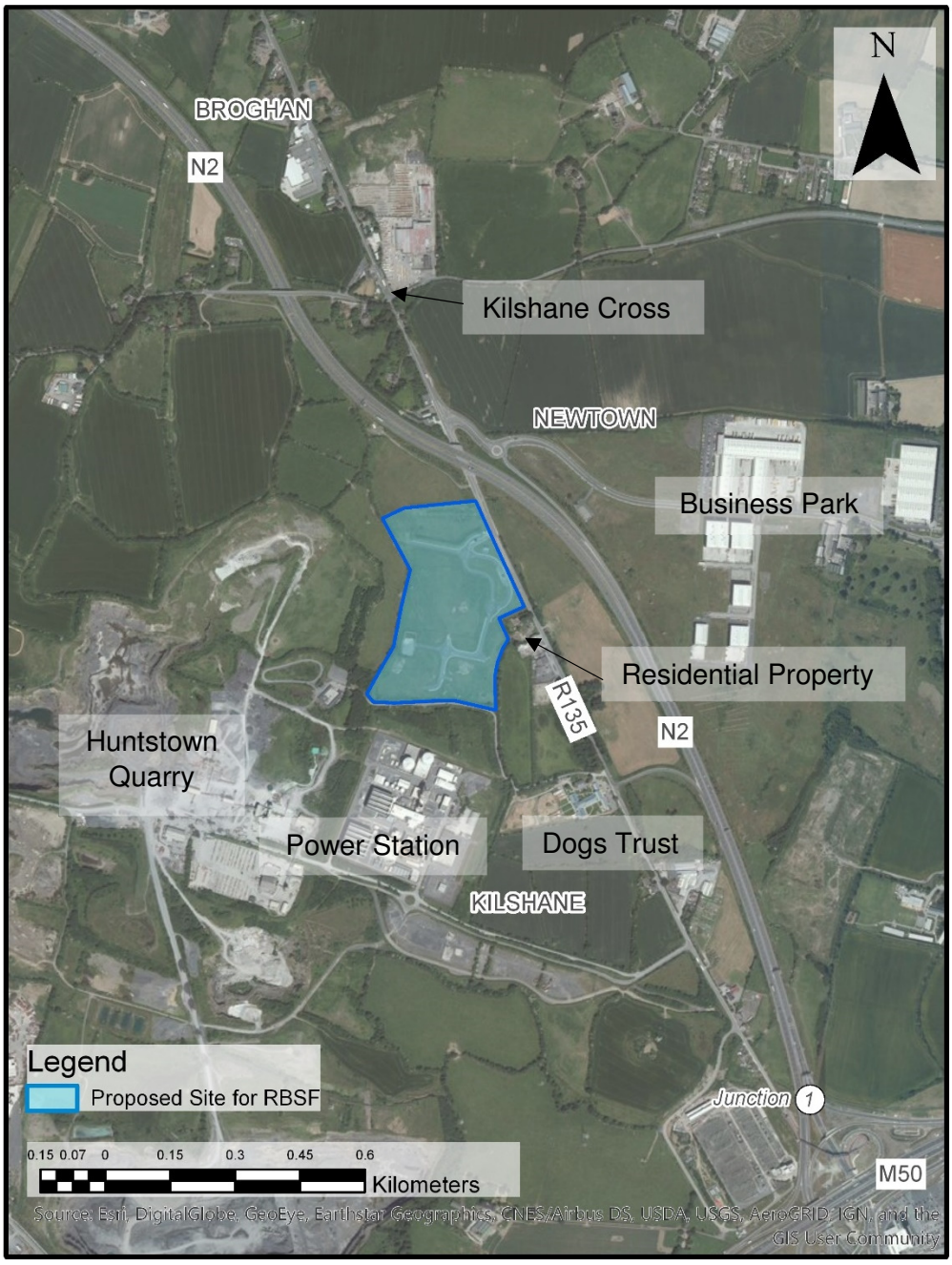


Figure 5 – Location of proposed site

3.2 General Description

The proposed site was granted planning permission in 2006 for a waste recycling facility, which included construction and demolition waste, wastewater sludge treatment, biological waste treatment and waste transfer for municipal waste. The development stopped after completion of the basic infrastructure. It is located within an existing/ emerging industrial area with a wide mix of uses (i.e. agricultural, industrial and commercial) that is interspersed with one-off residential properties. The existing development works at the site include the drainage, roads, boundary fencing, administrative buildings, power and telecommunications infrastructure.

The site comprises sections of grassland separated by the abovementioned infrastructure works. To the north of the site, beyond a grassy berm, there is an area of semi-natural, dry meadow grassland with some areas of damp ground being actively grazed by horses. The site contains a mature tree line comprising Elder and Hawthorn and hedgerows of mainly Hawthorn and Elder.

The site is located within the River Ward catchment. The Huntstown Stream flows along the western boundary of the site. This tributary flows to the River Ward approximately 4.5km northeast of the site at Owens Bridge.

A Locally Important aquifer underlies the subject site with bedrock which is moderately productive only in local zones. Vulnerability is classified as low as site-specific borehole information obtained from past site investigations indicates a depth to rock of 13m to 22m and an overburden, which consists of a sandy gravelly Clay. The proposed site has had no previous use that suggests the presence of contaminated ground.

3.2.1 Surrounding Environment

While the area retains some of its rural characteristics, its proximity to large scale power generation, extractive industries and the recent N2 upgrade, is such that the industrial and employment character of the locality predominates.

The more densely populated areas nearest the site are located to the south of the M50 motorway. The nearest residential properties comprise one-off housing and isolated ribbon developments. It is estimated that there are 10 residential properties within 500m of the site boundary, illustrating the low population density of the area. A residential home is located at the eastern boundary of the proposed site.

The Huntstown Quarry is adjacent to the site. The quarry is designated a County Geological Site (CGS) and demonstrates the base of the Tober Colleen Formation where it directly overlies Waulsortian.

A review of the Record of Monuments and Places (RMP) established that there are no recorded monuments entered in the database in the site, however there is a levelled recorded monument, Castle - motte and bailey (DU014-013), situated to the north of the subject site.

3.3 Conservation Designations

3.3.1 Introduction

Figure 6 shows designated conservation areas within the Greater Dublin Area. There are no European Designated Areas (Natura Sites) or National Heritage Areas within 10 km of the site.

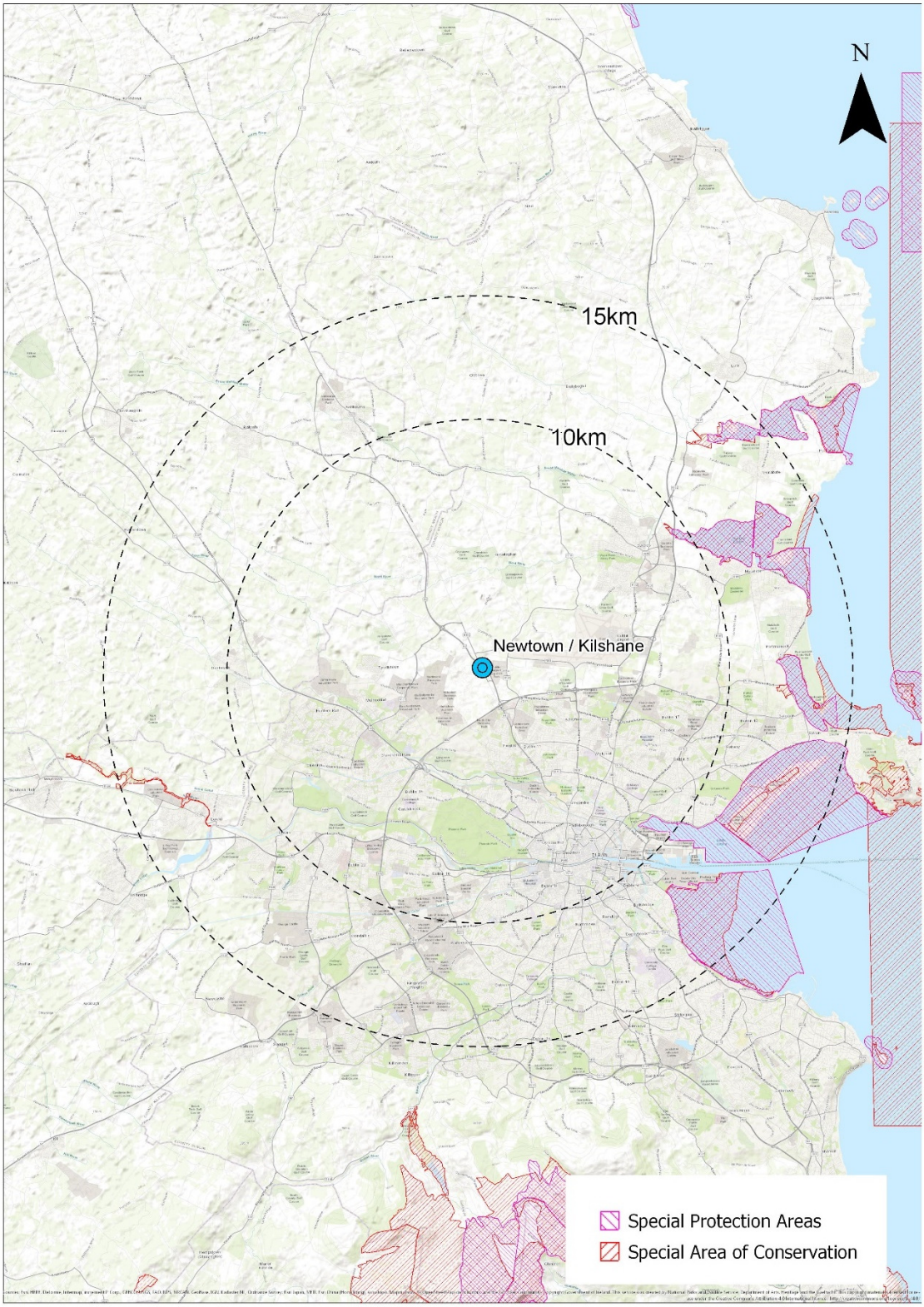


Figure 6 – Special Protection and Conservation Areas in relation to proposed site

Section 4: Consultation and the EIA Process

4.1 Introduction

The Environmental Impact Assessment Report (EIAR) is the document prepared by the proposer of a project setting out the effects (if any - both positive and negative) which the proposed development, if carried out, would have on the environment.

The EIAR document will be prepared in accordance with "*guidelines on the information to be contained in environmental impact assessment reports, Draft, May 2017''* published by the Environmental Protection Agency.

4.2 Screening

Screening exercises have established that the Ringsend WwTP Upgrade and the proposed GDD WwTP projects each require an EIAR. As the RBSF is a component of both planning applications, it will be assessed in the respective EIAR for each project.

4.3 Scoping

The scoping study is a key element of the EIA process and signifies commencement of the development of an EIAR. 'Scoping' is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. It is defined in the EC Guidance as:

"determining the content and extent of the matters which should be covered in the environmental information to be submitted in the EIAR"

As an early stage tool, scoping will provide relevant information on the following issues which will need to be addressed in the preparation of the EIAR:

- Likely significant effects of the project, its construction and operation;
- Scope of the study required for each of EIAR topics;
- Data and information available and additional surveys and investigations required;
- Methods and criteria to be used in predicting and evaluating impacts;
- Alternatives and mitigation measures to be considered as part of the project;
- Content, structure, and format of the Environmental Impact Assessment Report;
- Legal requirements; and any additional
- Consultation requirements.

Scoping ensures that potential environmental impacts are identified at an early stage in the design process, thereby minimising the need for subsequent design amendments and that environmental protection and sustainability are key factors in the project design. It is not the purpose of this Scoping Report to undertake detailed measurement, calculation or assessment of likely impacts. The assessment and mitigation of impacts will be carried out by the competent experts and the project team during the parallel process of designing the development and preparing the EIAR. It should be noted that scoping does not end when the current scoping stage is complete but is a continuing ongoing activity, particularly when new issues or information emerges.

Because the RBSF element of the project is not directly attached to the proposed upgrade works at Ringsend WWTP, it has been decided to assess the impacts of the RBSF in a standalone assessment to provide clarity. The expected interactions between the RBSF and the Ringsend WwTP Upgrade and GDD WwTP are the storage requirement (size of facility) of the RBSF and traffic arising from biosolids transportation. The evaluation of alternatives for this element has been undertaken through a rigorous site selection study, resulting in the site at Newtown/Kilshane being the preferred location for the RBSF.

This scoping report addresses the RBSF element of the project alone.

4.4 Consultation Process

With the publication of this scoping document, Irish Water is commencing a consultation period with the public, interested parties and prescribed bodies on the Newtown/Kilshane site for the RBSF project.

Irish Water commenced a site selection process in February 2017 to include three stages of public consultation to identify a preferred site for a Regional Biosolids Storage Facility. Following the second public consultation in May 2017, the Stage 3 Report – Identification of Preferred Site is being published along with the scoping report for the Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS).

The Stage 3 Report identifies the preferred site at Newtown/Kilshane in Dublin 11 for the new Regional Biosolids Storage Facility. Irish Water is now looking for feedback on the site as well as submissions on what should be considered in the EIAR and NIS. This period of public consultation will run for six weeks from 29th August 2017 to 10th October 2017.

4.4.1 Prescribed Bodies

As part of the consultation Irish Water will be writing to prescribed bodies and providing them with a copy of this Scoping Report. Prescribed Bodies are statutory and non-statutory bodies that applicants are obliged to notify under the Planning and Development Regulations at the time of submitting an application for a proposed project. These prescribed bodies will also be invited during the consultation period to make a submission on whether any further issues or methodologies should be taken into account in the preparation of the EIAR and NIS. The following non-exhaustive list of prescribed bodies will be included in the consultation process:

Table 4-1 - Prescribed Bodies

An Bord Pleanála	National Transport Authority
Minister for Agriculture, Food and the Marine	Minister for Jobs, Enterprise and Innovation
Health Service Executive	Transport Infrastructure Ireland
Irish Aviation Authority	Dublin Airport Authority
Minister for Housing, Planning and Local Government	Fingal County Council
Minister for Communications, Climate Action and Environment	Office of Public Works
Inland Fisheries Ireland	Geological Survey of Ireland
Health and Safety Authority	

4.4.2 General Public and Interested Parties

Irish Water will engage with the general public and interested parties throughout the focussed period of public consultation from 29th August 2017 to 10th October 2017. A number of channels will be used to publicise the consultation including advertising in local and national press, a newsletter drop to residents and businesses in the project's locality, engagement with the media, an electronic mail-out to identified project stakeholders and online through the Irish Water website and social media channels.

Hard copies of the report will be available for review at Irish Water's offices at Colville House, Dublin 1 and at planning counters and county libraries throughout the project study area in Fingal, South Dublin, Dublin City, Dun Laoghaire-Rathdown, Kildare, Meath and Wicklow.

To facilitate participation in the consultation, Irish Water is holding a public information event where the project team will be available to meet with the public and all interested stakeholders as follows:

- Tuesday 12 September 2017, The White House Hotel, Newpark, Co. Dublin, from 1pm-8pm

The information event will provide an opportunity for stakeholders to have their say on the project and to get further information about the EIAR and NIS.

All feedback submitted during this non-statutory public consultation period will be recorded by the project team and published in the project's Stage 3 Consultation Report. The consultation report will be made available on the project website for public viewing and download.

All submissions received as part of the consultation will be reviewed by the project team and the competent experts will prepare their individual sections of the EIAR taking into consideration any issues raised in the feedback provided during the consultation period.

4.4.3 Making a submission

Irish Water is inviting submissions from the public and interested parties on the issues and methodologies to be considered as part of the EIAR and NIS development (see Section 6 of this document). The consultation period will run from Tuesday 29th August 2017 until Tuesday 10th October 2017. All submissions received on the Scoping Report will be considered by the project team as part of the EIAR and NIS process.

Stakeholders can make submissions by:

- Email: biosolids@water.ie
- Phone: 1890 44 55 67
- Post: Biosolids Consultation, Irish Water Colvill House, 24-26 Talbot Street, Dublin 1, Ireland.
- Further information is available on the project website https://www.water.ie/biosolids/

4.4.4 Terms of Reference of the Consultation

Irish Water is posing the following questions for consideration on the Scoping Report for the EIAR and NIS. Respondents can use these for direction or make their own submission on the Scoping Report.

- The proposed methodology for the assessment of environmental impacts is set out in the scoping report of the EIAR and NIS. Are there any other factors that you think should be considered in assessing the environmental impact of the project?

- Are there any environmental issues that should be considered in the preparation of the EIAR that have not been included in the Scoping Report?
- Are there any additional or alternative methodologies that should be used to assess environmental impacts?
- Are there any other projects in the locality that should be considered in the EIAR that may have cumulative (or 'in-combination') impacts with the RBSF project?

4.5 Consideration of Alternatives

As detailed in the EIA Directive – Annex IV, Article 2 of Directive 2014/52/EU the main alternatives to the proposed development considered by the proposer, i.e. Irish Water, must be presented in the EIAR. The following is contained in the EIA Directive regarding the consideration of alternatives to be included in the EIAR:

"A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."

The presentation and consideration of the various reasonable alternatives investigated by the applicant is an important requirement of the EIA process. These indicate the main reasons for choosing the project that is being submitted for consent describing how environmental considerations were taken into account when selecting between those alternatives.

In the context of Newtown/Kilshane it is important to note that the site selection decision was informed by a three-stage public consultation process. The following reports were published after each stage of the process and are available at www.water.ie/biosolids/ :

- Stage 1 Report – Site Selection Methodology
- Stage 2 Report – Identification of Potential Sites
- Stage 3 Report – Identification of Preferred Site

Likewise, the National Wastewater Sludge Management Plan, published by Irish Water in October 2016 identified the need for a Regional Biosolid Storage Facility and the land spreading of biosolids as the preferred process.

Alternatives can take various forms, all of which will be examined. At the highest level, alternatives may consider different locations or layouts. At the more detailed level, alternatives tend to merge into mitigation measures where specific design options are taken, or construction methods adopted, to avoid, reduce or offset environmental impacts. Many broad types of alternatives can be considered:

- "do nothing" option;
- alternative locations
- alternative layouts;
- alternative designs;
- alternative storage methodologies;
- alternative mitigation measures.

Section 5: Proposed Scope of Environmental Impact Assessment Report

5.1 Scoping of EIAR

5.1.1 Introduction

The EIAR will follow the guidelines contained in the EPA publication "Guidelines on information to be contained in Environmental Impact Assessment Report, Draft, May 2017". The scoping of an Environmental Impact Assessment Report (EIAR) is concerned with identifying those aspects of the environment where there is an interaction, either direct or indirect, positive or negative, with the project and as a consequence there are potential effects, which need to be assessed. This document the RBSF provides a scope for the RBSF an element of the Ringsend WwTP Upgrade Project.

The aspects of the environment to be considered are as follows:

- Population & Human Health
- Water
- Biodiversity
- Land & Soils (including Hydrogeology)
- Air Quality
- Climate
- Noise & Vibration
- Odour
- Cultural Heritage
- Material Assets
- Traffic
- Landscape

In addition, the assessment must also consider:

- The interaction between the different environmental factors;
- Cumulative effects of this project in combination with other existing and proposed projects; and
- The effects arising from the vulnerability of the project to risks of relevant major accidents or disasters.

This section of the document considers each of the above environmental factors in turn and:

- Identifies the relevant receiving environment
- Makes an assessment as to whether there are likely and significant effects
- Identifies the data required and any necessary surveys
- Outlines how the project impact will be predicted and evaluated
- Identifies potential alternatives and mitigation measures if impacts arise

5.2 Structure of the EIAR

The EIAR for the Ringsend WwTP Upgrade project will be prepared under the following headings. The EIAR for the GDD project will follow a similar structure. The RBSF element will form a separate section of the EIAR for each project.

VOLUME 1 – NON-TECHNICAL SUMMARY

SECTION 1: Non-Technical Summary

VOLUME 2 – INTRODUCTION

Section 1: Introduction
Section 2: The EIA Process
Section 3: Proposed Scheme
Section 4: Consideration of Alternatives

VOLUME 3 – RINGSEND WwTP

Section 1: Existing Environment
Section 2: Planning and Policy Context
Section 3: Population and Human Health
Section 4: Water
Section 5: Biodiversity – Marine
Section 6: Biodiversity – Terrestrial
Section 7: Land and Soils
Section 8: Air and Climate
Section 9: Noise and Vibration
Section 10: Odour
Section 11: Cultural Heritage
Section 12: Material Assets
Section 13: Traffic
Section 14: Landscape
Section 15: Risk Management
Section 16: Environmental Interactions
Section 17: Summary of Mitigation
Section 18: Summary of Residual Impacts
Section 19: Summary of Cumulative Impacts

VOLUME 4 – REGIONAL BIOSOLIDS STORAGE FACILITY

Section 1: Existing Environment
Section 2: Planning and Policy Context
Section 3: Population and Human Health
Section 4: Water
Section 5: Biodiversity – Marine
Section 6: Biodiversity – Terrestrial
Section 7: Land and Soils
Section 8: Air and Climate
Section 9: Noise and Vibration
Section 10: Odour
Section 11: Cultural Heritage
Section 12: Material Assets
Section 13: Traffic

Section 14: Landscape
Section 15: Risk Management
Section 16: Environmental Interactions
Section 17: Summary of Mitigation
Section 18: Summary of Residual Impacts
Section 19: Summary of Cumulative Impacts

5.3 Population and Human Health

5.3.1 Receiving Environment

The likely impacts on human beings will be addressed in this section of the EIAR, including land use, economic activity, employment, settlement patterns, social patterns and human health (considered with reference to other headings such as air and water).

Likely impacts on human beings such as dust, odour, traffic, noise and vibration are also covered under specific environmental topics included elsewhere in the EIAR.

5.3.2 Potential Impacts

Need for the RBSF

The RBSF will provide the storage capacity for the combined biosolids produced by Ringsend and GDD projects. Because the RBSF supports the Ringsend and GDD projects, this development will ensure that the Greater Dublin Area can continue to grow in line with the City and County Council Development Plans and is not prejudiced by the absence of this essential utility infrastructure. This is considered a significant positive impact.

Economic Activity

The construction phase of the RBSF has the potential to affect local people, businesses and activities, both positively and negatively.

The potential impact in either the construction or operational phases is considered of minor consequence.

Economic activity in the local and Greater Dublin areas should be positively impacted by RBSF element as it supports the upgraded wastewater treatment plant at Ringsend and new GDD WwTP.

Employment

The jobs associated with the construction and operational phases will be assessed and presented in the EIAR. It is anticipated that employment opportunities will arise during the construction phase. Jobs will be created on the construction site and indirectly through suppliers.

Settlement Patterns

Settlement patterns are likely to be positively impacted for the Greater Dublin area by the ability to implement City and County Development Plans, as outlined previously.

Social Patterns

There are no anticipated impacts arising from the project but assessment will be carried out as part of the EIAR. Social patterns are likely to be positively impacted.

Human Health

An assessment will be undertaken on potential risks or nuisances that may be caused to human beings during the construction and operational phases. Air quality, water quality, traffic, noise etc. will be considered when assessing this item.

5.3.3 Data and Surveys

Published human health data will be reviewed together with a literature review. No surveys are proposed.

5.3.4 Assessment methodology

A desktop study will be carried out to establish the baseline associated economic activity. Data sources will include development plans, the Greater Dublin Strategic Drainage Study (GDSDS) and census data.

Employment opportunities will be identified and desk top studies will be undertaken for settlement and social patterns.

A desktop study on human health will be carried out examining the potential risks to humans during the construction and operational phases.

5.3.5 Mitigation Measures

Where impacts are identified, mitigation measures will be proposed. Mitigation Measures developed for air, noise odour, water and traffic will be considered also in the context of human health.

5.4 Water

5.4.1 Receiving Environment

The site is situated in the catchment of the River Ward and drains naturally to the Huntstown Stream which flows in a northerly direction passes under the M50 and joins the River Ward at Owens Bridge.

A preliminary flood risk assessment was undertaken as part of the site selection process and concluded that the site lies within the Zone C flood risk area, which is an area with 0.1% Annual Exceedance Probability (less than 1 in 1000 chance in any year).

This section identifies the receiving waters, which could be impacted.

It should be noted that impacts on groundwater and hydrogeology will be assessed in the land and soils chapter.

5.4.2 Potential Impacts

Potential impacts from the proposed development are;

- Increase in the risk of flooding downstream due to increased rate of runoff from the roofs and paved areas of the proposed development.
- Deterioration the water quality of surface waters due to contaminated runoff from the site or accidental spillages and fugitive emissions.

5.4.3 Data and Surveys

The data necessary to carry out the assessment will comprise:

- Sampling for baseline water quality upstream and downstream of the surface water runoff discharge point in the Huntstown Stream will be undertaken.
- A site-specific flood risk assessment will be undertaken.

5.4.4 Assessment Methodology

The assessment of the potential impact on surface waters will be assessed by reference to the following using the hazard-pathway-receptor approach:

- The hazards associated with the project are pathogen-free biosolids with a high nutrient content;
- The pathway will be the elements of the construction and operation that can affect the surface water environment (runoff which can be contaminated, increased rate of runoff).
- The impact will be assessed based on the hazard, pathway and the importance of the receptor. The significance of the impact will be based on the likelihood, duration and magnitude of the effect of the project and the importance of the receptor.

5.4.5 Mitigation Measures

Alternatives and mitigation measures will be considered as part of this assessment. It is proposed to incorporate the sustainable drainage approach (SuDS) to storm water runoff management regardless of the magnitude of impact predicted. This will include runoff attenuation to greenfield rates. Construction environmental management guidelines and protocols will be enforced to mitigate the risk of accidental spillage of hazardous substance and fugitive emissions.

5.5 Biodiversity

5.5.1 Receiving Environment

The proposed Newtown/Kilshane site is partially developed and comprises mainly sections of grassland separated by a road network. Most of the sections contain amenity grassland of varying sizes. To the north of the site, lying behind a grassy berm, there is an area of semi-natural, dry meadow grassland with some areas of damp ground being actively grazed by horses. The site contains one mature tree line comprises Elder and Hawthorn and hedgerows containing mainly Hawthorn and Elder. A tributary of the Ward River borders the south-west corner of site and the site slopes very gently to the northeast, the same direction as this watercourse. Potential Impacts

5.5.2 Potential Impacts

There will be no hedgerows or treelines removed as part of the development of the site. Areas of amenity grassland will be removed to accommodate the storage buildings with consequential loss of habitat. Discharges to the surface water network has the potential to impact on the water quality and aquatic ecosystems.

5.5.3 Data and Surveys

The EIAR will require a full baseline ecological survey of the selected site. A survey of large mammals will be undertaken based on tracks, signs and droppings (optimal season January to March). Bat surveys will be carried out using electronic bat detectors. This should be carried out in the breeding

season of May to September. This survey will detect bat foraging and commuting areas. Mature trees will be assessed for their potential as bat roosts. Breeding birds on the site should be surveyed on a minimum of three site visits between early March and late May (this survey is seasonally constrained). Any surface freshwater bodies into which surface water from the site will drain will be inspected for water quality.

5.5.4 Assessment Methodology

The habitat survey will follow the methods of Smith et al. (2011) and will use the standard classification of Fossitt (2000).

A desk review will be undertaken including a search for records of plant and animal species recorded from the immediate area of the site. The water quality in the nearest watercourse will be reviewed from existing sampling programmes of the Environmental Protection Agency (EPA). Inland Fisheries Ireland (IFI) will be consulted to determine the fisheries value of the catchment in which the site occurs. The biodiversity chapter of the EIAR will include a description of the existing ecological environment, assessment of impacts of the proposed development, proposed mitigation measures and evaluation of residual impacts.

It has been established that the Project will require a Natura Impact Statement (NIS) based on the potential impacts of the Ringsend WwTP upgrade element of the project. The NIS will address the project in its entirety and will include the assessment of the RBSF. This NIS report is required under the terms of the EU Habitats Directive and will be stand-alone documents.

5.5.5 Mitigation Measures

Mitigation measures will be prescribed in the event that impacts are identified. Mitigation can include restrictions on construction activities during certain times of the year to avoid disturbance of breeding birds and mammals, avoidance of particular areas of the site, sustainable drainage measures and any measures required to reduce and eliminate constructional and operational impacts

5.6 Land & Soils

5.6.1 Receiving Environment

This chapter of the EIAR, as per the 2017 EIAR Guidelines, will address the likely significant impacts on land, soil, geology and hydrogeology during the construction and operation of the proposed scheme. It should be noted that land use and land take will be addressed in the chapter on Material Assets.

The proposed site is in the townland of Newtown to the east of the existing Huntstown Quarry. Huntstown quarry is a designated geological heritage site with a quarry face that shows the base of the Tobercolleen Formation where it overlies the Waulsortian Limestone.

There are no discharges to or abstractions from groundwater as part of the proposed operation.

The site at Newtown/Kilshane is underlain by Dinantian Impure Limestones of the Malahide Formation. Historic site investigations reveal that the depth to rock is greater than 10 m. The Malahide Formation is classified as a locally Important limestone aquifer (Li) that is productive only in local zones. The site-specific information available indicates the vulnerability of the underlying aquifer is “low”. There is no evidence of contaminated soils or unsuitable soils that will require removal.

5.6.2 Potential Impacts

There are no discharges to or abstractions from groundwater as part of the proposed operation.

The potential impacts associated with the construction and operation of the proposed storage facility are.

- The excavation of potentially contaminated underlying ground and how it will be handled and disposed of or recovered (no evidence of contaminated soils);
- Surplus soil arising from earthworks and how it will be handled and disposed of or recovered;
- Risk of contaminating soils during construction activities;
- Impact on the quality of soils over the operational life of the scheme.
- Contamination of the underlying aquifer due to accidental spillages and fugitive emissions.
- Potential sterilising of future extractable mineral reserves.
- The EPA radon mapping shows that the site is not located in a high radon area. In addition, there are no significant radiation sources associated with the project.

At this stage, there are no significant impacts anticipated on the land, soils and hydrogeological environments at the proposed site.

5.6.3 Data and Surveys

There are no recorded significant groundwater users within 1 km of the proposed site. However, a well survey will be undertaken to confirm this. A site investigation programme involving drilling of boreholes and trail pit excavation will be undertaken. The information gathered from this will augment the currently available subsoil information. Groundwater flow direction will also be established.

5.6.4 Assessment Methodologies

The methodology for assessment of the impacts on the soil and geology will be undertaken in accordance with recommendations in Geology in Environmental Impact Assessment Report - A Guide from the Institute of Geologists of Ireland (2002).

The existing environment will be described and the importance of environmental attributes and receptors assessed. Biosolids reuse shall also be considered under this section and in compliance with Irish Water's National Wastewater Sludge Management Plan.

5.6.5 Mitigation Measures

Where impacts are identified, mitigation measures will be proposed. The competent experts shall assess the impacts and together with the engineering design team develop detailed mitigation measures.

5.7 Air Quality

5.7.1 Receiving Environment

In assessing potential impacts a key factor will be identifying and categorising the local receptors, which can be broadly grouped as follows:

- Residential areas – categorised by proximity and direction
- Conservation and recreational areas
- Commercial and industrial areas – categorised by proximity, direction and nature of activity

The sensitivity of the different categories of receptors is relevant to the significance of any likely impacts. Residential areas are an example of a receptor, which would be sensitive to impacts during daytime and night-time, whereas other receptors may not be as sensitive during night-time periods. The nearest sensitive receptor is the residential property on the eastern boundary.

5.7.2 Potential Impacts

The RBSF has many similarities with industrial premises, including the utilisation of a range of machinery and heavy goods vehicles as part of the general operation of the facility.

In addition, the construction of the works will also result in additional traffic volumes and potential increased levels of dust which could impact on the air quality.

Urbanised and industrialised areas typically experience elevated levels of pollutants and suspended particles due to the operation of machinery and traffic movements. The RBSF will be situated close to the N2 and M50 with the Huntstown Quarry and Huntstown electricity generating station located in close proximity. There is potential for the site to contribute to local air pollutants and suspended particles during the construction phase of the project.

Note that the assessment of the effects of odours will be addressed in a separate chapter.

5.7.3 Data and Surveys

The data necessary to assess the likely impact of odours from the facility will consist of the following information:

- Meteorological data;
- Topographical data (if required);
- RBSF design data (building sizes, storage capacity/usage profile);
- Details of the proposed mitigation measures; and
- Odour monitoring Surveys to assess the odour generated by the stored material.

5.7.4 Assessment Methodology

The assessment of the impact will primarily be by reference to European Ambient Air Quality and Clean Air for Europe (CAFÉ) Directive, which has superseded much of the earlier legislation.

The principal pollutants covered by the legislation are:

- Sulphur dioxide;
- Nitrogen dioxide and other nitrogen oxides
- Particulate matter – 10 µm and 2.5 µm in size (PM_{10} & $PM_{2.5}$)
- Lead
- Carbon monoxide and benzene
- Ozone
- Arsenic, Cadmium, Nickel and Benzo(a)pyrene

5.7.5 Mitigation Measures

Alternatives and mitigation measures will be considered if a likely significant impact is identified. However, the use of modern machinery and construction practices (complying with relevant Irish and European standards) will ensure that any impacts on air quality are minimised.

5.8 Climate

5.8.1 Receiving Environment

Environmental impacts related to climate can consist of:

- The contribution by the project to climate change; and
- The vulnerability of the project to climate change effects.

The receiving environment thus consists of the general environment in respect of the climate change impacts, such as greenhouse gas (GHG) emissions, and the surrounding environment in respect of vulnerability issues, such as flooding.

5.8.2 Potential impacts

The areas to be examined for likely significant impacts, is the impact of the project construction and operation on climate change, together with the vulnerability of the site to flooding events as a result of increased rainfall.

5.8.3 Data and Surveys

The data gathered for this assessment will consist of guidelines and literature produced by public and industry bodies for this purpose.

5.8.4 Assessment methodology

The assessment of the climate change impacts will be by reference to recognised tools, such as the EPA Carbon Calculator. The impact of the more intensive rainfall events likely to arise in the catchment because of climate change over the design life of the RBSF, will be assessed relative to IPPC and OPW guidance.

5.9 Odour

5.9.1 Receiving Environment

In assessing potential impacts a key factor will be identifying and categorising the local receptors, which can be broadly grouped as follows:

- Residential areas – categorised by proximity and direction;
- Conservation and recreational areas;
- Commercial and industrial areas – categorised by proximity, direction and nature of activity.

The sensitivity of the different categories of receptors is relevant to the significance of any likely impacts. Residential areas are an example of a receptor, which would be sensitive to impacts during daytime and night-time, whereas other receptors may not be as sensitive during night-time periods.

5.9.2 Potential Impacts

The storage of biosolids has the potential to generate emissions of odour. There is a possibility of an odour annoyance where receptors are located in the vicinity of a proposed storage facility. As a consequence, odour is identified as a likely significant impact, which needs to be assessed.

There is no likely significant impact anticipated from the construction activities as no biosolid material will be stored until the facility is fully constructed.

5.9.3 Data and Surveys

The data necessary to assess the likely impact of odours from the facility will consist of the following information:

- Meteorological data;
- Topographical data (if required);
- RBSF design data (building sizes, storage capacity/usage profile);
- Details of the proposed mitigation measures; and
- Odour monitoring Surveys to assess the odour generated by the stored material.

5.9.4 Assessment of Potential Impact

The collected data will then be assessed using the USEPA AERMOD odour dispersion model to estimate the impact of the RBSF on the local environment and assist in the determination of an appropriate level of mitigation for the facility.

The collected data will then be assessed using the USEPA AERMOD odour dispersion model to estimate the impact of the facility on the local environment and assist in the determination of an appropriate operational standard for the facility.

5.9.5 Mitigation Measures

A number of measures will be incorporated into the scheme at the design stage. All loading/unloading of biosolids will be confined to closed buildings. An odour control system will be included as part of the design.

5.10 Noise and Vibration

5.10.1 Receiving Environment

In assessing potential impacts a key factor will be identifying and categorising the local receptors, which can be broadly grouped as follows:

- Residential areas – categorised by proximity and direction;
- Conservation and recreational areas;
- Commercial and industrial areas – categorised by proximity, direction and nature of activity.

The sensitivity of the different categories of receptors is relevant to the significance of any likely impacts, residential areas being an example of a receptor, which would be sensitive to impacts during daytime and night-time, whereas other receptors may not be quite as sensitive during night-time periods.

5.10.2 Noise – Potential Impact

The sensitive receptors for noise are principally nearby residences. Potential impacts can arise from;

- Noise generated from operation of the facility, including traffic (construction and operational)

5.10.3 Noise – Data and Surveys

An assessment of the background noise will initially be required to determine the nature of the existing environment.

Construction activities will also be assessed by reference to the type of machinery and activities anticipated as necessary for the progression of the project, using literature values. Operational equipment will be assessed by reference to measurements of the existing activities.

5.10.4 Noise – Assessment Methodology

The assessment of the likely impact will involve two different elements:

- Construction activities
- Operational activities

The assessment of the impact of the different activities will be in accordance with recognised industry standards, to estimate the propagation of the noise into the surrounding areas and the impact at local receptors.

5.10.5 Noise - Mitigation Measures

It is anticipated that the achievement of suitable daytime and night-time noise levels will be achieved by using appropriate acoustic enclosures and adopting appropriate work practices.

5.10.6 Vibration – Potential Impact

There is potential for vibration from some construction activities to cause a likely significant impact in the local environment. Piling is one activity, which might cause local vibrations, and will require assessment.

There is no significant vibration anticipated from the operational phase of the facility.

5.10.7 Vibration – Data and Surveys

Vibration data for the anticipated construction activities will be taken from literature sources.

5.10.8 Vibration – Assessment Methodology

The assessment will be focused on identified activities, which might cause vibration nuisance in the local environment. In particular, the propagation of vibration from piling will be assessed and whether any sensitive receptors might be affected.

5.10.9 Vibration – Mitigation Measures

Mitigation measures required in respect of any construction activity identified as causing an impact will initially consider alternative construction methodologies.

5.11 Material Assets

5.11.1 Receiving Environment

Material assets are resources that are valued and intrinsic to places. These may include archaeology and cultural heritage which are discussed in a separate section of the EIAR. Material assets may also include properties, utilities and natural resources. This section will also address land take and land use.

5.11.2 Potential Impacts

- Mitigation by avoidance will be applied to utilities such as underground services and pipelines, the properties of GNI, ESB Networks, Irish Water or other utilities.
- The completed RBSF will support the Ringsend WwTP Upgrade and can be seen to be a significant positive material asset for the population and community of the Greater Dublin Area.

5.11.3 Data and Surveys

Consultation will take place with the relevant utilities to determine exact location, depth and specifics of underground cables and pipelines.

5.11.4 Assessment methodology

The assessment of material assets will include a desk-based exercise, to identify properties, utilities and resources that may be affected by the proposed scheme. It will also include consultation with the relevant parties.

5.11.5 Mitigation Measures

Management Plans including method statements shall be developed for excavations in proximity to underground utility cables and pipelines.

5.12 Traffic

5.12.1 Receiving Environment

The principal receptors in relation to traffic issues are:

- The local residents (nuisance, disruption, noise and air quality); and
- Neighbouring development and businesses.

The traffic associated with the proposed biosolids storage facility will comprise operational traffic and construction traffic. The operational traffic consists of:

- Biosolids delivered from wastewater treatment plants to RBSF
- Biosolids delivered to spread lands from RBSF
- Staff
- Other delivery vehicles during normal operation.

5.12.2 Potential Impacts

The areas to be examined for potential impacts include changes in traffic patterns during the post-construction and operational phases. Initial investigations, undertaken as part of the Stage 3 site

selection, do not indicate existing traffic volumes will be significantly impacted due to the proposed construction and operation of the RBSF.

5.12.3 Data and Surveys

Traffic counts have been carried out during the site selection phase at junctions between the site and the main national road network, i.e. where project traffic flows merge with background traffic. These will be supplemented if required for the assessments for the EIAR.

5.12.4 Assessment Methodology

Road junctions will be modelled using industry standard computer models (e.g. Picady, Oscady and ARCADY by TRL) using the survey results as baseline inputs. Modelling will look at peak hour capacities, queuing and delays. Based on the survey results, a competent traffic expert will undertake a traffic impact assessment in terms of the existing road network and following consultation with the Roads and Traffic Department of Fingal County Council. The impact of the change in traffic volume and patterns will be assessed on the basis of the light/moderate increase in the traffic volume. An overall assessment will be made of both the temporary construction phase impacts and the long term operational impacts.

5.12.5 Mitigation Measures

A Traffic Management Plan, including mitigation measures (e.g. restrictions during peak commute hours) will be developed for the project's construction stage in consultation with the Roads and Traffic Department of Fingal City Council.

5.13 Cultural Heritage

5.13.1 Receiving Environment

In the surrounding area of the Newtown/Kilshane site there are several protected structures and areas containing Record of Monuments and Places (RMP) and Sites and Monument Record (SMR) sites. The following protected structures are listed in the Fingal County Development Plan 2017 – 2023 and are illustrated on Figure 7 of this report:

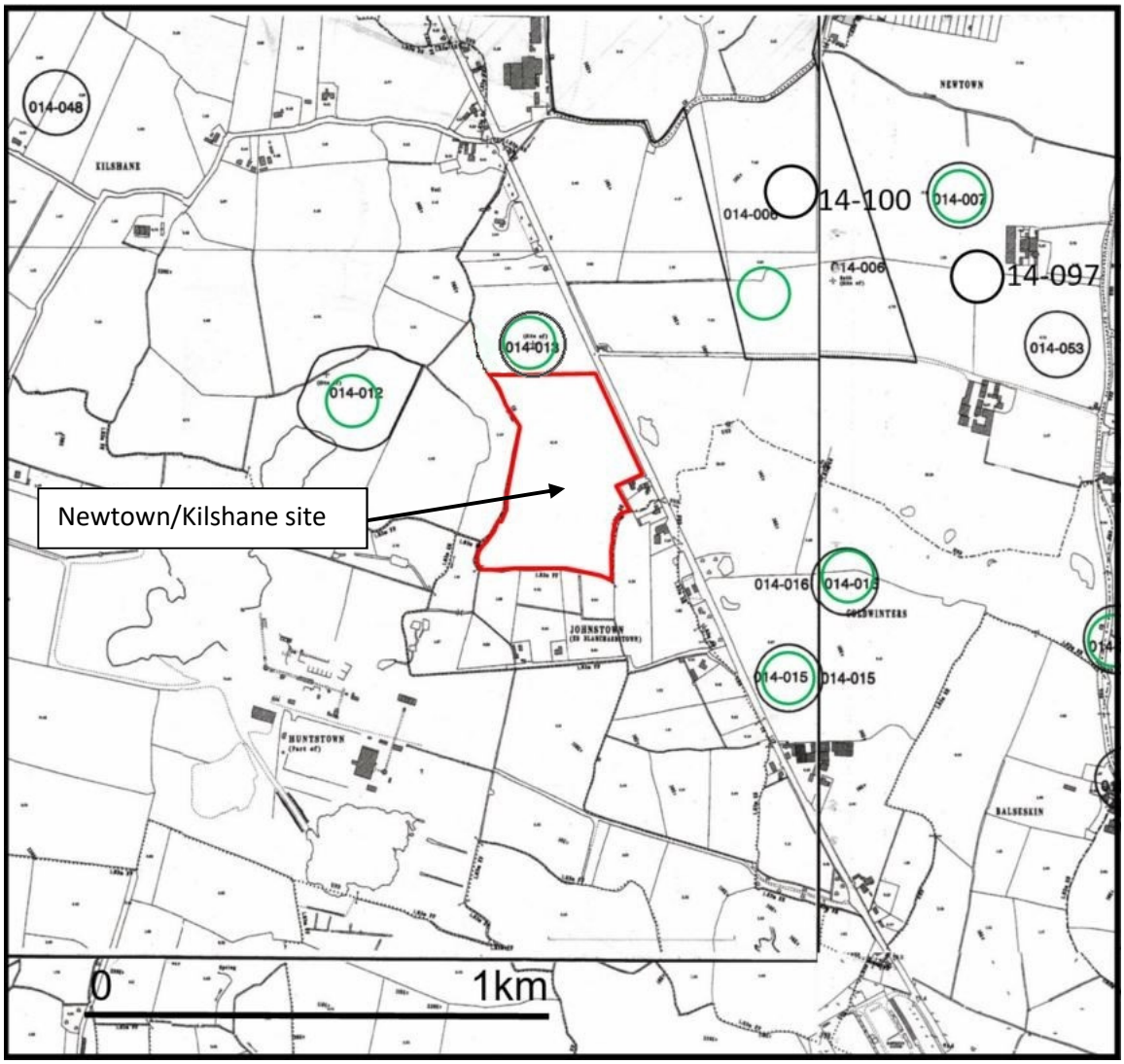
- Burial Coldwinters earthwork (RPS No. 320)
- Ringfort site Newtown (Finglas) earthwork (RPS No. 619)
- Enclosure off North Road Coldwinters Earthwork (RPS No. 622)
- Kilshane Moat, North Road, Kilshane. Possible Motte site (RPS 662)
- Kilshane Church (in ruins) and Holy Well off North Road, Kilshane. Ecclesiastical remains, church possible, graveyard, holy well (RPS No. 663)

There are a number of recorded monuments and SMR sites located within the vicinity of the proposed development such as:

- Newtown Ringfort Site Possible (DU014-00602)
- Newtown Ringfort Site Possible (DU014-007)
- Kilshane Ecclesiastical remains (DU014-012)
- Kilshane Church Possible Site (DU014-01201)
- Kilshane Graveyard (DU014-01202)
- Kilshane Holy Well Possible Site (DU014-01203)
- Newtown Motte and Bailey Site (DU014-013)

- Coldwinters Ring-ditch Site (DU014-015)
- Coldwinters Enclosure Site (DU014-016)
- Kilshane Cemetery (DU014-048)
- Newtown Enclosure Site Possible (DU014-053)
- Newtown Ringfort - unclassified (DU014-097); and
- Newtown Ring-ditch (DU014-100)

There are no protected structures located within the boundary of the proposed site.



Legend:

- Sites and Monuments Record (SMR)
- Protected Structure

Figure 7 – Protected structures and recorded monuments near the proposed site

5.13.2 Potential Impacts

The potential for direct impacts on archaeological heritage is low as the application area has already been archaeologically assessed. With regards to the protected structures within the vicinity, there will be no direct impact on any structure previously listed and as shown in Figure 7.

A review of the proposed development indicates that significant impacts on cultural heritage aspects are unlikely.

5.13.3 Data and Surveys

The assessment in terms of cultural heritage will be based on a desk top review of available data and field assessments of the site and surrounding areas. This will allow for identification of likely significant impacts on archaeology, architectural heritage and history in the area as outlined in the draft Environmental Impact Assessment Report Guidelines 2017.

5.13.4 Assessment Methodologies

The National Monuments Acts 1930-2014 and the Planning and Development Act 2000 (as amended) are the principal legislative instruments in the protection of archaeological, architectural and cultural heritage in Ireland. Archaeological trial trenches have been excavated on site over recent years and no archaeological items of interest have been discovered. Nonetheless, an archaeological on-site monitoring programme will be proposed for all excavation works. The recommendations of the 2012 EIS and consent will be reviewed but are unlikely to have altered since that time.

Zones of Archaeological Interest, Protected Structures as already outlined, Conservation Areas and historical research publications shall be considered.

5.13.5 Mitigation Measures

The level of significance of all the impacts associated with the development will be assessed and a full suite of appropriate mitigation measures will be incorporated into the EIAR to reduce the impact on cultural heritage aspects in the vicinity.

5.14 Landscape

5.14.1 Receiving Environment

The preferred site is located at Newtown/Kilshane just outside the M50 between the Roadstone Hunstown Quarry and the R135 and M2.

The site is within Fingal County and is zoned “HI, to Provide for Heavy Industry” in the Fingal County Development Plan 2017-2023. The site is that of a previously planned and partially constructed industrial facility, and is set within an existing and developing industrial context, within a wider mix of agricultural, industrial and commercial uses, interspersed with small settlements.

The site is within an area defined as Landscape Character Area 3, Low Lying Agricultural in the Fingal County Development Plan, which is characterised by a mix of pasture and arable farming on low lying land with few protected views or prospects. It is described as being dominated by agriculture and a number of settlements, and overall is categorised as having a modest landscape value and low landscape sensitivity. No particular landmarks are identified within the proposed site, and there are no Views and Prospects identified in the County Development within the locality or influence of the site.

5.14.2 Potential Impacts

During the construction phase of the RBSF the landscape will be impacted by the presence of cranes, construction compounds and lighting, site offices and hoarding. Given the existing nature of the area,

visual effects arising from the construction activities, including cranes and large construction equipment will be limited in impact and of temporary or short-term duration.

New landscaping bunds will be constructed to establish boundary treatment and screening so as to integrate the development within the immediate site context. Given the location and its existing character, the development will not have an adverse impact on the overall character of the area.

5.14.3 Data and Surveys

A thorough appraisal of the landscape planning context and the existing site environs and its context will be prepared, and including review of topographic surveys and aerial photography. Existing site character, ground cover, trees, and the location and nature of any sensitive receptors documented.

The Landscape and Visual Impact Assessment in the EIAR will involve consideration of aerial photography, emerging design drawings and information, relevant various publications and reports, together with visits to the site and environs of the proposed development.

In addition, a series of photomontages will be developed from representative viewpoints in the surrounding areas will be included in the EIAR.

5.14.4 Assessment Methodology

The landscape and visual impact assessment will examine the potential effects of the proposed development on Visual Effects and Landscape Effects in the area. The assessment will also address the impact on relevant landscape character and context, views and prospects and historical landscapes during the construction and operation phase of the proposed development.

the landscape and visual impact assessment will have regard to:

- The Landscape Institute/ Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment (LI/EIMA, 3rd Edition)
- Guidelines on the information to be contained in Environmental Impact Statements, (EPA, 2002) and Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2017)
- Advice Notes on Current Practice (in the Preparation of EISs) (EPA, 2002) and Draft Advice Notes for Preparing Environmental Impact Statements (EPA, 2015)

5.14.5 Mitigation Measures

Potential mitigation measures to minimise visual impacts will be assessed and will include:

- Massing, orientation, topography and levels;
- Alternative finishes to structures;
- Appropriate landscaping.

5.15 Cumulative Impacts, Indirect Impacts and Interaction of Effects

The cumulative impacts of the proposed development together with other existing and proposed projects, will be addressed. The proposed projects that will be considered are generally those that are 'committed development', i.e. have received planning permission but have not yet been built, and for which there is information in the public domain at a sufficient level of detail to allow their potential cumulative impacts to be assessed. Known projects that will be included in the EIAR (and NIS) for the assessment of cumulative/in-combination impacts include:

- Huntstown Quarry, Huntstown;
- Huntstown Power Station, Huntstown;
- Greater Dublin Drainage project;

- Ballycoolin to Kingstown Watermain;
- Dublin Airport Authority developments.

Section 6: Natura Impact Statement

6.1 Introduction

The scoping of a Natura Impact Statement (NIS) is concerned with identifying the implications for Natura 2000 sites, with respect to their conservation objectives, of LIKELY and SIGNIFICANT effects caused by the project. The effects can arise directly or indirectly from the project, or in combination with other projects.

The receiving environment, in the context of a NIS, is thus exclusively focused on possible impacts on the Natura 2000 Special Areas of Conservation and Special Protection Areas.

It should also be noted that since the purpose of the Natura 2000 sites is the conservation of habitats and species, there is considerable overlap between the NIS and the Biodiversity section of the EIAR. The content of Section 5.5 of this document will thus also be applicable to the NIS.

The current guidance for Appropriate Assessment in Ireland is contained within the document "Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities", published by the Department of the Environment Heritage and Local Government, December 2009 and revised February 2010.

The guidance states that the Natura sites to be assessed should be those within the likely zone of impact of the project. UK guidance recommends all sites within 15km should be considered, however the DECLG guidance advices that the potential zone of impact should be considered on a case by case basis and suggests that for some projects this could be as low as 100m.

In this instance, it is considered that likely and significant effects could arise from two possible sources:

- Construction Activities – either directly or indirectly affecting a Natura 2000 site; and/or
- Operations – only indirect effects are considered likely, specifically due to the final effluent discharge affecting a site, via the tidal water movements within Dublin Bay.

Screening has been undertaken for of the Ringsend WwTP Upgrade project which found that a separate Natura Impact Statement (NIS) should be prepared for the project. An NIS was prepared for the Ringsend WwTP Upgrade project before the RBSF was included the overall application. As the RBSF is a component of the overall project for which planning permission being applied, the RBSF will be addressed in the project NIS and the original NIS amended accordingly.

It should be noted that there are no Natura Sites within 10 km of the RBSF and it is not anticipated that the conclusions of the original report will not differ significantly following the inclusion of the RBSF.

6.2 In-Combination Effects

The same approach as detailed in section 5.15 will apply in respect of the NIS.

6.3 Conclusion

An Environmental Impact Assessment (EIA) as outlined in the earlier chapters of this report, will be undertaken as part of the planning process associated with both the Ringsend project and The Greater Dublin drainage project, which will include the proposed RBSF development at Newtown/Kilshane. Irish Water will prepare a detailed Environmental Impact Assessment Report (EIAR) describing the potential environmental impacts which may arise as result of the construction and operational phases of the project.

The RBSF element will be assessed as part of the of the overall NIS for the project.

This Scoping Report is intended to outline key issues to be addressed in the preparation of the EIAR and NIS, for the RBSF element of the project, and the proposed predictive and evaluation methodologies to be used. Consultation with the public, statutory organisations and non-statutory organisations is being undertaken, based on this document, to ensure input from all interested parties from the earliest stages of the EIAR and NIS preparation.

Observations, comments and submissions arising during this consultation phase, will be considered before preparing a Scoping Submissions Report. The Scoping Submissions Report will include comments and submissions from the consultation phase and will be made available on the project's website (www.water.ie/biosolids/). The final methodology to be adopted in the preparation of the EIAR and NIS should be finalised at this stage and will address all likely significant environmental impacts including issues brought forward during the consultation process.

The completed EIAR and NIS will be submitted to An Bord Pleanála as part of the formal planning application process.

The consultation period will run from Tuesday 29th August 2017 until Tuesday 10th October 2017.

Submissions or observations on the project are invited:

By phone: 1890 44 55 67
By email: biosolids@water.ie
By post: Biosolids Consultation, Irish Water, Colvill House, 24-26 Talbot Street, Dublin 1, Ireland.

Further information is available on the project website https://www.water.ie/biosolids/

Appendix A:
Schedule of Drawings

Drawing No.	Drawing Title
No.1	Existing Site Layout Plan
No.2	Preliminary Site Layout Plan

1. All levels are in metres and relate to O.S. Datum MALIN.
2. This drawing is reproduced from digital maps:
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LEGEND:

- SITE BOUNDARY
- FENCING
- GRASS/ LANDSCAPING
- EXISTING ROADS
- EXISTING FOOTPATHS

SERVICES

- WATERMAIN
- STORM SEWER
- EXISTING FOUL SEWER
- EXISTING FOUL RISING MAIN
- ESB OVERHEAD 110kV
- ESB OVERHEAD 38kV
- ESB UNDERGROUND 38kV

THE SERVICES AND UTILITIES INDICATED ON THIS DRAWING ARE INDICATIVE ONLY. THEIR LOCATION IS BASED ON INFORMATION PROVIDED IN THE PREVIOUS PLANNING APPLICATION FOR THE SITE AND DESIGN INFORMATION PROVIDED BY NICHOLAS O'DWYER CONSULTING ENGINEERS WITH THE PERMISSION OF THE SITE OWNER, FINGAL COUNTY COUNCIL.

Rev.:	Date:	Drawn:	Checked:	Approved:	Description:
A	22/08/17	ED	RWK	MH	EIAR SCOPING

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Web:www.water.ie

Scheme:
RINGSEND WASTEWATER TREATMENT PLANT UPGRADE PROJECT

Project:
REGIONAL BIOSOLIDS STORAGE FACILITY

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email:tjoc@iol.ie
Web:www.tjoc.ie

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Drawn By:	Checked By:	Approved By:	Date:
ED	RWK	MH	AUG.2017

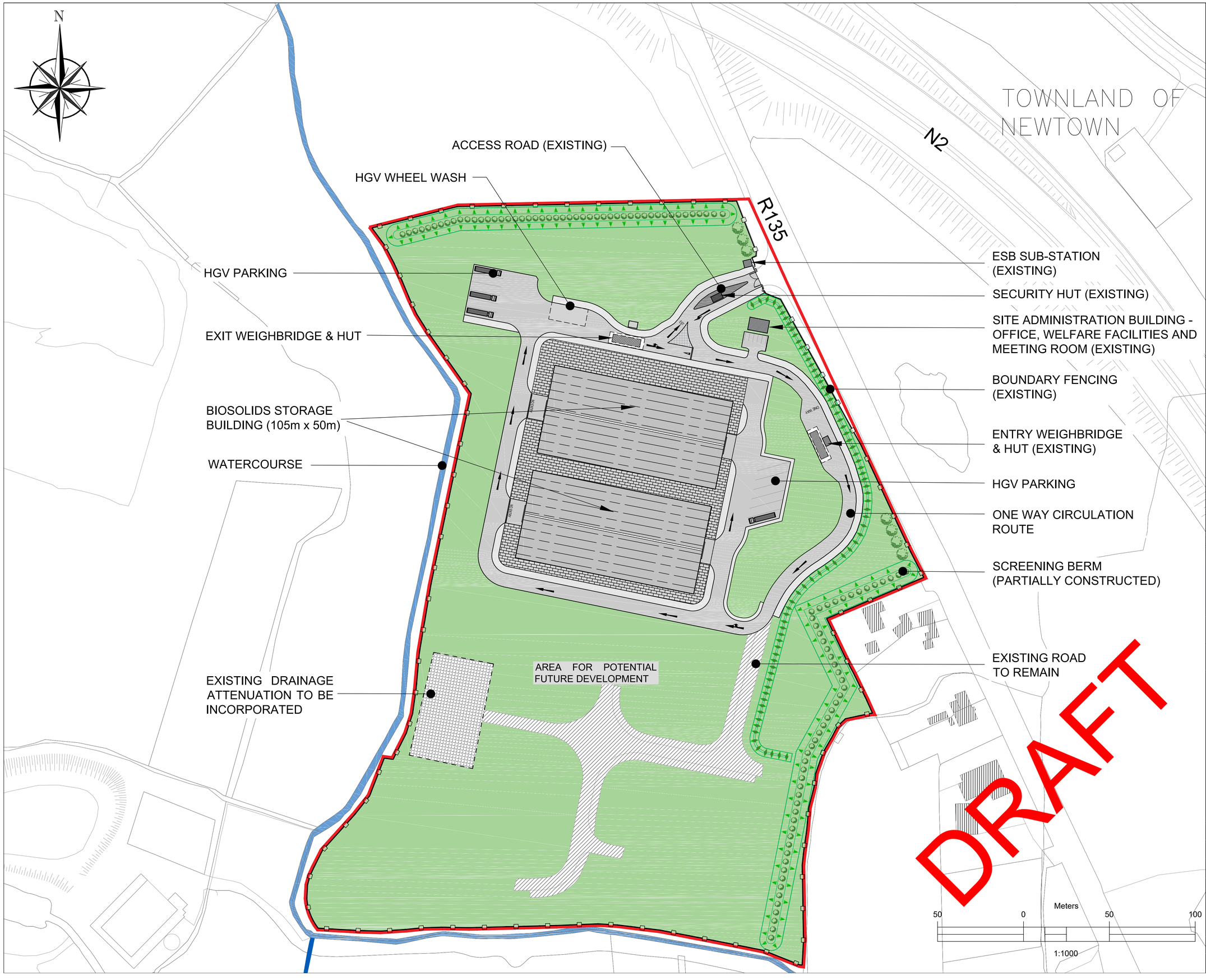
Client Project Ref:	Project Stage:
IW-RGD/10000308	EIAR SCOPING

Internal Project Ref:
Ring01/JBB-Y17702/TJOC-14040/RHDHV-BB4342

Drawing Title:
REGIONAL BIOSOLIDS STORAGE FACILITY
EXISTING SITE LAYOUT PLAN

Scales: 1:1000(A1) 1:2000(A3)

Drawing Register No.:	Drawing. No.:	Rev:
001	Y17702-PL-001	A



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LEGEND:

- SITE BOUNDARY
- FENCING
- GRASS/ LANDSCAPING
- ROADS
- FOOTPATHS
- PERMEABLE PAVING
- EXISTING ROADS

Rev.:	Date:	Drawn:	Checked:	Approved:	Description:
A	25/08/17	ED	RWK	MH	EIAR SCOPING

Client:

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Web:www.water.ie

Scheme:
RINGSEND WASTEWATER TREATMENT PLANT UPGRADE PROJECT

Project:
REGIONAL BIOSOLIDS STORAGE FACILITY

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ED	RWK	MH	AUG.2017

Client Project Ref:	Project Stage:
IW-RGD/10000308	EIAR SCOPING

Internal Project Ref:
Ring01/JBB-Y17702/TJOC-14040/RHDHV-BB4342

Drawing Title:
REGIONAL BIOSOLIDS STORAGE FACILITY
PRELIMINARY SITE LAYOUT PLAN

Scales: 1:1000(A1) 1:2000(A3)

Drawing Register No.:	Drawing. No.:	Rev:
002	Y17702-PL-002	A