Dorota Richards

Subject: FW:
Attachments: E.I.S. F13A 0472.pdf; N.I.S. F13A 0472.pdf; Planners Report F13A 0472.pdf; PACON - Licence applcation to EPA March 2015-FCC obs.docx

Importance: High

From: Les Doyle [mailto:Les.Doyle@fingal.ie]
Sent: 26 March 2015 12:11
To: Wexford Receptionist
Subject: FW:
Importance: High

For the attention of Dorota Richards, Programme Officer, Environmental Licensing Programme. Office of Climate, Licensing & Resource Use.

Notification under Section 87(1E) (a) of the EPA Act 1992, as amended.

EPA Reg. No. P1014 -01.
Fingal Reg. Ref. F14A/0429.

26/3/15

Re: Applicant: PACON Waste Recycling Ltd. Stephenstown Business Park, Stephenstown , Balbriggan,Co. Dublin.

Good afternoon Dorota,

I refer to your letter dated 2nd March, 2015 regarding the above licence application and now attach the Council's response from Patricia Conlon, Senior Executive Planner.

Please also find the above attached documentation (in pdf format) in relation to matters referred to in the Council's response.

I trust this information will be of assistance, should you require any further details please do not hesitate to contact me.

Kind regards,

Les Doyle,
Senior Staff Officer,
Planning & Strategic Infrastructure Department.
Les.doyle@fingal.ie
Direct line 01-8905752

Granary House
Rutland Street
Cork

ENVIRONMENTAL IMPACT STATEMENT

PACON WASTE & RECYCLING LTD

STEPHENSTOWN BUSINESS PARK

BALBRIGGAN

COUNTY DUBLIN

Prepared For: -

Pacon Waste & Recycling Ltd,
Stephenstown Business Park,
Balbriggan
Co Dublin.

Prepared By: -

O' Callaghan Moran & Associates,
Granary House,
Rutland Street,
Cork.

11th December 2013

TABLE OF CONTENTS

PAGE

LIST OF FIGURES

LIST OF DRAWINGS

DRAWING No.	TITLE
Drawing No 13/421/1	Site Layout
Drawing No 13/421/2	Drainage Layout
Drawing No 13/421/1	Existing & Proposed Floor Layout

LIST OF APPENDICES

NON-TECHNICAL SUMMARY

The Applicant

Pacon Waste & Recycling Ltd (Pacon) is one of the leading waste recovery companies in the Greater Dublin area. They developed their purpose built Materials Recovery Facility (MRF) at Stephenstown in 2006 and began accepting wastes in 2007. Pacon's business focus has, in line with national policy, shifted from disposal to the recovery and recycling of wastes. In 2013, Pacon is on target to achieve a recovery rate of almost 85% of the wastes accepted at the facility.

Existing Site

The site is located in the townland of Stephenstown on the south western edge of Balbriggan, in an area that was significantly developed for commercial and industrial activities between 2002 and 2009. The facility was developed in 2007 as a purpose built waste management facility on a 1.22 hectares(ha) site and includes a purpose built 2,300m^2 waste processing building.

The facility operates under planning permission and a Waste Permit issued by Fingal County Council (Council). The Waste Permit authorises the acceptance of 22,250 tonnes of non hazardous Construction and Demolition and source segregated dry recyclable waste annually. The waste processing includes initial manual segregation on the building floor, followed by a picking line and then a trommel and overband magnets that separate the wastes into recyclables and non-recyclables based on type and size.

Proposed Changes

Pacon intends to apply for planning permission and a revised Waste Permit to increase the amount and types of waste accepted at the facility to 49,950 tonnes/year, amend the acceptance and operational times to allow for 24/7 operations and introduce a new waste processing line to manufacture solid recovered fuel (SRF). The changes do not require any construction works or alterations to the existing site layout and drainage systems. All waste processes will continue to be carried out inside the building.

Planning Policy

The Fingal County Development Plan sets out policies and objectives for the development of the County between 2011 and 2017. The facility is located in an area with a zoning status 'GE' General Employment, the objective of which is to provide opportunities for general enterprise and employment. Waste recovery and disposal facilities are permitted in principal within this zoning area. It is a specific policy objective of the Plan to allow for the expansion of the existing Pacon facility. **Local Objective 43** - *Facilitate the expansion of the existing waste management facility*

Existing Environment, Potential Environmental Effects and Mitigation Measures

Climate

The climate in the area is mild and wet, with the prevailing wind direction from the south west. All new developments that give rise to extra greenhouse gases (GHG) emissions are considered to have a negative effect on climate.

The increase in the amount of waste accepted will locally result in additional GHG emissions from the handling equipment and the additional traffic. Globally, this will be off-set by the manufacture of SRF, which is a replacement for non-renewable fossil fuels. Overall the development will have an imperceptible negative impact.

Soil/Geology

The subsoils beneath facility are clays that are more than 10 m across the site. The underlying bedrock is volcanic basalt. The proposed changes do not require any excavation works or discharges to ground or groundwater and therefore will have no impact on the soils and geology.

Water

The facility is in the catchment of the Matt River. At present, rainwater falling on the site runs off to the storm sewer serving the Stephenstown Business Park. The run-off passes

through an attenuation tank and oil interceptor before it enters the drain, which connects to the Matt River. The proposed changes does not require either excavation works, or new discharges to water and groundwater and therefore will have no impact on waters.

There is no record of any flooding either within or outside the site boundary. The proposed changes will not result in any change in the volume of rainwater run-off from the site and therefore there will be no additional risk of flooding.

Ecology

As the entire site consists of open paved areas, with buildings, there are no sensitive ecological habitats within the site boundaries. The site is not inside the boundary of any designated protection area (Natura 2000 Sites) and the development will not result in direct loss of any habitats or damage to a Natura 2000 Site. The closest Natura 2000 site is the River Nanny SPAlocated approximately 5km north of the site.

A screening assessment of the impacts the proposed changes would have on the SPAs and SACs within 10km of the facility was carried out. It concluded that as the proposed changes do not require the construction of any new buildings, or result in any new or changes to existing emissions from the facility, it will have no impact on either the local ecosystems or any designated sites.

Air Quality

The existing emissions to air from the site are dust and vehicle and plant exhaust emissions. . The proposed change will not result in any new significant sources of dust and therefore mitigation measures are not needed. All waste processing will continue to occur internally.

The increase in the amount of waste accepted will result in extra vehicle movements and an associated increase in the exhaust emissions; however these will be very small in the context of the site's location in a well established industrial area. The trucks used to transport the wastes to and from the site are fitted with catalytic converters to reduce the amount of nitrous oxides in the exhaust gas. Overall the changes will have a negligible adverse impact on air quality.

Noise

The current and proposed activities are sources of noise. There are no Noise Sensitive Locations (NSLs), which are defined as a dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels within 200m of the facility.

An assessment of the impacts of the new noise sources (SRF production and increased traffic) has established that they will not exceed the day time and night time limits set in the Waste Permit and will not be a cause of nuisance outside the site boundary. Overall the development will have an imperceptible adverse impact.

Landscape

The site and surrounding area is not of any special scenic or landscape importance. As it is not proposed to change the layout or construct/demolish any buildings, there will be no impact on landscape.

Traffic

The proposed changes will result in an increase in the number of trucks arriving at and leaving the site. An assessment of the impacts has established that the road network has sufficient capacity to handle the increase in traffic, taking account of the cumulative traffic from existing and approved developments in the surrounding area. Overall the development will have a negligible impact

Cultural Heritage

There are no known features of archaeological or cultural heritage significance within the site boundaries. As the proposed changes do not require the construction/demolition of any buildings or ground disturbance they will have no impact on either known, or unknown features.

Human Beings

The land use in the surrounding area are predominantly commercial and industrial. The closest residences are more than 200m from the site boundary. The current operations are not having any impact on people working and living in the surrounding area. The proposed change will result in an increase in truck movements in and out of the site however this will have a negligible impact on human beings in the surroundings area.

Material Assets

Neither the site nor its immediate environs have a significant leisure or amenity potential. The proposed change is in keeping with the current operations and will help in securing employment and increasing the waste recovery rates. The change will not have any impact on material assets either within the Business Park or in the surrounding area.

Interaction of the Foregoing

The assessment took into consideration the impacts of the existing facility, the proposed change and other planned developments in the surrounding area. The proposed change will not introduce any new or additional sources of emissions with the exception of exhaust gases from the trucks.

Evaluation of Impacts

Description	Impact No.	Character	Magnitude	Duration	Consequences	Significance of Impact	Certainty
Climate	1	Increased CO_2 from waste processing, and traffic volume increase	Additional electricity use and traffic increase	Long Term	Additional GHG emission contribute to climate change	Negative, imperceptible	High
Traffic	2	Increase in Traffic Volume and times of access to the site	Traffic increase	Long Term	None, road network has the capacity to accommodate the extra traffic. No perceptible impacts at any sensitive locations at night time.	Negative Imperceptible	High
Soils and Geology	-	None	-				
Water	-	None	-	-	-	-	-
Air	3	Increased emissions from Vehicle exhausts	Traffic Increase	Long Term	Additional air pollutants	Negative, imperceptible	High
Noise	4	Vehicle manoeuvring, SRF processing	On-Site and within the building	During Operational Hours	Annoyance	Negative, Imperceptible during day and night time.	High
Landscape	-	None	-	-	-	-	-
Ecology	-	None	-	-	-	-	-
Archaeology	-	None	-	-	-	-	-
Material Assets	5	Non-Renewable Resource Consumption	Increased energy consumption at facility.	Long-Term	None Known	Imperceptible	High
Human Beings	-	None	-	-	-	-	-

PREAMBLE

This Environmental Impact Statement (EIS) examines the potential impacts and significant effects on the environment of the proposal to increase the volume and type of waste accepted, expand the operational hours and introduce new waste processes at the Pacon Waste & Recycling Ltd (Pacon) Materials Recovery Facility (MRF) at Stephenstown Business Park, Balbriggan, County Dublin.

The facility operates under planning permission and a Waste Permit issued by Fingal County Council (the Council) that specify the amount of waste that can be accepted, the waste acceptance and operational hours and the range of processes that can be carried out.

Pacon intend to apply for planning permission and a Waste Permit review to increase the amount of waste accepted at the facility annually from 22,250 tonnes to 49,950 tonnes; amend the waste acceptance and operational hours and introduce new waste processes and accept new but similar waste types to those currently approved by the Waste Permit. The proposed changes do not require the construction of any new buildings or alterations to the existing site layout.

As the proposed increase in the amount of waste accepted exceeds the threshold for waste management activities (25,000 tonnes/year) specified in the European Communities (Environmental Impact Assessment) (Amendment) Regulations 1999 (EIA Regulations), an EIS must be submitted with the planning application.

The information contained in the EIS complies with Paragraph 2 of the Second Schedule of the European Communities Environmental Impact Assessment Regulations 1989, as amended by the European Communities (Environmental Impact Assessment) (Amendment) Regulations 2001. It takes into account the cumulative effects of existing and proposed developments in the area surrounding the site

The EIS follows the grouped format structure recommended in the Guidelines on the Information to be Contained in Environmental Impact Statements (March 2002), published by the EPA, and the EPA's Advice Notes to these Guidelines. This structure assesses each

relevant topic in a separate Chapter describing the existing environment, the impacts associated with the activity and, where considered necessary, the proposed mitigation measures.

Public Consultation

Pacon held EIS scoping discussions with the Council in October 2013 and also informed their neighbours in Stephenstown Business Park (Tierney Kitchens and Fingal Insulations). Both neighbours sought confirmation that food wastes would not be accepted at the site and Pacon confirmed this would be the case.

Pacon also placed a notice of the intention to submit the planning application for the proposed changes in the Fingal Independent and invited comments from members of the public that would be taken into consideration in the preparation of the EIS. No comments were received from members of the public. The public consultation information is included in Appendix 1.

Project Team

O' Callaghan Moran & Associates (OCM) were the lead consultants in producing this EIS, and were assisted by a number of specialist service providers. Unless otherwise referenced, OCM were responsible for completing the baseline surveys and assessment of impacts.

O'Callaghan Moran & Associates – Environmental Consultants: Lead Consultants

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Difficulties in Compiling the Required Information

OCM did not encounter any particular difficulties in compiling the required information. As the proposed change does not involve either the construction/demolition of any buildings, or any significant ground disturbance, specialist Archaeological & Cultural Heritage, Ecological and Visual Impact assessments were not carried out.

1. INTRODUCTION

1.1 The Applicant

Pacon Waste & Recycling Ltd (Pacon) is one of the leading waste recovery companies in the Greater Dublin area. They developed their purpose built Materials Recovery Facility (MRF) at Stephenstown and began accepting wastes in 2007.

Since 2007, Pacon's business focus has, in line with national policy, shifted from landfill disposal to the recovery and recycling of wastes. In 2013, Pacon is on target to achieve a recovery rate of almost 85% of the wastes accepted at the facility.

1.2 Facility Overview

The site is located in the townland of Stephenstown on the south western edge of Balbriggan, in an area that was significantly developed for commercial and industrial activities between 2002 and 2009.

The facility was constructed in 2007 as a purpose built waste management facility on a 1.22 hectares(ha) greenfield site and includes a purpose built 2,300m^2 waste processing building. Pacon accepts and processes non-hazardous mixed Construction & Demolition (C&D) wastes and source segregated dry recyclables that are primarily collected in the Dublin Region.

Waste operations are regulated by the Waste Permit (WFP-FG-10-0004-01) a copy of which is in Appendix 2. The Waste Permit authorises the acceptance of 22,250 tonnes of waste annually. The waste processing includes initial manual segregation of the waste streams on the building floor, with the waste then placed in an in-feed hopper using a grab machine and conveyed to a picking line where large items and recoverable materials are removed (stones, metals, hard plastics etc).

The waste is then conveyed through a trommel and overband magnets separating ferrous metals while sand, soil, glass and other small heavy items are separated by the tromell fines

screens. The dry recyclables are baled and all wastes are sent to off-site recovery facilities for further processing.

1.3 Proposed Changes

Pacon intends to apply for planning permission and a revised Waste Permit to increase the amount and types of waste accepted at the facility to 49,950 tonnes/year, amend the acceptance and operational times to allow for 24/7 operations and introduce a new waste processing line to manufacture solid recovered fuel (SRF). SRF is used as a fuel in cement kilns, co-incineration plants and waste to energy plants and such use is deemed to be a waste recovery activity.

The proposed changes are to allow Pacon compete for business in the domestic and commercial waste collection market and offer waste treatment services to authorised waste collectors in the Dublin and adjoining Regions. The types of waste that will be accepted will be of a similar character to those currently accepted and the proposed SRF processing line will be of a similar nature to the existing plant items. There will be no increase in the waste going to landfill.

The change in waste acceptance and operational times is to give Pacon the flexibility for waste collections outside normal business hours. Dublin City Council issued '*Bye-laws for the storage, presentation and collection of household and commercial waste 2013*' which require waste collectors to collect household waste or commercial waste within the Central Commercial District (CCD) on the designated collection day between the hours of 7.00pm to 12.00 midnight.

It is also an operational requirement to open the facility on a 24/7 basis in order to facilitate the delivery of SRF to cement factories.

2. WASTE MANAGEMENT & PLANNING POLICY

2.1 Introduction

This Chapter presents an overview of the relevant national and regional waste policies and planning policy and demonstrates how the proposed changes are consistent with both national and regional waste management and planning policy objectives. It is based on national Waste Policy Statements, the Dublin Region Waste Management Plan 2005-2010 and the Fingal County Development Plan 2011 -2017.

2.2 Waste Management & Planning Policy

National Waste Management Policy

The foundation policy statement on waste management policy *"Changing Our Ways"* was issued by the Department of the Environment and Local Government's policy in September 1998. This statement firmly based national policy on the EU Waste Management Hierarchy, which was subsequently amended in 2008. In descending order, the current preference is: -

- Prevention;
- Preparing for Reuse;
- Recycling;
- Other Recovery (including energy recovery);and
- Disposal

The 2002 government policy statement *'Preventing and Recycling Waste - Delivering Change'* identified initiatives to achieve progress at the top of the Waste Hierarchy in terms of preventing waste arising and increasing recycling rates.

In *'Waste Management – Taking Stock and Moving Forward' 2004*, the significant improvement in recycling rates achieved since 1998 were recognised, but the need for further expansion was emphasised. The statement confirms that Ireland's national policy approach

remains *'grounded in the concept of integrated waste management, based on the internationally recognised waste hierarchy, designed to achieve, by 2013, the ambitious targets set out in Changing Our Ways'.*

The EU Waste Framework Directive 2008/98/EC was introduced to coordinate waste management in the Member States to limit the generation of waste and optimise the organisation of waste treatment and disposal. The Directive, which also established the first EU wide recycling targets, was transposed into Irish Law by the European Communities (Waste Directive) Regulations 2011 (S. I. No.126 of 2011).

The most recent Policy Statement '*A Resource Opportunity Waste Management Policy In Ireland 2012'* is also predicated on the EU Waste Management Hierarchy and encompasses a range of measures across all tiers namely, prevention, preparation for reuse, recycling, other recovery and disposal.

The Statement sets out how the higher tiers can reduce Ireland's reliance on finite resources, virtually eliminate reliance on landfill and minimise the impact of waste management on the environment. It is a policy objective that when waste is generated, the maximum value must be extracted from it by ensuring that it is reused, recycled or recovered.

Dublin Waste Management Plan 2005-2010

The current waste management plan for the Dublin Region (Fingal, Dublin City, Dun Laoghaire Rathdown & South Dublin) was made on November 11th 2005 and remains in place. Section 11.2.2 of the Plan recognises that since further growth in recycling is required under the Plan, the continued operation and further expansion of recovery capacity is required.

Section 18.10 of the Plan states Dublin's aim to become self-reliant in terms of waste management infrastructure: "*waste generated in Dublin should be managed in Dublin as far as possible."*

The proposed changes to the Pacon facility is consistent with national and regional waste policy objectives, as it will increase the treatment capacity in the Dublin Region to get the maximum value from the waste by the manufacture of SRF and will contribute to the achievement and maintenance of national and regional recycling targets.

Fingal County Council Planning Policy

The Fingal Development Plan sets out policies and objectives for the development of the County over the Plan period – 2011-2017. The Plan came into effect in April 2011. The facility is located in an area with a zoning status 'GE' General Employment, the objective of which is to provide opportunities for general enterprise and employment. Waste recovery and disposal facilities are permitted in principal within this zoning area.

It is a specific policy objective of the Plan to allow for the expansion of the existing Pacon facility -**Local Objective 43** - *Facilitate the expansion of the existing waste management facility*

In accordance with Section 22(10)a of the Waste Management Acts 1996-2010 the objectives of the Dublin Region Waste Management Plan described above are deemed to be included in the Development Plan.

2.2.1 Conclusion

The proposed increase in the quantity and type of waste accepted at the facility and the manufacture of SRF is consistent with the objectives of the EU Waste Management Hierarchy and the Council's policy objective of diverting waste from landfill, as it will increase the amount of waste recovered within the Dublin Region and maximise the value from the wastes accepted at the facility.

The facility is located in appropriately zoned area and the proposed changes will contribute to the long term sustainability of employment at the site. An assessment of the impacts of increased traffic, details of which are presented in Chapter 6, has confirmed the local road network has the capacity to accommodate the additional traffic associated with the increases in the amount of waste that will be accepted.

An assessment of the impacts on the surrounding area including amenity uses, which is presented in Chapter 15, confirmed that the proposed changes will not have any significant detrimental effect.

A Natura Impact Statement Stage 1 Screening Assessment has been completed and is separate from this EIS, but for information purposes is in Appendix 5. The Screening concluded that the proposed changes will not result in any significant impact on the conservation value of any Special Protection Area or Special Area of Conservation.

2.3 Need for the Development

The facility has been operational since 2007 and its continued operation and expansion is crucial to Pacon's policy of increasing waste recycling/recovery rates and maintaining long-term sustainable employment in Fingal.

The expansion of the waste acceptance and operational hours is required to ensure the business is competitive and is in a position to provide a similar service to existing and new customers, as well as other waste collectors.

Should the current waste acceptance and operational hour restrictions continue to apply, Pacon will not be able to provide a similar level of service to existing and new customers as other waste operators in the Dublin area and will not be in a position to collect wastes from the Dublin CCD.

3. ALTERNATIVES EXAMINED

This Chapter addresses the alternatives considered, including plant locations and configurations and a 'Do Nothing' scenario.

3.1 Alternative Sites

The facility is specifically designed for and has established use for waste management. It is located in a Business Park where other occupants operate outside normal business hours. It has the capacity to process the increased waste quantities and it is a specific policy objective in the Fingal County Council Development Plan to facilitate its expansion.

The alternative to not increasing amount and types of wastes accepted would be to develop a new facility at another location. This would involve either the acquisition/leasing of a suitable building, or the construction of a new facility and the provision of new processing equipment. Given the relatively small amount of additional wastes involved (Ca 25,000 tonnes/annum), the development of a new facility by Pacon at another location is not economically viable.

Site activities are not a source of significant adverse environmental impacts and do not cause an impairment of the amenities in the surrounding area. The proposed changes will not result in any new emissions and will not require the provision of any new or additional emission control and mitigation measures. Therefore, the development of an alternative site is not necessary from an environmental viewpoint.

3.2 Alternative Configurations & Technologies

The existing site layout and buildings can readily accommodate the proposed increase in waste inputs. The design of the proposed SRF production line is based on the supplier's extensive experience in the manufacture and assembly of waste processing lines and will be included in an existing store room. Therefore, there is no need for alternative configurations or technologies.

3.3 The Do Nothing Alternative

If Pacon does not obtain approval to increase the amount and types of waste accepted, its ability to compete for business in the Dublin area will be significantly adversely affected.

Should the current waste acceptance and operational hour restrictions continue to apply, Pacon will not be able to provide a similar level of service to existing and new customers as other waste operators in the Dublin area and will not be in a position to collect wastes from the Dublin CCD.

4. FACILITY DESCRIPTION

4.1 Introduction

This Chapter presents an overview of the existing facility and the proposed changes. More information on the ambient environmental conditions is presented in the following Chapters, which address specific impacts associated with the proposed increase in the quantities and types of wastes accepted, the new SRF process and the amendment of the operational hours.

4.2 Site Location

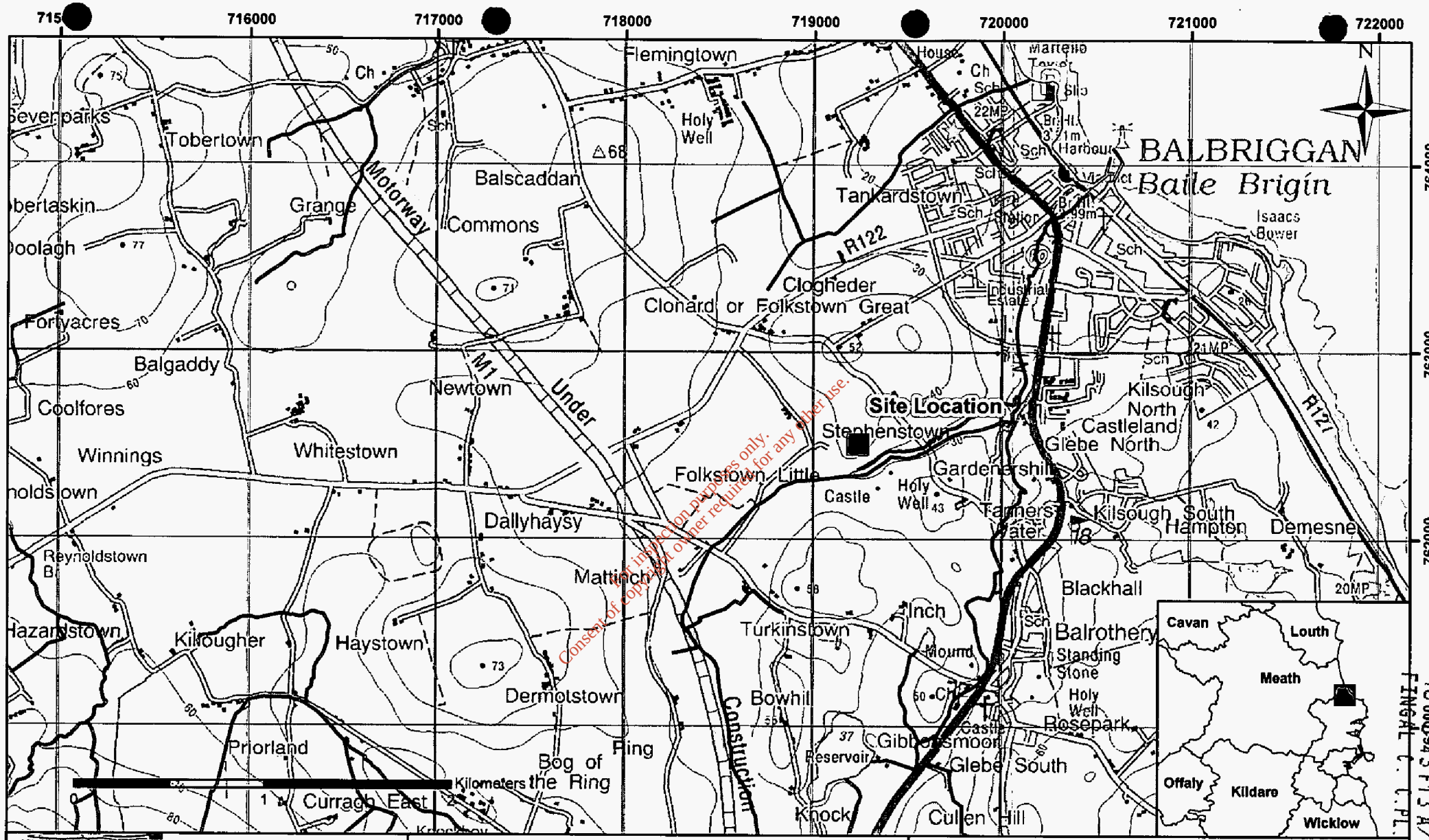
The site is located in the townland of Stephenstown, within the Stephenstown Business Park, Balbriggan, County Dublin (Figure 4.1). It is in a commercially / industrially zoned area on the south western fringe of Balbriggan and is bounded to the north by the Stephenstown Outer Relief Road and to the west by two commercial premises. To the east is an electrical substation and to the south is undeveloped scrubland and pasture lands.

4.3 Site Layout

The site layout is shown on Drawing No.13/421/1. The facility is adjacent to the Stephenstown Outer Relief Road, which was constructed in 2005-2006 and serves the commercial and industrial area. The site is entered by a common access road serving the facility and other occupiers of the Business Park.

The site encompasses approximately 1.22 hectares (ha) and comprises one main processing building (2,300m^2), portacabin type offices and toilets, weighbridge and open concrete paved and unpaved yards.

The paved yards are in good condition and are used for vehicle manoeuvring and empty skip storage. The unpaved area, comprising hardcore fill, is along the eastern boundary and is used for empty skip storage.



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CLIENT

Pacon Waste

TITLE

Site Location

Details

Site Location

Rivers

Figure 4.1

The Main Processing Building is approximately 2,300m^2, with a ridge height of approximately 13.5m and is accessed by doors on the southern side. It is a portal frame with metal cladding and concrete walls and is divided into two sections, waste processing and storage.

The larger section (waste processing 1,800m^2) is on the western side and is used for waste unloading and processing. The smaller section is on the eastern side of a blockwall partition and is used for the storage and baling of dry recyclables.

The floors are concrete and in generally good condition. There are three floor drains which are connected to three separate underground wastewater holding tanks. The tanks are emptied by vacuum tanker, with the contents sent to an off-site Waste Water Treatment Plant, as required.

There is a truck & skip wash in the yard close to the western boundary of the site. The washwater passes through a silt trap and a three chamber Class 3 Full Retention Oil Interceptor before discharging to the foul sewer serving the Business Park.

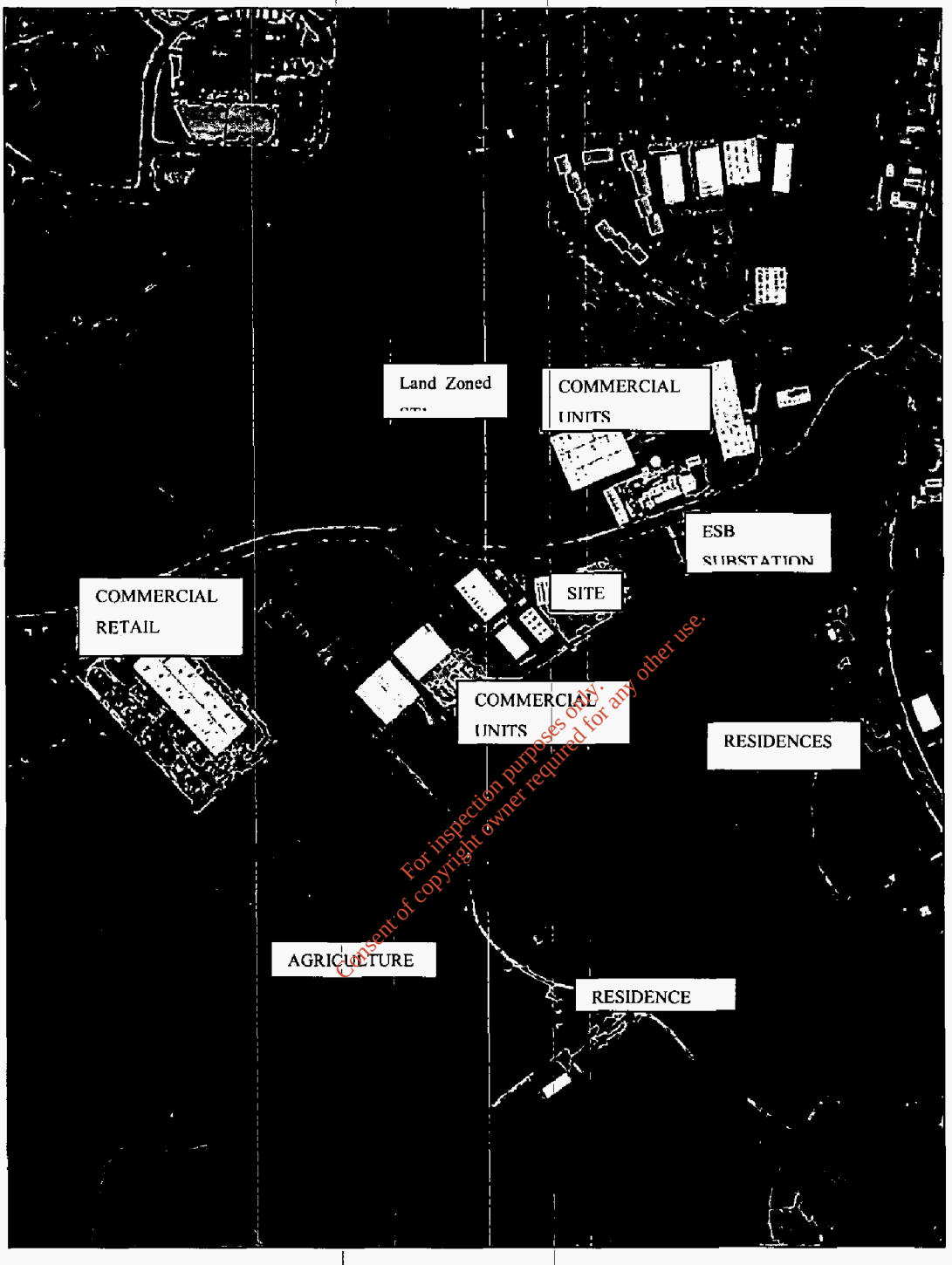
There are two above ground oil storage tanks in the northwest corner of the site. One is a 5,000 litre green diesel tank used for the on-site plant and the other is a 20,000 litre diesel tank used for the Pacon waste collection fleet.

The weighbridge and offices are near the site entrance at the south western boundary. There is an electrical substation that is owned by the utility company (Electric Ireland) close to the weighbridge at the southern boundary and there is palisade security fence surrounding the site.

4.4 Surrounding Land Use

The facility is located in a commercial / industrial area (Figure 4.2). It is bounded to the north by the Stephenstown Other Relief Road and undeveloped land further north. This area north of the Outer Relief Road is zoned for further commercial development.

Figure 4.2 Surrounding Landuse



To the west are two commercial premises, Tierney Kitchens and Fingal Insulations. There are commercial warehouses and a retail DIY centre further west. To the east of the site is a 110KV electrical substation and the land to the south is undeveloped. The Matt Stream flows from southwest to northeast and is approximately 50-60m from the site's southern boundary.

The private residences in the vicinity of the site are individually identified on Figure 11.1 in Chapter 11. The closest is approximately 210m to east-southeast and is one of a cluster of four houses in this industrially zoned area. There is a one off house 350m south-southwest of site, four one off houses 550-580m northwest of site, one house 530m to north of site, three one off houses approximately 240m west of the site and residential estates on the outskirts of Balbriggan, approximately 400m north east of the site.

4.5 Water and Electricity Supply

The facility obtains water from the municipal water supply system provided by Fingal County Council. The electricity supply is provided by Electric Ireland and there is an electrical substation close to the site entrance.

4.6 Drainage

4.6.1 Surface Water

Surface water run-off is generated by rainfall on the roof of the Main Processing Building and the paved open yard areas. Discharges from the onsite truck wash are also to the storm drainage system. The drainage layout is shown on Drawing No 13/421/2.

The run-off is collected and discharged to the storm sewer serving the Business Park via underground attenuation tanks, silt traps and a three chamber Class 3 oil interceptor. It is understood that the Business Park sewer discharges ultimately to the Matt River.

There is a shut off valve at the outlet from the interceptor that can be closed in the event of an incident within the site that has the potential to impact on surface water quality and this will contain the surface water within the site.

The discharge rate from the site to the storm sewer is controlled by a hydrobrake at the outlet from the attenuation system, which restricts the flow to a maximum of 4 litres per second. The storm sewer serving the site and the adjacent commercial premises ultimately discharges to the Matt Stream at a controlled rate to prevent flooding.

4.6.2 Foul Water

Sanitary wastewater discharges to the municipal foul sewer serving the Business Park. There are three drains in the floor of the Main Processing Building which connect to three separate underground waste water holding tanks. These tanks are emptied as required and the contents sent to an off-site Waste Water Treatment Plant. These tanks are self-contained – there is no discharge to foul or storm sewers.

4.7 Facility Management & Staffing

The Facility Environmental Manager has an MSc in Environmental Planning and has 10 years waste management experience. There are currently 20 full time employees based at the facility, including management, administration, general operatives, health and safety and maintenance staff.

4.8 Hours of Operation

The current operational hours are 07:00 – 20:00 Monday to Friday and from 08:00 – 13:00 on Saturdays. The facility is closed on Sundays and Bank Holidays. It is proposed to amend the operational hours set in the planning permission and Waste Permit.

It is not intended to operate the facility 24 hours per day seven days per week but flexibility is required to serve customers demands and collect wastes in the Dublin CCD which can only occur at night time and also to deliver the finished SRF to cement kilns which can operate during night time hours.

4.9 Waste Types & Quantities

The Waste Permit allows the acceptance of 22,250 tonnes of non-hazardous waste annually. The types of waste are set in Table 1 of the Waste Permit which is in Appendix 2. They include Construction & Demolition wastes and Commercial & Industrial wastes, comprising dry recyclables.

It is proposed to increase the amount of waste accepted at the facility to 49,950 tonnes annually and take in additional waste types. The types of waste and estimated quantities are shown on Table 4.1. While the actual amount of the individual wastes, as defined by the EWC codes, may change, the overall annual limit will not be exceeded. Additional waste types, similar in nature to the ones listed below may also be accepted subject to the agreement of the Council.

Table 4.1 – Proposed Types and Estimated Quantities of Waste*

EWC Code (6 digits)	Description	Quantity/units (tonnes)
15 01 01	Paper and Cardboard Packaging	255
15 01 02	Plastic Packaging	100
15 01 03	Wooden Packaging	200
15 01 04	Metallic Packaging	100
15 01 05	Composite Packaging	100
15 01 06	Mixed Packaging	100
15 01 07	Glass Packaging	100
15 01 09	Textile Packaging	100
16 01 03	End of life tyres	100
17 01 01	Concrete,	2000
17 01 02	Bricks,	200
17 01 03	Tiles & Ceramics	200
17 01 07	Mixture of Concrete, Bricks, Tiles & Ceramics	1500
17 02 01	Wood	1500
17 02 02	Glass	100

EWC Code (6 digits)	Description	Quantity/units (tonnes)
17 02 03	Plastic	200
17 04 01	Copper, bronze, brass	25
17 04 02	Aluminium	100
17 04 03	Lead	25
17 04 04	Zinc	25
17 04 05	Iron and steel	25
17 04 06	Tin	25
17 04 07	Mixed metals	900
17 04 11	Cables other than those mentioned in 17 04 10	25
17 05 04	Soil and stones other than those mentioned in 17 05 03	3000
17 06 04	Insulation materials other than those mentioned in 17 06 01 and 17 06 03	100
17 08 02	Gypsum Based Construction materials other than those mentioned in 17 08 01	150
17 09 04	Mixed Construction and Demolition wastes other than those mentioned in 17 09 01, 17	17100
19 12 01	Paper & Cardboard	100
19 12 02	Ferrous Metals	50
19 12 03	Non-Ferrous Metals	50
19 12 04	Plastic & Rubber	50
19 12 07	Wood other than those mentioned in 19 12 06	50
19 12 10	Combustible Waste (RDF)	10,000
19 12 12	Other Wastes from mechanical treatment of wastes other than those mentioned in 19 12 11	10,000
20 01 01	Paper and Cardboard	150

EWC Code (6 digits)	Description	Quantity/units (tonnes)
20 01 02	Glass	50
20 01 10	Clothes	30
20 01 11	Textiles	25
20 01 28	Paint, Inks, adhesives and resins other than those mentioned in 20 01 27	10
20 0134	Batteries and accumulators other than those mentioned in 20 01 33	10
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23, 20 01 35.	25
20 01 38	Wood other than that mentioned in 20 01 37	200
20 01 39	Plastics	50
20 01 40	Metals	200
20 02 02	Soil and Stones (Garden and Parks)	100
20 02 03	Other non-biodegradable wastes	50
20 03 01	Mixed Municipal Waste	300
20 03 07	Bulky waste	95
Total		**49,950**

* While the quantities of the individual EWC codes may change, depending on market conditions, the overall annual tonnage limit will not be exceeded.

4.10 Waste Acceptance & Handling

4.10.1 Existing Waste Operations

The wastes are delivered by Pacon and third party collection vehicles and all deliveries are weighed on the weighbridge and then directed to the Main Processing Building (Drawing 13/421/3). The key processes carried out are: -

- Segregation of recyclable materials (paper, cardboards, plastic, wood, metals, glass);
- Segregation and bulking of Construction & Demolition waste;
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets, and
- Baling of Dry Recyclables

Construction and Demolition (C & D) Waste

The C&D waste comprises mixed wastes (rubble, stone, timber, metal etc) and soil and stone that arrives in skips of varying sizes. The loads are inspected, with any contaminants removed and placed in a dedicated skip located inside the building, and the remainder off-loaded into an internal C&D bay.

The waste processing includes an initial segregation by grab machine to remove any large particles, with the waste then placed in an in-feed hopper using a grab machine and conveyed to a picking line where large fractions and recoverables are removed (stones, metals, hard plastics etc). Waste is then conveyed through a trommel and overband magnets. The magnet recovers ferrous metals while, soil, glass and other small heavy items are separated by the trommel screens.

The existing residual waste streams are conveyed through a Lights Separation Air Unit (LSU) where the light fraction (paper, plastic) is separated from the heavy fraction (stones, glass, concrete, metals). The heavy fraction is then passed through a final picking station using a further overband magnet to remove all remaining ferrous metals. The dry recyclables are baled and all wastes are sent to off-site recovery facilities for further processing.

4.10.2 Proposed Waste Operations

It is proposed to introduce additional waste recovery plant in order to produce a Solid Recovered Fuel (SRF). An indicative layout for the SRF production line is shown on Drawing 13/421/3.

The light fraction produced from the LSU including Dry Mixed Recyclables will then be processed as follows;

- Conveyed through a Primary Shredder reducing the waste particle size to 80mm.
- Conveyed from here via Eddy Current Overband Magnate to remove any conductive materials such as aluminium, copper, cans etc. to a secondary high-speed shredder reducing the particle size to 25mm/30mm.

The process produces a light fluff, which predominantly consists of two dimensional material such as plastic foils, paper, cardboard and textiles, and is classified as Grade 1 SRF suitable for use in cement kilns as a waste-to-energy fuel, diverting from landfill.

4.11 Plant & Equipment

The type and number of fixed and mobile plant currently used to handle and process the waste is shown in Table 4.2 and the additional plant items required for the production of SRF are shown on Table 4.3. All key plant items have 100% duty and 50% standby capacity.

Critical spares are and will be maintained on-site and a preventative maintenance programme will be implemented. In the event of a breakdown supporting plant items may be hired in for use for short periods. A back-up generator is available on site.

Table 4.2 Current Plant List

No.	Plant	Operational Capacity tonnes/day	Standby Capacity Tonnes/day
1	Liebherr Grab	500	NA
1	JCB Loading Shovel	500	350
1	Teleporter	500	NA
1	Baler	100	70
1	Lights Separation Air Unit	500	150
1	Trommel	200	140
1	Picking Line	200	150
-	Conveyors & OB Magnets		

Table 4.3 Additional Plant List

No.	Plant	Operational Capacity tonnes/day	Standby Capacity Tonnes/day
1	Conveyor & OB Magnet	500	150
1	SRF 80ml Shredder	500	140
1	SRF 25ml Shredder	500	150

4.12 Oil / Chemical Storage

Operations involve the storage and handling of fuel, engine hydraulic and lubricating oils. There are two above ground oil storage tanks in the north west corner of the site. One is a 5,000 litre green diesel tank used for the onsite plant and the other is a 20,000 litre white diesel tank used for the Pacon waste collection fleet. It is not proposed to alter the existing storage arrangements.

4.13 Energy Efficiency and Resource Consumption

Facility operations involve the consumption of water, oil and electricity. Energy consumption is a significant operational cost and Pacon is committed to improving energy efficiency. The estimated quantities used in 2013 are given in Table 4.4. Additional energy will be required for the new SRF production and the estimated resource consumption when operating at maximum capacity is shown on Table 4.5.

Table 4.4 Resource Consumption– Existing Operations

Resources	Quantities 2013
Diesel (green)	36,000 litres
Electricity	1,500 KwH Units
Hydraulic Oil	700 litres
Engine Oil	1000 litres
Mains Water	65 m^3

Table 4.5 Resource Consumption– Proposed Operations

Resources	Quantities at Max Capacity
Diesel (green)	40,000 litres
Electricity	2,750 KwH Units
Hydraulic Oil	1,000 litres
Engine Oil	1,300 litres
Mains Water	65 m^3

Pacon carries out quarterly reviews of energy and resource usage to monitor the consumption rate and minimise both the amounts consumed and the associated costs.

4.14 Waste Generation

Waste generated by facility administration and maintenance activities include office and canteen waste. Pacon implements waste prevention, minimisation and segregation procedures to minimise the amounts of wastes arising and ensure that as much as possible is recycled and recovered. All fixed and mobile plant and equipment is subject to on-site maintenance by a contract mechanic company. Waste oils and spent batteries are removed offsite immediately by the contract company for disposal/recovery at licensed treatment/recovery facilities.

4.15 Nuisance Control

Pacon has contracted a vermin control company to carry out nuisance control at the facility. The contractor provides and maintains forty bait boxes at the facility and also carries out

insect control measures as required. Weekly nuisance and litter inspections and daily litter picks are carried out.

4.16 Safety and Hazard Control

Pacon has prepared and implemented an Emergency Response Plan to minimise the risk of accidents or incidents that could result in adverse environmental impacts. The ERP ensures a rapid response to any incident by trained staff so as to minimise the impact on the environment of any associated emissions.

All facility personnel and visitors are obliged to comply with Pacon safety guidelines regarding access to and from the facility and on-site traffic movement. All site personnel are provided with, and are obliged to wear, personal protective equipment (PPE) appropriate for their particular functions. PPE includes facemasks, gloves, safety glasses, steel-toed footwear, overalls, reflective jackets and helmets.

4.17 Changes to the Project

The facility has the capacity to accommodate the proposed increase in the amount of waste received and for the additional plant items needed to produce the SRF. It is not expected that there will be any significant changes to the project.

4.18 Associated Developments

The proposed increase in the amount and types of wastes accepted and processed at the facility does not require and will not involve any associated developments.

5. CLIMATE

5.1 Introduction

This Chapter describes the climate at the facility and assesses the impact the proposed increase in the amounts of waste will have on the climate and microclimate

5.2 Methodology

The assessment was based on meteorological data obtained from the Dublin Airport Meteorological Station.

5.3 Existing Conditions

Average rainfall, temperature, humidity and wind speed and direction for the Meteorological Station at Dublin Airport is presented in Table 5.1. The general climate in the area can be described as mild and wet, with the prevailing wind direction from the south west. The average annual rainfall at the site is 732 mm.

Table 5.1 Meteorological Data: Dublin Airport 1981-2010

Rainfall	
Annual average	732.7 mm
Average maximum month (Dec)	75.6 mm
Average minimum month (July)	49.9 mm
Temperature	
Mean Daily	9.6°C
Mean Daily Maximum (July)	18.9°C
Mean Daily Minimum (Jan & Feb)	2.5°C
Relative Humidity	
Mean at 0900UTC	82%
Mean at 1500UTC	72%
Wind (Knots)	
Frequency of calms	2.2%
Prevailing direction	South West
Prevailing sector	South West

5.4 Impacts

It is now internationally accepted that there is a link between greenhouse gas emissions (GHG) and climate change. The proposed expansion in site activity will result in an increase in energy (oil and electricity) consumption, with a consequent increase in direct and indirect GHG emissions, which in this case will predominantly comprise carbon dioxide.

Direct emissions will be associated with on-site waste processing operations and the off-site electricity generating plant, while indirect emissions are linked to additional goods vehicle movements. The predicted energy usage at the facility when it is operating at full capacity is in Table 5.2, which also include estimates of the associated carbon dioxide emissions.

Table 5.2 Predicted Energy Use Per Annum

Resources	Quantities Max Capacity	CO2 Emissions Tonnes
Diesel (green)	40,000 litres	107.3
Electricity	2,750 KwH Units	1.59
Hydraulic Oil	1,000 litres	2.9
Engine Oil	1,300 litres	3.0
Mains Water	65 m^3	-

Under the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), Ireland's total emissions are limited to an average of 62.84 million tonnes of CO2 equivalents per annum in the period 2008-2012.

The EPA, which is the responsible authority for reporting on climate change, reports that in 2011 Ireland's total GHG emissions had decreased across all sectors due to the effects of the economic downturn by 14.9% compared to 2008.

Emissions from the industrial and commercial sector, which is responsible for a 14.3% of total national emissions, were 8.9% lower in 2011 compared to 2010. Emissions from the transport sector, responsible for 19.6% of total national emissions and which had been the fastest growing source of GHG emissions, decreased by 22% between 2007 and 2011.

In April 2013, the EPA stated that Ireland is on track to meet its commitment under the Kyoto Protocol.

5.5 Mitigation Measures

The diesel powered plant engines are only turned on when wastes are being processed and Pacon has a policy of not allowing engine idling. This also applies to heavy goods vehicles accessing the facility.

The SRF will be used to replace non-renewable fossil fuels with a consequent reduction in GHG from these energy sources. This is a compensatory measure that will offset the additional GHG emissions associated with the proposed changes.

5.6 Assessment of Impacts

The increase in the amount of wastes accepted and the manufacture of the SRF items will result in an increase in GHG, however these will be partially offset by the reduction in GHG emissions from non-renewable sources achieved by the use of the SRF offsite. This in conjunction with the relatively small scale of the existing and proposed operations means that the changes will have an imperceptible negative impact on climate.

6. TRAFFIC

6.1 Introduction

This Chapter describes existing road traffic conditions and includes an assessment of the impacts the proposed increase in the amounts of waste accepted at the Pacon facility will have on the local road network.

6.2 Methodology

The assessment of impacts is based on traffic flow data for the existing operations, which are recorded in the facility weighbridge and estimates of the additional traffic flows based on the proposed tonnage and types of wastes to be accepted.

It takes into consideration the Traffic Section of the Stephenstown, Clogheder, Clonard Local Area Plan (LAP) (2007) including information on the Stephenstown Link Distributor Road and Outer Relief Road which provides access to the Pacon site. The LAP includes land to the north of the Pacon site that has been zoned for commercial development and is accessed by the Outer Relief Road.

6.3 Existing Conditions

6.3.1 Existing Road Network

The Business Park is located on the southern side of the Stephenstown Outer Relief Road which connects to the main Balbriggan M1 motorway link road, the R132. The Business Park is approximately 3km from the M1 motorway and is accessed off the Stephenstown Outer Relief Road, which also provides access to the other commercial activities in the Business Park. The road was constructed in 2006-2007 and is of high quality and in good condition.

A Traffic Impact Assessment (TIA) was commissioned by Fingal County Council during the preparation of the LAP to evaluate the capacity of proposed and existing road networks in the area to cater for future development in conjunction with the cumulative impacts of the additional developments either already approved, or proposed.

The proposed developments include a 58ha land bank to the north of the Pacon site that is zoned for commercial use. The TIA concluded that when all the development envisaged in the LAP was completed the road network would operate satisfactorily.

6.3.2 Traffic Generation – Existing & Proposed

Estimates of the current traffic movements associated with the facility during the peak periods are based on the recorded weighbridge data for 2013. The facility is authorised to accept 22,250 tonnes of waste. In 2013 to date, the facility will accept close to 22,000 tonnes, which equates to a daily intake and subsequent consignment of approximately 70 tonnes.

Wastes are delivered in Roll on/off trailers and skip vehicles and are consigned using curtain sided or trailer 40ft trucks. Each roll on/off trailer holds approximately 20 tonnes. The skips are in various sizes ranging from 1 tonne to 20 tonnes.

For the purpose of this assessment the skip vehicle traffic arriving at the site is broken out in to less than 5 tonne loads and between 5 and 15 tonne loads. The waste is consigned in approximately 20 tonne loads, which equates to approximately 4 No. waste consignment vehicles entering (empty) and leaving the facility (full) daily. Table 6.1 shows the current trip rates. The skips generate the most traffic, with just 2 No. trips per day generated by the larger roll on/off waste vehicles.

Table 6.1 Summary HGV Traffic Generation – Existing – 22,000 tonnes per annum

Date	Time Period	Roll On/Off – 15-20 T		Skips <5tonnes		Skips >5-<15 T		Consigned Waste (40fts)	
		Inbound	Outbound	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
2013	Daily Average	2	2	10	10	5	5	4	4
2013	Week	11	11	55	55	28	28	22	22

Table 6.2 shows the trips that will be generated at maximum capacity. For the purpose of the assessment it is assumed that a significant portion of the additional waste accepted will be for SRF production. This waste will be delivered to the facility in 15-20 tonne loads as the

sources will predominantly be other waste management facilities. It is expected that an improvement in the economic conditions will lead to some increase in skip vehicle traffic.

Table 6.2 Summary HGV Traffic Generation Proposed-49,950 tonnes per annum

Date	Time Period	Roll On/Off – 15-20 T (Including SRF source waste)		Skips <5tonnes		Skips >5-<15 T		Consigned Waste (40fts)	
		Inbound	Outbound	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
2013	Daily Average	8	8	11	11	6	6	8	8
2013	Week	44	44	61	61	33	33	44	44

6.4 Impacts

The proposed increase in the amount of waste accepted at the facility will result in additional traffic movements to and from the site. The local road network is relatively new and has been designed to accommodate the commercial development of the lands in the vicinity of the site, including the 58ha of commercially zoned land to the north of the Pacon site, none of which have been developed. The local road network has the capacity to accommodate the additional traffic.

6.5 Mitigation Measures

The visibility splays at the access junction are adequate and will not be changed. Pacon provides car parking space for site staff within the site boundary. Although the proposed development will likely lead to additional employment there is no need for additional parking spaces to be provided. As the local road network will not be adversely impacted by the proposed development additional mitigation measures are not required.

6.6 Impact Assessment

The existing access junction and local road network has the capacity to handle the estimated increase in traffic associated with the additional wastes, taking into consideration the cumulative effects of other developments in the vicinity of the site. The overall impact of the increased traffic will be negligible.

7. SOILS AND GEOLOGY

7.1 Introduction

This Chapter describes the soils and bedrock conditions at the facility and assesses the impacts of the proposed changes. It is based on a desk study of available information on the local geological conditions derived from a review of databases maintained by Teagasc and the Geological Survey of Ireland (GSI). As the proposed changes not require either the disturbance/excavation, or the construction of new buildings, an intrusive site investigation was not carried out.

7.2 Existing Conditions

7.2.1 Subsoils

The subsoil underlying this part of Dublin are Irish Sea Tills derived from Lower Palaeozoic sandstones and shales. There is no site specific information on the thickness of the subsoil at the site, but based on the aquifer vulnerability maps prepared by the GSI, it is estimated to be more than 10 m across the site. The subsoil distribution is shown on Figure 7.1.

7.2.2 Bedrock

The site is underlain by a volcanic basalt of the Belcamp Formation. The bedrock type is shown on Figure 7.2.

7.3 Impacts

There are no existing or proposed direct or indirect emissions to ground. The proposed increase in the amounts and types of waste accepted will not result in any new emissions to ground.

All rainwater runoff from the site is directed to the Business Park storm sewer with wash water from within the building floors stored in three underground waste water holding tanks pending removal off site.

A strip of ground along the eastern boundary is unpaved and rainfall on this area percolates to ground. This area of the site is only used for empty skip storage.

There is the potential for leaks/spills to occur in the handling and storage of fuel and lubricating oils. The potential pathways to the soil include direct infiltration and indirect via contaminated surface water leaks to ground.

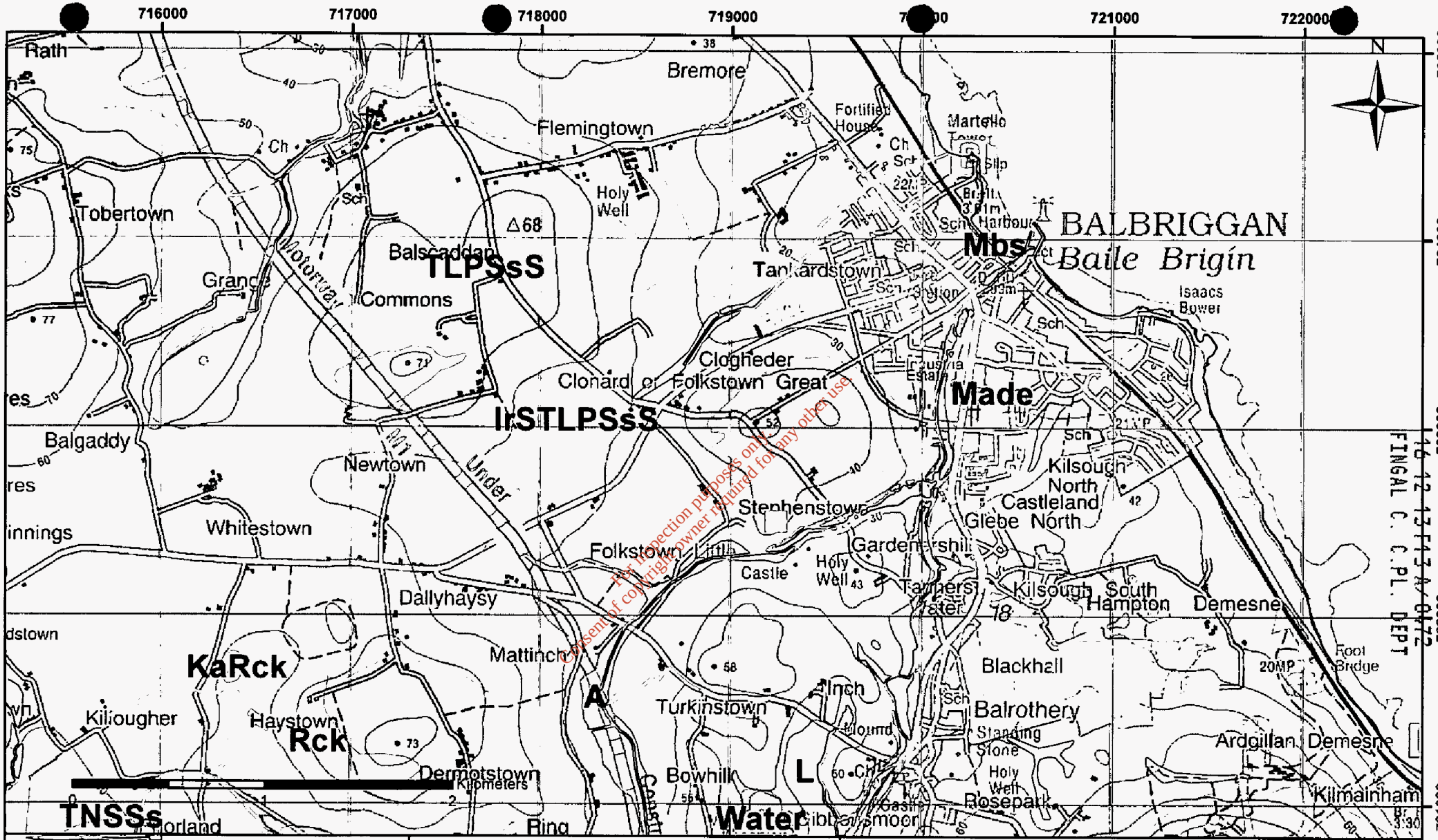
7.4 Mitigation Measures

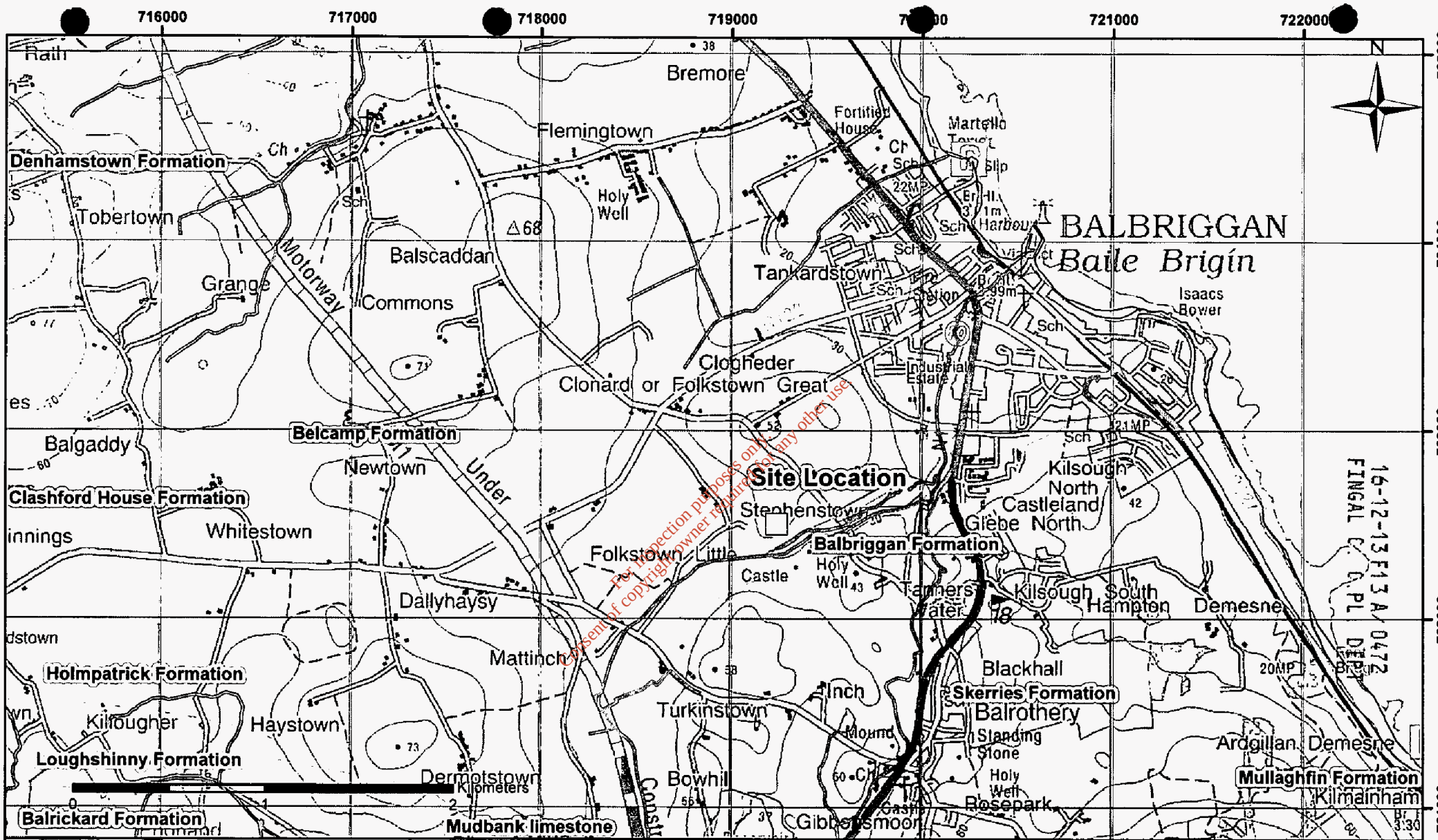
The mitigation measures implemented by Pacon include the provision of extensive essentially impermeable paving across the majority of the site; the provision and maintenance and integrity testing of spill containment infrastructure, and the routine inspection and survey of the surface water and foul water drainage systems.

7.5 Assessment of Impacts

With the exception of the strip of ground at the eastern boundary, the site is either paved with concrete, or occupied by buildings that prevent infiltration to the subsoil.

The proposed increases in the amounts and types of waste accepted at the facility will not result in any new emissions to ground and therefore will have no impact on soils and geology.





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CLIENT
Pacon Waste

TITLE
Bedrock Geology

Details
- Rivers
- SiteLocation
- Balbriggan Formation
- Balrickard Formation
- Belcamp Formation
- Clashford House Formation
- Denhamstown Formation
- Holmpatrick Formation
- Loughshinny Formation
- Mudbank limestone
- Mullaghfin Formation
- Skerries Formation
- Watshestown Formation

Figure 7.2

8. WATER

This Chapter describes the surface water and groundwater regimes at the facility and assesses the impacts the proposed changes will have on surface water and groundwater quality and also the flood risk.

8.1 Methodology

The surface water assessment is based on a review of the Eastern River Basin District Management (ERBD) Plan; databases maintained by the EPA, the National Parks and Wildlife Service (NPWS) and the Office of Public Works (OPW). The groundwater assessment is based on a review of the ERBD Plan; databases maintained by the GSI, Teagasc and the EPA.

The Initial Flood Risk Assessment is based on the guidance in "*The Planning System and Flood Risk Management*" published by the Minister for the Environment, Heritage and Local Government in November 2009.

8.2 Existing Conditions-Surface Water

Surface Water Catchment

The facility is in the catchment of the Matt River which flows from west to east approximately 50-60m to the south of the site. Surface water run-off from the paved yard areas and the roof of the main MRF building is collected in the surface water drainage system and discharged to the storm sewer serving the Business Park. The drainage layout is shown on Drawing No. 13/421/2.

The Matt River is part of the Lusk (IE-EA-LUSK) Water Management Unit (WMU) designated in the Eastern River Basin District (ERBD) Management Plan prepared under the EU Water Framework Directive (WFD).

The WMU comprises various Water Bodies and the stretch of the river to the rear of the site is in the Balbriggan Water Body. Reports have been prepared on the 'Status' of each water body. Status means the condition of the water in a watercourse and is defined by its ecological status and chemical status, whichever is worse. Waters are ranked in one of five status classes, High, Good, Moderate, Poor and Bad.

The WFD requires measures to ensure waters achieve at least 'Good Status' by 2015 and that their current status does not deteriorate. Where necessary, for example in heavily impacted or modified watercourses, extended deadlines (2021 and 2027) can be set for achieving the following objectives:-

- Prevent Deterioration
- Restore Good Status
- Reduce Chemical Pollution
- Achieve Protected Areas Objectives

The objectives for particular watercourses are based on Pressure and Impact Assessments of human activity, including point (wastewater treatment plants) and diffuse (e.g. land spreading of fertiliser and manure) emissions, landuse (e.g. peat harvesting, quarrying, industrial and residential use) and morphological conditions (e.g. river depth and width, structure and substrate of river bed) on surface waters to identify those water bodies that are 'At Risk' of failing to meet the WFD objectives.

'At Risk' does not necessarily mean that the water bodies have already been adversely impacted, but that there is a likelihood that a water body will fail to meet its objectives unless appropriate management action is taken.

Surface Water Quality

There is no available chemical water quality data for the stretch of the Matt River to the rear of the site. The Balbriggan Water Body Status Report, a copy of which is in Appendix 3, states that the water overall status of it is 'Good', with a Good status for general physical chemical and overall ecological status. The water body is considered 'At Risk' of not achieving its restoration objective of reducing chemical pollution by 2021.

The drainage system operates satisfactorily. As it is not proposed to change the site layout, increase the paved areas or construct new buildings, there will be no increase in the hydraulic loading on the sewer.

8.3 Existing Conditions-Groundwater

Aquifer Classification

The available information indicates that the subsoils at the site are not significantly water bearing. The underlying bedrock at the site is classified by the GSI as being Locally Important Aquifer Generally Moderately Productive (**Lm**) (Figure 8.1).

Aquifer Vulnerability

The GSI assigned aquifer vulnerability rating for the site, based on the information it has on the type and depth of the subsoils, indicates the potential susceptibility of the aquifer to contamination from pollution sources at the ground surface, is Low (Figure 8.2).

Groundwater Flow Direction

Based on the topography, the local direction of groundwater flow is considered to be from north to south towards the Matt River.

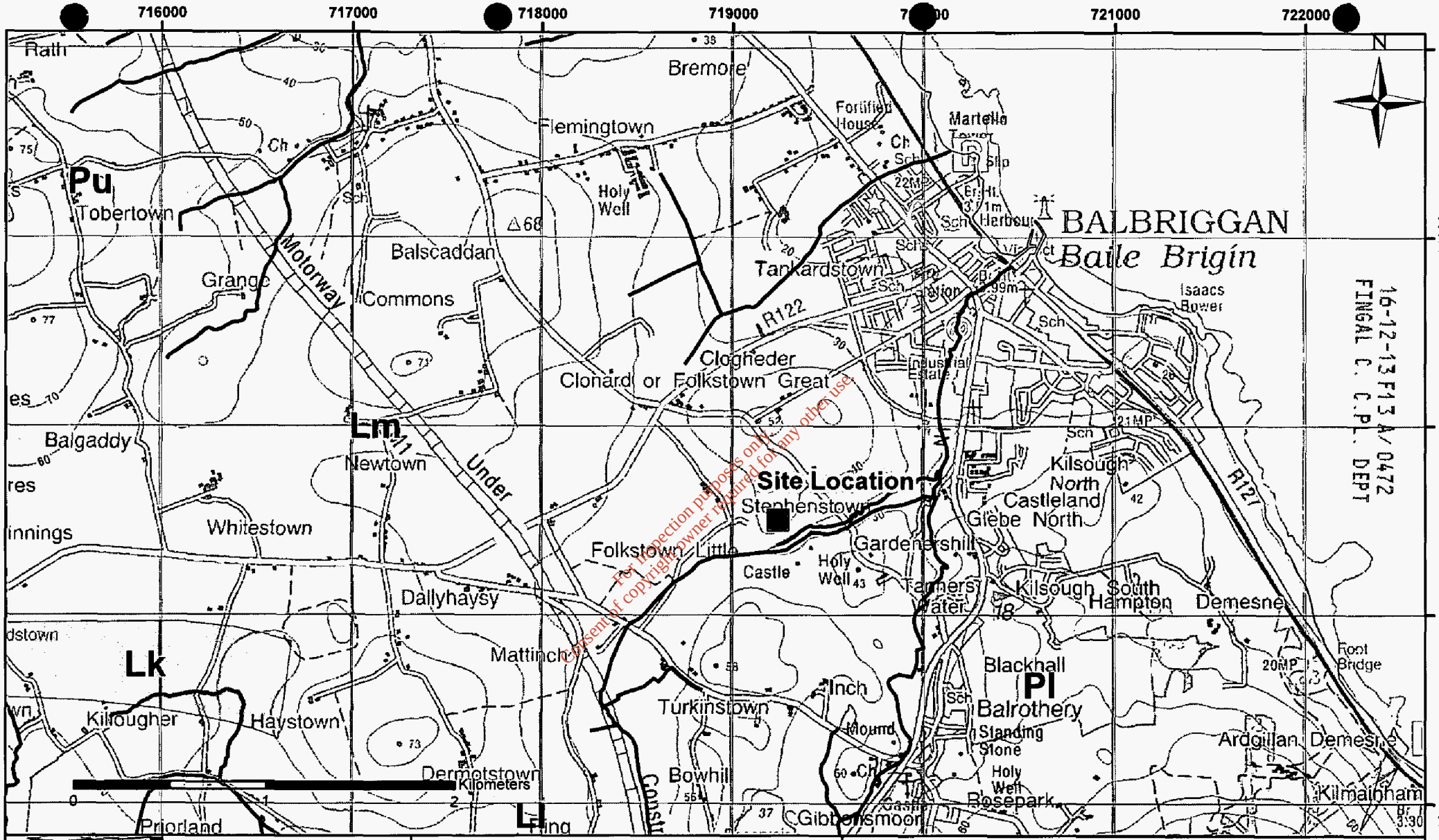
Groundwater Quality

The aquifer beneath the site is part of the Balbriggan Area Water Body as defined in the ERBD Plan (IE_EA_G_039). A copy of the water body status report is in Appendix 3.

The condition of a water body is defined by its chemical and quantitative status, whichever is worse, and groundwater quality is ranked in one of two status classes: Good or Poor. The Balbriggan Water Body is categorised as being of 'Good' status and is "~Probably Not At Risk" of achieving its restoration objectives by 2021.

Nearby Wells

A search of the GSI well database identified four groundwater wells and one spring located within 2km of the site. The closest are located in Stephenstown and are used for production



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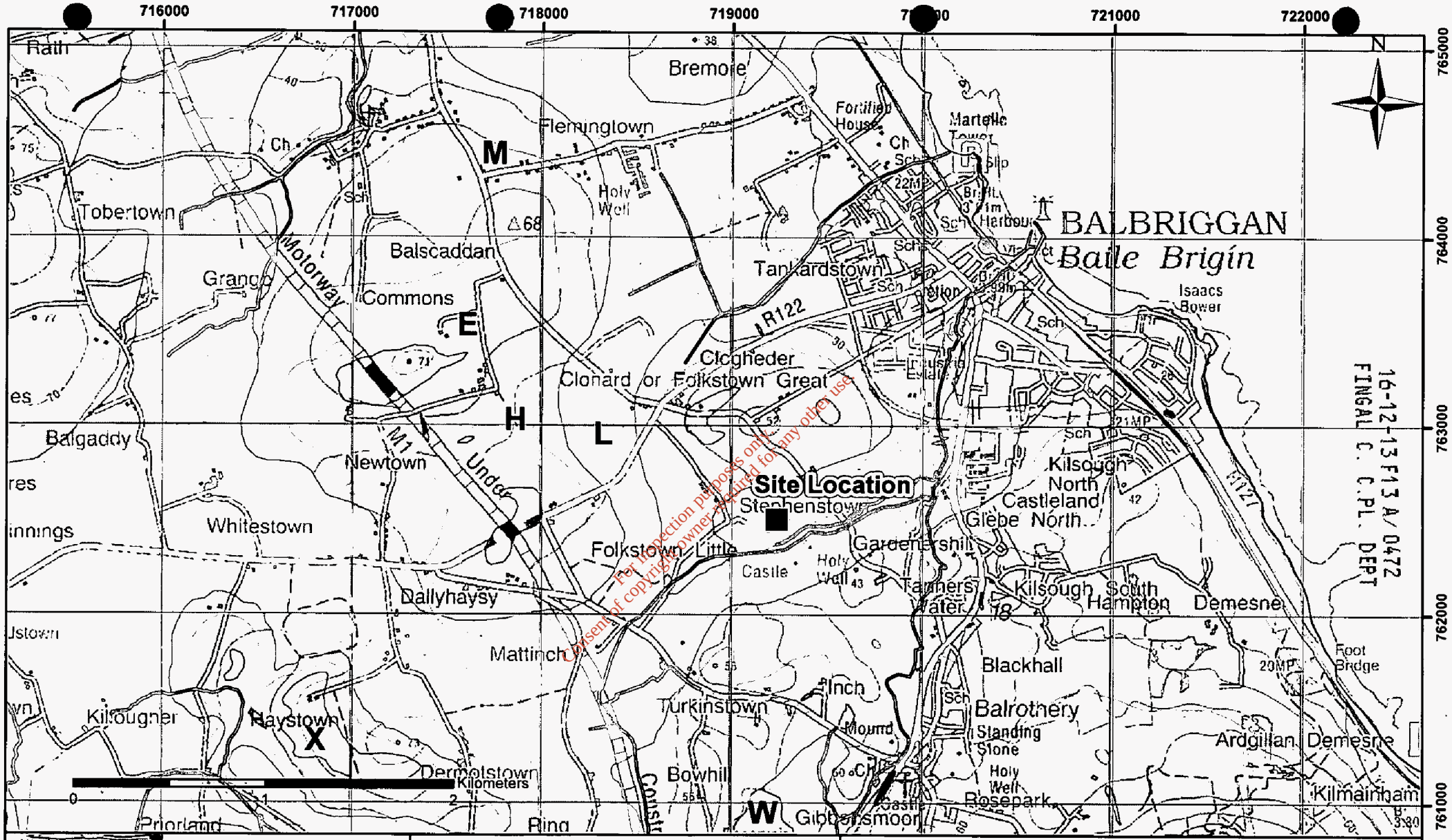
CLIENT
Pacon Waste

TITLE
Aquifer Classification

Details
Rivers
SiteLocation
Lk
Ll
Lm
Pl
Pu

Figure 8.1



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CLIENT
Pacon Waste

TITLE
Aquifer Vulnerability

Details

- Rivers
- SiteLocation
- Extreme
- Extreme (rock close or karst)
- High
- Moderate
- Low

Figure 8.2

purposes, approximately 295m and 315m east of the site. The third is an agricultural and domestic well located in the townland of Blackhall approximately 850m south east of the site.

There is also an agricultural and domestic well in the townland of Balrothery approximately 880m south of the site. The spring is a 'Holy Well', located in the townland of Rosepark approximately 1.2km south of the site. The GSI well data is included in Appendix 3.

8.4 Existing Conditions-Flood Risk

The buildings and paved areas of the site occupy an area of approximately 1.2 Ha. The drainage system has been designed to control the flow from the site to the Business Park Storm sewer at 4l/sec.

The assessment of flood risk requires an understanding of where the water comes from (i.e. the source), how and where it flows (i.e. the pathways) and the people and assets affected by it (i.e. the receptors).

In the case of the proposed development the potential sources include fluvial (the Matt River (located 50-60m south of the site), pluvial (rainfall on the site or surrounding lands) and groundwater. The pathways include the Pacon site and surrounding lands and the potential receptors are the Pacon site, neighbouring lands, the bedrock aquifer and the Matt River.

Fluvial Flood Risk

There is no history of any fluvial flood event at the site. The Matt River is at a significantly lower ground level to the Pacon facility and adjoining neighbours which are located on an elevated ridge overlooking the River (approximately 5m). The only flood alleviation measures in place either on, or in the vicinity of the site is the controlled discharge of surface water discharges for the site and Business Park.

The flood zone maps developed by the OPW show no areas at risk of fluvial flooding either on, or in the immediate vicinity of the site. There are a number of flood events recorded with 2.5km of the site but these relate to locations upstream of the facility. A copy of the flood map for the site is in Appendix 4.

Pluvial

The OPW issued Draft – Preliminary Flood Risk Assessment (PFRA) Integrated Maps for Public Consultation in August 2011 that show areas with the potential to be impacted by pluvial flooding (rainfall). Draft, Integrated – PFRA Map 274 shows the site is not located in an area potentially at risk of pluvial flooding.

The majority of the site is covered in paved ground or buildings which are served by a surface water drainage system. That system has worked adequately since it was constructed in 2006/2007 and there have been no incidents of pluvial flooding at the site or surrounds.

Groundwater

Depth to groundwater is unknown however the thickness of the subsoils is likely >10m based on the GSI Vulnerability rating for the site. There have been no records of groundwater flooding at the site.

8.5 Impacts

The proposed increase in the amount and types of waste accepted does not require any extension to the impervious area of the site and therefore there will be no change in the volume of surface water run-off from the site.

Similarly the proposed changes will not result in any new emission to surface water, will not be a new source of wastewater and does not involve any alterations to the surface water and foul water drainage systems. Therefore there will be no change in the quality of the run-off from the site.

Activities with the potential to impact on surface water and groundwater quality include:

- Run-off from open yard areas, that may be contaminated with silt and small amounts of oil from leaks from road vehicles and mobile site plant,
- Spills and leaks of oil, and
- Firewater run-off.

8.6 Mitigation Measures

The mitigation measures already applied at the site include:

- The provision of a surface water drainage system that collects run-off from the paved open yards and directs it to an oil interceptor upstream of the discharge point from the site;
- The provision of surface water flow attenuation tanks;
- The provision of a shut off valve on the outlet from the attenuation tanks that can be closed in the event of an incident at the site that has the potential to contaminate the run-off:
- The routine inspection of the surface water systems, and
- The regular cleaning of the paved open yards and emptying of the interceptor.

8.7 Assessment of Impacts

The proposed increase in the amount and types of waste accepted will not result in any changes to either the volume or quality of the surface water run-off from the site nor will it give rise to any new emissions to groundwater. It does not involve the abstraction of surface water or groundwater for use in site operations.

The proposed increases in the amounts and types of waste accepted at the facility will have no impact on water and ground water quality.

The proposed change does not involve the provision of any additional hard surfaces that would increase the volume of rainfall run-off from the site and therefore does not present an increased flood risk either within or outside the site boundaries.

9. ECOLOGY

9.1 Introduction

This Chapter describes the ecological significance of the site and assesses the impacts of the proposed changes, which included an increase in the amount of waste accepted, an extension of the operational hours and the manufacture of SRF, on both the on-site and off-site habitats.

9.2 Methodology

The site is almost completely covered by concrete paving and building and the habitat value is low. This, in combination with the fact that the proposed changes do not involve any works that could give rise to any impacts on habitats within the site boundary, meant that an ecological survey of the site was not required.

OCM carried out a screening of the significance of the effects, if any, of the proposed changes on Natura 2000 sites within 10km of the site to inform a decision on the need for an Appropriate Assessment. The process is separate to the EIS but the report on the Screening is in Appendix 5 for information purposes. An Appropriate Assessment is not required.

9.3 Existing Conditions

9.3.1 Habitats within the site boundary

The majority of the site is covered with paved areas and buildings. There are some landscaping works present along the northern boundary adjacent to the Outer Relief Road. There will be no alteration to this area due to the proposed development. There are no significant streams, wetlands or ponds within the facility boundary.

9.3.2 Habitats outside the site boundary

The lands to the north, east and west of the facility have been developed comprising roadways and commercial developments. The lands to the south of the site are undeveloped scrub and the Matt River flows approximately 50-60m from the southern boundary of the site.

9.3.3 Designated Sites

There are no designated Natura 2000 sites i.e. Special Area of Conservation (SAC) or Special Protected Area (SPA) or any Natural Heritage Area (NHA), Statutory Nature Reserve or National Park within the development site boundary.

All of the Natura 2000 and Proposed Natural Heritage Area sites within 10km of the proposed development are listed in Table 10.1. Site Synopsis for the Natura 2000 sites SACs and SPAs are included in Appendix 6. There is no direct connection between the Pacon facility and any designated site.

Table 10.1 Designated Sites within 10km of Site.

Site	Code	Distance
SAC/cSAC		
Rockabill to Dalkey SAC	003000	9km south east
SPA and pSPA		
Rockabill SPA	004014	9km south east
River Nanny Estuary SPA	004158	5km north
Skerries Island SPA	004122	6.7km south east
Boyne River SPA	004080	10km north
pNHA		
Bog of the Ring	001204	3km south west
Knock Lake	001203	2km south
Loughshinny Coast	002000	9km south east
Cromwells Bush Fen	001576	9km north west

9.4 Impacts

Direct

The proposed changes do not require the expansion of the site, the construction/provision of any new buildings/structures, or any alteration to the existing site layout that could directly impact on habitats inside and outside the site boundary.

The changes to the operational hours will extend the period when noise emissions occur and when the yard area lighting will be on during the winter period. Excessive noise and light have the potential to cause disturbance to species in designated sites.

Indirect

The only potential indirect pathways from the site is the surface water emission to the storm sewer.

Cumulative

Point and diffuse sources of water pollution, noise and artificial lighting in an urban/commercial setting can comprise a cumulative pressure on the conservation interests of a designated site.

9.5 Mitigation Measures

The mitigation measures implemented by Pacon to prevent contamination of surface water run-off include:

- The provision of a surface water drainage system that collects run-off from the paved open yards and directs it to an oil interceptor upstream of the discharge point from the site;

- The provision of a shut off valve at the outlets from the onsite attenuation tanks that can be closed in the event of an incident that has the potential to impact on surface water leaving the site contain it within the site boundary.

- Routine inspection of the surface water and foul water drainage systems and
- The regular cleaning of the paved open yards and emptying of the silt traps and interceptors
- All waste processing is carried out inside the building which mitigates noise emissions

9.6 Assessment of Impacts

Direct Impacts

The Pacon facility is not located within any designated Natura 2000 Site and therefore the proposed changes will not result in any direct habitat loss or fragmentation of any site.

The noise assessment (Chapter 11) has confirmed that noise emissions associated with the proposed changes will not have any impact on the closest noise sensitive locations, which are 210m from the site. The closest Natura Site (Knock Lake) is 2km from the site and the species at that site will not be affected by either noise or light from the Pacon facility.

Indirect Impacts

The proposed changes will not result in any changes to either the volume or quality of the surface water run-off from the facility and therefore has no potential to impact on any Designated Sites.

Cumulative Impacts

The proposed increase in the amount and type of waste accepted, the new SRF production process and the removal of the hours of operation restrictions will not result in any cumulative impact on any Natura 2000 Sites.

10. AIR

10.1 Introduction

This Chapter describes the ambient air quality, assesses impacts of the proposed changes and discusses mitigation measures. It is based on data from the EPA's real time air quality monitoring programme[1] which has a monitoring station in Balbriggan.

The Chapter takes into consideration the Dublin Regional Air Quality Management Plan 2009-2012 and its companion document the Dublin Regional Air Quality Management Plan for Improvement in levels of Nitrogen Dioxide.

10.2 Existing Conditions

The facility is located in an industrial area occupied by commercial and industrial operations. The principle atmospheric pollutants associated with industrial and commercial areas are nitrous and sulphur oxides, particulates and dust. These are primarily associated with road traffic, however emissions from industrial activities are also a source of other pollutants.

The EPA implements an air quality monitoring programme at a number of monitoring stations in Dublin including in Balbriggan which is considered representative of air quality at the site. Monitoring is done using continuous monitors for carbon monoxide, sulphur dioxide, nitrogen oxides and PM_{10}. The results from the EPA's website[2] indicate the air quality is good.

- *Ambient Air Quality*

The EU Air Framework Directive deals with each EU Member State in terms of 'Zones' and 'Agglomerations' for air quality. For Ireland, four zones, A, B, C and D have been defined and are included in the *Air Quality Standards (AQS) Regulations* (SI No 180. of 2011).

[1] http://www.epa.ie/whatwedo/monitoring/air/data/

[2] www.epa.ie

The available data from the EPA Monitoring Site in Balbriggan has been referenced for Carbon Monoxide, Nitrogen Oxides, Sulphur Dioxide and PM_{10} and $PM_{2.5}$ levels and is considered representative of background air quality in the study area (Table 10.1)

Table 10.1 - EPA Baseline air quality monitoring data for Zone C - Balbriggan

Compound	**Balbriggan 2012 (µg/m³)[1]**
	Zone C
Carbon monoxide 8 hr (Annual mean)	600
Oxides of nitrogen (Annual mean)	9
Sulphur dioxide (Annual mean)	3
Particulate matter as PM10 (Annual mean)	17
Particulate matter as PM2.5 (Annual mean)	-
Benzene (µg/m3) (Annual mean)	0.4

Notes: [1] see EPA Air Quality in Ireland 2012 Report – Key indicators in Air Quality, www.epa.ie

The baseline EPA data indicates that air quality in the vicinity of the application area is expected to be good with typical levels of pollutants for an urban area. All pollutant levels are within the relevant Irish and EU limits (for similar sized population centres).

10.3 Impacts

The impacts on air quality are associated with the potential emissions to air from the waste activities, which include dust, odours, particulates and exhaust gases from vehicle movements.

The odours are associated with the types of wastes accepted, the type of processing carried out and the time the wastes are retained on site. Particulates and dust are associated primarily with the location and nature of the waste processing and vehicle movements.

10.4 Mitigation Measures

It is not proposed to accept odorous wastes (food wastes) at the site. The primary source of dust emissions are vehicle movements on the paved yards during dry periods. Pacon regularly damps down the yards during such dry periods to prevent windblown dust being generated.

The heavy goods vehicles accessing the facility are fitted with Selective Catalytic Reduction (SCR) systems. A diesel exhaust fuel (AdBlue) is used in the SCR to reduce the nitrous oxide levels in the exhaust gases. Vehicle idling is not permitted.

10.5 Assessment of Impacts

Facility activities are not a source of odour nuisance outside the site boundary and Pacon has never received a complaint about odour nuisance. The proposed additional wastes include municipal wastes however the volumes will be small and it is not proposed to accept food wastes at the facility.

Dust is not currently a significant issue at the facility. The proposed changes will not give rise to any new or additional sources of dust emissions. The waste handling and processing procedures will also remain the same as recent years and will be carried out internally.

The additional emissions associated with the increased traffic movements will add to the cumulative emissions from the traffic to and from the commercial operations in the vicinty of the Pacon facility.

While the increased traffic movements will give rise to additional vehicle exhaust gases and potentially dust, the overall adverse impact on air quality will be negligible.

11. NOISE

11.1 Introduction

This Chapter describes the existing noise environment and assesses the impacts of the proposed increase in tonnage throughput, the introduction of the new waste processing system, and an extension to operating times at the facility.

11.2 Methodology

The assessment is based on the findings of a noise survey and predictive assessment completed by Dixon Brosnan Ltd in November 2013. A copy of the report, which includes details of the methodology applied is in Appendix 7.

11.3 Existing Conditions

The facility is accessed off the Stephenstown Outer Relief Road. It is in an industrially zoned area on the south western fringe of Balbriggan and is bounded to the north by the undeveloped lands and to the west by two commercial premises. To the east of the site is an electrical substation and to the south is undeveloped scrubland and pasture lands.

There are no Noise Sensitive Locations (NSLs), which are defined as a dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels within 200m of the facility.

Facility activities involve the use of plant and equipment that are sources of noise emissions. These include the conveyors, trommel, grab machine, baler, light separation unit etc located inside the building. The heavy goods vehicles that access the facility and the manoeuvring of skips in the yards are also sources of noise emissions.

The current Waste Permit sets the following daytime noise emission limits:

Noise emissions from the facility shall not give rise to noise levels at noise sensitive locations in the vicinity of the activity in excess of:

(i) 55 dBA Leq_{LT} during the hours 08.00-20.00

(ii) 45 dB Leq_{LT} during the hours 20.00-08.00

(iii) There shall be no clearly audible tonal component, or impulsive component, in the noise emission from the development at any noise sensitive location.

11.3.1 Noise Monitoring Survey

Dixon Brosnan completed a baseline daytime, evening and night time noise survey on the 6th November 2013 by Dixon Brosnan. The survey involved noise measurements at the four locations which are detailed on Table 11.1 and shown on Figure 11.1 and the results are presented in Table 11.2.

Table 11.1: Noise Monitoring Stations.

Station	ITM NGR	Location	Propagation route terrain
N1	720054 762753	4 m from façade of cottage 210 m E of Pacon site	Terrain falling. Pasture & vegetation. Clear line of sight.
N2	719603 762311	Road verge 20 m NW of gate to detached dwelling 350 m SSW of Pacon site	Across valley. Pasture. Line of sight visible through roadside hedge.
N3	719323 762757	Gate of N dwelling in 3 dwelling cluster 240 m W of Pacon site	Terrain level. Pasture, and intervening business park buildings. Line of sight restricted by buildings.
N4	719069 762988	25 m N of detached dwelling 550 m NW of Pacon site	Terrain slightly rising. Pasture and roads. No line of sight due to terrain.

Figure 11.1 – Noise Sensitive Locations & Monitoring Stations

Table 11.2: Noise Survey Results.

Station	Period	PWR facility	$L_{Aeq\ 15\ min}$ dB	$L_{AF90\ 15\ min}$ dB	Specific PWR level dB	Comment
N1	Daytime	Operating	54-55	47-52	<42	Pacon inaudible, apart from several skip movements audible at low level for a time. M1 and local area traffic dominant.
	Evening	Shut down	52	49	-	M1 and local area traffic dominant, chiefly M1 during later hours.
	Night-time	Shut down	44-53	40-46	-	
N2	Daytime	Operating	61-62	45-46	<40	Pacon inaudible. M1 and local area traffic dominant.
	Evening	Shut down	58	48	-	M1 and local area traffic dominant, chiefly M1 during later hours.
	Night-time	Shut down	44-55	41-48	-	
N3	Daytime	Operating	55-57	47-50	<42	Pacon inaudible. M1 and local area traffic dominant.
	Evening	Shut down	54	50	-	M1 and local area traffic dominant, chiefly M1 during later hours.
	Night-time	Shut down	45-52	41-48	-	
N4	Daytime	Operating	51-53	47-51	<42	Pacon inaudible. M1 and local area traffic dominant.
	Evening	Shut down	51	50		M1 and local area traffic dominant, chiefly M1 during later hours.
	Night-time	Shut down	45-51	42-49		

Noise emissions from the current operations comply with limit values specified in the Waste Permit and, apart from skip movements in the yard, are not audible at offsite receptors. The latter may be audible at a low level at the closest dwelling (N1). These movements are sporadic, with approximately 3-4 movements recorded on one occasion during the survey.

The emissions were not of audible significance, being almost entirely masked by road traffic noise.

The site benefits from significant separation distances to NSLs as well as noise attenuation provided by the building structure.

The evening and night-time results indicates that all NSLs in the local area are significantly affected by road traffic noise, chiefly arising from the M1 motorway that remains intrusive into night-time hours. The results suggest that night-time $L_{AF90\ 15\ min}$ levels are unlikely to fall below a floor of 40 dB and that traffic noise on local roads nearer Balbriggan maintains $L_{Aeq\ 15\ min}$ levels at 45 dB or above during the night.

11.3.2 Proposed Development

It is proposed to increase the quantity of waste accepted, introduce a new waste processing line and to extend the permitted operating times. The new waste processing line will contain stationary processing plant inside the building.

The reverberant noise level arising from the proposed SRF processing line, as measured at a similar installation, will be 69-71 dB at 8 m (Figure 11.2). This will be significantly lower than the 85-86 dB reverberant levels currently arising in the building and therefore the amplitude and character of noise emissions in the building will remain unchanged.

The specific Pacon generated noise levels at offsite receptors will also remain unchanged, with the only difference being that such emissions will potentially arise over a 24 hour period.

11.4 Impacts

Noise impacts at NSLs associated with the existing daytime operations comply with the 55 dB limit specified in the Waste Permit. The proposed extension of the operating hours will not result in any changes to either the amplitude, or character of the existing emissions. In this context the assessment of the night time impacts at NSLs is based on the comparison of existing noise emissions from the facility to the 45 dB criterion included in the Waste Permit. This assessment is set out in Table 11.3.

Figure 11.2: Noise emissions from identical SRF processing plant at similar installation.

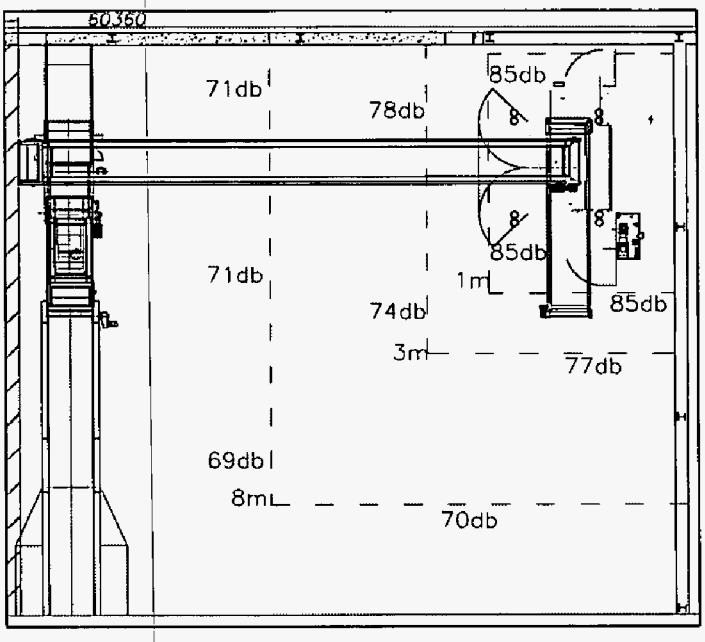


Table 11.3: Assessment of Impacts at NSLs

Station	Comment	Specific PWR level	Period	Criterion	Specific level < criterion	Tonal	Impulsive
N1	Pacon inaudible, apart from external skip movements. Traffic noise dominant. Night-time LAF90 15 min levels ≥40 dB.	<42 dB	0800-2000	55 dB	✓	x	x
			2200-0800	45 dB	✓	x	x
N2	Pacon inaudible. Traffic noise dominant. Night-time LAF90 15 min levels ≥41 dB.	<40 dB	0800-2000	55 dB	✓	x	x
			2200-0800	45 dB	✓	x	x
N3	Pacon inaudible. Traffic noise dominant. Night-time LAF90 15 min levels ≥41 dB.	<42 dB	0800-2000	55 dB	✓	x	x
			2200-0800	45 dB	✓	x	x
N4	Pacon inaudible. Traffic noise dominant. Night-time LAF90 15 min levels ≥42 dB.	<42 dB	0800-2000	55 dB	✓	x	x
			2200-0800	45 dB	✓	x	x

The night-time noise emissions will not result in an exceedance of 45 dB night-time criterion at any of the NSLs. The daytime emissions will comply with the 55dB t.

The night time noise levels at the NSLs associated with Pacon operations will be less than 42 dB at all NSLs. These levels will be similar to, or lower than, current background $L_{AF90\ 15\ min}$ levels which generally exceed 42 dB at all stations due to existing traffic noise impacts.

Although this assessment has been undertaken in the context of Waste Permit criteria, it is noted that these levels also compare favourably to criteria set out in *British Standard BS 4142:1997 Method for rating industrial noise affecting mixed residential and industrial areas* (1997) which notes that noise nuisance is unlikely to arise where specific levels do not exceed background levels.

11.5 Mitigation Measures

Any skip movements required during evening and night-time hours will be undertaken in a manner which avoids potential generation of impulsive emissions. All employees will receive training in (a) the significance of impulsive emissions and (b) the avoidance of such emissions.

The use of vehicle horns onsite will be prohibited during evening and night-time hours.

All plant and exhaust silencers will be maintained in satisfactory condition.

A night-time noise survey will be carried out within two months of commencement of night-time operations in order to confirm that operations do not give rise to impacts at NSLs.

11.6 Assessment of Impacts

The proposed development will not result in any significant changes to the noise emissions from the facility and the associated impacts will be imperceptible.

12. LANDSCAPE & VISUAL IMPACT

12.1 Introduction

This Chapter describes the landscape and provides an assessment of the potential impacts of the proposed development on the landscape and visual amenity. It includes a landscape character assessment and a viewpoint analysis.

12.2 Methodology

The assessment was carried out in accordance with guidelines in the document '*Landscape and Landscape Assessment, Consultation Draft of Guidelines for Planning Authorities*' published by the Department of the Environment and Local Government (June 2002).

12.3 Existing Conditions

Location

The subject site is the Stephenstown Business Park, which is a commercially / industrially zoned area on the south western fringe of Balbriggan. To the north is the Stephenstown Outer Relief Road, to the west are two commercial premises. To the east is an electrical substation and to the south is undeveloped scrubland and pasture lands.

Site Layout

The site layout is shown on Drawing No. 13/421/2. The site is entered by a common access road serving the facility and other occupiers of the Business Park. It encompasses approximately 1.22 hectares (ha) and comprises one main processing building (2,300m^2), portacabin type offices and toilets, weighbridge and open concrete paved and unpaved yards. The concrete paved yards are used for vehicle manoeuvring and empty skip storage. The unpaved area, comprising hardcore fill, is along the eastern boundary and is used for empty skip storage.

Landscape Character

The facility is one of a number of similar commercial warehouse type units on an elevated position to the southwest of Balbriggan. The lands to the north and north west are at a similar level to the site. The landscape character is predominantly industrial and commercial comprising warehouse type buildings, with open greenfield space to the north and the south.

Landscape Sensitivity

The facility is not in an area designated as of scenic, or of special amenity importance and the sensitivity of the landscape to change is low.

Viewpoints

The facility is immediately adjacent to the Stephenstown Outer Relief Road and is visible from the road. (Photograph 1 & 2 – Appendix 8). There are no public view points of the site from the undeveloped lands to the north. The site is visible, but relatively indistinguishable from other commercial/industrial units from public viewpoints and residences to the south and east (Photographs 3 and 4 – Appendix 8).

12.4 Impacts

The proposed changes relate solely to an increase in the amount and types of wastes that will be accepted at the site, the production of SRF (which will be done internally) and the extension of the operational hours. These do not require the construction of new buildings or alteration to any existing structures.

The current operational hours means that in the winter time the facility currently operates during evening times and in hours of darkness. External yard lighting is provided for the safe access of vehicles during these times. For security purposes the lighting is on overnight and this has not been the subject of any nuisance complaints.

The facility is immediately adjacent to the Stephenstown Outer Relief Road which has street lighting meaning the facility lighting is indistinguishable from that on the road.

12.5 Mitigation Measures

As it is not proposed to alter the visual appearance of the existing facility, mitigation measures are not necessary.

12.6 Assessment of Impacts

The proposed development will not alter the appearance of the facility and therefore there will be no additional visual impact.

13.1 Introduction

This Chapter describes the population, economic activity, social consideration and land uses in the vicinity of the site and assesses the impacts of the proposed development at the facility on the local population.

13.2 Methodology

The assessment was based on the planning zoning status, the landuse in the vicinity of the facility, population density and employment sectors. This information was derived from databases maintained by the Central Statistics Office and the Fingal County Council Development Plan.

13.3 Existing Conditions

The site is located in an area designated as 'GE' General Enterprise' Zoned Land. This zoning accommodates existing and proposed commercial and industrial uses in the vicinity of the site. Its purpose is to facilitate opportunities for industrial uses, activity and processes that might give rise to land use conflict in other zonings.

The land uses in the immediate area surrounding the facility are commercial and industrial. The closest residences are more than 210m from the site. Neither the Pacon facility nor its immediate environs have a significant leisure or amenity potential.

13.4 Population

Balbriggan and its environs experienced significant population growth in the early 2000's which continued between 2006 and 2011. The CSO figures indicated that the population of the town and environs expanded by 39% during this period.

13.5 Socio-Economic Activity

The development plan recognises the need to support economic activity in the area and it is a policy objective to encourage and facilitate optimal levels of sustainable economic development, promoting the growth of employment opportunities.

13.6 Human Health

In the unlikely event of a vermin outbreak or odour leakage, Pacon have appropriate policies and procedures in place to deal with such an event. Pacon has not received any complaints of malodours from either occupants of the adjoining lots, or members of the general public. Limited volumes of potentially odourous waste are and will continue to be accepted at the facility. All wastes that have the potential to be a source of odours are and will be stored and processed inside the buildings thereby mitigating any potential health impacts on occupants of the nearest residences commercial premises.

Groundwater is not abstracted locally for use as drinking water. The proposed changes will not result in any new emission to either ground or groundwater.

The results of the noise monitoring carried out at the facility, which are described in Chapter 11, has demonstrated that noise emissions comply with the emission limit values set in the permit and are not a cause of nuisance either within, or outside the facility boundary.

While the proposed changes will result in additional traffic movement, with an associated increase in vehicle exhaust emissions, the overall impact on air quality will be negligible.

13.7 Impacts

There are a number of positive environmental and socio economic benefits associated with the development

- **Waste Recovery:** The increase in the amount of waste accepted and processed is in keeping with national and local waste management policy on waste recovery.

- **Employment**: The proposed increase in the amount of wastes accepted at the facility will assist in sustaining current employment levels and may lead to improve levels of employment. It will not adversely influence the existing economic activities in the surrounding area nor will it reduce the potential for the expansion of other economic activities.

13.8 Mitigation Measures

The mitigation measures incorporated into the design and method of operation of the existing facility, which have proven effective on mitigating any adverse impacts on human beings, have been described in the previous Chapters.

13.9 Impact Assessment

It is considered that the proposed development will have positive socio-economic impact and will have a neutral impact with imperceptible consequences for human health.

14. ARCHAEOLOGY & ARCHITECTURE HERITAGE

14.1 Introduction

This Chapter describes the archaeological significance of the site occupied by the facility. Given the available information on site history and the nature of the proposed changes, the archaeological assessment was confined to a desk study. The study was based on information derived from the Records of Monuments and Places published by the Department of Arts, Heritage & Gaeltacht and the Fingal County Development Plan 2011-2017.

14.2 Archaeological and Historical Background

There are no records of archaeologically significant monuments or places at or within the immediate vicinity of the site. There are a number of sites of interest within 1km of the site, the closest of which is a former Mill located approximately 240m south east of the facility boundary. The list of sites is shown on Table 14.1

Table 14.1 Archaeology Sites within 1km of Site.

Location from Pacon Site	SMR No	Class	Townland
500m SW	DU005-003----	Ritual site – holy well	Stephenstown
585m NE	DU005-050----	Water mill – unclassified	Balbriggan
550m SW	DU005-004----	Castle – tower house	Stephenstown
240m SE	DU005-051----	Water mill – unclassified	Stephenstown
650m SW	DU005-001----	Chapel	Folkstown Little
560m W	DU005-052002-	Souterrain	Stephenstown
475 S	DU005-054----	Inn	Stephenstown
560 W	DU005-102----	Field system	Clonard or Folkstown Great
710 W	DU005-101----	Enclosure	Clonard or Folkstown Great

14.3 Architectural Heritage – Protected Structures

A Protected Structure is one that is considered to be of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view. The Record of Protected Structures (RPS) is a list of the buildings developed by Fingal County Council that lists buildings considered to be of special interest in its operational area. There are no protected structures on or in the vicinity of the site.

14.4 Impact Assessment

The proposed development will have no impact on the archaeology or architectural heritage in the vicinity of the facility.

14.5 Mitigation Measures

Since no infrastructural works planned for the facility, mitigation measures are not required.

14.6 Assessment of Impacts

The proposed development will have no impact on the archaeology or architectural heritage in the vicinity of the facility.

15. MATERIAL ASSETS / NATURAL RESOURCES

15.1 Introduction

This Chapter describes the material assets on and in the environs of the site and assesses the associated impacts and proposed mitigation measures.

15.2 Amenities

The facility is in an area that is zoned for industrial development and neither the existing site nor its immediate environs have a significant leisure or amenity potential. The proposed change in the site activity will require any change to the method of operation but it will be in keeping with the existing operations. The proposed development will have an imperceptible impact on the amenity value.

15.3 Local Infrastructure

The proposed increase in the amount of wastes accepted will result in an increase in traffic movements to and from the site. A traffic impact assessment (Chapter 6) has established that the existing road network has the capacity to accommodate the increased traffic. The overall impact of the increased traffic will be negligible.

15.4 Energy Efficiency and Resource Consumption

Facility operations involve the consumption of water, oil and electricity. Energy consumption is a significant operational cost and Pacon is committed to improving energy efficiency. The estimated quantities used in 2013 and at maximum capacity are given in Tables 15.1 and 15.2.

The proposed increase in the waste accepted and processed will result in an increase in energy and resource consumption.

Table 15.1 Resource Consumption– Existing Operations

Resources	Quantities 2013
Diesel (green)	36,000 litres
Electricity	1,500 KwH Units
Hydraulic Oil	700 litres
Engine Oil	1000 litres
Mains Water	65 m^3

Table 15.2 Resource Consumption– Proposed Operations

Resources	Quantities at Max Capacity
Diesel (green)	40,000 litres
Electricity	2,750 KwH Units
Hydraulic Oil	1,000 litres
Engine Oil	1,300 litres
Mains Water	65 m^3

15.5 Mitigation

Pacon carries out quarterly reviews of energy and resource usage to monitor the consumption rate and minimise both the amounts consumed and the associated costs.

15.6 Assessment of Impact

The proposed change will have no impact on local amenity value and will have a negligible impact on the local road network. There will be an associated increase in energy use and natural resource consumption, but this will be kept to a minimum.

16. INTERACTION OF THE FOREGOING

16.1 Introduction

Earlier Chapters describe the impacts associated with the facility and the mitigation measures for individual sensitive receptors. This Chapter discusses the significance of the actual and potential direct, indirect and cumulative effects of the facility due to interaction between relevant receptors. Only those receptors between which there is an identifiable actual or potential relationship are addressed.

16.2 Human Beings / Air

Waste activities have the potential to impact on human beings arising from noise, dust, and vehicle exhaust emissions. The location, design and method of operations have taken account of these emissions and effective mitigation measures are incorporated into the facility design and operation.

The proposed change in the amount of waste accepted will not result in any new emissions. There will be an increase in the exhaust gases from the additional vehicle movements, but this will have an imperceptible impact on human beings.

16.3 Human Beings/Traffic

The proposal will cause an increase in the traffic volumes accessing the facility. The existing road infrastructure has the capacity to handle the increase in traffic and will have a negligible impact on members of the public using the local road network.

16.4 Surface Water / Ecology

The proposed increase in the amount of waste accepted will not result in any new emission to surface water or any change to the volume and quality of the existing discharge.

16.5 Cumulative Impacts

The assessment of impacts took into consideration the existing facility operations, and the proposal to increase amounts of wastes accepted, and the current and approved future landuses in the environs. The only impact that is associated with the proposed change that could contribute to cumulative pressures in the area is increased traffic movement. The traffic impact assessment has established that the additional vehicle movements will have a negligible impact on the existing road network.

ABBREVIATIONS

CSO –	Central Statistics Office
EPA –	Environmental Protection Agency
EIA –	Environmental Impact Assessment
EIS –	Environmental Impact Statement
EU –	European Union
Pacon	Pacon Waste & Recycling Ltd
GHG –	Greenhouse Gases
GSI	Geological Survey of Ireland
HGV –	Heavy Goods Vehicle
Kwh –	Kilowatt Hour
OPW	Office of Public Works
OSI –	Ordnance Survey Ireland
PM10 –	Particulate Matter 10 micrometers or less
PPE –	Personal Protective Equipment
WMU	Water Management Unit
WWTP –	Waste Water Treatment Plant

PLANNING APPLICATION DRAWING

BALBRIGGAN OUTER RELIEF ROAD

EXISTING RECYCLING FACILITY

SITE BOUNDARIES OUTLINED IN RED

TRUCK WASH

FUTURE WATER STORAGE TANK

FUEL TANK

CLASS 3 OIL INTERCEPTOR

ACO CHANNEL DRAIN

PROVIDE 150mm HIGH RAMPED BUND FOR FIRE WATER TRENTION AT DOOR OPES

OVERGROUND WATER SUPPLY FOR SPRINKLERS / DRY STORE

WASHDOWN WATER HOLDING TANK (EMPTIED BY TANKER) IL: 34.50

WATER LINK TO OFFICE (1" SUPPLY)

WATER METER

FCC WATERMAIN

ESB SUBSTATION

VENT PIPES TO HIGH POINT OF ATTENUATION TANK TO MANUFACTURES DETAILS

MANIFOLD CONFIGURATION TO MANUFACTURES DETAILS

HYDROBRAKE MD6 4.0l/s OUTFLOW WITH 2.0m HEAD

BACKDROP CONNECTION TO EXISTING MANHOLE

1650mm WAVIN AQUAFORCE NGS WATERMAIN

1000mm Class C Mercia Waterman

ESB OHL 110kV

SURFACE WATER 2250mm @ 1:169

SURFACE WATER 2250mm @ 1:100

SURFACE WATER 2250mm @ 1:67

SURFACE WATER 2250mm @ 1:50

SURFACE WATER 2250mm @ 1:148

SURFACE WATER 2250mm @ 1:143

7.5 x 18 x 0.8m 100% AQUACELL UG ATTENUATION

PIPE IL=25.00

NOTE:
ALL RUN OFF FROM YARD PASSES THROUGH SILT TRAP & INTERCEPTOR BEFORE CONNECTING INTO SURFACE WATER SEWER.

PROPOSED SRF LINE

ISSUE	REASON FOR ISSUE	DRAWN	DATE

DOCUMENT WORKING STATUS

FOR APPROVAL / FOR REVIEW / FOR PLANNING
FOR TENDER / FOR CONSTRUCTION / AS BUILT

FINGAL PLANNING CONSULTANTS
PLANNING & DEVELOPMENT CONSULTANTS
SUITE 7C, BALBRIGGAN STREET, SKERRIES, CO. DUBLIN.
Phone: 01 849 1316
Mob: 086 854 6914
Email: info@fpc.ie www.fpc.ie

Figured dimensions only to be taken from this drawing.
All dimensions to be checked on site.
Do not scale - if in doubt ask.
Fingal Planning Consultants to be informed immediately of any discrepancies before work proceeds.
Drawing to be used only for purpose intended.

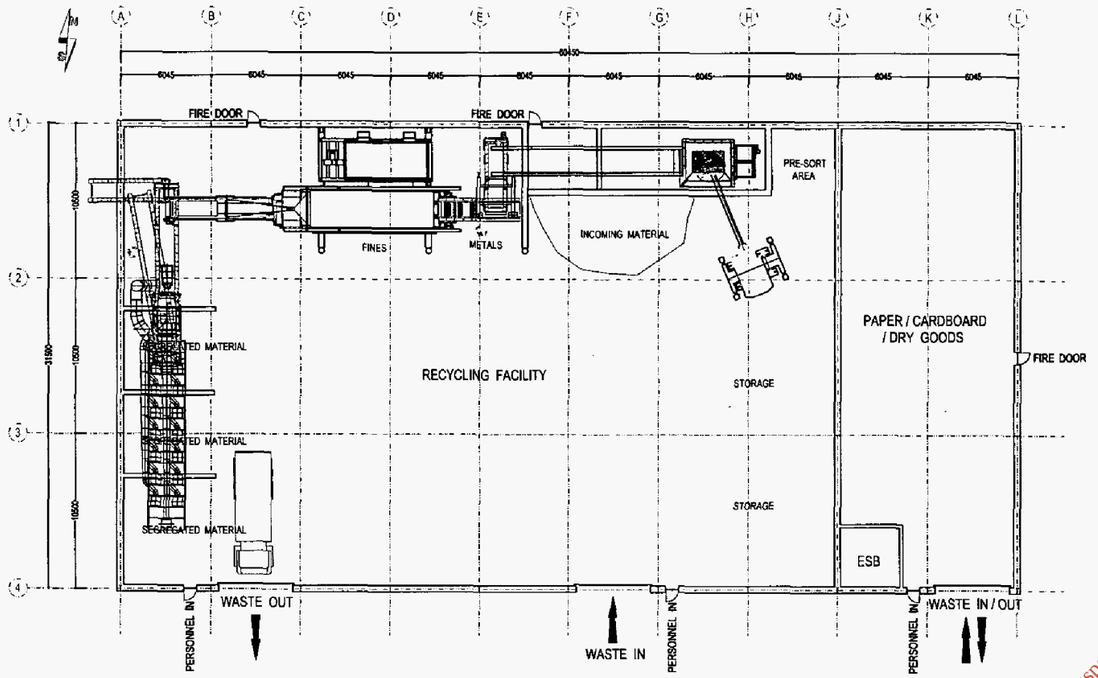
CLIENT: PACON WASTE & RECYCLING LTD.

PROJECT: PROPOSED EXPANSION OF EXISTING RECYCLING FACILITY

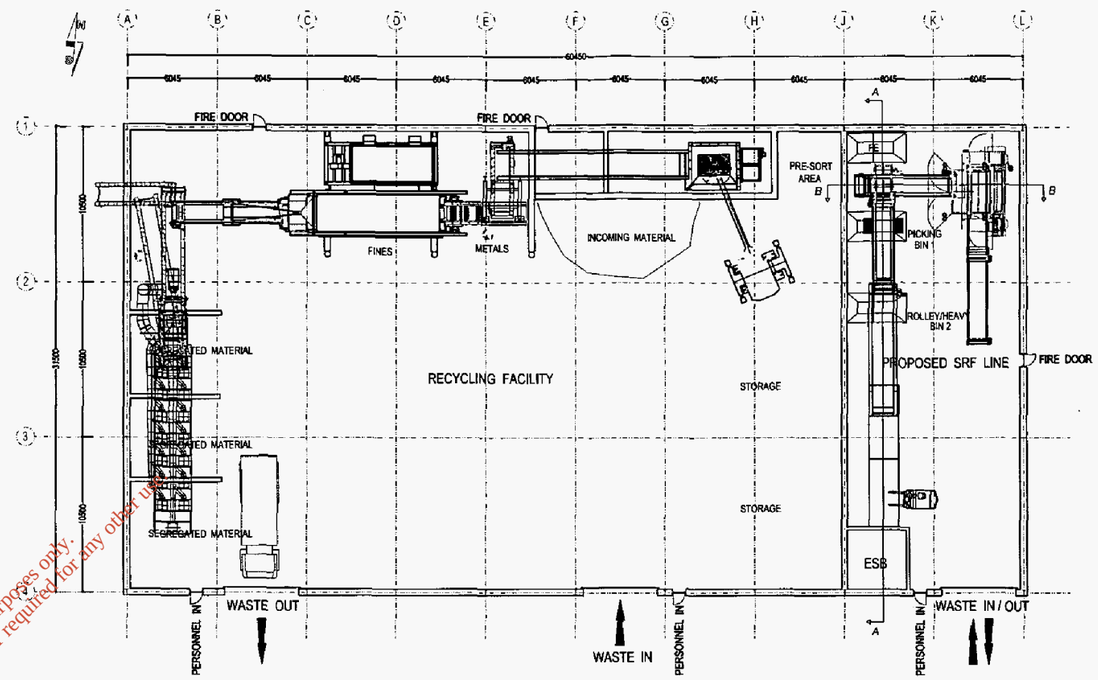
TITLE: EXISTING / PROPOSED SITE DRAINAGE (NO CHANGE)

SCALE	DATE	DRAWING NUMBER	ISSUE
N.T.S.	DEC. '12	13/421/2	

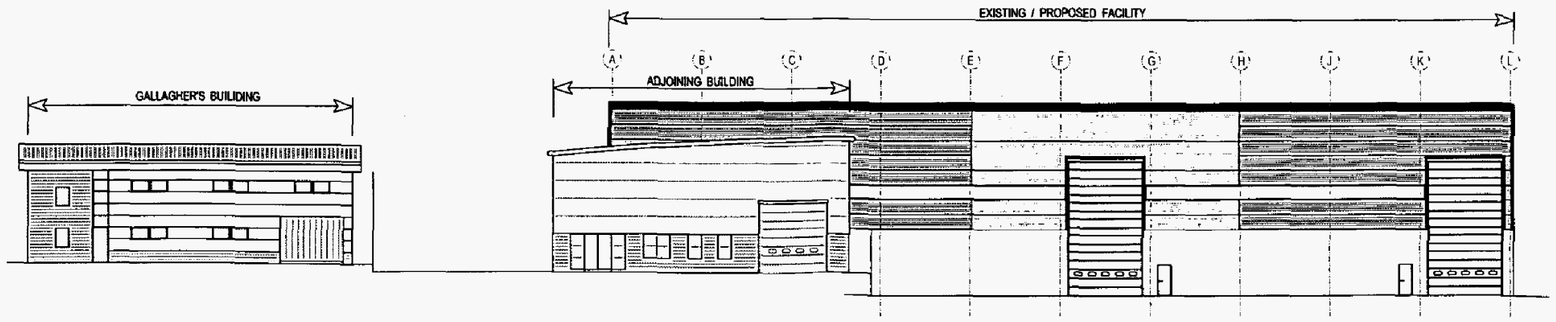
PLANNING APPLICATION DRAWING



EXISTING PLAN LAYOUT
SCALE 1:200



PROPOSED PLAN LAYOUT
SCALE 1:200



EXISTING / PROPOSED CONTIGUOUS FRONT ELEVATION (NO CHANGE)
SCALE 1:200

ISSUE	REASON FOR ISSUE	DRAWN	DATE

DOCUMENT WORKING STATUS

☐ FOR APPROVAL ☐ FOR REVIEW ■ FOR PLANNING
☐ FOR TENDER ☐ FOR CONSTRUCTION ☐ AS BUILT

FINGAL PLANNING CONSULTANTS
PLANNING & DEVELOPMENT CONSULTANTS
SUITE 7C, BALBRIGGAN STREET, SKERRIES, CO. DUBLIN.
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CLIENT: PACON WASTE & RECYCLING LTD.

PROJECT: PROPOSED EXPANSION OF EXISTING RECYCLING FACILITY

TITLE: EXISTING / PROPOSED PLAN LAYOUTS & CONTIGUOUS ELEVATION

SCALE	DATE	DRAWING NUMBER	ISSUE
N.T.S.	DEC. '12	13/421/3	

PLANNING APPLICATION DRAWING

N

BALBRIGGAN OUTER RELIEF ROAD

INNER ROAD ACCESS

ESB 110KV STATION

ESB PYLON

ESB PYLON

SITE BOUNDARIES OUTLINED IN RED

ESB OH 110kV

ESB OH 110kV

TRUCK PARKING

CONCRETE APRON

OFFICE / TOILETS

CAR PARKING

CAR PARKING

OFFICE

WEIGHBRIDGE

E.S.B. SUB-STATION

ESB PYLON

PUBLIC ROAD

PUBLIC ROAD

PUBLIC ROAD

EXISTING RECYCLING FACILITY

PROPOSED SRF LINE

35.05 ALL LEVELS RELATIVE TO ORDNANCE DATUM

ISSUE	REASON FOR ISSUE	DRAWN	DATE

DOCUMENT WORKING STATUS

☐ FOR APPROVAL ☐ FOR REVIEW ■ FOR PLANNING
☐ FOR TENDER ☐ FOR CONSTRUCTION ☐ AS BUILT

FINGAL PLANNING CONSULTANTS
PLANNING & DEVELOPMENT CONSULTANTS

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CLIENT: PACON WASTE & RECYCLING LTD.

PROJECT: PROPOSED EXPANSION OF EXISTING RECYCLING FACILITY

TITLE: PROPOSED SITE LAYOUT

SCALE	DATE	DRAWING NUMBER	ISSUE
N.T.S.	DEC. '12	13/421/1	

APPENDICES

Pacon Waste and Recycling Limited (Pacon), Stephenstown Business Park, Stephenstown, Balbriggan, County Dublin intends to apply to Fingal County Council for Planning Permission and for a Review of their Waste Permit, WFP-FG-10-0004-01. The facility is a non-hazardous waste recovery and recycling operation. It is proposed to extend the permitted waste acceptance and operational hours to 24 hours, seven days per week; to increase the amount of waste accepted from 24,950 to 49,950 tonnes annually, and accept and process other compatible non-hazardous waste types. Pacon is preparing an Environmental Impact Statement (EIS) for submission with the planning application and invites comments from any interested parties that will be taken into consideration in preparing the EIS. Written submissions only should be sent to O'Callaghan Moran & Associates, Granary House, Rutland Street, Cork to be received by the 19th November 2013.

Comhairle Contae Fhine Gall
Fingal County Council

WASTE FACILITY PERMIT GRANTED BY:

FINGAL COUNTY COUNCIL

ON

5TH AUGUST 2010

GRANTED TO:

PACON WASTE & RECYCLING LTD.

STEPHENSTOWN BUSINESS PARK, BALBRIGGAN, CO. DUBLIN

WASTE FACILITY PERMIT NO. WFP-FG-10-0004-01

GENERAL

Fingal County Council has granted a waste facility permit to Pacon Waste and Recycling Ltd. herein after called the permit holder.

Of: [Principal office address]

Address:	**Stephenstown Business Park, Balbriggan, Co. Dublin**

Operating a facility at:

Address:	**Stephenstown Business Park, Balbriggan, Co. Dublin**

Issued on:

Date:	5th August 2010

Expires on:

Date:	5th August 2015

Permit Reference Number

WFP-FG-10-0004-01

Subject to the attached schedule of conditions.

Fingal County Council may at any time review, and subsequently amend conditions of, or revoke this permit.

Signed:

Senior Engineer

Environment Department

Fingal County Council

Date: 5 Aug 2010.

GENERAL

Part 1 Activities Permitted

In pursuance of the powers conferred on it by the Waste Management Acts 1996 -2008 and the Waste Management (Facility Permit and Registration) Regulations S.I No.821 of 2007 as amended by the Waste Management (Facility Permit and Registration) (Amendment) Regulations S.I No.86 of 2008, Fingal County Council under Article 35 of the regulations hereby grants this permit to Pacon Waste and Recycling Ltd. at Stephenstown Business Park, Balbriggan, Co. Dublin.

Permitted Activities in accordance with the Fourth Schedule of the Waste Management Acts 1996 – 2007

Class No.	Inert Class Description
2	Recycling or reclamation of organic substances which are not used as solvents
3	Recycling or reclamation of metals and metal compounds
4	Recycling or reclamation of other inorganic material
12	Exchange of waste for submission to any activity referred to in this schedule
13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

Classes of activity subject to waste facility permit application to a local authority as per Part 1 of the third schedule of the Regulations

Class No.	Inert Class Description
7	Recovery of inert waste arising from construction and demolition activity, including concrete, bricks, tiles, or other such similar material, at a facility (excluding land improvement or development) where – (a) The annual intake shall not exceed 50,000 tonnes, and (b) The maximum quantity of residual waste consigned from the facility for collection, onward transport and submission to disposal at an authorised facility shall not exceed 15% of the annual intake

Part 2 Activities Refused

The storage of mixed municipal waste (EWC Code 20 03 01) has been refused for the facility.

Interpretation

All terms in this permit should be interpreted in accordance with the definitions in the Waste Management Acts 1996 to 2008 (the Act), and its associated regulations.

REASON: To clarify the scope of this permit

CONDITION 1 SCOPE

1.1. This Waste Facility Permit is issued under the Waste Management (Facility Permit & Registration) Regulations S.I No. 821 of 2007 as amended by the Waste Management (Facility Permit and Registration) (Amendment) Regulations S.I No.86 of 2008 by Fingal County Council.

1.2. This waste facility permit is for the purpose of waste activity authorisation under the Waste Management (Facility Permit & Registration) Regulations S.I No. 821 of 2007 as amended by the Waste Management (Facility Permit and Registration) (Amendment) Regulations S.I No.86 of 2008 only, and nothing in this permit shall be construed as negating the permit holders statutory obligations, or requirements under any other enactments or regulations.

1.3. This waste facility permit is granted to Pacon Waste and Recycling Ltd. for the waste activities listed and described in Part 1 (Activities Permitted) only. This waste facility permit is granted for a period of no more than 5 years from the date of issue of the permit.

1.4. For the purposes of this facility permit, the facility authorised is the area of land outlined in Figure 1 – 'Proposed Site Services'. There will be no storage of waste outside of the permitted area.

1.5. The maximum amount of waste to be accepted at the facility per annum is 22,250 tonnes. This tonnage may be exceeded by a further specified amount only with the prior consent of Fingal County Council.

1.6. Any proposed changes in the activity as outlined in the information furnished with this application shall be submitted in writing to Fingal County Council for written agreement prior to that change taking effect. Should the submission identify a material or significant change in;

(a) the nature, extent or focus of the waste activities or

(b) the nature or extent of any emission;

a facility permit review or new application may be required before the proposed change can be assessed. Fingal County Council reserves the right to review and/or revoke this permit at any time and shall give written notice to the permit holder in such an event.

1.7. The permit holder shall ensure that the facility is managed, operated, maintained and that emissions are controlled as set down in this permit.

1.8. The permit holder shall ensure that the facility is compliant with the objectives of the relevant Waste Management Plan and the National Hazardous Waste Management Plan as relevant.

1.9. In order to facilitate recycling and recovery of waste the permit holder shall not dispose of waste which has previously been collected in source segregated form. Similarly he/she shall not collect, transport, handle or mix waste in a manner so as to make it unsuitable for recycling or recovery.

1.10. Any non-conformance with the conditions of this permit are an offence under the Waste Management (Facility Permit & Registration) Regulations 2007 as amended by the Waste Management (Facility Permit and Registration) (Amendment) Regulations S.I No.86 of 2008.

1.11. Where Fingal County Council considers that a non-compliance with the conditions of this permit has occurred, it may serve notice on the Permit Holder. The permit holder should comply with the requirements of such notice within the time-scale

specified in the notice. Written confirmation should be furnished to Fingal County Council when the requirements of the notice have been complied with.

CONDITION 2 MANAGEMENT OF THE ACTIVITY

2.1 The permit holder shall employ a suitably qualified and experienced facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced deputy shall be present at the facility at all times during its operation.

2.2 The facility shall be adequately manned and supervised at all times. It should be maintained to the satisfaction of Fingal County Council and adequate precautions shall be taken to prevent unauthorised access to the site.

2.3 The permit holder shall acquaint all staff, employees, leasees and agents, including replacement personnel and contract personnel, of the provisions of this permit.

2.4 The site shall only be operated and waste shall only be accepted at and despatched from the facility between the hours of 7.00 a.m. to 9.00 p.m. Monday to Friday (excluding Bank and National Holidays) and 8.00 a.m. to 1.00 p.m. on Saturdays.

2.5 The permit holder shall establish procedures to ensure that corrective action is taken should any condition of this permit not be complied with. Fingal County Council should be notified immediately of any breach of this permit by telephone/fax and full details forwarded in writing on the next working day.

2.6 Within 3 months of the date of grant of this permit, the permit holder shall develop and document procedures for the following;

(a) waste inspection procedures

(b) waste acceptance and handling procedures

(c) waste quarantine procedures

(d) waste rejection and notification procedures and

(e) other appropriate procedures and arrangements relating to the acceptance of waste.

REASON: To make provision for the proper management of the activity.

CONDITION 3 RECORD KEEPING AND REPORTING

3.1 Unless otherwise agreed with the Local Authority, all written communications, including reports and notifications related to this permit, shall be submitted to the local authority as follows:

To:	Senior Engineer
Address:	Environment Department, Fingal County Council, County Hall, Main Street, Swords, Co. Dublin.
Telephone No. (normal working hours)	**01-8905000**
Fax. No.	**01-8906270**

3.2 The permit holder shall ensure that a copy of this waste facility permit is retained on site, in an easily accessible location, at all times. A copy of this permit shall be issued by the permit holder to all relevant personnel whose duties relate to any condition within it. The permit holder shall maintain a written register of personnel who receive a copy of this waste facility permit.

3.3 The permit holder shall ensure that a copy of the layout plan is retained on site, in an easily accessible location, at all times. The layout plan shall include the following;

(a) site boundary;

(b) ordnance survey sheet reference number(s);

(c) elevation levels (metres) and Ordnance datum;

(d) dimensions (metres);

(e) orientation of north point; and

(f) location of monitoring and sampling points (if applicable).

3.4 The permit holder shall maintain a register in relation to the activity to which the waste facility permit relates, which shall be available for inspection by the local authority. The register shall detail the following:

a) The dates and time of waste delivered to and dispatched from the facility.

b) Names of the carriers, including details of vehicle registrations and waste collection permits numbers.

c) The origin of each delivery of waste.

d) The quantities and composition of each waste consignment, (by European Waste Catalogue code(s) and description(s) pursuant to Commission Decision 2001/118/EC of 16th January, 2001 or subsequent amendments) received at the site.

e) The quantities and composition of wastes rejected at the facility, and details of where they were diverted.

f) The quantities, composition and destination of waste consigned for onward transport from the facility together with documentary evidence of acceptance/treatment/disposal at the destination facility.

g) Details of all facilities, including permit/licence numbers, which are being used to receive such waste.

3.5 All written communication, reports etc. shall:

(a) Be formatted in accordance with any written instruction or guidance issued by Fingal County Council;

(b) Include whatever information as is specified in writing by Fingal County Council;

(c) Be submitted in accordance to the relevant reporting frequencies specified in this permit;

(d) Be accompanied by a written interpretation setting out their significance in the case of all monitoring data;

(e) Be transferred electronically to Fingal County Council's computer system if required by the Fingal County Council.

(f) Be held at the facility for a period of 7 years. Some records can be maintained electronically subject to the prior written agreement of Fingal County Council.

3.6 The permit holder shall compile and maintain specified records in a specified format agreed with the local authority for a period of not less than 7 years in relation to the activity to which the permit relates of;

(a) the types and quantities of waste dealt with in the course of business (including European Waste Catalogue Code(s) and description(s) pursuant to Commission Decision 2001/118/EC of 16th January 2001 or subsequent amendments); and

(b) the treatment, recovery or disposal activities to which the waste is subject, including the compilation of commercial documentation for all collected waste deposited at the facility.

3.7 The permit holder shall submit to the local authority, an Annual Environmental Report. The Annual Environmental Report form is available on the Fingal County Council website.

The completed form shall be submitted on or before the 28th February each year, electronically or in writing to a staff member nominated by Fingal County Council. The completed form shall relate to waste activities in the preceding calendar year.

This Annual Environmental Report, which shall be to the satisfaction of the local authority, shall include as a minimum the following information and shall be prepared in accordance with any relevant guidelines issued by the local authority.

(a) A summary of compliance with all the conditions attached to the permit.

(b) The management and staffing structure of the site;

(c) Any court order or conviction under the Act;

(d) The tonnages and EWC code for the waste materials imported and/or sent off-site for disposal/recovery within the reporting year;

(e) The names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number);

(f) Quantity, type and composition of all wastes accepted at the site during the reporting year;

(g) Any loads rejected at the site;

(h) Reportable incidents during the reporting year;

(i) All complaints received during the reporting year;

(j) The destination of all wastes accepted and disposed of at the facility during the year and the method of treatment of the waste at each individual facility;

(k) In relation to each destination facility a breakdown of the amount of waste recovered and waste disposed of during the reporting period.

(l) Schedule of environmental improvements on the site for the report year.

(m) A summary of monitoring results with reference to any modifications to the monitoring programme at the site.

(n) Development works undertaken during the reporting period

(o) Risk assessment of the site, including fire.

(p) Any other items specified from time to time by the Council.

3.8 The permit holder shall immediately notify the local authority by telephone/fax of any incident which occurs as a result of the activity at the facility and which;

(a) has the potential for environmental contamination of surface water or ground water, or

(b) poses an environmental threat to air or land, or

(c) requires an emergency response by the Local Authority or is classified as an emergency.

Full details shall be forwarded in writing on the next working day. The permit holder shall include as part of this notification:

(a) the date and time of incident, or when incident was noticed;

(b) details of the incident and the causes or potential causes of it;

(c) an evaluation of environmental pollution caused, if any;

(d) actions taken to minimise the effect on the environment;

(e) steps taken to avoid reoccurrence;

(f) details of any site investigations instigated by the permit holder;

(g) any other remedial action taken.

The permit holder shall make a record of any such incident in a register to be maintained at the facility.

3.9 The permit holder shall maintain on the site a register of all complaints received relating to the operation of the activity. Each such complaint entry in the register should give details of the following:

(a) time and date of the complaint;

(b) the name, address and telephone number of the complainant;

(c) details of the nature of the complaint;

(d) actions taken to deal with the complaint, and the results of such actions;

(e) the response made to each complainant.

After the receipt of a complaint, the Local Authority shall be notified in writing as soon as possible and in any event not later than five working days of receipt of the complaint. A copy of the written response(s) to each complaint shall be forwarded to Fingal County Council also.

3.10 The permit holder shall make all records maintained on the site available to authorised staff of Fingal County Council at all reasonable times, and shall provide any relevant information when so requested by an authorised person of the Council.

3.11 Where the operator is convicted of any offence, prescribed under article 19(3) (a) of the Waste Management (Facility Permit and Registration) Regulations 2007, the operator shall inform Fingal County Council within 7 days of the conviction, including information in relation to the court hearing the case, the nature of the offence and any penalty or requirement imposed by the court.

3.12 The permit holder shall inform the Local Authority in writing when an activity ceases at the facility, within a week of the activity ceasing. The permit holder shall provide a summary of compliance with all conditions relating to that activity with reference to the information contained in the registers described above.

REASON:	To make provision for the notification of incidents, to update information on the activity and to provide for the keeping of proper

CONDITION 4 SITE INFRASTRUCTURE

Facility Notice Board

4.1 The permit holder shall provide and maintain a Facility Notice Board at the facility, within 1 month of grant of this permit, so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm. The board shall clearly show:-

(a) the name, address and telephone number of the facility;

(b) the normal hours of opening;

(c) the name of the permit holder;

(d) an emergency out of hours contact telephone number;

(e) the permit reference number; and

(f) where environmental information relating to the facility can be obtained.

4.2 A plan of the facility clearly identifying the location of the waste drop-off and storage areas shall be displayed as close as possible to the entrance to the facility. The plan shall be displayed on a durable material such that it is legible at all times. The plan shall be replaced as material changes are made.

Traffic Management

4.3 The permit holder is required to erect and maintain adequate temporary advance warning signage at the proposed vehicular entrance to allow safe use of the proposed entrance and to eliminate any potential traffic hazard. All signing, lighting and guarding is to be erected and maintained in accordance with Traffic Signs Manual, Chapter 8 "Signs for Roadworks" issued by Department of the Environment, Heritage and Local Government.

4.4 The proposed vehicular entrance to the facility is required to meet National Roads Authority Design Manual for Roads and Bridges standards for sight lines and stopping sight distances, i.e. 75m x 4m x 1.05m. The permit holder must demonstrate compliance with these standards to Fingal County Council prior to any vehicular traffic exiting the facility.

Tank, Container and Drum Storage Areas

4.5 The permit holder shall maintain an impermeable concrete surface throughout the facility. All waste handling and storage areas at the facility shall be concreted and constructed to British Standard BS 8110.

4.6 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds should be designed having regard to Environmental Protection Agency guidelines *Storage and Transfer of Materials for Scheduled Activities* (2004).

4.7 All tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following:-

(a) 110% of the capacity of the largest tank or drum within the bunded area; or

(b) 25% of the total volume of substance which could be stored within the bunded area.

4.8 All drainage from bunded areas shall be treated as hazardous waste unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal.

4.9 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

4.10 All tanks, containers and drums shall be labelled to clearly indicate their contents.

4.11 The permit holder shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility. Once used the absorbent material shall be disposed of at an appropriate facility.

4.12 All bunds shall be tested every three years.

Silt Traps and Oil Separators

4.13 The permit holder shall install and maintain a silt trap and oil separator at the facility to ensure that all storm water discharges from areas of the facility not used for the handling and storage of waste pass through a silt trap and oil separator in advance of discharge. The separator shall be a Class I full retention separator and the silt traps and separator shall be in accordance with I.S. EN 858-2:2003 (separator systems for light liquids).

4.14 All pump sumps, storage tanks or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separator, shall be fitted with high liquid level alarms (or oil detectors as appropriate).

4.15 A catchment system to collect any leaks from flanges and valves of all over ground pipes used to transport material other than water shall be provided.

Facility Security

4.16 All access points should be adequately secured when the facility is not in use or is unsupervised. Security and stockproof fencing and gates shall be maintained at the site.

4.17 Gates shall be locked shut when the facility is unsupervised;

4.18 The permit holder shall remedy any defect in the gates and/or fencing or wall as follows:-

A temporary repair shall be made by the end of the working day; and

A repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

4.19 Closed circuit television shall be located and maintained at entry and exit points of the facility.

Facility Roads and Surfaces

4.20 Effective or adequate site roads and surface shall be provided and maintained to ensure the safe and nuisance free movement of vehicles within the facility.

4.21 The permit holder shall provide and maintain (to an approved standard), concrete or macadam/asphalt surfaces in all areas of the facility, or an alternative surface as agreed by Fingal County Council;

Facility Office

4.22 The permit holder shall maintain an administrative building/office and car park at the facility. The office shall be maintained in a manner suitable for the processing and storing of documentation.

4.23 The permit holder shall provide and maintain a working telephone and a method for electronic transfer of information at the facility.

4.24 The permit holder shall make appropriate arrangements for the processing or storage of documentation subject to approval of Fingal County Council.

4.25 The permit holder shall provide and use adequate lighting during the operation of the facility in hours of darkness.

Waste Inspection and Quarantine

4.26 A waste inspection area(s) and waste quarantine area(s) shall be provided and maintained at the facility.

4.27 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area(s) and waste quarantine area(s) shall be clearly identified and segregated from each other.

Weighbridge & Vehicle Wash

4.28 The permit holder shall provide and maintain at the facility a method of recording the waste tonnage. There will be no washing on site.

REASON: To provide for the protection of the environment

CONDITION 5 WASTE HANDLING

Permitted Wastes

5.1 The permit holder shall ensure that only wastes permitted at this facility are accepted. The type and quantities permissible wastes are presented in Table 1 below. The listing is by European Waste Catalogue code(s) and description(s) pursuant to Commission Decision 2001/118/EC of 16 January 2001 or subsequent amendments.

Table 1 Types and Quantities of permissible wastes to be handled at the facility

EWC Code	Description of Waste	Quantity (Tonnes)
15 01 01 – 09 20 01 01 20 01 02 20 01 10 20 01 11 20 01 38 20 01 39 20 01 40	Packaging, Paper and Cardboard, Wood, Plastics, glass, clothes, textiles, metals (mixed dry recyclables)	2,000
17 01 01 17 01 02 17 01 03	Concrete, Bricks, Tiles, Ceramics	750
17 01 07	Mixture of concrete, bricks, tiles and ceramics	750
17 02 01	Wood	750
17 02 02	Glass	125
17 02 03	Plastic	100
17 04 01 17 04 02 17 04 03 17 04 04 17 04 05 17 04 06 17 04 07	Copper, bronze, brass, Aluminium, Lead, Zinc, Iron and Steel, Tin, Mixed Metals	1,000
17 05 04	Soil and Stones other than those mentioned in 17 05 03	2,000
17 08 02	Gypsum based construction materials other than those mentioned in 17 08 01	750
17 09 04	Mixed Construction and Demolition wastes other than those mentioned in 17 09 01	14,000
20 01 28 20 01 34 20 01 36	Paint, inks, adhesives and resins other than those mentioned in 20 01 27 Batteries and accumulators other than those mentioned in 20 01 33 Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23, 20 01 35	25

5.2 The permit holder shall only accept such wastes for recovery at this permitted facility provided for in this permit and which are listed in Table 1 of this permit. Wastes not listed within Table 1 of this permit are not permitted at this facility.

5.3 Maximum tonnages are provided in Table 1.

Waste Acceptance

5.4 The permit holder shall establish and maintain detailed written procedures for the acceptance and handling of all wastes permitted at the facility.

5.5 Waste arriving at the facility shall be inspected at the point of entry to the facility and subject to this inspection documented and directed to the

a) Designated Waste Storage Bay/receptacle for segregated waste

b) Designated area/receptacle for waste disposal

c) Designated area/receptacle for waste recovery

d) Designated Quarantine Area

Each load of waste shall be inspected. No waste shall be stored outdoors.

5.6 Waste shall only be accepted by the operator at the site between 0800 and 1800 hours, Monday to Friday inclusive, and between 0800 and 1800 hours on Saturdays unless otherwise approved in writing by Fingal County Council. No waste shall be accepted at the site on Bank or Public Holidays.

5.7 The permit holder shall ensure that adequate steps are taken to prevent unauthorised entry of waste to the facility. The permit holder shall make provisions to control access to the site to prevent fly tipping of waste. Such provisions shall be agreed with Fingal County Council prior to the commencement of waste activities at the facility.

5.8 Any waste deemed unsuitable for processing at the facility and/or in contravention of this permit shall be immediately separated and removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in an appropriate designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid water pollution, putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition. All such incidents shall be reported to the local authority in writing on the next working day.

5.9 Recovery of waste shall only take place in accordance with the conditions of this permit and in accordance with the appropriate National and European legislation and protocols.

5.10 The permit holder shall assign and clearly label each waste receptacle and designated area at the facility to indicate its contents.

Waste Movement

5.11 Waste sent off-site for recovery, recycling, or disposal shall be transported only by an authorised waste collector in accordance with the Waste Management (Collection Permit) Regulations, 2001 (where the permit holder has a valid permit granted under such Regulations) or the Waste Management (Collection Permit) Regulations, 2007 (where a valid permit was granted since 31st March, 2008).

5.12 The waste shall be transported only from the site of the activity to the site of recovery, recycling or disposal in a manner which will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols. Any incident which occurs during the transport of waste affecting the environment should be notified to Fingal County Council in writing by the next working day.

Waste Storage

5.13 The loading and unloading of materials shall be carried out in designated areas and protected against spillage and run-off.

5.14 Waste shall be stored in designated areas, protected as may be appropriate, against spillage and leachate run-off. The waste is to be clearly labelled and appropriately segregated. Waste oil will not be stored outdoors.

REASON:	To provide for the acceptance and management of wastes authorised under this permit

CONDITION 6 ENVIRONMENTAL PROTECTION AND EMISSIONS

The permit holder shall ensure that authorised staff of Fingal County Council shall have unrestricted access to the premises at all reasonable times on production of their identification, for the purpose of the Local Authority's functions under the Waste Management Acts, 1996 to 2008 including such inspections, monitoring and investigations that are deemed necessary by the Council.

6.1 Environmental Protection

Site roads and must be regularly brushed or scraped and kept free from dust and mud deposits;

Suitable measures should be taken to minimise the risk of spillages and accidents;

The permit holder shall take preventative measures to ensure that the activity does not result in unreasonable noise, dust, mud, grit, litter and other nuisances, which would result in the impairment of, or significant interference with, the amenities or the environment beyond the site boundary;

All vehicles transporting waste to and from the facility must be adequately covered to ensure that no wastes are deposited on the public roadway or adjoining lands;

Effective site roads shall be provided and maintained to ensure the safe and nuisance-free movement of vehicles within the facility;

The permit holder shall ensure that all loose litter accumulated within the site and its environs shall be removed and appropriately disposed of at an appropriate facility;

6.2 Water Pollution Control

The permit holder shall take preventative measures to ensure that the activity is carried out in a manner which does not have any adverse effect on drainage of lands, watercourses, shallow wells, bored wells, raw water intakes or other sources of water supply, public and private roads or footways;

Surface water drains should carry only uncontaminated rainwater from roofs and clean yard surfaces to a watercourse;

There must be no discharge of suspended solids or any deleterious matter to watercourses;

Suitably sized oil and petrol interceptors are required for all discharges from large carparks, truck wash, access roads and hard surfaced areas;

Discharges to streams, watercourses or soakaways must receive permission from Water Services;

Minimise the amount of stockpiles on site;

Water containing detergents, disinfectants, degreasers or any other cleaning agent must not enter the surface water drains;

Hydrocarbons on the site must be contained in 'fit for purpose' storage tanks located in bunded areas. The bund should be capable of retaining 110% of the largest single tank within the bunded area. Drainage from bunded areas must be collected and disposed of in a safe manner;

6.3 Noise Emissions

Noise emissions from the facility shall not give rise to noise levels at noise sensitive locations in the vicinity of the activity in excess of:

(i) 55 dBA Leq, $_{LT}$ during the hours 08.00 - 20.00

(ii) 45 dBA Leq, $_{LT}$ during the hours 20.00 - 08.00

(iii) There shall be no clearly audible tonal component, or impulsive component, in the noise emission from the development at any noise sensitive location.

The permit holder shall at his own expense arrange for monitoring of noise levels if so requested by Fingal County Council.

6.4 Air Pollution Control

All direct and indirect emissions to the atmosphere, including odours, shall be controlled to ensure that they do not:

(i) Result in injury to health;

(ii) Have a deleterious effect on flora or fauna or cause damage to property;

(iii) Impair or interfere with amenities or with the environment.

The permit holder shall at his own expense arrange for monitoring of dust levels if so requested by Fingal County Council.

6.5 Vermin Control

The permit holder shall maintain sufficient and continuous vermin control at the site. A register of pest control inspections and actions shall be maintained.

REASON: To ensure compliance with the requirements of other conditions of this permit by provision of a satisfactory system of measurement and monitoring of emissions

CONDITION 7 ACCIDENT PREVENTION AND EMERGENCY RESPONSE

7.1 The permit holder shall ensure that a documented Accident Prevention Policy is in place which will address the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.

7.2 The permit holder shall ensure that a documented Emergency Response Procedure is in place, which shall address any emergency situation which may originate on site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.

7.3 The permit holder shall ensure that all significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.

7.4 No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

7.5 Adequate fire equipment will be provided at the site.

REASON: To provide for an emergency situation at the facility

CONDITION 8 CHARGES AND FINANCIAL PROVISIONS

Annual Fees

8.1 The permit holder shall pay to Fingal County Council an annual contribution of €3,125 per annum, or such sum as Fingal County Council determines from time to time, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the local authority. This cost shall be paid towards the cost of administering the facility permit and monitoring the activity as the local authority considers necessary for the performance of its functions under the Waste Management (Facility Permit and Registration) Regulations 2007.

8.2 A bond shall be put in place to the value of €25,000 for the duration of the permit.

8.3 The first payment shall be a pro-rata amount for the period from the date of grant of this permit to the 31st day of December, and shall be paid to the local authority within one month from the date of grant of the permit.

8.4 In subsequent years the permit holder shall pay to the local authority such revised annual contribution as the local authority shall determine to enable performance by the local authority of its relevant functions under the Waste Management (Facility Permit and Registration) Regulations 2007, and all such payments shall be made within one month of the date upon which demanded by the local authority.

Financial Provisions

8.5 The permit holder shall effect and maintain a policy of insurance insuring him or her as respects any liability on his or her part to pay any damages or costs on account of injury to persons or property arising from the activities concerned or for remedial actions following anticipated events (including closure) or accidents/incidents, as may be associated with the carrying on of the activity. The level of financial provision for unknown environmental liabilities shall be calculated using the EPA document "Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision" (EPA 2006).

8.6 All insurance policies shall be extended to indemnify Fingal County Council. The permit will be automatically revoked if any part of the insurance is either removed or not renewed.

REASON: To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.

CONDITION 9 RESTORATION AND AFTERCARE

Cessation of Operations

9.1 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the authorised activity, the permit holder shall, to the satisfaction of Fingal County Council decommission, render safe or remove for disposal/recovery any soil, subsoil, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution. The permit holder shall carry out such tests, investigation or submit certification, as requested by Fingal County Council to confirm that there is no risk to the environment.

9.2 The applicants, their heirs or assigns, remain responsible in perpetuity for the proper and nuisance free operation of all drainage systems at the facility, and for ensuring that no pollution of surface or ground waters shall occur at any time as a result of the waste recovery operation.

9.3 In the event of closure of the facility, the permit holder shall submit a Restoration and Aftercare Plan to Fingal County Council, one month in advance of closure. The content of this plan shall be agreed with the Council before any closure occurs, as well as other required measures, as notified by the Council.

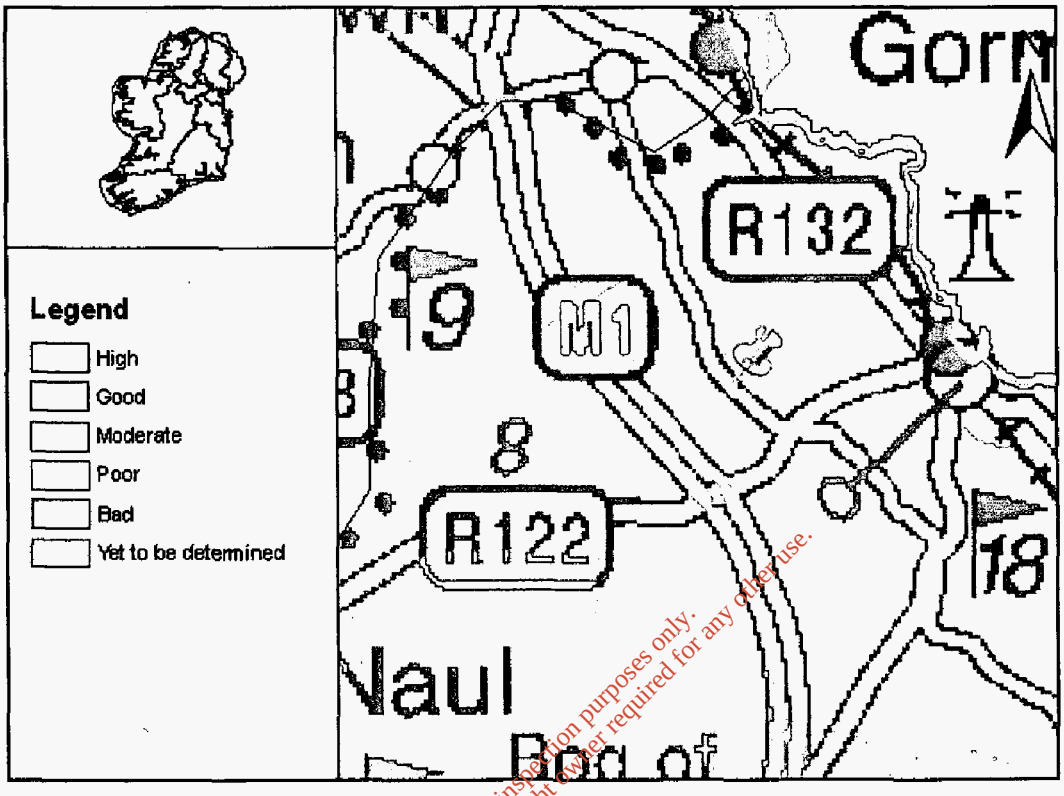
REASON : To provide for the restoration and aftercare of the facility

Yvonne Cannon

Yvonne Cannon
Executive Scientist
28th July 2010

water matters
'Our Plan'

Full Report for Waterbody Balbriggan



River Basin Management Plans (RBMPs) have been published for all River Basin Districts in Ireland in accordance with the requirements of the Water Framework Directive. The WaterMaps viewer is an integral part of the River Basin Management Plan and provides access to information at individual waterbody level and at Water Management Unit level for all the River Basin Districts in Ireland.

The following report provides summary plan information about the selected waterbody (indicated by the pin in the map above) relating to its status, risks, objectives, and measures proposed to retain status where this is adequate, or improve it where necessary. Waterbodies can relate to surface waters (these include rivers, lakes, estuaries [transitional waters], and coastal waters), or to groundwaters. Other relevant information not included in this report can be viewed using the WaterMaps viewer, including areas listed in the Register of Protected Areas.

You will find brief notes at the bottom of some of the individual report sheets that will help you in interpreting the information presented. More detailed information can be obtained in relation to all aspects of the RBMPs at www.wfdireland.ie.

Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'our Plan'

Summary Information:

Water Management Unit:	N/A
WaterBody Category:	Groundwater Waterbody
WaterBody Name:	Balbriggan
WaterBody Code:	IE_EA_G_039
Overall Status:	Good
Overall Objective:	Protect
Overall Risk:	2a Probably Not At Risk
Heavily Modified:	No

Report data based upon final RBMP, 2009-2015.

The information provided above is a summary of the principal findings related to the selected waterbody. Further details and explanation of individual elements of the report are outlined in the following pages.

Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'our Plan'

Chemical and Quantitative Status Report

Water Management Unit:	N/A
WaterBody Category:	Groundwater Waterbody
WaterBody Name:	Balbriggan
WaterBody Code:	IE_EA_G_039
Overall Status Result:	Good
Heavily Modified:	No

	Status Element Description	Result
	Status information	
INS	Status associated with saline intrusion into groundwater	N/A
DWS	Status associated with exceedances of water quality above specific standards	N/A
DS	Chemical status of groundwater due to pressure from diffuse sources of pollution	N/A
CLS	Chemical status of groundwater due to pressure from contaminated soil or land.	N/A
MS	Chemical status of groundwater due to pressure from mine sites (active or closed).	N/A
UAS	Chemical status of groundwater due to pressures from urban areas	N/A
GWS	General groundwater quality status	N/A
RPS	Status associated with MRP loading to rivers	N/A
TNS	Status associated with nitrate loading to transitional and coastal waters	N/A
SWS	Overall status associated with nutrient loadings to rivers and transitional and coastal waters	N/A
SQS	Status associated with dependant surface water quantitative status	N/A
GDS	Groundwater dependant terrestrial ecosystems status	N/A
QSO	Quantitative status overall	Good
CSO	Chemical status overall	Good
OS	Overall status	Good

GS -HC : Good status High Confidence
GS- LC : Good status Low Confidence
n/a - not assessed

Status
By 'Status' we mean the condition of the water in the waterbody. It is defined by its chemical status and quantitative status, whichever is worse. Groundwaters are ranked in one of 2 status classes: Good or Poor.

You can read more about status and how it is measured in our RBMP Document Library at www.wfdireland.ie (Directory 15 Status).

Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'Our Plan'

Risk Report

Water Management Unit: N/A

WaterBody Category: Groundwater Waterbody

WaterBody Name: Balbriggan

WaterBody Code: IE_EA_G_039

Overall Risk Result: 2a Probably Not At Risk

Heavily Modified: No

	Risk Test Description	Risk
	Groundwater Dependent Terrestrial Ecosystems	
TE	GWDTE Risk	N/A
	Groundwater Quality	
DIF	Diffuse Elements (General) Risk	N/A
DW	Drinking Waters Risk	N/A
INT	Intrusions Risk	N/A
WB	Water Balance Risk	N/A
	Groundwater Quality (General)	
GQ	General Groundwater Quality Risk	N/A
	Groundwater Quality (Point Risk)	
CL	Contaminated Land Risk	N/A
LF	Landfill Risk	N/A
MI	Mine Risk	N/A
QY	Quarry Risk	N/A
UR	Urban Risk	N/A
UW	UWWT Risk	N/A
	GW Diffuse Risk Sources	
WB3	Mobile Nutrients (NO3)	N/A
WB4	Mobile Chemicals	N/A
WB5	Clustered OSWTSs and leaking urban sewerage systems	N/A
	GW Hydrology	
WB1	Water balance - Abstraction	N/A
WB2	Abstraction - Intrusion	N/A

Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'Our Plan'

	GW Point Risk Sources		
WB10	Risk from Point sources of pollution - Contaminated Land		N/A
WB11	Risk from Point sources of pollution - Trade Effluent Discharges		N/A
WB12	Risk from Point sources of pollution - Urban Wastewater Discharges		N/A
WB6	Risk from Point sources of pollution - Mines		N/A
WB7	Risk from Point sources of pollution - Quarries		N/A
WB8	Risk from Point sources of pollution - Landfills		N/A
WB9	Risk from Point sources of pollution - Oil Industry Infrastructure		N/A
	Overall Risk		
RA	Groundwater Overall - Worst Case		N/A
	Risk information		
CLR	Contaminated land risk	2b	Not At Risk
DR	Risk of groundwater due to pressure from diffuse sources of pollution	2a	Probably Not At Risk
DWR	Risk associated with exceedances of water quality above specific standards	2b	Not At Risk
GDR	Groundwater dependant terrestrial ecosystems risk	2b	Not At Risk
GWR	General groundwater quality risk	2a	Probably Not At Risk
INR	Risk associated with saline intrusion into groundwater	2b	Not At Risk
LR	Risk due to landfills sites/old closed dump sites	2b	Not At Risk
MR	Mines risk	2b	Not At Risk
NULL	Diffuse nitrates from agriculture risk		N/A
QR	Risk due to quarries	2b	Not At Risk
RA	Revised risk assessment	2a	Probably Not At Risk
RPR	Risk associated with MRP loading to rivers	2b	Not At Risk
SQR	Risk associated with dependant surface water quantitative status	2b	Not At Risk
SWR	Overall risk associated with nutrient loadings to rivers and transitional and coastal waters	2b	Not At Risk
TNR	Risk associated with nitrate loading to transitional and coastal waters	2b	Not At Risk
UAR	Risk of groundwater due to pressures from urban areas	2b	Not At Risk
UWR	Risk due to direct discharges of urban wastewater	2b	Not At Risk

Risk
By 'risk' we mean the risk that a waterbody will not achieve good ecological or good chemical status/potential at least by 2015. To examine risk the various pressures acting on the waterbody were identified along with any evidence of impact on water status. Depending on the extent of the pressure and its potential for impact, and the amount of information available, the risk to the water body was placed in one of four categories: 1a at risk; 1b probably at risk; 2a probably not at risk; 2b not at risk. Note that '2008' after the risk category means that the risk assessment was revised in 2008. All other risks were determined as part of an earlier risk assessment in 2005.

You can read more about risk assessment in our 'WFD Risk Assessment Update' document in the RBMP document library, and other documents at www.wfdireland.ie (Directory 31 Risk Assessments).

Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'our Plan'

Objectives Report

Water Management Unit: N/A

WaterBody Category: Groundwater Waterbody

WaterBody Name: Balbriggan

WaterBody Code: IE_EA_G_039

Overall Objective: Protect

Heavily Modified: No

	Objectives Description	Result
	Objectives information	
OB1	Prevent deterioration objective	Protect
OB2	Restore at least good status objective	No Status
OB3	Reduce chemical pollution objective	No Status
OB4	Protected areas objective	No Status
OBO	Overall objectives - objective	Protect

Extended timescales
Extended timescales have been set for certain waters due to technical, economic, environmental or recovery constraints. Extended timescales are usually of one planning cycle (6 years, to 2021) but in some cases are two planning cycles (to 2027).

Objectives
In general, we are required to ensure that our waters achieve at least good status/potential by 2015, and that their status does not deteriorate. Having identified the status of waters (this is given earlier in this report), the next stage is to set objectives for waters. Objectives consider waters that require protection from deterioration as well as waters that require restoration and the timescales needed for recovery. Four default objectives have been set initially:-

Prevent Deterioration
Restore Good Status
Reduce Chemical Pollution
Achieve Protected Areas Objectives

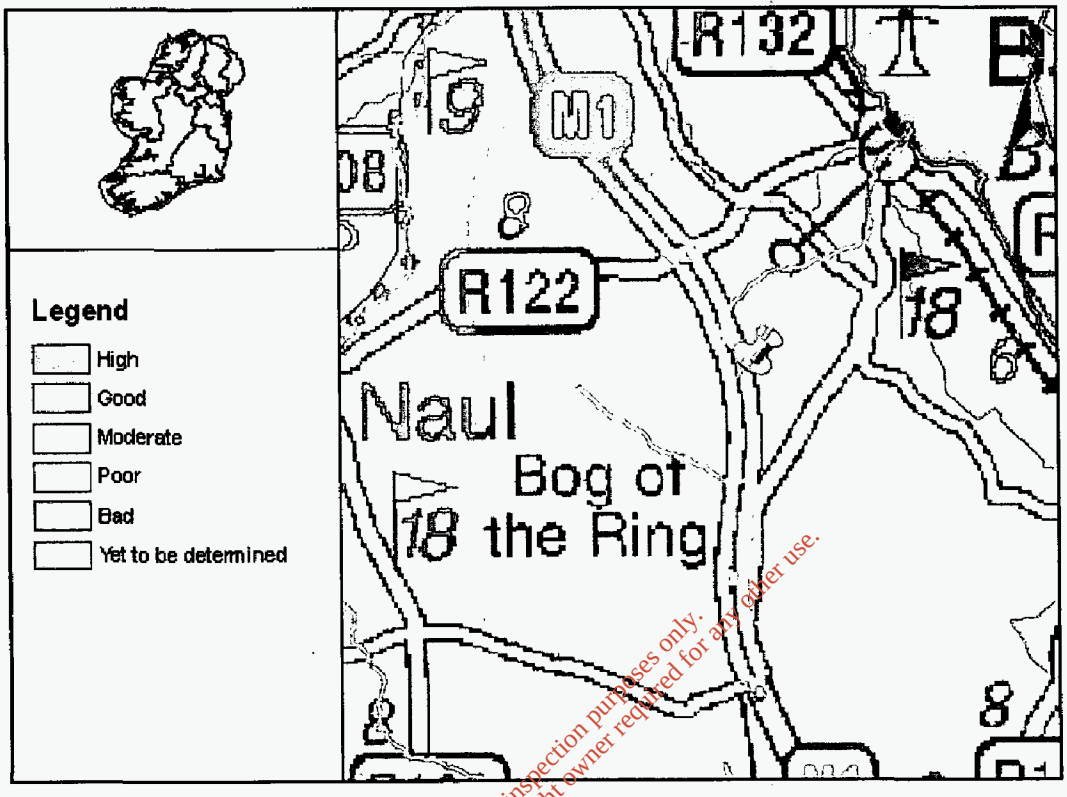
These objectives have been refined based on the measures available to achieve them, the latter's likely effectiveness, and consideration of cost-effective combinations of measures. Where it is considered necessary extended deadlines have been set for achieving objectives in 2021 or 2027.

Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'our Plan'

Full Report for Waterbody Balbriggan



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The following report provides summary plan information about the selected waterbody (indicated by the pin in the map above) relating to its status, risks, objectives, and measures proposed to retain status where this is adequate, or improve it where necessary. Waterbodies can relate to surface waters (these include rivers, lakes, estuaries [transitional waters], and coastal waters), or to groundwaters. Other relevant information not included in this report can be viewed using the WaterMaps viewer, including areas listed in the Register of Protected Areas.

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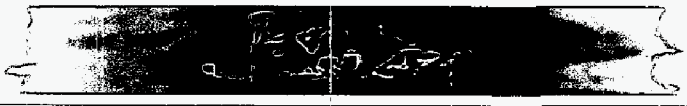
Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'our Plan'



Summary Information:

Water Management Unit:	IE_EA_Lusk
WaterBody Category:	River Waterbody
WaterBody Name:	Balbriggan
WaterBody Code:	IE_EA_08_794
Overall Status:	Good
Overall Objective:	Protect
Overall Risk:	1a At Risk
Heavily Modified:	No

Report data based upon final RBMP, 2009-2015.

The information provided above is a summary of the principal findings related to the selected waterbody. Further details and explanation of individual elements of the report are outlined in the following pages.

Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'our Plan'

Status Report

Water Management Unit:	IE_EA_Lusk
WaterBody Category:	River Waterbody
WaterBody Name:	Balbriggan
WaterBody Code:	IE_EA_08_794
Overall Status Result:	Good
Heavily Modified:	No

	Status Element Description	Result
	Status information	
Q	Macroinvertebrate status	N/A
PC	General physico-chemical status	Good
FPQ	Freshwater Pearl Mussel / Macroinvertebrate status	N/A
DIA	Diatoms status	N/A
HYM	Hydromorphology status	N/A
FIS	Fish status	N/A
SP	Specific Pollutants status (SP)	N/A
ES	Overall ecological status	Good
CS	Overall chemical status (PAS)	n/a
EXT	Extrapolated status	N/A
MON	Monitored water body	YES
DON	Donor water bodies	N/A

n/a - not assessed

Status
By 'Status' we mean the condition of the water in the waterbody. It is defined by its chemical status and its ecological status, whichever is worse. Waters are ranked in one of 5 status classes: High, Good, Moderate, Poor, Bad. However, not all waterbodies have been monitored, and in such cases the status of a similar nearby waterbody has been used (extrapolated) to assign status. If this has been done the first line of the status report shows the code of the waterbody used to extrapolate.

You can read more about status and how it is measured in our RBMP Document Library at www.wfdireland.ie (Directory 15 Status).

Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'Our Plan'

Risk Report

Water Management Unit: IE_EA_Lusk

WaterBody Category: River Waterbody

WaterBody Name: Balbriggan

WaterBody Code: IE_EA_08_794

Overall Risk Result: 1a At Risk

Heavily Modified: No

	Risk Test Description		Risk
	Diffuse Risk Sources		
RD1	EPA diffuse model (2008)	1a	At Risk
RD2a	Road Wash - Soluble Copper	2a	Probably Not At Risk
RD2b	Road Wash - Total Zinc	2a	Probably Not At Risk
RD2c	Road Wash - Total Hydrocarbons	1b	Probably At Risk
RD3	Railways	2b	Not At Risk
RD4a	Forestry - Acidification (2008)	2b	Not At Risk
RD4b	Forestry - Suspended Solids (2008)	2b	Not At Risk
RD4c	Forestry - Eutrophication (2008)	2a	Probably Not At Risk
RD5	Overall Unsewered (2008)	2b	Not At Risk
RD5a	Unsewered Areas - Pathogens (2008)	2a	Probably Not At Risk
RD5b	Unsewered Phosphorus (2008)	2b	Not At Risk
RD6a	Arable	2b	Not At Risk
RD6b	Sheep Dip	2b	Not At Risk
RD6c	Forestry - Dangerous Substances	2b	Not At Risk
RDO	Diffuse Overall -Worst Case (2008)	1a	At Risk
	Hydrology		
RHY1	Water balance - Abstraction	2b	Not At Risk
	Morphological Risk Sources		
RM1	Channelisation (2008)	2b	Not At Risk
RM2	Embankments (2008)	2b	Not At Risk
RM3	Impoundments	2b	Not At Risk
RM4	Water Regulation	2b	Not At Risk
RM5	Intensive Landuse		N/A
RMO	Morphology Overall - Worst Case (2008)	2b	Not At Risk
	Overall Risk		
RA	Rivers Overall - Worst Case (2008)	1a	At Risk

Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'Our Plan'

	Point Risk Sources		
RP1	WWTPs (2008)		Not At Risk
RP2	CSOs	1a	At Risk
RP3	IPPCs (2008)		Not At Risk
RP4	Section 4s (2008)		Not At Risk
RP5	WTPs/Mines/Quarries/Landfills		N/A
RPO	Overall Risk from Point Sources - Worst Case (2008)	1a	At Risk
	Q Value		
Q	EPA Q rating and Margaritifera Assessment		N/A
	Q/RDI or Point/Diffuse		
QPD	Q class/EPA Diffuse Model or worst case of Point and Diffuse (2008)	1a	At Risk
	Rivers Direct Impacts		
RDI1	Rivers Direct Impacts - Dangerous Substances		N/A

Risk
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Date Reported to Europe:July 2010

Date Report Created 21/11/2013

water matters
'Our Plan'

Objectives Report

Water Management Unit: IE_EA_Lusk

WaterBody Category: River Waterbody

WaterBody Name: Balbriggan

WaterBody Code: IE_EA_08_794

Overall Objective: Protect

Heavily Modified: No

	Objectives Description	Result
	Objectives information	
OB1	Prevent deterioration objective	Protect
OB2	Restore at least good status objective	No Status
OB3	Reduce chemical pollution objective	No Status
OB4	Protected areas objective	No Status
OB5	Northern Ireland Environment Agency objective	No Status
OBO	Overall objectives	Protect

Extended timescales
Extended timescales have been set for certain waters due to technical, economic, environmental or recovery constraints. Extended timescales are usually of one planning cycle (6 years, to 2021) but in some cases are two planning cycles (to 2027).

Objectives
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Date Reported to Europe:July 2010

Date Report Created 21/11/2013

OPW *National Flood Hazard Mapping*

16-12-13 F13 A/ 0472
FINGAL C. C.PL. DEPT

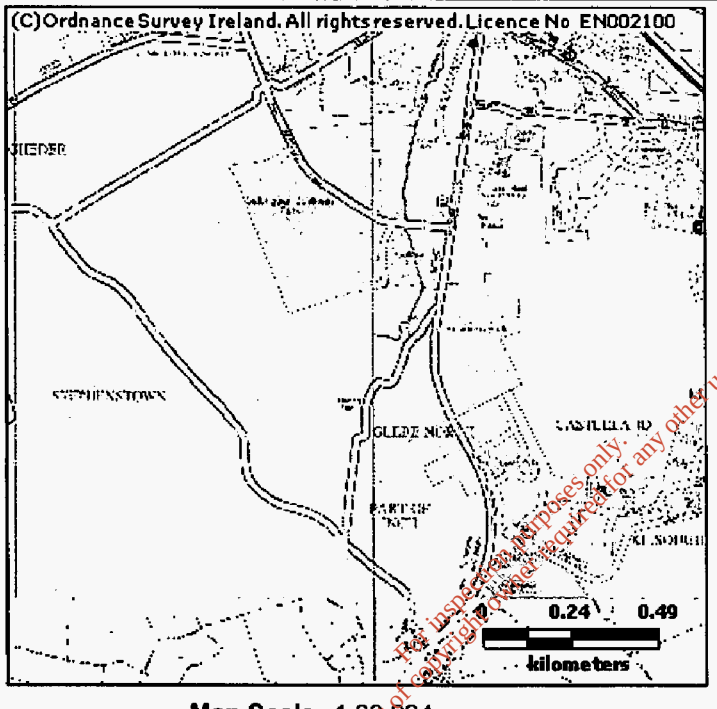
Summary Local Area Report

This Flood Report summarises all flood events within 2.5 kilometres of the map centre.

The map centre is in:

County: Dublin

NGR: O 199 626



Map Scale 1:20,224

Map Legend	
	Flood Points
	Multiple / Recurring Flood Points
	Areas Flooded
	Hydrometric Stations
	Rivers
	Lakes
	River Catchment Areas
	Land Commission *
	Drainage Districts *
	Benefiting Lands *

* Important: These maps do not indicate flood hazard or flood extent. Thier purpose and scope is explained in the Glossary.

6 Results

1. Covetown Balbriggan Nov 2002
County:Dublin
Start Date: 14/Nov/2002
Flood Quality Code:3
Additional Information: Reports (1) More Mapped Information

2. Bath Road Nov 2002
County:Dublin
Start Date: 14/Nov/2002
Flood Quality Code:3
Additional Information: Reports (1) More Mapped Information

3. Bremore Court Balbriggan Nov 2000
County:Dublin
Start Date: 05/Nov/2000
Flood Quality Code:3
Additional Information: Reports (2) More Mapped Information

4. Balrothery Balbriggan Recurring
County:Dublin
Start Date:
Flood Quality Code:3
Additional Information: Reports (2) More Mapped Information

5. Bremore Balbriggan Recurring
County:Dublin
Start Date:
Flood Quality Code:3

Report Produced: 22-Nov-2013 11:00

Additional Information: Reports (2) More Mapped Information

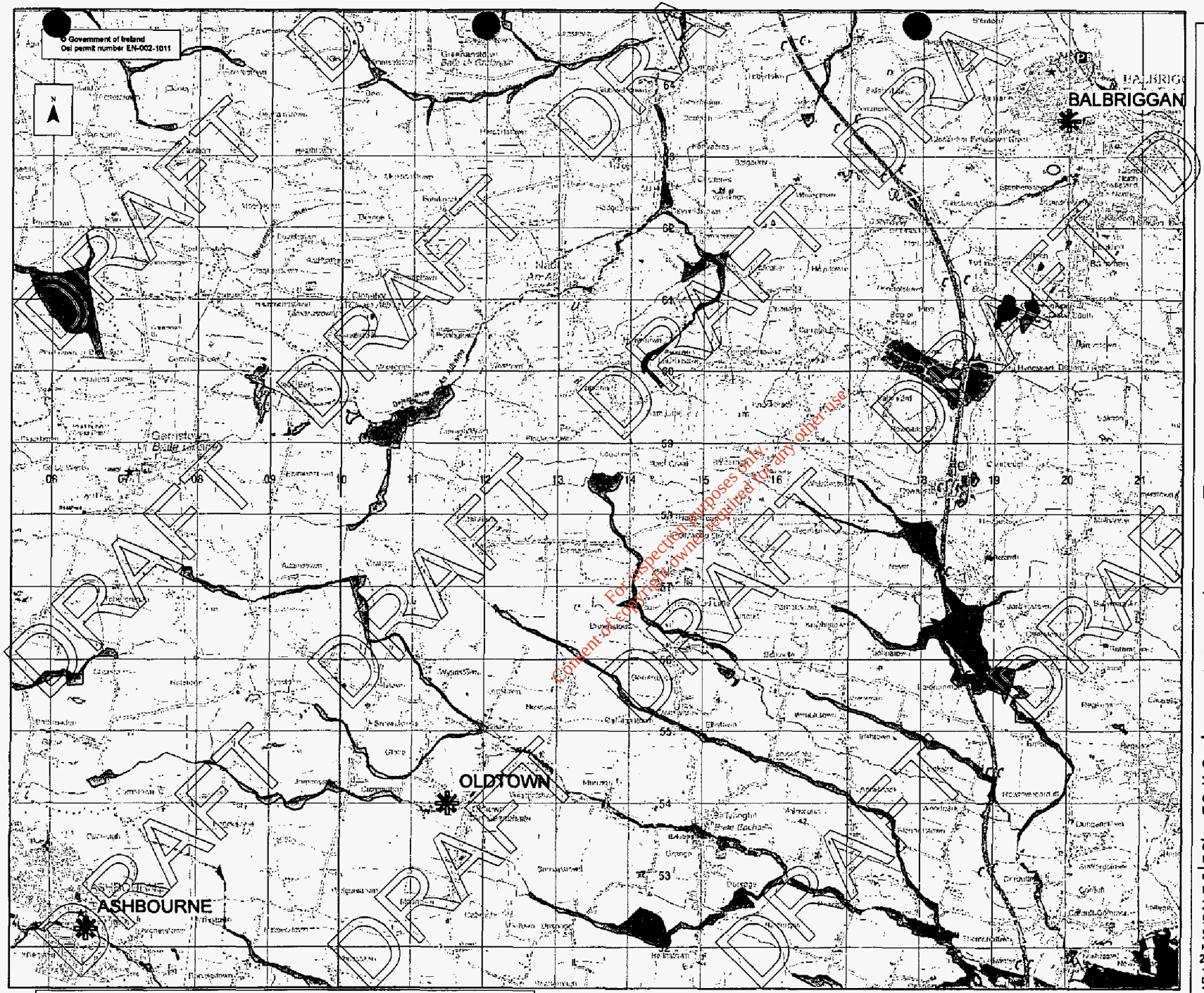
6. Matt River, Balrothery, Balbriggan, Co Dublin 2008

Start Date:

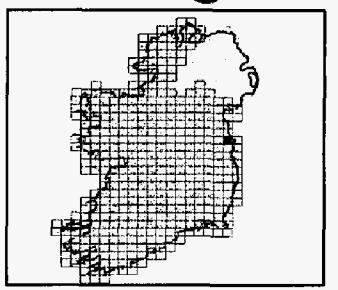
County: Dublin

Flood Quality Code: 4

Additional Information: Reports (1) More Mapped Information



Location Plan :



Legend:

Flood Extents

- Fluvial - Indicative 1% AEP (100-yr) Event
- Fluvial - Extreme Event
- Coastal - Indicative 0.5% AEP (200-yr) Event
- Coastal - Extreme Event
- Pluvial - Indicative 1% AEP (100-yr) Event
- Pluvial - Extreme Event
- Groundwater Flood Extents
- Lakes / Turloughs

PFRA Outcomes

- Probable Area for Further Assesment
- Possible Area for Further Assesment

Important User Note:

The flood extents shown on these maps are based on broad-scale simple analysis and may not be accurate for a specific location. Information on the purpose, development and limitations of these maps is available in the relevant reports (see www.cfram.ie). *Users should seek professional advice if they intend to rely on the maps in any way.*

If you believe that the maps are inaccurate in some way please forward full details by contacting the OPW (refer to PFRA Information leaflets or 'Have Your Say' on www.cfram.ie).

Office of Public Works
Jonathon Swift Street
Trim
Co Meath
Ireland

OPW

Project :
PRELIMINARY FLOOD RISK ASSESMENT (PFRA)

Map :
PFRA Indicative extents and outcomes
- Draft for Consultation

Figure By :	PJW	Date :	July2011
Checked By :	MA	Date :	July 2011
Figure No. :	2019 / MAP / 274 / A	Revision	0
Drawing Scale :	1:50,000	Plot Scale :	1:1 @ A3

FINGAL CO. DEPT. PL. 16-12-13 F13A/0472

NATURA IMPACT STATEMENT

STAGE 1 SCREENING

PACON WASTE & RECYCLING LTD

STEPHENSTOWN BUSINESS PARK

BALBRIGGAN

COUNTY DUBLIN

Prepared For: -

Pacon Waste & Recycling Ltd,
Stephenstown Business Park,
Balbriggan
Co Dublin.

Prepared By: -
O' Callaghan Moran & Associates,
Granary House,
Rutland Street,
Cork.

December 2013

TABLE OF CONTENTS

PAGE

1. INTRODUCTION

Pacon Waste & Recycling Ltd (Pacon) intend to apply to Fingal County Council (Council) for planning permission and a Waste Permit Review to increase the amount of waste accepted at their existing facility at Stephenstown Business Park.

The applications will seek approval to increase the amount of waste that can be accepted from 22,250 tonnes to 49,950 tonnes per annum; amend the waste acceptance and operational hours, introduce new waste processes and accept new but similar waste types to those currently allowed for in the waste permit. The proposed changes do not require the construction of any new buildings or alterations to the existing site layout.

The European Union (EU) Habitats Directive (92/43/EC) and the EU Birds Directive (2009/147/EC) identify designated areas (Special Areas of Conservation (SAC) and Special Protection Areas (SPA) respectively) that are collectively known as Natura 2000 Sites. The Habitats Directive, which is implemented under the European Communities Birds and Natural Habitats) Regulations 2011 (S.I. No 477 of 2011), requires an "appropriate assessment" of the potential impacts any proposed development that may have an impact on the conservation objectives of any Natura 2000 site.

Article 6(3) of the Directive stipulates that *any plan or project not directly connected with or necessary to the management of a Natura 2000 site, but likely to have a significant effect thereon...shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.*

Guidance documents issued by Department of Environment, Heritage and Local Government and the National Parks and Wildlife Services recommend that the assessment be completed in a series of Stages, which comprise:

Stage 1: Screening

The purpose of this Stage is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a Natura 2000 site in respect of the site's conservation objectives.

Stage 2: Appropriate Assessment

This Stage is required if the Stage 1 Screening exercise identifies that the project is likely to have a significant impacts on a Natura 2000 site.

Stage 3 : Assessment of Alternative Solutions.

If Stage 2 determines that the project will have an adverse impact upon the integrity of a Natura 2000 site, despite the implementation of mitigation measures, it must be objectively concluded that no alternative solutions exist before the plan can proceed.

Stage 4 : Compensatory Measures:

Where no alternative solutions are feasible and where adverse impacts remain but imperative reasons of overriding public interest require the implementation of a project an assessment of compensatory measures that will effectively offset the damage to the Natura site 2000 is required.

Pacon commissioned O'Callaghan Moran & Associates (OCM) to complete a Stage 1 Screening to determine the effects of the proposed development on the closest Natura 2000 sites.

1.1 Methodology

The Stage 1 Screening was based on a site inspection and the scope of the proposed development. It was conducted in accordance with the guidance presented in the "Assessment of Plans and Projects significantly affecting Natura 2000 sites, Methodological Guidance on

the provisions of Articles 6(3) and 6(4) of the Habitats Directive 92/43/EEC" (2001); The Department of Environment, Heritage and Local Government (2009, revised February 2010) Appropriate Assessment of Plans and Projects in Ireland and the National Parks and Wildlife Services (2010) Circular NPW 1/10 & PSSP 2/10 Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.

2. DESCRIPTION OF PROJECT

2.1 Facility Overview

The site is located in the townland of Stephenstown on the south western edge of Balbriggan, in an area that was significantly developed for commercial and industrial activities between 2002 and 2009.

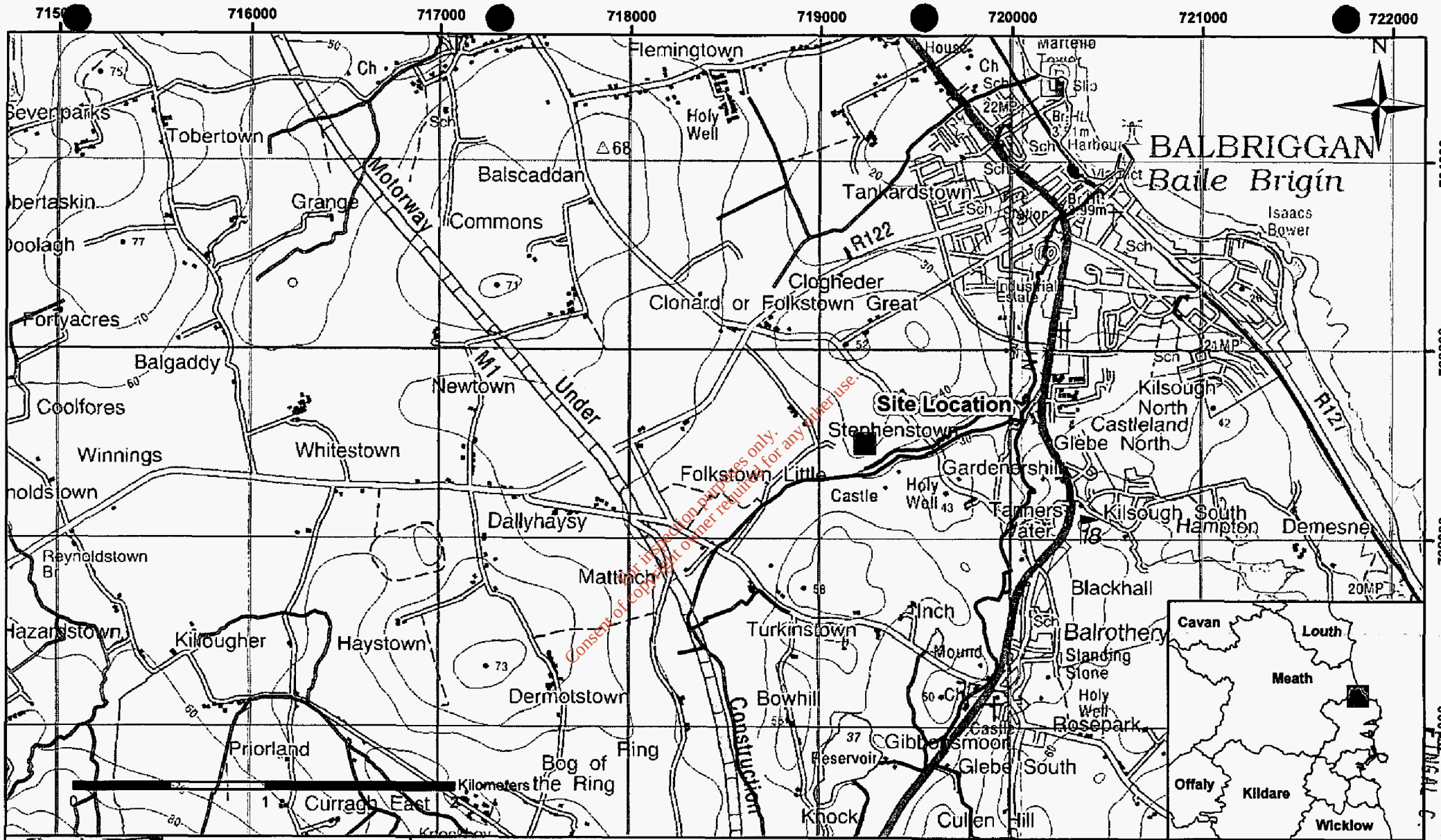
It was developed in 2007 as a purpose built waste management facility on a 1.22 hectares(ha) greenfield site and is occupied by purpose built 2,300m^2 waste processing building. Pacon accepts and processes non-hazardous mixed Construction & Demolition (C&D) wastes and source segregated dry recyclables that are primarily collected in the Dublin Region.

Waste operations are regulated by the Waste Permit (WFP-FG-10-0004-01), which authorises the acceptance of 22,250 tonnes of waste annually. The waste processing includes initial manual segregation of the waste streams on the building floor, with the waste then placed in an in-feed hopper using a grab machine and conveyed to a picking line where large fractions and recoverable materials are removed (stones, metals, hard plastics etc.).

Pacon intends increase the annual waste intake to 49,950 tonnes/year, amend the acceptance and operational times to allow for 24/7 operations and introduce a new waste processing line to manufacture solid recovered fuel (SRF). SRF is used as a replacement for non-renewable fossil fuels in cement kilns, co-incineration plants and waste to energy plants and such use is deemed to be a waste recovery activity.

2.2 Site Location

The site is in the Stephenstown Business Park, Balbriggan (Figure 2.1), which is a commercially/industrially zoned area on the south western fringe of Balbriggan and is bounded to the north by the Stephenstown Outer Relief Road and to the west by two



O'Callaghan Moran & Associates.
Granary House, Rutland Street,
Cork, Ireland.
Tel. (021) 4321521 Fax. (022) 4321522
email: info@ocallaghanmoran.com

CLIENT

Pacon Waste

TITLE

Site Location

Details

Site Location

Rivers

Figure 2.1

16-12-13 F13A/0472 FINGAL C.C.P.L. DEPT

commercial premises. To the east is an electrical substation and to the south is undeveloped scrubland and pasture lands

2.3 Site Layout

The facility is adjacent to the Stephenstown Outer Relief Road, which was constructed in 2005-2006 and serves the commercial and industrial area. It accessed by the road serving the Business Park.

The site encompasses approximately 1.22 hectares (ha) and comprises one main processing building (2,300m^2), portacabin type offices and toilets, weighbridge and open concrete paved and unpaved yards. The paved yards are in good condition and are used for vehicle manoeuvring and empty skip storage. The unpaved area, comprising hardcore fill, is along the eastern boundary and is used for empty skip storage.

2.4 Site Operations

2.4.1 Existing Waste Operations

The wastes are delivered by Pacon and third party collection vehicles and all deliveries are weighed on the weighbridge and then directed to the Main Processing Building. The key processes carried out are: -

- Segregation of recyclable materials (paper, cardboards, plastic, wood, metals, glass);
- Segregation and bulking of Construction & Demolition waste;
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets, and
- Baling of Dry Recyclables

The C&D waste comprises mixed wastes (rubble, stone, timber, metal etc.) and soil and stone that arrives in skips of varying sizes. The loads are inspected, with any contaminants removed

and placed in a dedicated skip located inside the building, and the remainder off-loaded into an internal C&D bay.

The waste processing includes an initial segregation by grab machine to remove any large items, with the waste then placed in an in-feed hopper using a grab machine and conveyed to a picking line where large fractions and recoverables are removed (stones, metals, hard plastics etc).

The waste is then conveyed through a trommel and overband magnets. The magnet recovers ferrous metals while, soil, glass and other small heavy particles are separated by the trommel screens.

The residual wastes are conveyed through a Lights Separation Air Unit (LSU) where the light fraction (paper, plastic) is separated from the heavy fraction (stones, glass, concrete, metals). The heavy fraction is then passed through a final picking station using a further overband magnet to remove all remaining ferrous metals. The recyclables are baled and all wastes are sent to off-site recovery facilities for further processing.

2.5 Proposed Development

The development will include;

- Increase in volume of waste accepted from 22,250 tonnes to 49,950 tonnes per annum
- Introduction of new SRF processing System
- Removal of restriction to waste acceptance and operational times – to 24/7
- Additional non-hazardous waste types will be accepted

2.5.1 Proposed Operations

It is proposed to introduce additional waste recovery equipment to further process the light fraction to the (SRF). This will be:

- A primary shredder to reduce the waste size to 80mm.
- An Eddy Current Overband Magnet to remove any conductive materials such as aluminium, copper, cans etc.
- A secondary high-speed shredder reducing the size to 25mm/30mm.

The process produces a light fluff, which predominantly consists of two dimensional material such as plastic foils, paper, cardboard and textiles, and is classified as Grade 1 SRF.

2.5.2 Hours of Operation

The current operational hours are 07:00 – 20:00 Monday to Friday and from 08:00 – 13:00 on Saturdays. The facility is closed on Sundays and Bank Holidays. It is proposed to amend the operational hours to allow the site to operate 24 hour per day, seven days a week. It is not intended to continuously operate the facility, but the changes are required to provide the flexibility to meet customer demands and collect wastes in the Dublin CCD, which can only occur at night time.

3. NATURA 2000 SITES

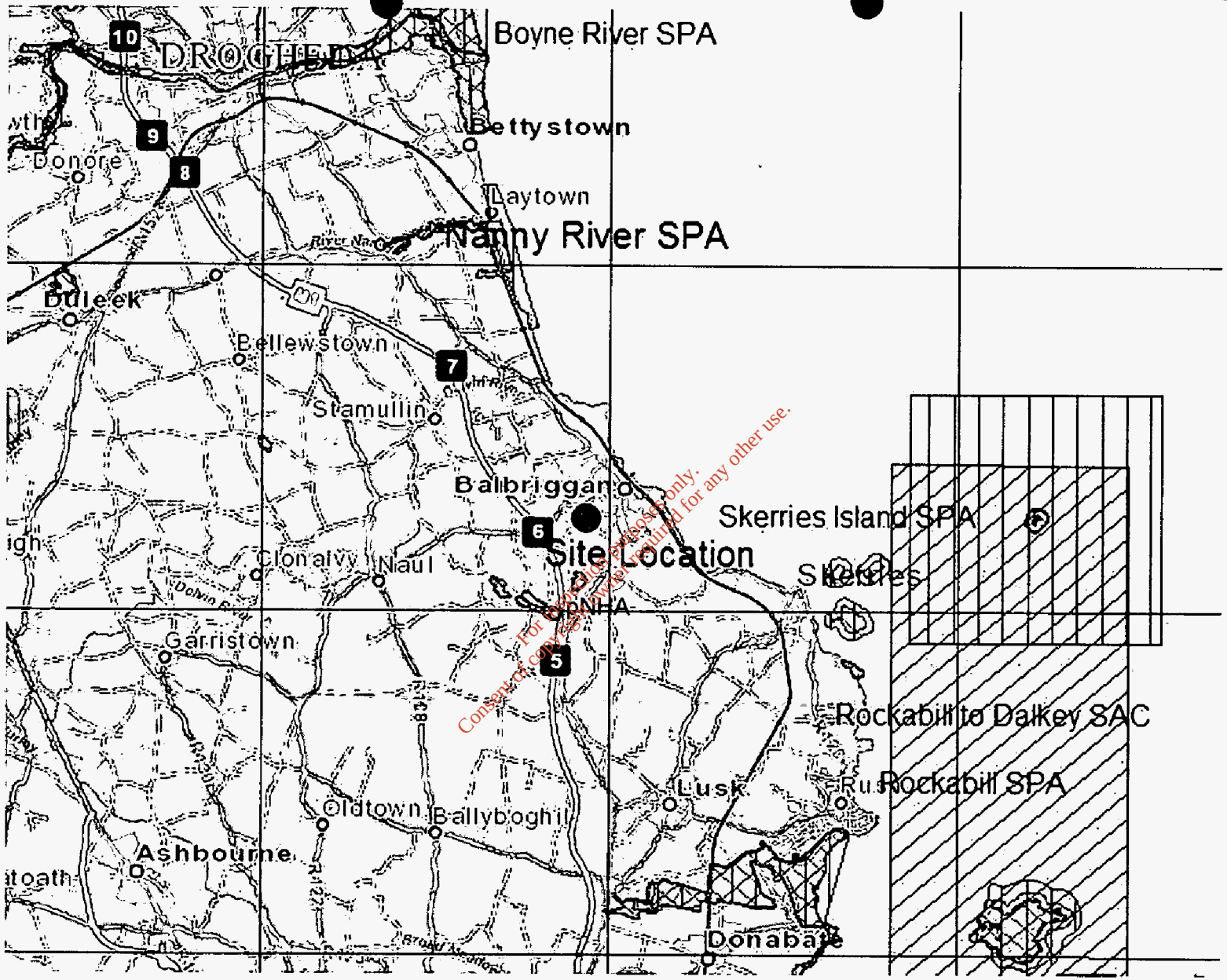
A list of designated Natura 2000 sites within 10 km of the facility is given in Table 3.1 and shown on Figure 3.1

Table 3.1 Designated Sites within 10km of Site.

Site	Code	Distance
SAC/cSAC		
Rockabill to Dalkey SAC	**003000**	**9km south east**
SPA and pSPA		
Rockabill SPA	**004014**	**9km south east**
River Nanny Estuary SPA	**004158**	**5km north**
Boyne River SPA	**004080**	**10km north**
Skerries Island SPA	**004122**	**6.7km south east**

SACs are selected for the conservation and protection of habitats listed on Annex I and species (other than birds) listed on Annex II of the Habitats Directive, and their habitats. The habitats on Annex I require special conservation measures.

SPAs are selected for the conservation and protection of bird species listed on Annex I of the Birds Directive and regularly occurring migratory species, and their habitats, particularly wetlands.



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CLIENT
Pacon Waste & Recycling LTD

TITLE
Designated Sites

Details

FIGURE NUMBER
3.1

Scale
Not To Scale

Revision
A

3.1 Conservation Objectives

A statement of Conservation Objectives is prepared for each designated site which identifies the qualifying interests or conservation features. The Conservation Objectives are intended to ensure that the relevant habitats and species present on a site are maintained, and where necessary restored, at a Favourable Conservation Status.

Favourable Conservation Status of a habitat, as defined in 2011 Birds and Natural Habitats Regulations, is when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

Conservation Status of a species is when:

- The Favourable population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats,
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

3.1 Rockabill to Dalkey SAC

This site includes a range of dynamic inshore and coastal waters in the western Irish Sea. These include sandy and muddy seabed, reefs, sandbanks and islands. This site extends southwards, in a strip approximately 7 km wide and 40 km in length, from Rockabill, running adjacent to Howth Head, and crosses Dublin Bay to Frazer Bank in south county Dublin. The site encompasses Dalkey, Muglins and Rockabill islands. The Site Synopsis that lists the full Qualifying Interests are in Appendix 1 and the information is summarised below.

Qualifying Interests

The area selected for designation represents a key habitat for the Annex II species harbour porpoise, within the Irish Sea and for Reefs.

Conservation Objectives

The conservation objectives are to maintain the favorable conservation condition of Reefs and Harbour Porpoise in Rockabill to Dalkey Island SAC. The Statement of the Conservation Objectives for the site is in Appendix 2.

3.2 Rockabill SPA

Rockabill consists of two small, low-lying, granitic islets situated *c.* 7 km off the Dublin coast. The islands are separated by a narrow channel though are connected at low spring tides. Rockabill has a long history of nesting by terns and it is now one of the most important tern colonies in Europe. A Site Synopsis for the SPA that lists the full Qualifying Interests is in Appendix 1 and the information is summarised below.

Qualifying Interests

The qualifying interests include Purple Sandpiper, Roseate Tern Sterna, Common Tern Sterna and Arctic Tern Sterna

Conservation Objectives

The conservation objectives are to maintain or restore the favorable conservation condition of the Purple Sandpiper, the Roseate Tern, the Common Tern and the Arctic Tern for which the SPA has been selected. The Statement of the Conservation Objectives for the site is in Appendix 2.

3.3 River Nanny Estuary SPA

The site comprises the estuary of the River Nanny and sections of the shoreline to the north and south of the estuary (c. 3 km in length). The estuarine channel, which extends inland for almost 2 km, is narrow and well sheltered. Sediments are muddy in character and edged by saltmarsh and freshwater marsh/wet grassland. A Site Synopsis that lists the full Qualifying Interests is in Appendix 1 and the information is summarised below.

Qualifying Interests

The qualifying interest includes, Oystercatcher, Ringed Plover, Golden Plover, Knot, Sanderling, Herring Gull and Wetlands.

Conservation Objectives

The conservation objectives are to maintain or restore the favorable conservation condition of the species for which the SPA has been selected. The Statement of the Conservation Objectives for the site is in Appendix 2.

3.4 Boyne River SPA

This moderately sized coastal site, which is situated below the town of Drogheda, comprises most of the estuary of the Boyne River. The river channel, which is navigable and dredged, is defined by training walls, these being breached in places. Intertidal flats occur along the sides of the channelled river. A Site Synopsis that lists the full Qualifying Interests is in Appendix 1 and the information is summarised below.

Qualifying Interests

The qualifying interest includes Shelduck, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Sanderling, Black-tailed Godwit, Redshank, Turnstone, Little Tern and Wetlands.

Conservation Objectives

The conservation objectives are to maintain or restore the favorable conservation condition of the species for which the SPA has been selected The Statement of the Conservation Objectives for the site is in Appendix 2.

3.5 Skerries Island SPA

The Skerries Islands are a group of three small uninhabited islands situated between 0.5 km and 1.5 km off the north Dublin coast. Shenick Island and St. Patrick's Island are of similar size, with Colt Island being somewhat smaller. Shenick Island is of most interest geologically, being composed of Ordovician volcanic siltstones and shales on the boundary between the Caboniferous and the Silurian. All are lowlying islands, with maximum heights from 8 m to 13 m above sea level. A Site Synopsis that lists the full Qualifying Interests is in Appendix 1 and the information is summarised below.

Qualifying Interests

The Skerries Islands SPA is of high ornithological importance for both breeding seabirds and wintering waterfowl, with six species having populations of National Importance. In addition there is an internationally important population of Brent Goose. Golden Plover and Short-eared Owl, EU Birds Directive Annex I species, occur regularly in winter.

Conservation Objectives

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. The Statement of the Conservation Objectives for the site is in Appendix 2.

4. LIKELY EFFECTS

4.1 Setting

The facility is not located in or adjacent to a Natura 2000 Site and the closest sites are more than 5km to the north of the facility.

4.2 Proposed Development

The proposed development does not require the construction of any building or alterations to the site layout. The changes to the operational hours will extend the period when noise emissions occur. Excessive noise and light has the potential to cause disturbance to species in designated sites.

The only potential pathway between the site and a Natura 2000 Site is the surface water discharge to the storm sewer that serves the Stephenstown Business Park and outfalls to the Matt River. The Matt River discharges to the Irish Sea at Balbriggan and could in theory connect to the Rockabill to Dalkey SAC.

4.3 Potential Impacts

Activities with the potential to impact on surface water and groundwater quality include:

- Run-off from open yard areas, that may be contaminated with silt and small amounts of oil from leaks from road vehicles and mobile site plant,
- Spills and leaks of oil, and
- Firewater run-off.

4.4 Mitigation Measures

4.4.1 Construction Stage

No construction is required for the proposed development.

4.4.2 Operational Stage

The mitigation measures already applied at the facility include:

- The provision of a surface water drainage system that collects run-off from the paved open yards and directs it to an oil interceptor upstream of the discharge point from the site;
- The provision of surface water flow attenuation tanks;
- The provision of a shut off valve on the outlet from the interceptor that can be closed in the event of an incident at the site that has the potential to contaminate surface water run-off;
- The routine inspection of the surface water and foul water drainage systems and emptying of the wastewater storage tank;
- The regular cleaning of the paved open yards and emptying of the interceptor.

4.5 Assessment of Impacts

The proposed development will not result in any new emission to surface water, will not be a new source of wastewater and does not involve any alterations to the surface water and foul water drainage systems. Therefore there will be no change in the quality of the run-off from the site. All run-off will continue to pass through the attenuation tanks and oil interceptor.

Effective mitigation measures are in place to deal with once off incidents that have the potential to cause surface water contamination.

Point and diffuse sources of water pollution, noise and artificial lighting in an urban/commercial setting can be cumulative pressure on the conservation interests of a designated site.

Given the nature of the development and the distance between the site and the closest Natura 2000 Site (5km) the proposed development will not have any perceptible effect on any of the Conservation Objectives for the Natura 2000 Sites.

5. SCREENING CONCLUSION & STATEMENT

The proposed development will not result in any new or additional emission/disturbance that could present a significant risk to the Conservation Objectives of any of the Natura 2000 Sites within 10km of the plant. Therefore Stage 2 Appropriate Assessment is not required.

APPENDIX 1

SITE SYNOPSIS

SITE NAME: RIVER NANNY ESTUARY AND SHORE SPA

SITE CODE: 004158

The site comprises the estuary of the River Nanny and sections of the shoreline to the north and south of the estuary (*c.* 3 km in length). The estuarine channel, which extends inland for almost 2 km, is narrow and well sheltered. Sediments are muddy in character and edged by saltmarsh and freshwater marsh/wet grassland. The saltmarsh is best developed in the eastern portion of the estuarine channel, with species such as Sea Plantain (*Plantago maritima*), Sea Aster (*Aster tripolium*), Red Fescue (*Festuca rubra*) and Sea Purslane (*Halimione portulacoides*) occurring. Further up the estuary, the marsh habitats support species such as Bulrush (*Typha latifolia*) and Yellow Flag (*Iris pseudacorus*). The shoreline, which is approximately 500 m in width to the low tide mark, comprises beach and intertidal habitats. It is a well-exposed shore, with coarse sand sediments. The well-developed beaches, which are backed in places by clay cliffs, provide high tide roosts for the birds. The village of Laytown occurs in the northern side of the River Nanny estuary.

This site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Oystercatcher, Ringed Plover, Golden Plover, Knot, Sanderling, Black-headed Gull and Herring Gull. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

This is an important site for wintering waders, with nationally important populations of Golden Plover (1,759), Oystercatcher (1,014), Ringed Plover (185), Knot (1,140) and Sanderling (240) present (all figures are average peaks for the 5 year period 1995/96-1999/2000). The populations of Knot and Sanderling are of particular note as they represent approximately 4% of their respective national totals. Black-headed Gull (926) and Herring Gull (609) also occur here in significant numbers. A range of other waterbirds also occurs, including Cormorant (35), Brent Goose (145), Mallard (76), Grey Plover (55), Lapwing (1,087), Dunlin (721), Bar-tailed Godwit (59), Curlew (107), Redshank (150), Turnstone (59), Common Gull (66) and Great Black-backed Gull (70). The site is of most importance as a roost area for the birds but the intertidal flats also provide feeding habitat. Many of the birds also utilise the intertidal areas and beaches further to the north and south, and also the fields above the shore.

The main threat to the wintering birds is increased levels of disturbance by beach users.

This site is of ornithological importance as it supports five species of wintering waterbirds in numbers of national significance. Two species using the site, Golden Plover and Bar-tailed Godwit, are listed on Annex I of the E.U. Birds Directive.

1.6.2007

SITE SYNOPSIS

SITE NAME: SKERRIES ISLANDS SPA

SITE CODE: 004122

The Skerries Islands are a group of three small uninhabited islands situated between 0.5 km and 1.5 km off the north Dublin coast. Shenick Island and St. Patrick's Island are of similar size, with Colt Island being somewhat smaller. Shenick Island is of most interest geologically, being composed of Ordovician volcanic siltstones and shales on the boundary between the Caboniferous and the Silurian. All are low-lying islands, with maximum heights from 8 m to 13 m above sea level. There are the remains of a Martello Tower on Shenick Island and an early christian church on St. Patrick's.

St Patrick's Island and Colt Island have low cliffs, while Shenick Island has more extensive expanses of intertidal rocky shore and sand flats. Shenick also has a shingle bar and is connected to the mainland at low tides. The vegetation of the islands is dominated by rank grasses, brambles and species such as hogweed (*Heracleum sphondylium*). The seas surrounding the islands, to a distance of 200 m, are included in the site.

The islands are of importance for both breeding seabirds and wintering waterfowl.
A survey of breeding seabirds on St Patrick's Island, the main seabird island, in 1999 recorded the following: Fulmar (10 pairs), Cormorant (558 pairs), Shag (100 pairs), Lesser Black-backed Gull (1 pair), Herring Gull (150 pairs) and Great Black-backed Gull (50 pairs). Shenick Island has breeding Fulmars (25 pairs in 1999), Herring Gulls (120 pairs in 1996) and Great Black-backed Gulls (25 pairs in 1996). Large gulls also breed on Colt Island but there has been no census in recent years. The Cormorant population, which was only established in the early 1990s, is of National Importance and when taken together with the nearby associated colonies on Lambay and Ireland's Eye, this group comprises about 35% of the total Irish population and is of International Importance. The Shag population is also of National Importance as are the Herring Gull and Great Black-backed Gull populations. Other breeding birds include Shelduck, Ringed Plover and Oystercatcher (several pairs of each).

In winter, the islands regularly support a range of waterfowl species. The following counts are the average annual peaks over the five winters 1995/96 to 1990/00: Cormorant (391), Brent Goose (242), Wigeon (205), Mallard (240), Oystercatcher (463), Ringed Plover (66), Golden Plover (240), Grey Plover (15), Lapwing (238), Purple Sandpiper (46), Dunlin (42), Snipe (27), Curlew (327), Turnstone (242), Black-headed Gull (110), Herring Gull (560), Great Black-backed Gull (250). The Brent Goose population is of International Importance, while the populations of Cormorants, Purple Sandpiper and Turnstone are of National Importance. The islands are also a regular wintering site for Short-eared Owls, with several recorded in most winters.

The birds of the Skerries Islands have been monitored regularly since the 1980s. Shenick Island became a BirdWatch Ireland Reserve in 1987 and some management for the benefit of the birds has taken place.

The Skerries Islands SPA is of high ornithological importance for both breeding seabirds and wintering waterfowl, with six species having populations of National Importance. In addition there is an internationally important population of Brent Goose. Golden Plover and Short-eared Owl, EU Birds Directive Annex I species, occur regularly in winter.

10.11.2003

SITE SYNOPSIS

SITE NAME: BOYNE ESTUARY SPA

SITE CODE: 004080

This moderately sized coastal site, which is situated below the town of Drogheda, comprises most of the estuary of the Boyne River, a substantial river which drains a large catchment. Apart from one section which is over 1 km wide, its width is mostly less than 500 m. The river channel, which is navigable and dredged, is defined by training walls, these being breached in places. Intertidal flats occur along the sides of the channelled river. The sediments vary from fine muds in the sheltered areas to sandy muds or sands towards the river mouth. The linear stretches of intertidal flats to the north and south of the river mouth are mainly composed of sand. One or more species of Eelgrass (*Zostera* spp.) occur in the estuary. Parts of the intertidal areas are fringed by salt marshes, most of which are of the Atlantic type, and dominated by Sea-purslane (*Halimione portulacoides*). Other species present include Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Lax-flowered Sea-lavender (*Limonium humile*) and Glasswort (*Salicornia* spp.). Common Cord-grass (*Spartina anglica*) occurs frequently on the flats and salt marshes.

The Boyne Estuary is the second most important estuary for wintering birds on the Louth-Meath coastline. It has a total of ten species with populations of national importance, i.e. Shelduck (218), Oystercatcher (1,099), Golden Plover (6,070), Grey Plover (98), Lapwing (4,657), Knot (1,371), Sanderling (69), Black-tailed Godwit (471), Redshank (583) and Turnstone (175) - all figures are average peaks for the 5 year period 1995/96-1999/00. Of particular note is that the site supports 7% of the national population of Knot and 4% of the total for Golden Plover. Other species which occur include Bar-tailed Godwit (76), Cormorant (97), Brent Goose (172), Wigeon (454), Teal (230), Dunlin (480), Curlew (395), Mallard (197), Red-breasted Merganser (14), Greenshank (6), Ringed Plover (80) and Mute Swan (13). The site provides both feeding and high-tide roost areas for the birds. The estuary also attracts large numbers of gulls in winter, including Black-headed Gull (593), Common Gull (145), Herring Gull (403) and Great Black-backed Gull (160).

Little Tern bred in the past but successful breeding has not occurred since 1996. In 1998 and 1999 part of the shingle bank where the birds nested was washed away by storms. Also, human pressure in the beach areas has increased in recent years.

In general, the site has been modified by human activities. The river is regularly dredged to accommodate cargo ships, which can cause disturbance to the bird, fish and invertebrate communities in the estuary. Several factories operate upstream from the estuary and pollution and disturbance associated with these has had an impact on the ecology of the area. Significant developments within the site could cause disturbance to the wintering birds. Nowadays there are no significant shooting pressures as the site is a Wildfowl Sanctuary

The site is of considerable ornithological importance for wintering waterfowl, with ten species having populations of national importance. Little Tern has bred in the recent past and could do so again in the future. Of particular significance is that two of the wintering species, Golden Plover and Bar-tailed Godwit are listed on Annex I of the E.U. Birds Directive. Little Tern, which last bred successfully at the site in 1996, is also listed on Annex I of this directive.

31.3.2005

SITE SYNOPSIS

SITE NAME: ROCKABILL SPA

SITE CODE: 004014

Rockabill consists of two small, low-lying, granitic islets situated *c.* 7 km off the Co. Dublin coast. The islands are separated by a narrow channel though are connected at low spring tides. The main island, known as the Lighthouse Island, is vegetated by a scrubby sward of Tree Mallow (*Lavatera arborea*), with a range of other maritime species such as Sea Mayweed (*Matricaria maritima*), Sea Campion (*Silene maritima*), Sorrel (*Rumex* spp.), Common Scurvy-grass (*Cochlearia officinalis*), Orache (*Atriplex* spp.) and Rock Sea-spurrey (*Spergularia rupicola*). Some exotic plants are present, notably Hedge Veronica (*Hebe* x *franciscana*) and Hottentot-fig (*Carpobrotus edulis*). The smaller island, known as the Bill, is very exposed and is sparsely vegetated. A lighthouse, manned until 1989, is situated on the main island.

Rockabill has a long history of nesting by terns and it is now one of the most important tern colonies in Europe. Intensive wardening, management and monitoring since the 1980s has seen the colony grow significantly. In 1999, it held 611 pairs of Roseate Tern, 610 pairs of Common Tern and 89 pairs of Arctic Tern. All three species are listed on Annex I of the E.U. Birds Directive. The Roseate population represents approximately 75% of the entire north-west European population. The Common Tern population is one of the largest in Ireland, accounting for more than 30% of the national total. The Arctic Tern population, while relatively small, is still of national importance. Sandwich Tern nested up to the 1930s but apparently not since.

The terns nest amongst the scrubby vegetation and increasingly so in the nest boxes which are provided as part of the BirdWatch Ireland/National Parks and Wildlife Service conservation programme. Large gull species are discouraged from nesting on the islands for the benefit of the terns, and visitors to the islands are strictly controlled. Detailed research is carried out each year, including studies on breeding behaviour, productivity and feeding. A ringing programme has been in operation since the 1980s and this has produced important information on the movement of the birds in an international context.

Rockabill also supports a nationally important population of Black Guillemot (34 pairs in 1999) and a small colony of Kittiwake (111 pairs in 1999). Both of these species are monitored annually and most of the chicks produced are ringed. Rockabill is also a good location for the observation of bird migration.

Owing to its international and national importance, Rockabill is a designated Refuge for Fauna. As long as the conservation programme continues, and especially wardening throughout the entire season, there are no apparent threats to the nesting seabirds. However, the on-going research on the biology and ecology of the terns is crucial for a proper understanding of the needs of the birds over the long-term.

APPENDIX 2

ISSN 2009-4086

National Parks and Wildlife Service

Conservation Objectives Series

River Nanny Estuary and Shore SPA 004158

An Roinn
Ealaíon, Oidhreachta agus Gaeltachta
Department of
Arts, Heritage and the Gaeltacht

National Parks and Wildlife Service,
Department of Arts, Heritage and the Gaeltacht,
7 Ely Place, Dublin 2, Ireland.
Web: www.npws.ie
E-mail: nature.conservation@ahg.gov.ie

Citation:
NPWS (2012) Conservation Objectives: River Nanny Estuary and Shore SPA 004158. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Series Editors: Rebecca Jeffrey & Naomi Kingston
ISSN 2009-4086

Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

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

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

*indicates a priority habitat under the Habitats Directive

004158	River Nanny Estuary and Shore SPA	
A130	Oystercatcher *Haematopus ostralegus*	wintering
A137	Ringed Plover *Charadrius hiaticula*	wintering
A140	Golden Plover *Pluvialis apricaria*	wintering
A143	Knot *Calidris canutus*	wintering
A144	Sanderling *Calidris alba*	wintering
A184	Herring Gull *Larus argentatus*	wintering
A999	Wetlands	

Supporting documents, relevant reports & publications (listed by date)

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

Title: River Nanny Estuary and Shore SPA (004158). Conservation objectives supporting document [Version 1]

Year: 2012

Author: NPWS

Series: Unpublished Report to NPWS

A130 Oystercatcher *Haematopus ostralegus*

To maintain the favourable conservation condition of Oystercatcher in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by oystercatcher other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A137 Ringed Plover *Charadrius hiaticula*

To maintain the favourable conservation condition of Ringed Plover in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by ringed plover other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A140 Golden Plover *Pluvialis apricaria*

To maintain the favourable conservation condition of Golden Plover in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by golden plover other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A143 Knot *Calidris canutus*

To maintain the favourable conservation condition of Knot in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by knot other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A144 Sanderling *Calidris alba*

To maintain the favourable conservation condition of Sanderling in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by sanderling other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A184 Herring Gull *Larus argentatus*

To maintain the favourable conservation condition of Herring Gull in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by herring gull other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A999 Wetlands

To maintain the favourable conservation condition of the wetland habitat in River Nanny Estuary and Shore SPA as a resource for the regularly-occurring migratory waterbirds that utilise it. This is defined by the following attribute and target:

Attribute	Measure	Target	Notes
Wetland habitat	Area (ha)	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 230ha, other than that occurring from natural patterns of variation	The wetland habitat area was estimated as 230ha using OSi data and relevant orthophotographs. For further information see part three of the conservation objectives supporting document

16-12-13 F13 A/0472
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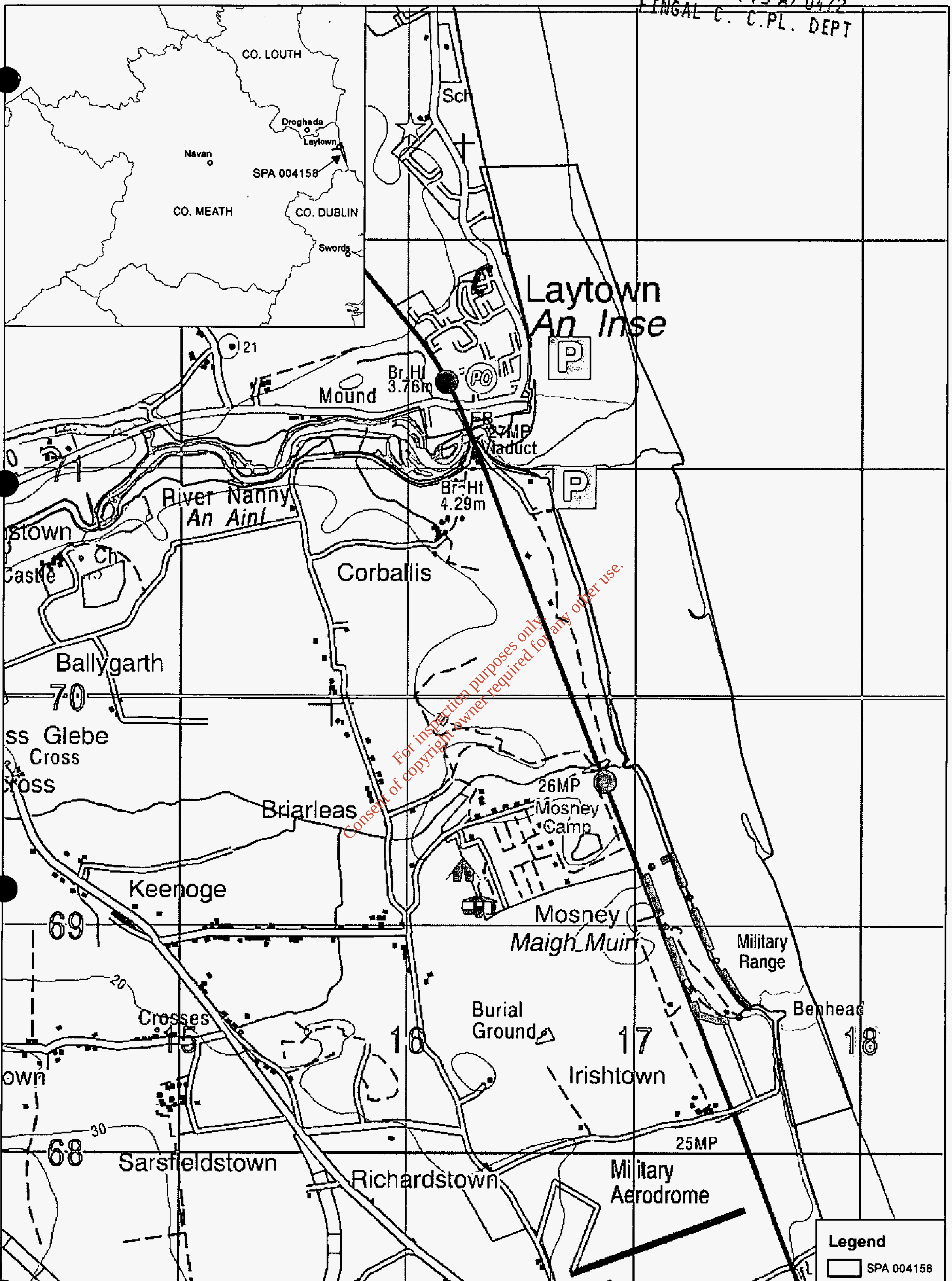

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Arts, Heritage and the Gaeltacht

MAP 1:
RIVER NANNY ESTUARY AND SHORE SPA CONSERVATION OBJECTIVES SPA DESIGNATION

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SPA 004158 Version 2.03

0 100 200 300 400 500 m

The mapped boundaries are of an indicative and general nature only.
Boundaries of designated areas are subject to revision.
Reproduced from Ordnance Survey material by permission of the Government (Permit number EN 0059208).
Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta.
Féadfar athbhreithnithe a déanamh ar theorainneacha na gceantar comharthaithe. Macasamhail d'ábhar na Suirbhéarachta Ordonáis le chead ón Rialtas (Ceadunas Uimh. EN 0059208)

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Map Version 1
Date: Aug 2012

Conservation Objectives for Skerries Islands SPA [004122]

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

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

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Phalacrocorax carbo	[breeding + wintering]
Phalacrocorax aristotelis	[breeding]
Branta bernicla hrota	[wintering]
Calidris maritima	[wintering]
Arenaria interpres	[wintering]
Larus argentatus	[breeding + wintering]

Citation:

NPWS (2011) Conservation objectives for Skerries Islands SPA [004122]. Generic Version 4.0. Department of Arts, Heritage & the Gaeltacht.

For more information please go to: www.npws.ie/protectedsites/conservationmanagementplanning

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National Parks and Wildlife Service

Conservation Objectives Series

Boyne Estuary SPA 004080

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7 Ely Place, Dublin 2, Ireland.

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E-mail: nature.conservation@ahg.gov.ie

Citation:

NPWS (2013) Conservation Objectives: Boyne Estuary SPA 004080. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Series Editor: Rebecca Jeffrey
ISSN 2009-4086

Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

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- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

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4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

** indicates a priority habitat under the Habitats Directive*

004080	Boyne Estuary SPA
A048	Shelduck *Tadorna tadorna*
A130	Oystercatcher *Haematopus ostralegus*
A140	Golden Plover *Pluvialis apricaria*
A141	Grey Plover *Pluvialis squatarola*
A142	Lapwing *Vanellus vanellus*
A143	Knot *Calidris canutus*
A144	Sanderling *Calidris alba*
A156	Black-tailed Godwit *Limosa limosa*
A162	Redshank *Tringa totanus*
A169	Turnstone *Arenaria interpres*
A195	Little Tern *Sterna albifrons*
A999	Wetlands

Please note that this SPA overlaps with Boyne Coast and Estuary SAC (001957) and River Boyne and River Blackwater SAC (002299). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping SACs as appropriate.

Supporting documents, relevant reports & publications

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

Year :	1995
Title :	Seabird monitoring handbook for Britain and Ireland: a compilation of methods for survey and monitoring of breeding seabirds.
Author :	Walsh, P.; Halley, D.J.; Harris, M.P.; del Nevo, A.; Sim, I.M.W.; Tasker, M.L.
Series :	JNCC, Peterborough
Year :	2004
Title :	Seabird Populations of Britain and Ireland
Author :	Mitchell, P.I.; Newton, S.F.; Ratcliffe, N.; Dunn, T.E.
Series :	Poyser, London
Year :	2010
Title :	2010 report for the little tern conservation project at Baltray, Co. Louth
Author :	Reilly, M.
Series :	Unpublished report by Louth Nature Trust
Year :	2013
Title :	Seabird Monitoring Programme (SMP) Database
Author :	JNCC
Series :	http://jncc.defra.gov.uk/smp/Default.aspx
Year :	2013
Title :	BirdLife International Seabird Ecology and Foraging Range Database
Author :	BirdLife International
Series :	http://seabird.wikispaces.com
Year :	2012
Title :	Boyne Estuary SPA (site code 4080) Conservation Objectives Supporting Document V1
Author :	NPWS
Series :	Unpublished report to NPWS

Conservation Objectives for : Boyne Estuary SPA [004080]

A048 Shelduck *Tadorna tadorna*

To maintain the favourable conservation condition of Shelduck in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by shelduck, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A130 Oystercatcher *Haematopus ostralegus*

To maintain the favourable conservation condition of Oystercatcher in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing and intensity of use of areas by oystercatcher, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A140 Golden Plover *Pluvialis apricaria*

To maintain the favourable conservation condition of Golden Plover in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of theconservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by golden plover, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A141 Grey Plover *Pluvialis squatarola*

To maintain the favourable conservation condition of Grey Plover in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by grey plover, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A142 Lapwing *Vanellus vanellus*

To maintain the favourable conservation condition of Lapwing in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by lapwing, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A143 Knot *Calidris canutus*

To maintain the favourable conservation condition of Knot in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by knot, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A144 Sanderling *Calidris alba*

To maintain the favourable conservation condition of Sanderling in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by sanderling, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A156 Black-tailed Godwit *Limosa limosa*

To maintain the favourable conservation condition of Black-tailed Godwit in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by black-tailed godwit, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A162 Redshank *Tringa totanus*

To maintain the favourable conservation condition of Redshank in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by redshank, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A169 Turnstone *Arenaria interpres*

To maintain the favourable conservation condition of Turnstone in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by turnstone, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A195 Little Tern *Sterna albifrons*

To maintain the favourable conservation condition of Little Tern in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

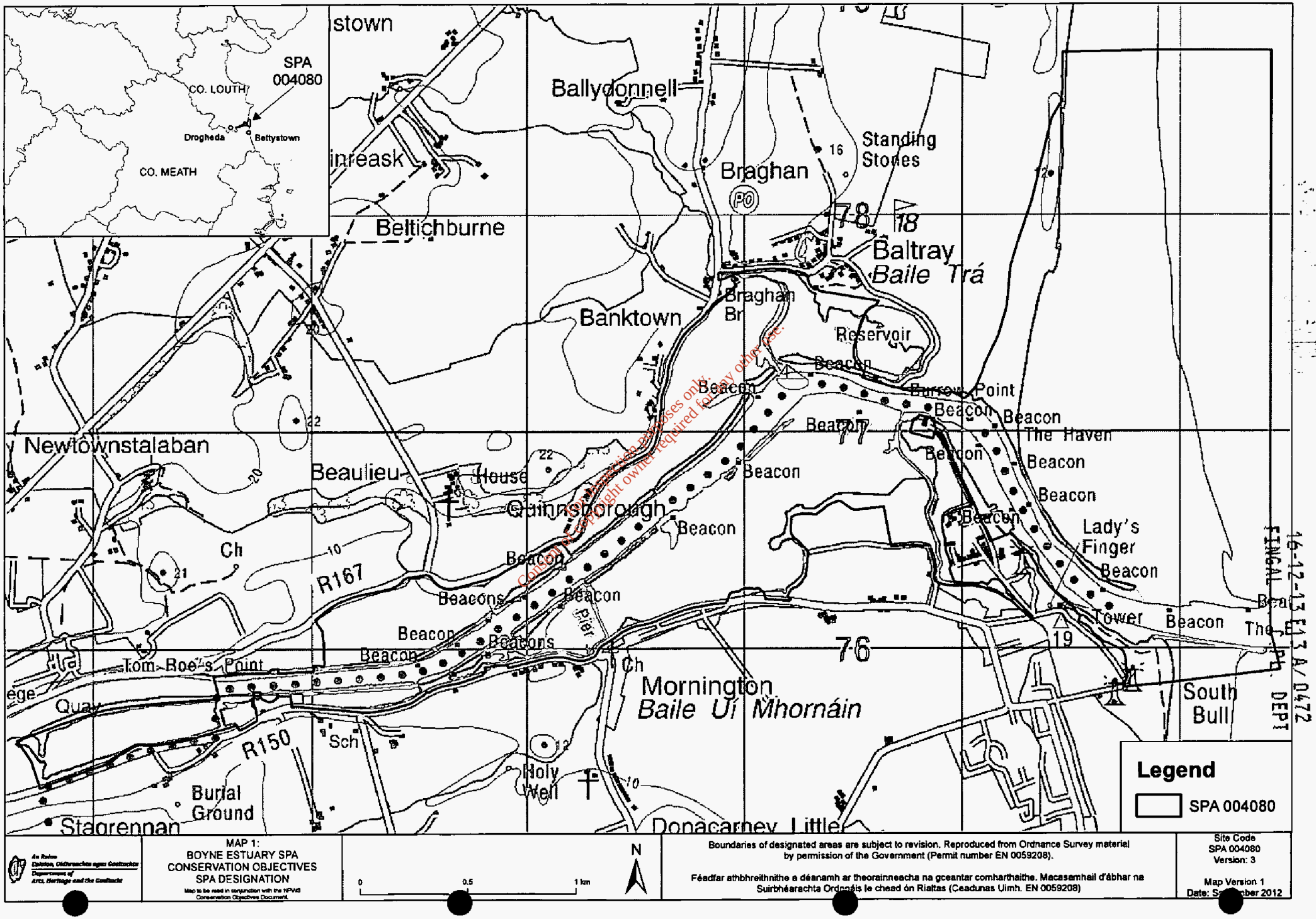
Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	Measure based on standard tern survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information for Louth. The Seabird Monitoring Programme (SMP) also provides background data (JNCC, 2013). In 2010, 43 breeding pairs were recorded at this colony (Reilly, 2010)
Productivity rate: fledged young per breeding pair	Mean number	No significant decline	Measure based on standard tern survey methods (see Walsh et al., 1995). For 2010, an estimated productivity rate of 2.2 fledged birds per breeding pair was reported (Reilly, 2010)
Distribution: breeding colonies	Number; location; area (Hectares)	No significant decline	Little tern nest in well-camouflaged shallow scapes on sand and shingle beaches, spits or inshore islets (Mitchell et al., 2004). For a description of the area used by the colony in 2010, see Reilly (2010)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: Mainly small, often juvenile, fish; invertebrates, especially crustaceans and insects. Key habitats: Very shallow water, advancing or receding tidelines, brackish lagoons and saltmarsh creeks, sand-banks close to the coast. Foraging range: Max 11km, mean max 6.94km, mean 4.14km (BirdLife International Seabird Database (Birdlife International, 2013))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies. Foraging range: Max 11km, mean max 6.94km, mean 4.14km (BirdLife International Seabird Database (Birdlife International, 2013))
Disturbance at the breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding little tern population	Little tern nest in well-camouflaged shallow scrapes on sand and shingle beaches, spits or inshore islets (Mitchell et al., 2004)

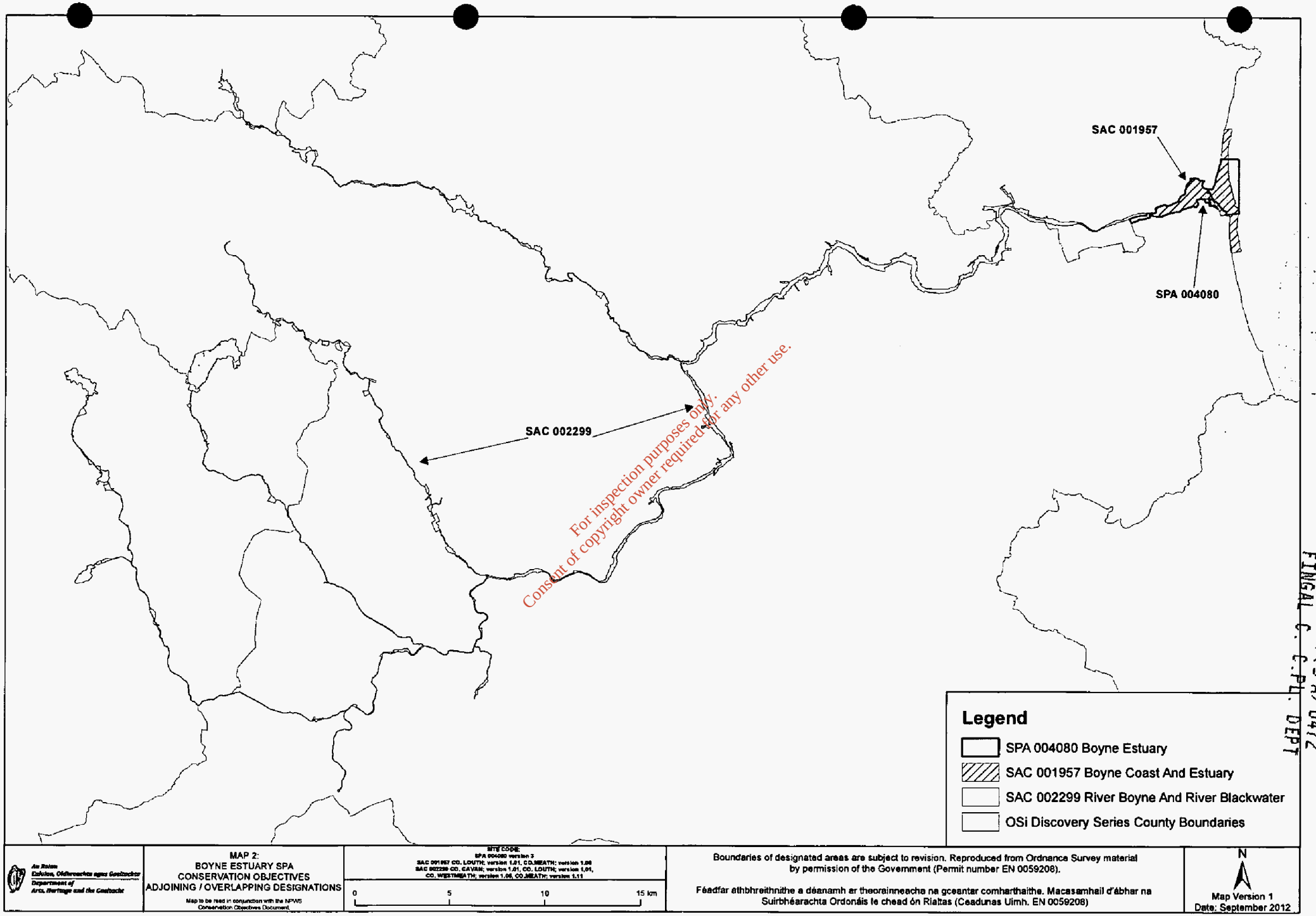
Conservation Objectives for : Boyne Estuary SPA [004080]

A999 Wetlands

To maintain the favourable conservation condition of the wetland habitat in Boyne Estuary SPA as a resource for the regularly-occurring migratory waterbirds that utilise it. This is defined by the following attribute and target:

Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 594ha, other than that occurring from natural patterns of variation	The wetland habitat area was estimated as 594ha using OSi data and relevant orthophotographs. For further information see part three of the conservation objectives supporting document





ISSN 2009-4086

National Parks and Wildlife Service

Conservation Objectives Series

Rockabill SPA 004014

An Roinn
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Department of
Arts, Heritage and the Gaeltacht

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Citation:

NPWS (2013) Conservation Objectives: Rockabill SPA 004014. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Series Editor: Rebecca Jeffrey
ISSN 2009-4086

Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

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

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

** indicates a priority habitat under the Habitats Directive*

004014	Rockabill SPA
A148	Purple Sandpiper *Calidris maritima*
A192	Roseate Tern *Sterna dougallii*
A193	Common Tern *Sterna hirundo*
A194	Arctic Tern *Sterna paradisaea*

Please note that this SPA overlaps with Rockabill to Dalkey Island SAC (003000). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping site as appropriate.

References

Year :	2005
Title :	Ireland's wetlands and their waterbirds: status and distribution
Author :	Crowe, O.
Series :	BirdWatch Ireland. Newcastle, Co Wicklow
Year :	2008
Title :	Rockabill tern manual
Author :	Newton, S.F.; Glenister, L.J.
Series :	BirdWatch Ireland
Year :	2012
Title :	Irish Wetland Bird Survey: results of waterbird monitoring in Ireland in 2010/11
Author :	Crowe, O.; Boland, H.; Walsh A.
Series :	Irish Birds 9(3): 397 - 410
Year :	2012
Title :	Rockabill tern report 2012
Author :	Burke, A.; Bowgen, K.; Newton S.F.
Series :	BirdWatch Ireland
Year :	2013
Title :	BirdLife International Seabird Ecology and Foraging Range Database
Author :	BirdLife International
Series :	http://seabird.wikispaces.com

Conservation Objectives for : Rockabill SPA [004014]

A148 Purple Sandpiper *Calidris maritima*

To maintain the favourable conservation condition of Purple Sandpiper in Rockabill SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Numbers occuring at the site are monitored by the Irish Wetland Bird Survey (see Crowe et al., 2012). Numbers appear to have declined but survey effort may have had an influence on latest estimates. A nationally important estimate of 48 individuals (3-year mean peak 1997/98 - 1999/00) was recorded at this site (Crowe, 2005)
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by purple sandpiper other than that occurring from natural patterns of variation	During the non-breeding season purple sandpipers show a strong preference for tidal rocky shores, often utilising artificial structures such as piers or breakwaters for roosting. They have been found to be highly faithful to their wintering sites

Conservation Objectives for : Rockabill SPA [004014]

A192 Roseate Tern *Sterna dougallii*

To maintain the favourable conservation condition of Roseate Tern in Rockabill SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	For census methodology see Newton and Glenister (2008). 1,207 roseate tern nests were recorded during the 2012 breeding season (for more information see Burke et al., 2012)
Productivity rate: fledged young per breeding pair	Mean number	No significant decline	For productivity estimation methodology see Newton and Glenister (2008). A 5-year mean (2008-2012) productivity rate of 1.2 fledglings per nest was outlined in Burke et al., 2012
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	For details of the sections and enclosures delineated for Rockabill SPA, consult Newton and Glenister (2008). For the most recent information on how roseate tern nest sites are distributed within the SPA, see Burke et al. (2012)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: small schooling marine fish, very rarely small crustaceans. Key habitats: shallow and upwelling areas, including tide rips and shoals, over sandy bottoms. Foraging range: max. 30km, mean max. 18.28km, mean 12.3km (BirdLife International Seabird Database (Birdlife International, 2013)). In 2012, the main prey items recorded during nest provisioning on Rockabill SPA were clupeids and sandeels (62.5% and 35.1% respectively- for more information see Burke et al., 2012)
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species make extensive use of the marine waters adjacent to their breeding colonies. Foraging range: max. 30km, mean max. 18.28km, mean 12.3km (BirdLife International Seabird Database (Birdlife International, 2013)). For more site specific information consult Burke et al. (2012)
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding roseate tern population	For recent information on disturbance levels during the breeding season refer to Burke et al. (2012)

Conservation Objectives for : Rockabill SPA [004014]

A193 Common Tern *Sterna hirundo*

To maintain the favourable conservation condition of Common Tern in Rockabill SPA, which is defined by the following list of attributes and targets:

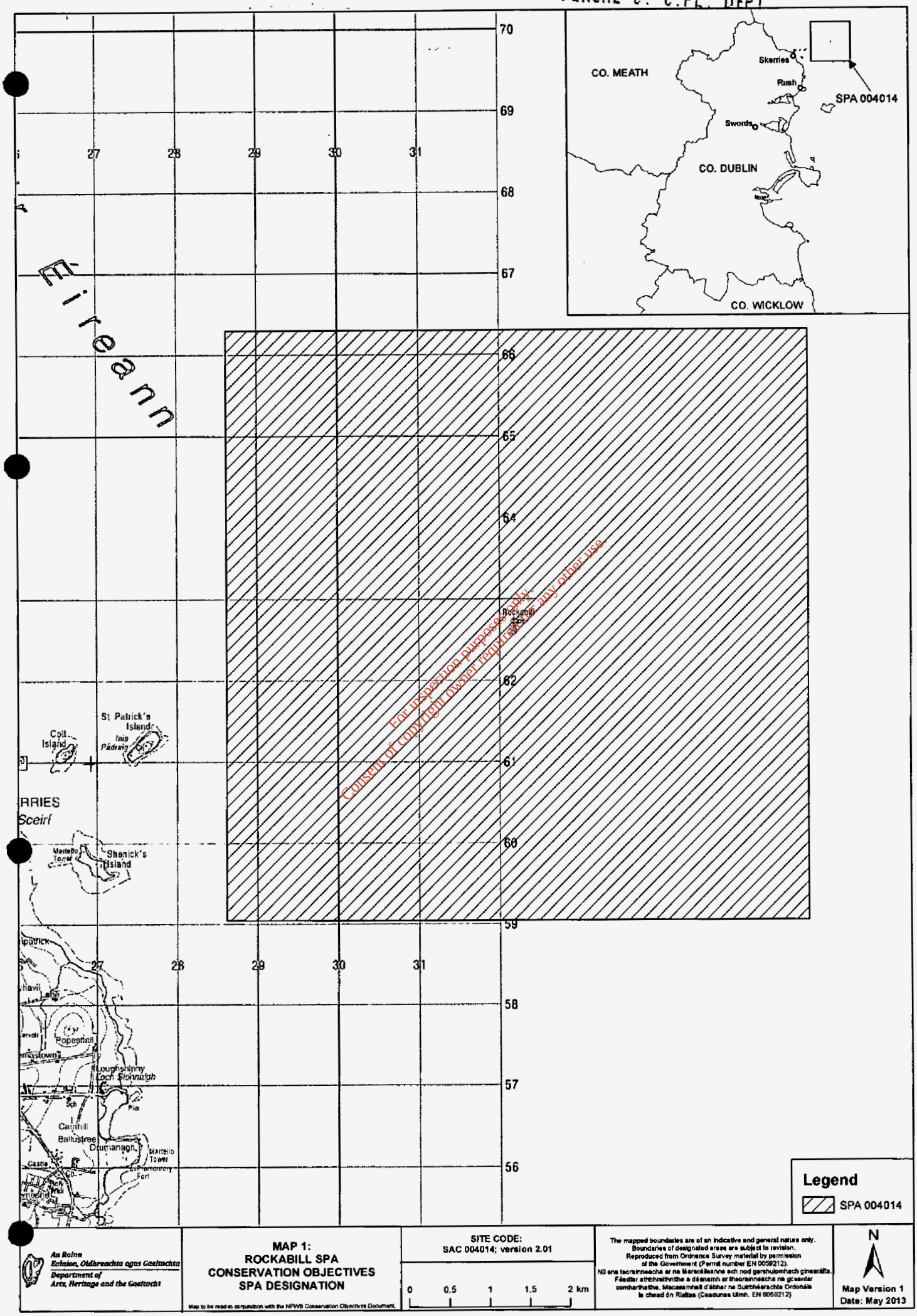
Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	For census methodology see Newton and Glenister (2008). 2,031 common tern nests were recorded during the 2012 breeding season (for more information see Burke et al., 2012)
Productivity rate: fledged young per breeding pair	Mean number	No significant decline	For productivity estimation methodology see Newton and Glenister (2008). In 2012, a productivity rate of 0.30 (range 0.21 - 0.44) fledglings per nest was estimated (Burke et al., 2012)
Distribution: breeding colonies	Number; location; area (Hectares)	No significant decline	For details of the sections and enclosures delineated for Rockabill SPA, consult Newton and Glenister (2008). For the most recent information on how common tern nest sites are distributed within the SPA, see Burke et al. (2012)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: Small fish, crustaceans, insects and occasionally squid. Key habitats: common tern forage in/over shallow coastal waters, bays, inlets, shoals, tidal rips, drift lines, beaches, saltmarsh creeks, lakes, ponds or rivers. Foraging range: max. 37km, mean max. 33.81km, mean 8.67km (BirdLife International Seabird Database (Birdlife International, 2013)). In 2012, the main prey items recorded during nest provisioning on Rockabill SPA were clupeids and gadoids (73.3% and 22.9% respectively - for more information see Burke et al., 2012)
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species make extensive use of the marine waters adjacent to their breeding colonies. Foraging range: max. 37km, mean max. 33.81km, mean 8.67km (BirdLife International Seabird Database (Birdlife International, 2013)). For more site specifc information consult Burke et al. (2012)
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding common tern population	For recent information on disturbance levels during the breeding season refer to Burke et al. (2012)

Conservation Objectives for : Rockabill SPA [004014]

A194 Arctic Tern *Sterna paradisaea*

To maintain the favourable conservation condition of Arctic Tern in Rockabill SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	For census methodology see Newton and Glenister (2008). 165 Arctic tern nests were recorded during the 2012 breeding season (for more information see Burke et al., 2012)
Productivity rate: fledged young per breeding pair	Mean number	No significant decline	For productivity estimation methodology see Newton and Glenister (2008). In 2012, a productivity rate of 0.14 - 0.22 fledglings per nest was estimated (Burke et al., 2012)
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	For details of the sections and enclosures delineated for Rockabill SPA consult Newton and Glenister (2008). For the most recent information on how Arctic tern nest sites are distributed within the SPA, see Burke et al. (2012)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: Small fish, crustaceans and other invertebrates. Key habitats: include open waters and shallow bays, rocky shores, tidal flats, shoals, tide rips, ocean fronts and upwellings. Foraging range: max. 20.6km, mean max. 12.24km, mean 11.75km (BirdLife International Seabird Database (Birdlife International, 2013)). For more site-specific information, consult Burke et al. (2012)
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species make extensive use of the marine waters adjacent to their breeding colonies. Foraging range: max. 20.6km, mean max. 12.24km, mean 11.75km (BirdLife International Seabird Database (Birdlife International, 2013)) For more site-specific information, consult Burke et al. (2012)
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding Arctic tern population	For recent information on disturbance levels during the breeding season, refer to Burke et al. (2012)



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Department of Arts, Heritage and the Gaeltacht

MAP 1:
ROCKABILL SPA
CONSERVATION OBJECTIVES
SPA DESIGNATION

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 004014; version 2.01

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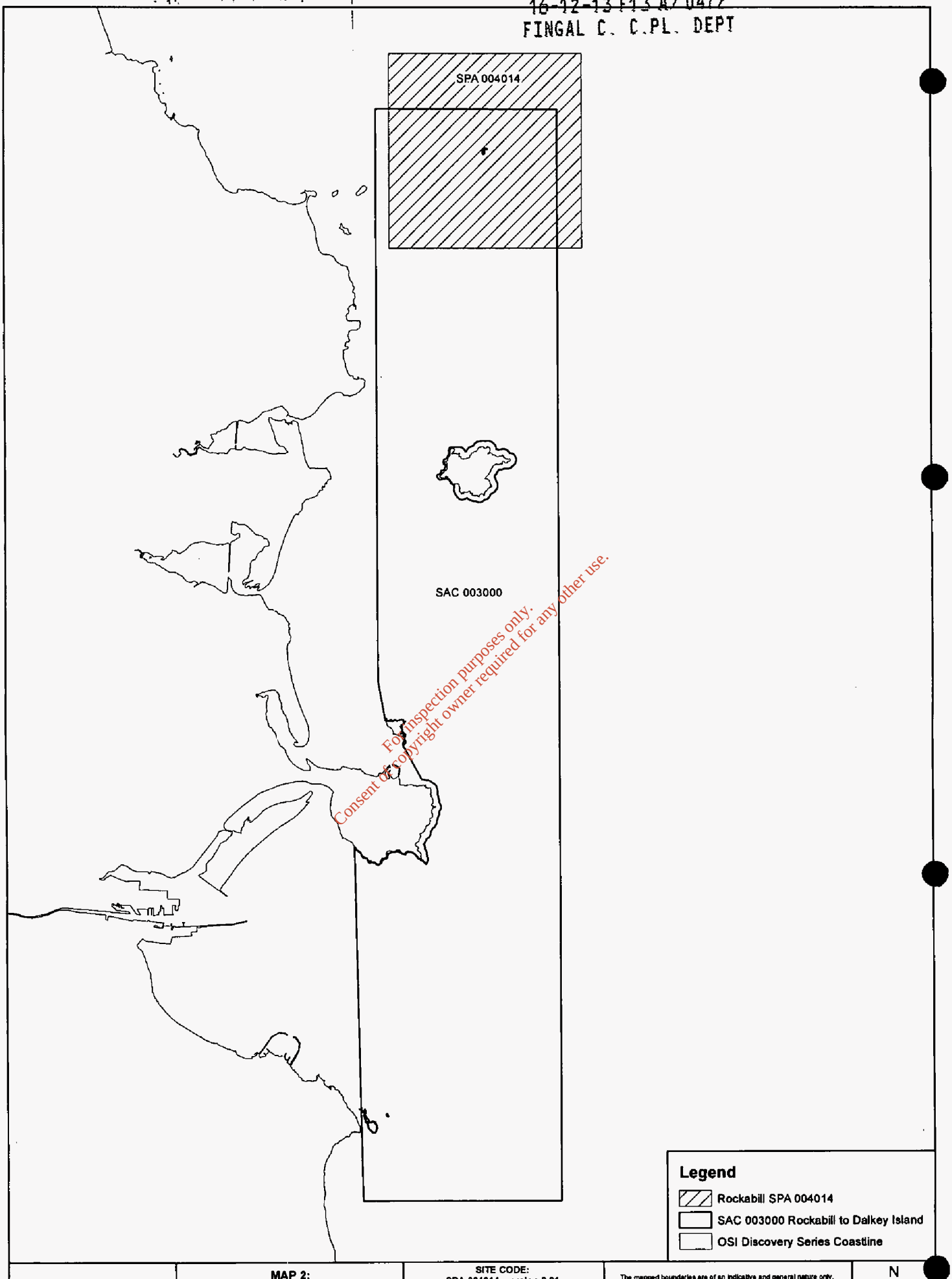
Féadfar athbhreithniú a dhéanamh ar theorainneacha na gceantar comharthaithe. Macasamhail d'ábhar na Suirbhéireachta Ordanáis le cead ón Rialtas (Ceadúnas Uimh. EN 0059212)

Map Version 1
Date: May 2013



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Department of Arts, Heritage and the Gaeltacht

MAP 2:
ROCKABILL SPA
CONSERVATION OBJECTIVES
ADJOINING / OVERLAPPING DESIGNATIONS

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SPA 004014; version 2.01
SAC 003000; version 3

0 1 2 3 4 5 km

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Map Version 1
Date: May 2013

ISSN 2009-4086

National Parks and Wildlife Service

Conservation Objectives Series

Rockabill to Dalkey Island SAC 003000

An Roinn
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Department of Arts, Heritage and the Gaeltacht,

7 Ely Place, Dublin 2, Ireland.

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E-mail: nature.conservation@ahg.gov.ie

Citation:

NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Series Editor: Rebecca Jeffrey
ISSN 2009-4086

Introduction

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

Notes/Guidelines:

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5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

** indicates a priority habitat under the Habitats Directive*

003000	Rockabill to Dalkey Island SAC
1170	Reefs
1351	Harbour porpoise *Phocoena phocoena*

Please note that this SAC overlaps with North Bull Island SPA (004006), Rockabill SPA (004014), Lambay Island SPA (004069), Howth Head Coast SPA (004113), Ireland's Eye SPA (004117) and Dalkey Islands SPA (004172). It is also adjoins Howth Head SAC (000202), Lambay Island SAC (000204) and Ireland's Eye SAC (002193). See map 2. The conservation objectives for this site should be used in conjunction with those for overlapping and adjacent sites as appropriate.

Supporting documents, relevant reports & publications

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

References

Year :	2010
Title :	Irish sea reef survey project report
Author :	MERC
Series :	Unpublished report to NPWS
Year :	2012
Title :	Intertidal reef survey of Lambay Island SAC and SPA, Rockabill Island SPA, Ireland's Eye SAC, Dalkey Islands SPA and Muglins
Author :	MERC
Series :	Unpublished report to the Marine Institute and NPWS
Year :	2012
Title :	Subtidal reef survey of Lambay Island SAC and SPA, Rockabill Island SPA, Ireland's Eye SAC, Dalkey Islands SPA and Muglins
Author :	MERC
Series :	Unpublished report to the Marine Institute and NPWS

NPWS Documents

Year :	2013
Title :	Rockabill to Dalkey Island SAC (site code 3000) Conservation objectives supporting document- marine habitats and species V1
Author :	NPWS
Series :	Conservation objectives supporting document

Spatial data sources

Year :	Interpolated 2013
Title :	2009 and 2010 subtidal and intertidal reef surveys
GIS Operations :	Polygon feature classes from marine community types base data sub-divided based on interpolation of marine survey data. Expert opinion used as necessary to resolve any issues arising
Used For :	Marine community types, 1170 (maps 3 and 4)
Year :	2005
Title :	OSi Discovery series vector data
GIS Operations :	High water mark (HWM) and low water mark (LWM) polyline feature classes converted into polygon feature classes and combined; EU Annex I Saltmarsh and Coastal data erased out if present
Used For :	Marine community types base data (map 4)
Year :	2005
Title :	OSi Discovery series vector data
GIS Operations :	Low Water Mark (LWM) polyline feature class converted into polygon feature class; clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used For :	1351 (map 5)

Conservation Objectives for : Rockabill to Dalkey Island SAC [003000]

1170 Reefs

To maintain the favourable conservation condition of Reefs in Rockabill to Dalkey Island SAC, which is defined by the following list of attributes and targets:

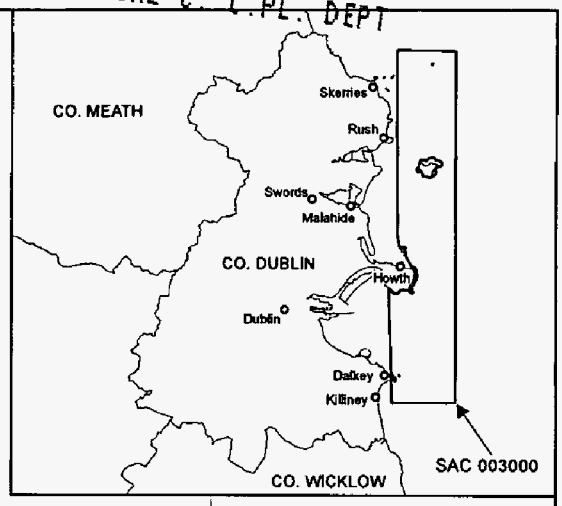
Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent area is stable or increasing, subject to natural processes. See map 3	Habitat area estimated as 182ha using 2010 and 2011 intertidal and subtidal reef survey data (MERC, 2010, 2012a,b), InfoMar bathymetry and the Arklow to Skerries Islands Admiralty Chart (1468_0)
Habitat distribution	Occurrence	Distribution is stable or increasing, subject to natural processes. See map 3	Distribution derived from 2010 and 2011 intertidal and subtidal reef survey data (MERC, 2010, 2012a,b), InfoMar bathymetry and the Arklow to Skerries Islands Admiralty Chart (1468_0). See marine supporting document for further details
Community structure	Biological composition	Conserve the following community types in a natural condition: Intertidal reef community complex; and Subtidal reef community complex. See map 4	Reef community mapping based on 2010 and 2011 intertidal and subtidal reef survey data (MERC, 2010, 2012a,b). See marine supporting document for further details

Conservation Objectives for : Rockabill to Dalkey Island SAC [003000]

1351 Harbour porpoise *Phocoena phocoena*

To maintain the favourable conservation condition of Harbour porpoise in Rockabill to Dalkey Island SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Access to suitable habitat	Number of artificial barriers	Species range within the site should not be restricted by artificial barriers to site use. See map 5	See marine supporting document for further details
Disturbance	Level of impact	Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site	See marine supporting document for further details



Legend

SAC 003000

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Department of Arts, Heritage and the Gaeltacht

MAP 1:
ROCKABILL TO DALKEY ISLAND SAC
CONSERVATION OBJECTIVES
SAC DESIGNATION

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 003000; version 3

0 1 2 3 4 5 km

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Féadfar athbhreithniú a dhéanamh ar theorainneacha na gceantar comharthaithe. Macasamhail d'ábhar na Suirbhéireachta Ordonáis le cead ón Rialtas (Ceadúnas Uimh. EN 0059212)

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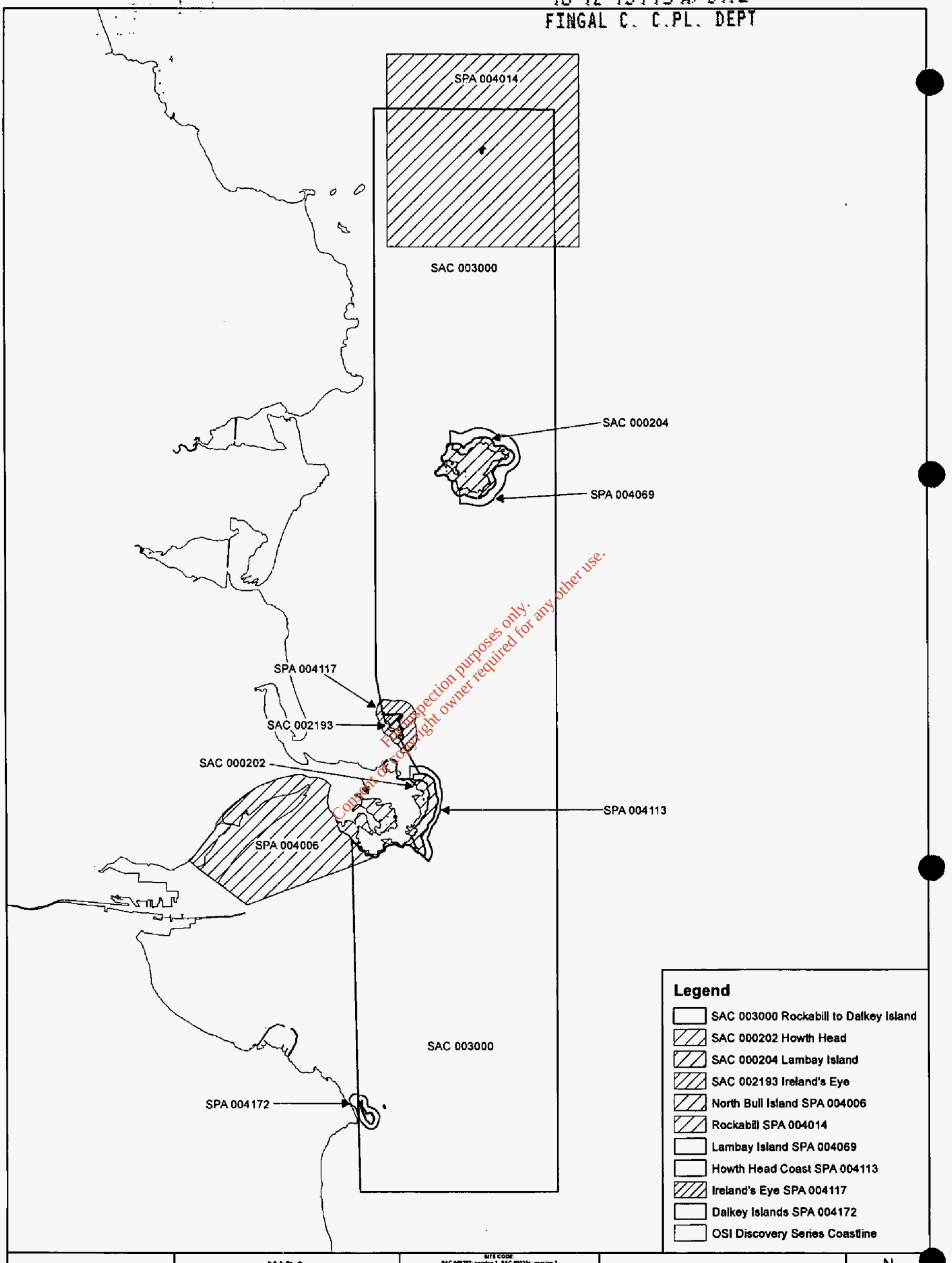
Map Version 1
Date: May 2013



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Department of Arts, Heritage and the Gaeltacht

MAP 2:
ROCKABILL TO DALKEY ISLAND SAC
CONSERVATION OBJECTIVES ADJOINING / OVERLAPPING DESIGNATIONS

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 000202: version 3, SAC 000204: version 3
SAC 002193: version 2, SAC 003000: version 3
SPA 004006: version 2, SPA 004014: version 2.01
SPA 004069: version 1.01, SPA 004113: version 2
SPA 004117: version 1.02, SPA 004172: version 2

0 1 2 3 4 5 km

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Map Version 1
Date: May 2013

16-12-13 F13A/0472
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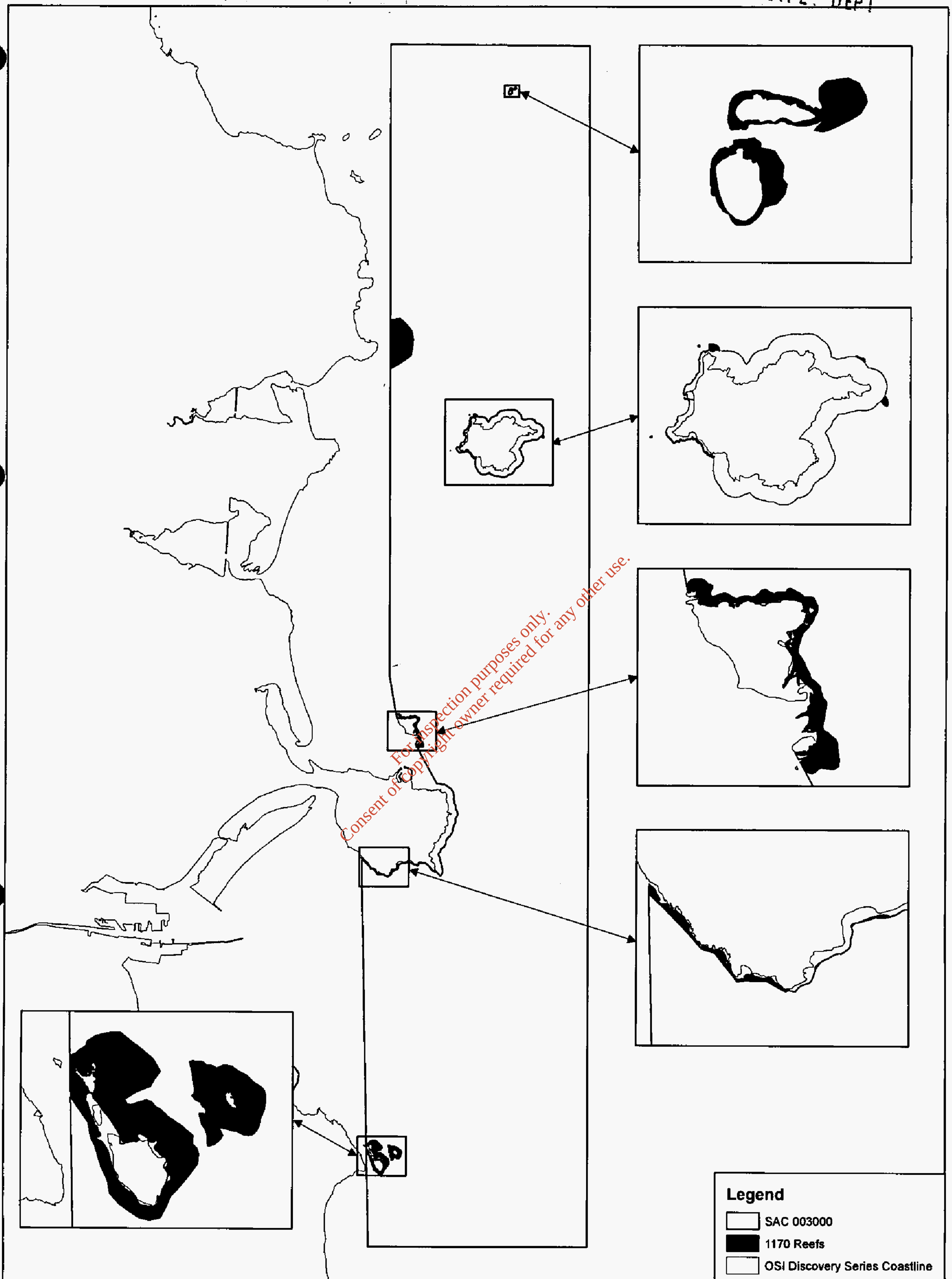

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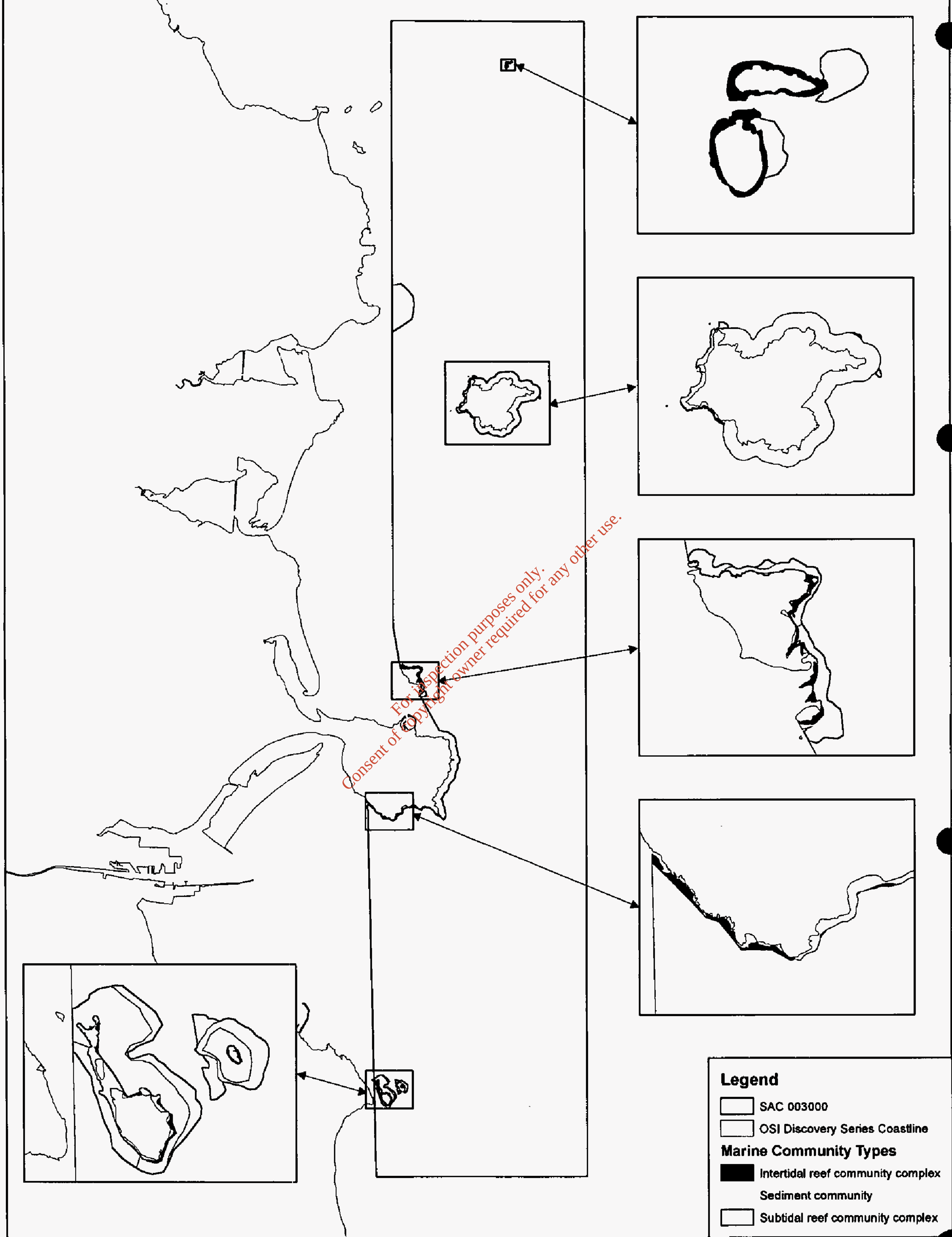
MAP 3:
ROCKABILL TO DALKEY ISLAND SAC
CONSERVATION OBJECTIVES
REEFS

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 003000; version 3

Map Version 1
Date: May 2013

16-12-13 F13A/0472
FINGAL C. C. PL. DEPT



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MAP 4:
ROCKABILL TO DALKEY ISLAND SAC
CONSERVATION OBJECTIVES
MARINE COMMUNITY TYPES

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 003000; version 3

0 1 2 3 4 5 km

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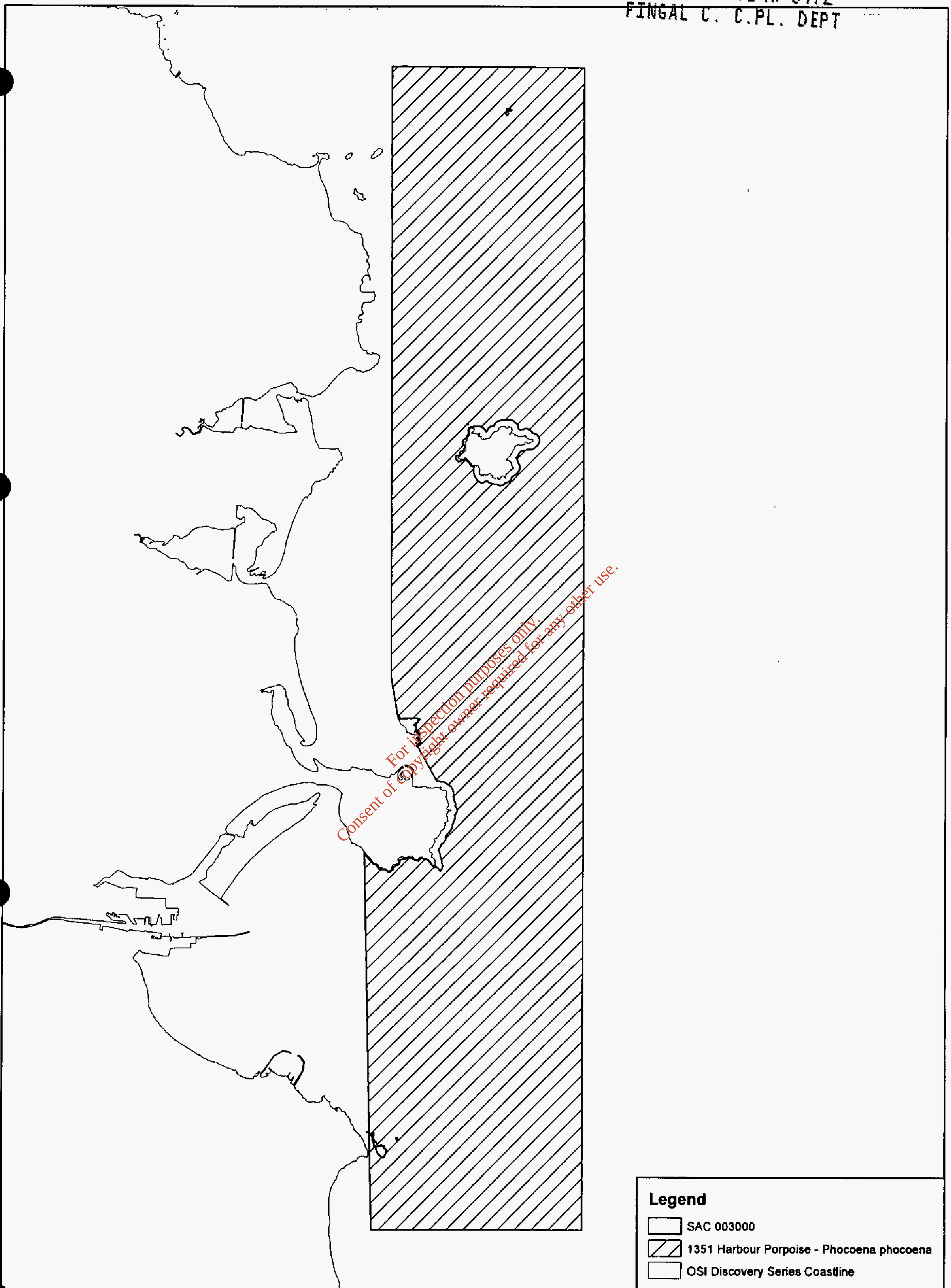
Map Version 1
Date: May 2013



An Roinn
Ealaíon, Oidhreachta agus Gaeltachta
Department of
Arts, Heritage and the Gaeltacht

MAP 5:
ROCKABILL TO DALKEY ISLAND SAC
CONSERVATION OBJECTIVES
HARBOUR PORPOISE

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 003000; version 3

The mapped boundaries are of an indicative and general nature only.
Boundaries of designated areas are subject to revision.
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comharthaithe. Macasamhail d'ábhar na Suirbhéarachta Ordanáis
le chead ón Rialtas (Ceadunas Uimh. EN 0059212)

Map Version 1
Date: May 2013

SITE SYNOPSIS

SITE NAME: ROCKABILL SPA

SITE CODE: 004014

Rockabill consists of two small, low-lying, granitic islets situated *c.* 7 km off the Co. Dublin coast. The islands are separated by a narrow channel though are connected at low spring tides. The main island, known as the Lighthouse Island, is vegetated by a scrubby sward of Tree Mallow (*Lavatera arborea*), with a range of other maritime species such as Sea Mayweed (*Matricaria maritima*), Sea Campion (*Silene maritima*), Sorrel (*Rumex* spp.), Common Scurvy-grass (*Cochlearia officinalis*), Orache (*Atriplex* spp.) and Rock Sea-spurrey (*Spergularia rupicola*). Some exotic plants are present, notably Hedge Veronica (*Hebe* x *franciscana*) and Hottentot-fig (*Carpobrotus edulis*). The smaller island, known as the Bill, is very exposed and is sparsely vegetated. A lighthouse, manned until 1989, is situated on the main island.

Rockabill has a long history of nesting by terns and it is now one of the most important tern colonies in Europe. Intensive wardening, management and monitoring since the 1980s has seen the colony grow significantly. In 1999, it held 611 pairs of Roseate Tern, 610 pairs of Common Tern and 89 pairs of Arctic Tern. All three species are listed on Annex I of the E.U. Birds Directive. The Roseate population represents approximately 75% of the entire north-west European population. The Common Tern population is one of the largest in Ireland, accounting for more than 30% of the national total. The Arctic Tern population, while relatively small, is still of national importance. Sandwich Tern nested up to the 1930s but apparently not since.

The terns nest amongst the scrubby vegetation and increasingly so in the nest boxes which are provided as part of the BirdWatch Ireland/National Parks and Wildlife Service conservation programme. Large gull species are discouraged from nesting on the islands for the benefit of the terns, and visitors to the islands are strictly controlled. Detailed research is carried out each year, including studies on breeding behaviour, productivity and feeding. A ringing programme has been in operation since the 1980s and this has produced important information on the movement of the birds in an international context.

Rockabill also supports a nationally important population of Black Guillemot (34 pairs in 1999) and a small colony of Kittiwake (111 pairs in 1999). Both of these species are monitored annually and most of the chicks produced are ringed. Rockabill is also a good location for the observation of bird migration.

Owing to its international and national importance, Rockabill is a designated Refuge for Fauna. As long as the conservation programme continues, and especially wardening throughout the entire season, there are no apparent threats to the nesting seabirds. However, the on-going research on the biology and ecology of the terns is crucial for a proper understanding of the needs of the birds over the long-term.

SITE SYNOPSIS

SITE NAME: BOYNE ESTUARY SPA

SITE CODE: 004080

This moderately sized coastal site, which is situated below the town of Drogheda, comprises most of the estuary of the Boyne River, a substantial river which drains a large catchment. Apart from one section which is over 1 km wide, its width is mostly less than 500 m. The river channel, which is navigable and dredged, is defined by training walls, these being breached in places. Intertidal flats occur along the sides of the channelled river. The sediments vary from fine muds in the sheltered areas to sandy muds or sands towards the river mouth. The linear stretches of intertidal flats to the north and south of the river mouth are mainly composed of sand. One or more species of Eelgrass (*Zostera* spp.) occur in the estuary. Parts of the intertidal areas are fringed by salt marshes, most of which are of the Atlantic type, and dominated by Sea-purslane (*Halimione portulacoides*). Other species present include Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Lax-flowered Sea-lavender (*Limonium humile*) and Glasswort (*Salicornia* spp.). Common Cord-grass (*Spartina anglica*) occurs frequently on the flats and salt marshes.

The Boyne Estuary is the second most important estuary for wintering birds on the Louth-Meath coastline. It has a total of ten species with populations of national importance, i.e. Shelduck (218), Oystercatcher (1,099), Golden Plover (6,070), Grey Plover (98), Lapwing (4,657), Knot (1,771), Sanderling (69), Black-tailed Godwit (471), Redshank (583) and Turnstone (175) - all figures are average peaks for the 5 year period 1995/96-1999/00. Of particular note is that the site supports 7% of the national population of Knot and 4% of the total for Golden Plover. Other species which occur include Bar-tailed Godwit (76), Cormorant (97), Brent Goose (172), Wigeon (454), Teal (230), Dunlin (480), Curlew (395), Mallard (197), Red-breasted Merganser (14), Greenshank (6), Ringed Plover (80) and Mute Swan (13). The site provides both feeding and high-tide roost areas for the birds. The estuary also attracts large numbers of gulls in winter, including Black-headed Gull (593), Common Gull (145), Herring Gull (403) and Great Black-backed Gull (160).

Little Tern bred in the past but successful breeding has not occurred since 1996. In 1998 and 1999 part of the shingle bank where the birds nested was washed away by storms. Also, human pressure in the beach areas has increased in recent years.

In general, the site has been modified by human activities. The river is regularly dredged to accommodate cargo ships, which can cause disturbance to the bird, fish and invertebrate communities in the estuary. Several factories operate upstream from the estuary and pollution and disturbance associated with these has had an impact on the ecology of the area. Significant developments within the site could cause disturbance to the wintering birds. Nowadays there are no significant shooting pressures as the site is a Wildfowl Sanctuary

The site is of considerable ornithological importance for wintering waterfowl, with ten species having populations of national importance. Little Tern has bred in the recent past and could do so again in the future. Of particular significance is that two of the wintering species, Golden Plover and Bar-tailed Godwit are listed on Annex I of the E.U. Birds Directive. Little Tern, which last bred successfully at the site in 1996, is also listed on Annex I of this directive.

31.3.2005

SITE SYNOPSIS

SITE NAME: SKERRIES ISLANDS SPA

SITE CODE: 004122

The Skerries Islands are a group of three small uninhabited islands situated between 0.5 km and 1.5 km off the north Dublin coast. Shenick Island and St. Patrick's Island are of similar size, with Colt Island being somewhat smaller. Shenick Island is of most interest geologically, being composed of Ordovician volcanic siltstones and shales on the boundary between the Caboniferous and the Silurian. All are low-lying islands, with maximum heights from 8 m to 13 m above sea level. There are the remains of a Martello Tower on Shenick Island and an early christian church on St. Patrick's.

St Patrick's Island and Colt Island have low cliffs, while Shenick Island has more extensive expanses of intertidal rocky shore and sand flats. Shenick also has a shingle bar and is connected to the mainland at low tides. The vegetation of the islands is dominated by rank grasses, brambles and species such as hogweed (*Heracleum sphondylium*). The seas surrounding the islands, to a distance of 200 m, are included in the site.

The islands are of importance for both breeding seabirds and wintering waterfowl.
A survey of breeding seabirds on St Patrick's Island, the main seabird island, in 1999 recorded the following: Fulmar (10 pairs), Cormorant (558 pairs), Shag (100 pairs), Lesser Black-backed Gull (1 pair), Herring Gull (150 pairs) and Great Black-backed Gull (50 pairs). Shenick Island has breeding Fulmars (25 pairs in 1999), Herring Gulls (120 pairs in 1996) and Great Black-backed Gulls (25 pairs in 1996). Large gulls also breed on Colt Island but there has been no census in recent years. The Cormorant population, which was only established in the early 1990s, is of National Importance and when taken together with the nearby associated colonies on Lambay and Ireland's Eye, this group comprises about 35% of the total Irish population and is of International Importance. The Shag population is also of National Importance as are the Herring Gull and Great Black-backed Gull populations. Other breeding birds include Shelduck, Ringed Plover and Oystercatcher (several pairs of each).

In winter, the islands regularly support a range of waterfowl species. The following counts are the average annual peaks over the five winters 1995/96 to 1990/00: Cormorant (391), Brent Goose (242), Wigeon (205), Mallard (240), Oystercatcher (463), Ringed Plover (66), Golden Plover (240), Grey Plover (15), Lapwing (238), Purple Sandpiper (46), Dunlin (42), Snipe (27), Curlew (327), Turnstone (242), Black-headed Gull (110), Herring Gull (560), Great Black-backed Gull (250). The Brent Goose population is of International Importance, while the populations of Cormorants, Purple Sandpiper and Turnstone are of National Importance. The islands are also a regular wintering site for Short-eared Owls, with several recorded in most winters.

The birds of the Skerries Islands have been monitored regularly since the 1980s. Shenick Island became a BirdWatch Ireland Reserve in 1987 and some management for the benefit of the birds has taken place.

The Skerries Islands SPA is of high ornithological importance for both breeding seabirds and wintering waterfowl, with six species having populations of National Importance. In addition there is an internationally important population of Brent Goose. Golden Plover and Short-eared Owl, EU Birds Directive Annex I species, occur regularly in winter.

10.11.2003

SITE SYNOPSIS

SITE NAME: RIVER NANNY ESTUARY AND SHORE SPA

SITE CODE: 004158

The site comprises the estuary of the River Nanny and sections of the shoreline to the north and south of the estuary (*c.* 3 km in length). The estuarine channel, which extends inland for almost 2 km, is narrow and well sheltered. Sediments are muddy in character and edged by saltmarsh and freshwater marsh/wet grassland. The saltmarsh is best developed in the eastern portion of the estuarine channel, with species such as Sea Plantain (*Plantago maritima*), Sea Aster (*Aster tripolium*), Red Fescue (*Festuca rubra*) and Sea Purslane (*Halimione portulacoides*) occurring. Further up the estuary, the marsh habitats support species such as Bulrush (*Typha latifolia*) and Yellow Flag (*Iris pseudacorus*). The shoreline, which is approximately 500 m in width to the low tide mark, comprises beach and intertidal habitats. It is a well-exposed shore, with coarse sand sediments. The well-developed beaches, which are backed in places by clay cliffs, provide high tide roosts for the birds. The village of Laytown occurs in the northern side of the River Nanny estuary.

This site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Oystercatcher, Ringed Plover, Golden Plover, Knot, Sanderling, Black-headed Gull and Herring Gull. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

This is an important site for wintering waders, with nationally important populations of Golden Plover (1,759), Oystercatcher (1,014), Ringed Plover (185), Knot (1,140) and Sanderling (240) present (all figures are average peaks for the 5 year period 1995/96-1999/2000). The populations of Knot and Sanderling are of particular note as they represent approximately 4% of their respective national totals. Black-headed Gull (926) and Herring Gull (609) also occur here in significant numbers. A range of other waterbirds also occurs, including Cormorant (35), Brent Goose (145), Mallard (76), Grey Plover (55), Lapwing (1,087), Dunlin (721), Bar-tailed Godwit (59), Curlew (107), Redshank (150), Turnstone (59), Common Gull (66) and Great Black-backed Gull (70). The site is of most importance as a roost area for the birds but the intertidal flats also provide feeding habitat. Many of the birds also utilise the intertidal areas and beaches further to the north and south, and also the fields above the shore.

The main threat to the wintering birds is increased levels of disturbance by beach users.

This site is of ornithological importance as it supports five species of wintering waterbirds in numbers of national significance. Two species using the site, Golden Plover and Bar-tailed Godwit, are listed on Annex I of the E.U. Birds Directive.

1.6.2007

DixonBrosnan

noise & ecology specialists

dixonbrosnan.com

Project	
	Noise impact assessment Nov 2013 re proposed extension to operating times at Pacon Waste & Recycling, Stephenstown, Balbriggan, Co. Dublin
Client	
	O'Callaghan Moran & Associates OBO Pacon

Project no	No pages	Client reference	©DixonBrosnan 2013
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Report no	Date	Edit	Prepared by	Chkd
1339.1.1	11.11.13	Draft for client review	Damian Brosnan	CD
1339.1.2	26.11.13	Release 1	Damian Brosnan	CD

Contents

Summary

DixonBrosnan noise consultants were instructed by O'Callaghan Moran & Associates, on behalf of their client Pacon Waste & Recycling Ltd., to carry out a noise impact assessment regarding a proposed increase in tonnage throughput, the introduction of a new waste processing system, and an extension to operating times at their existing facility at Stephenstown Business Park, Balbriggan, Co. Dublin. Waste facility permit WFP-FG-10-0004-01 specifies daytime and night-time limits of 55 and 45 dB respectively at noise sensitive locations (NSLs).

Existing noise emissions from the facility were assessed during a daytime survey undertaken Wednesday 06.11.13. Site emissions were less than the 55 dB limit at all NSLs, and were not audible at any NSL apart from a short series of external skip movements audible at the nearest dwelling.

It is proposed to remove the existing restrictions on hours of waste acceptance and operation set in the current site waste permit and planning permissions. It is not intended to process waste 24 hours per day, or to significantly change the existing hours of operation. However, flexibility is required to allow waste acceptance and processing at other times should customer demands require it.

A noise assessment was carried out on a worst case scenario assuming the facility accepting waste and operating during night time hours. The proposed changes, including the new waste processing system, will not result in any changes to the amplitude or character of the existing emissions. Emissions during night-time hours will be less than 42 dB at all NSLs, and thus below the 45 dB night-time criterion set out in the current waste facility permit.

1 Introduction

1.1 DixonBrosnan noise consultants were instructed by O'Callaghan Moran & Associates, on behalf of their client Pacon Waste & Recycling Ltd. (PWR), to carry out a noise impact assessment regarding a proposed increase in tonnage throughput, the introduction of a new waste processing system, and an extension to operating times at the existing PWR facility at Stephenstown Business Park, Stephenstown, Balbriggan, Co. Dublin. A glossary of noise terms is provided at the end of this report.

1.2 The objectives of the assessment were as follows:

- To identify noise limits applicable to the PWR facility.
- To identify noise sensitive locations in the vicinity of the facility.
- To document existing noise sources onsite.
- To measure existing noise emissions from the site.
- To document proposed changes to the existing noise regime (increased waste volumes, new process and unrestricted operating hours).
- To assess potential noise impacts at NSLs arising from the proposed changes.
- To identify mitigation measures considered necessary.

1.3 On the basis of an inspection of the PWR facility, it is considered that current operations are highly unlikely to give rise to ground borne vibration. A review of the proposed development indicates that ground borne vibration is unlikely to arise in the future. Vibration is therefore not considered further in this report.

2 Noise limits

2.1 The existing PWR facility was originally constructed in accordance with planning permission F06A/0369 granted 05.09.06 by Fingal County Council. The permission did not include any noise limits, and instead specified that the development should comply with the requirements of the Environmental Health Officer, presumably through a waste facility permit application. Planning permission F11A/0339, granted 18.01.12 for processing of an additional waste stream, included an identical requirement.

2.2 On 05.08.10, the local authority issued waste facility permit WFP-FG-10-0004-01 in respect of the PWR facility, valid to 05.08.15. The following conditions included in the permit are relevant to this assessment:

Condition 2.4

The site shall only be operated and waste shall only be accepted at and despatched from the facility between the hours of 7.00 am to 9.00 pm Monday to Friday (excluding bank and national holidays) and 8.00 am to 1.00 pm on Saturdays.

Condition 5.6

Waste shall only be accepted by the operator at the site between 0800 and 1800 hours, Monday to Friday inclusive, and between 0800 and 1800 hours on Saturdays unless otherwise approved in writing by Fingal County Council. No waste shall be accepted at the site on bank or public holidays.

Condition 6.3

Noise emissions from the facility shall not give rise to noise levels at noise sensitive locations in the vicinity of the activity in excess of:

(i) 55 dBA Leq_{LT} during the hours 08.00-20.00

(ii) 45 dB Leq_{LT} during the hours 20.00-08.00

(iii) There shall be no clearly audible tonal component, or impulsive component, in the noise emission from the development at any noise sensitive location.

The permit holder shall at his own expense arrange for monitoring of noise levels if so requested by Fingal County Council.

2.3 The proposed development will require submissions of applications for planning permission and a revised waste facility permit. It is assumed for the purposes of this assessment that noise limits attached to any revised permit will be identical to those set out above ie. 55 dB during the hours 0800-2000, and 45 dB outside of these hours. These criteria are therefore applied in this report.

3 Noise sensitive locations

3.1 The PWR premises is located in Stephenstown Business Park, a commercial zone on the southwestern fringes of Balbriggan. The area is dominated by commercial development, with a small scattering of dwellings. There are no noise sensitive locations (NSLs) immediately adjacent to the site boundaries. The northern boundary of the site is formed by Stephenstown Road. The western boundary adjoins two commercial premises. The eastern boundary adjoins an electrical substation, while the southern boundary adjoins undeveloped scrubland and pasture.

3.2 The nearest NSLs are as follows, as shown in **figure 1**:

- Loose cluster of four dwellings east-southeast of site, nearest of which lies 210 m from site boundary.
- Detached dwelling 350 m south-southwest of site, with three dwellings further southeast.

4 Existing noise levels

4.1 Existing noise emissions from the PWR facility were assessed during a daytime survey undertaken Wednesday 06.11.13. The survey was continued into the evening and night in order to measure residual noise levels during hours when the facility will operate if the current proposal is permitted. Noise levels were measured at four stations selected to represent the nearest and most vulnerable dwelling clusters. The stations are described in **table 1**, and shown in **figure 1** above.

Table 1: Noise monitoring stations.

Station	ITM NGR	Location	Propagation route terrain
N1	720054 762753	4 m from façade of cottage 210 m E of PWR site	Terrain falling. Pasture & vegetation. Clear line of sight.
N2	719603 762311	Road verge 20 m NW of gate to detached dwelling 350 m SSW of PWR site	Across valley. Pasture. Line of sight visible through roadside hedge.
N3	719323 762757	Gate of N dwelling in 3 dwelling cluster 240 m W of PWR site	Terrain level. Pasture, and intervening business park buildings. Line of sight restricted by buildings.
N4	719069 762988	25 m N of detached dwelling 550 m NW of PWR site	Terrain slightly rising. Pasture and roads. No line of sight due to terrain.

4.2 Survey methodology, equipment specifications and weather conditions are listed in **appendix 1**. Noise data recorded are presented in **appendix 2**, and summarised in **table 2** below. Frequency spectra and time history profiles are shown in **appendix 3**.

Table 2: Noise data summary.

Station	Period	PWR facility	$L_{Aeq\ 15\ min}$ dB	$L_{AF90\ 15\ min}$ dB	Specific PWR level dB	Comment
N1	Daytime	Operating	54-55	47-52	<42	PWR inaudible, apart from several skip movements audible at low level for a time. M1 and local area traffic dominant.
	Evening	Shut down	52	49	-	M1 and local area traffic dominant, chiefly M1 during later hours.
	Night-time	Shut down	44-53	40-46	-	
N2	Daytime	Operating	61-62	45-46	<40	PWR inaudible. M1 and local area traffic dominant.
	Evening	Shut down	58	48	-	M1 and local area traffic dominant, chiefly M1 during later hours.
	Night-time	Shut down	44-55	41-48	-	
N3	Daytime	Operating	55-57	47-50	<42	PWR inaudible. M1 and local area traffic dominant.
	Evening	Shut down	54	50	-	M1 and local area traffic dominant, chiefly M1 during later hours.
	Night-time	Shut down	45-52	41-48	-	
N4	Daytime	Operating	51-53	47-51	<42	PWR inaudible. M1 and local area traffic dominant.
	Evening	Shut down	51	50		M1 and local area traffic dominant,

	Night-time	Shut down	45-51	42-49		chiefly M1 during later hours.

4.3 Condiiton 6.3 of waste facility permit WFP-FG-10-0004-01 is presented in **section 2** above. The permit includes three clauses as follows:

- Daytime limit of 55 dB at NSLs: Site specific noise levels, included in **table 2**, were less than the 55 dB limit at all NSLs. It is noted that PWR emissions were not audible at any NSL, apart from a short series of external skip movements audible at N1.
- Night-time limit of 45 dB at NSLs: The facility does not operate during night-time hours at present, and therefore this limit was not breached.
- Clearly audible tonal and impulsive components prohibited at NSLs: None were noted.

4.4 From the foregoing, current site operations comply with condition 6.3 of the waste facility permit. The survey indicates that current operations are not audible at offsite receptors, apart from skip movements on the external yard which may be audible at a low level at the closest dwelling (N1). These movements are sporadic, with approximately 3-4 movements recorded on one occasion during the survey. The emissions were not of audible significance, being almost entirely masked by road traffic noise. The site benefits from significant separation distances to NSLs. The site also benefits from confinement of waste processing operations to within the building.

4.5 The residual noise survey carried out during the evening and night-time indicates that all NSLs in the local area are significantly affected by road traffic noise, chiefly arising from the M1 motorway which remains intrusive into night-time hours. The data suggest that night-time $L_{AF90\ 15\ min}$ levels are unlikely to fall below a floor of 40 dB. Data also suggest that traffic noise on local roads nearer Balbriggan maintains $L_{Aeq\ 15\ min}$ levels at 45 dB or above during the night. All stations showed elevated energy in the 50 and 63 Hz bands throughout the evening and night-time, most likely attributable to M1 traffic noise. This was particularly evident at station N4, which is more exposed to M1 noise than the other stations due to its slightly more elevated position. Elevated acoustic energy in the 31.5 Hz band detected at station N3 during daytime intervals was traced to emissions arising from a facility to the immediate west.

5 Proposed development

5.1 Several waste streams are currently imported to the existing PWR facility where they are processed and bulked internally within the single building onsite. Bulked wastes are stored internally pending export offsite. No operations are carried out externally on yard areas other than skip storage and vehicle parking. All processing plant are thus confined to the building. Plant items onsite consist of the following:

- Baler in east end of building, infrequently used.
- Main processing line in building, currently used up to 8 hours per day, several days each week.
- Waste compactor against external west façade, occasionally used.

- Compressor in intermittent use against external north facade.
- Mobile plant used in building: grab, front end loader and telescopic loader. Both loaders may access the yard infrequently during working hours.

5.2 Noise emissions from the compressor and compactor, both of which are located externally, are negligible outside the site boundary. Emissions from the internal baler are also entirely negligible. The most significant emissions onsite arise from the stationary waste processing line and mobile plant operating in the building. The processing line consists of hopper, trommel, wind shifter, magnet, two picking lines, and several conveyors. Site inspections indicate that the greatest noise emissions here arise from the wind shifter.

5.3 During the noise survey carried out on 06.11.13, readings taken internally in the building while all stationary plant were in use, in addition to the mobile grab, front end loader and a manoeuvring truck, indicate that internal reverberant levels are currently in the range 85-86 dB.

5.4 Existing operations are carried out during daytime hours only in accordance with conditions 2.4 and 5.6 of the permit. These conditions specify that waste may be accepted during the hours 0800-1800 Monday-Saturday. Processing and export is permitted during the hours 0700-2100 Monday-Friday and 0800-1300 Saturday.

5.5 The applicant proposes to increase the tonnage throughput processed at the facility, to introduce a new waste processing line (solid recovered fuel, or SRF), and to extend the permitted operating times. Hours of waste import and export will generally continue as at present, with infrequent movements during night-time hours. The proposal will require installation of additional stationary processing plant within the building. No other changes in stationary or mobile plant are proposed.

5.6 A review of noise data provided by the applicant (**figure 2**) indicates that the reverberant noise level arising from the proposed SRF processing line, as measured at a similar installation, will be 69-71 dB at 8 m. This level will be significantly lower than the 85-86 dB reverberant levels currently arising in the building. Thus the amplitude and character of noise emissions in the building will remain unchanged. It follows that specific PWR levels at offsite receptors will also remain unchanged, with the only difference being that such emissions will arise over a 24 hour period.

6 Impacts at NSLs

6.1 Noise impacts at NSLs arising from existing daytime operations are discussed above. Emissions are in compliance with the 55 dB limit specified in permit WFP-FG-10-0004-01 with respect to the period 0800-2000. As the proposed extension of operating hours will not result in any changes to the amplitude or character of the existing emissions, impacts at NSLs may be assessed by comparing existing specific PWR levels to the 45 dB criterion included in the permit with respect to the period 2000-0800 hours. This assessment is set out in **table 3**.

Figure 2: Noise emissions from identical SRF processing plant at similar installation.

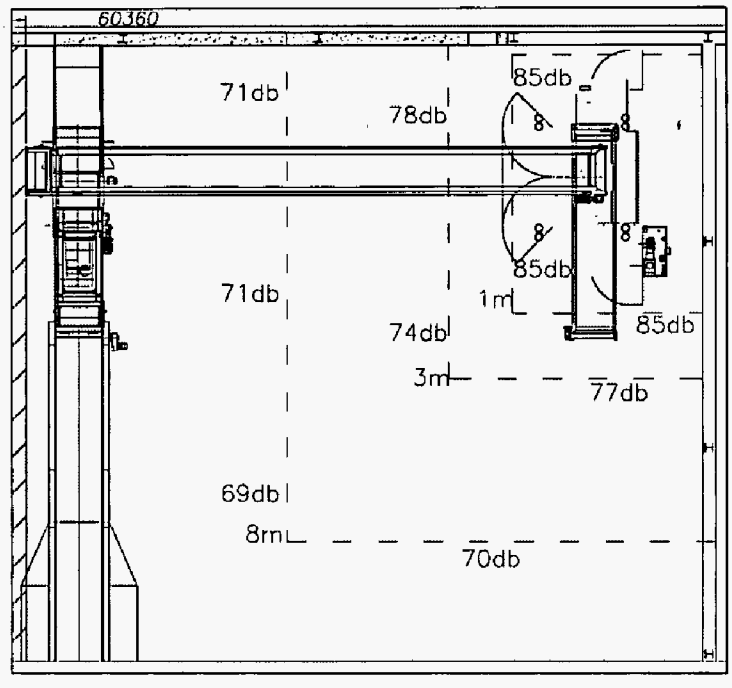


Table 3: Assessment of impacts at NSLs, including proposed new SRF processing line.

Station	Comment	Specific PWR level	Period	Criterion	Specific level < criterion	Tonal	Impul-sive
N1	PWR inaudible, apart from external skip movements. Traffic noise dominant. Night-time $L_{AF90\ 15\ min}$ levels ≥40 dB.	<42 dB	0800-2000	55 dB	✓	x	x
			2200-0800	45 dB	✓	x	x
N2	PWR inaudible. Traffic noise dominant. Night-time $L_{AF90\ 15\ min}$ levels ≥41 dB.	<42 dB	0800-2000	55 dB	✓	x	x
			2200-0800	45 dB	✓	x	x
N3	PWR inaudible. Traffic noise dominant. Night-time $L_{AF90\ 15\ min}$ levels ≥41 dB.	<42 dB	0800-2000	55 dB	✓	x	x
			2200-0800	45 dB	✓	x	x
N4	PWR inaudible. Traffic noise dominant. Night-time $L_{AF90\ 15\ min}$ levels ≥42 dB.	<42 dB	0800-2000	55 dB	✓	x	x
			2200-0800	45 dB	✓	x	x

6.2 From **table 3**, it is apparent PWR emissions during night-time hours will remain below the 45 dB night-time criterion set out in the current waste facility permit. Daytime emissions will continue unchanged, and in compliance with the 55 dB daytime limit. It is likely that the 55 dB daytime and 45 dB night-time limits will be continued in any revised permit.

6.3 It is noted that specific PWR levels during night-time hours will be less than 42 dB at all NSLs. These levels will be similar to, or lower than, current background $L_{AF90\ 15\ min}$ levels which generally exceed 42 dB at all stations due to traffic noise impacts. It follows that internal PWR emissions are highly unlikely to be audible at any NSL during night-time hours. Although this assessment has been undertaken in the context of permit criteria, it is noted that these levels also compare favourably to criteria set out in *British Standard BS 4142:1997 Method for rating industrial noise affecting mixed residential and industrial areas* (1997) which notes that noise nuisance is unlikely to arise where specific levels do not exceed background levels.

7 Conclusions & mitigation

7.1 The foregoing assessment indicates that operations within the PWR building are expected to give rise to noise levels less than 42 dB at all NSLs during evening and night-time hours, regardless of whether building roller shutter doors are open or closed. Levels at NSLs will remain less than the 45 dB night-time criterion set out in waste facility permit WFP-FG-10-0004-01.

7.2 Little or no operations will be undertaken on external yards during night-time hours, other than occasional truck manoeuvring or skip movements. Emissions from same will not affect the conclusions set out in the previous paragraph. However, it is noted that any skip movements may potentially give rise to impulsive emissions. While any such emissions are unlikely to be of audible significance at offsite NSLs due to the separation distances involved and due to masking by road traffic noise, it is nonetheless recommended that skip management operations be undertaken in a manner which does not give rise to impulsive emissions during night-time hours.

7.3 Mitigation measures have been recommended to PWR with respect to external yard operations, where they arise during night-time hours, and are as follows:

- Any skip movements required during evening and night-time hours will be undertaken in a manner which avoids potential generation of impulsive emissions. All employees will receive training in (a) the significance of impulsive emissions and (b) the avoidance of such emissions.
- The use of vehicle horns onsite will be prohibited during evening and night-time hours.
- All plant and exhaust silencers will be maintained in satisfactory condition.
- A night-time noise survey will be carried out within two months of commencement of night-time operations in order to confirm that operations do not give rise to impacts at NSLs.

- It is recommended that any skip movements required during evening and night-time hours be undertaken in a manner which avoids potential generation of impulsive emissions. It is recommended that all employees receive training in (a) the significance of impulsive emissions and (b) the avoidance of such emissions.
- It is recommended that use of vehicle horns onsite be prohibited during evening and night-time hours.
- It is recommended that all plant and exhaust silencers be maintained in satisfactory condition.

7.4 It is recommended that a night-time noise survey be carried out within two months of commencement of night-time operations in order to confirm that operations do not give rise to impacts at NSLs.

Appendix 1: Survey details

File	Project ref.	1339
	Client	O'Callaghan Moran & Associates OBO Pacon
	Location	Stephenstown, Balbriggan, Co. Dublin
	Stations	N1 N2 N3 N4
	Purpose	Compliance & residual surveys
	Comment	Facility operating during daytime
Event	Period	Daytime, evening, night-time
	Date	06.11.13—07.11.13
	Day	Wednesday—Thursday
	Time	1030—0400
	Operator	Damian Brosnan BSc MIOA MIEI
Conditions	Cloud cover	100 % to 1900, clearing thereafter, 0 % by 2030
	Precipitation	0 mm, apart from passing band of light drizzle 1400-1500
	Temperature	8 °C falling to 4 °C
Wind	Direction	SW
	Speed	0-1 m/s increasing to 0-2 m/s by 1900, 0-3 m/s during 2200—0000
	Measurement	Anemo anemometer 2 m above ground level
Sound level meter	Instrument	Bruel & Kjaer Type 2250-L
	Instrument serial no.	2566801
	Microphone serial no.	2571655
	Application	BZ7130 Version 2.0
	Bandwidth	Broadband & 1/3 octaves
	Max input level	142.66 dB
	Broadband weightings	Time: Fast Frequency: AC
	Spectrum weightings	Time: Fast Frequency: Z
	Windscreen correction	UA1404 outdoor kit
	Sound field correction	Free-field
	UKAS calibration	22.01.13
	Calibrating laboratory	Bruel & Kjaer Denmark
	Calibration certificate	Available on request
Onsite calibration	Time	06/11/2013 10:37:47
	Calibration type	External
	Sensitivity	42.23 mV/Pa
	Post measurement check	93.9 dB
Onsite calibrator	Instrument	Bruel & Kjaer Type 4231
	Instrument serial no.	2342544
	UKAS calibration	22.01.13
	Calibrating laboratory	Bruel & Kjaer Denmark
	Calibration certificate	Available on request
Uncertainty	Instrumentation	±1 dB (IEC 61672:2002 Class 1)
	External	±0-3 dB (station & weather dependent, estimated)

	Total	±5 dB (estimated, including expanded uncertainty)
Methodology	Standards	ISO 1996 Part 1 (2003) & Part 2 (2007) EPA NG4 (2012)
	Exceptions	-
	Intervals	15 min logging at 10 s

Appendix 2: Noise data

Facility operating Survey date: 06.11.13

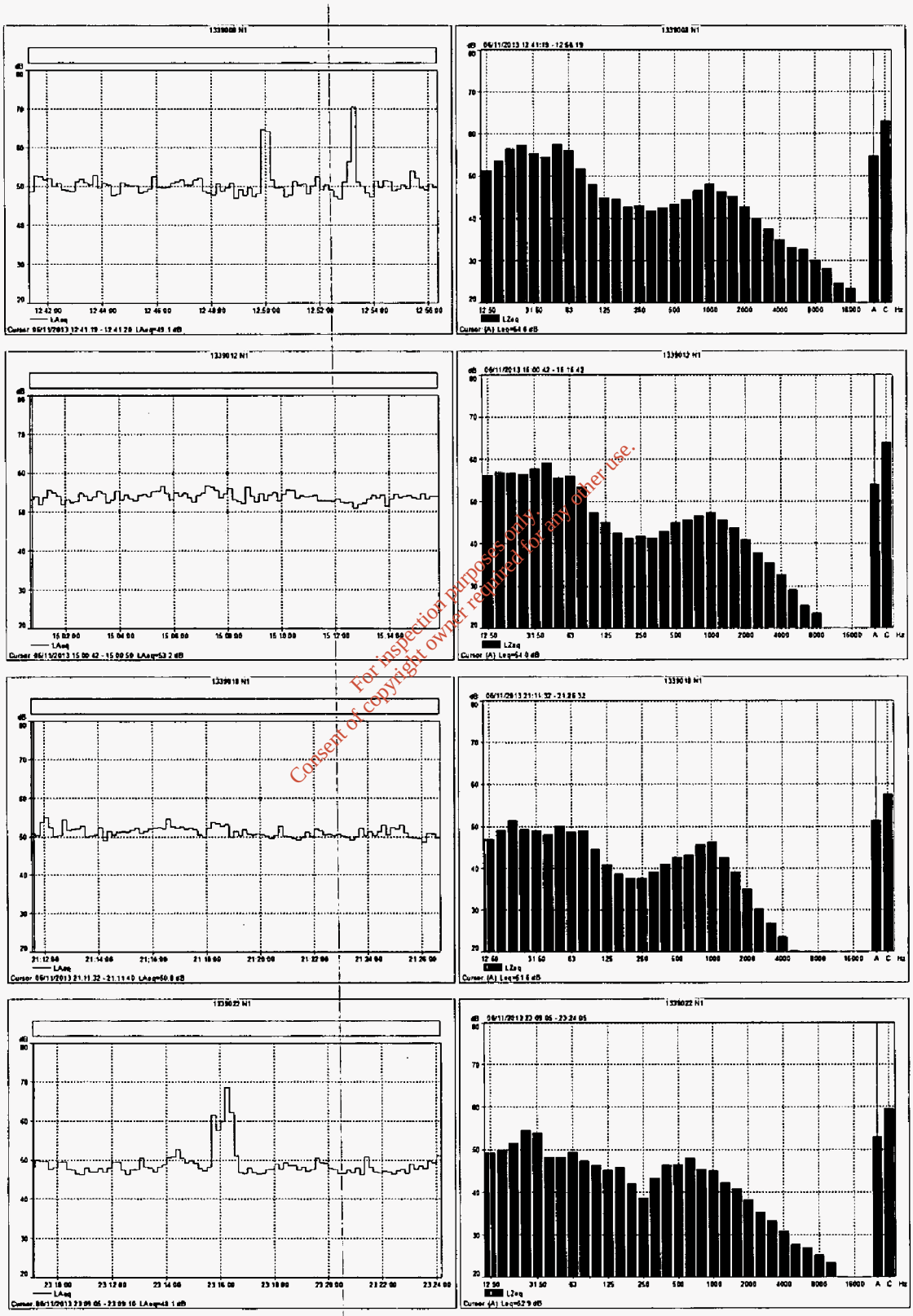
Station	Time	$L_{Aeq\ 15\ min}$ dB	$L_{AF10\ 15\ min}$ dB	$L_{AF90\ 15\ min}$ dB	Specific level* dB	Noise audible
N1	1241-1256	55	53	47	<42	Road traffic noise continuously dominant. No PWR emissions audible. Bird song/calls and aircraft. Local car x2. Watercourse faintly audible nearby.
	1500-1515	54	56	52	<47	As above. Several skip movements on PWR yard audible at low level. No local traffic.
N2	1148-1203	61	58	45	<40	No site emissions audible. Road traffic to W and NW continuously dominant. Sporadic local traffic dominant when present. Crows and birdsong. Aircraft.
	1414-1429	62	59	46	<41	Noise as before, except local traffic more frequent. Light drizzle.
N3	1127-1142	55	55	50	<45	No site emissions audible. Distant road traffic in several directions continuously dominant. Continuous air handling emissions from facility 100 m W also clearly audible, in addition to occasional yard emissions at same site. Sporadic local traffic. Birdsong.
	1434-1449	57	55	47	<42	As before, except light drizzle falling, and more frequent local traffic. Significantly loud emissions from unidentified source at facility to W 1443-1444.
N4	1343-1358	51	52	47	<42	Road traffic noise to SW, W and NW continuously dominant. No other noise audible apart from sporadic local traffic to N, bird song/calls and aircraft.
	1539-1554	53	54	51	<46	As above. Tractor operating in field at 100 m also contributing during first few minutes, reducing gradually.

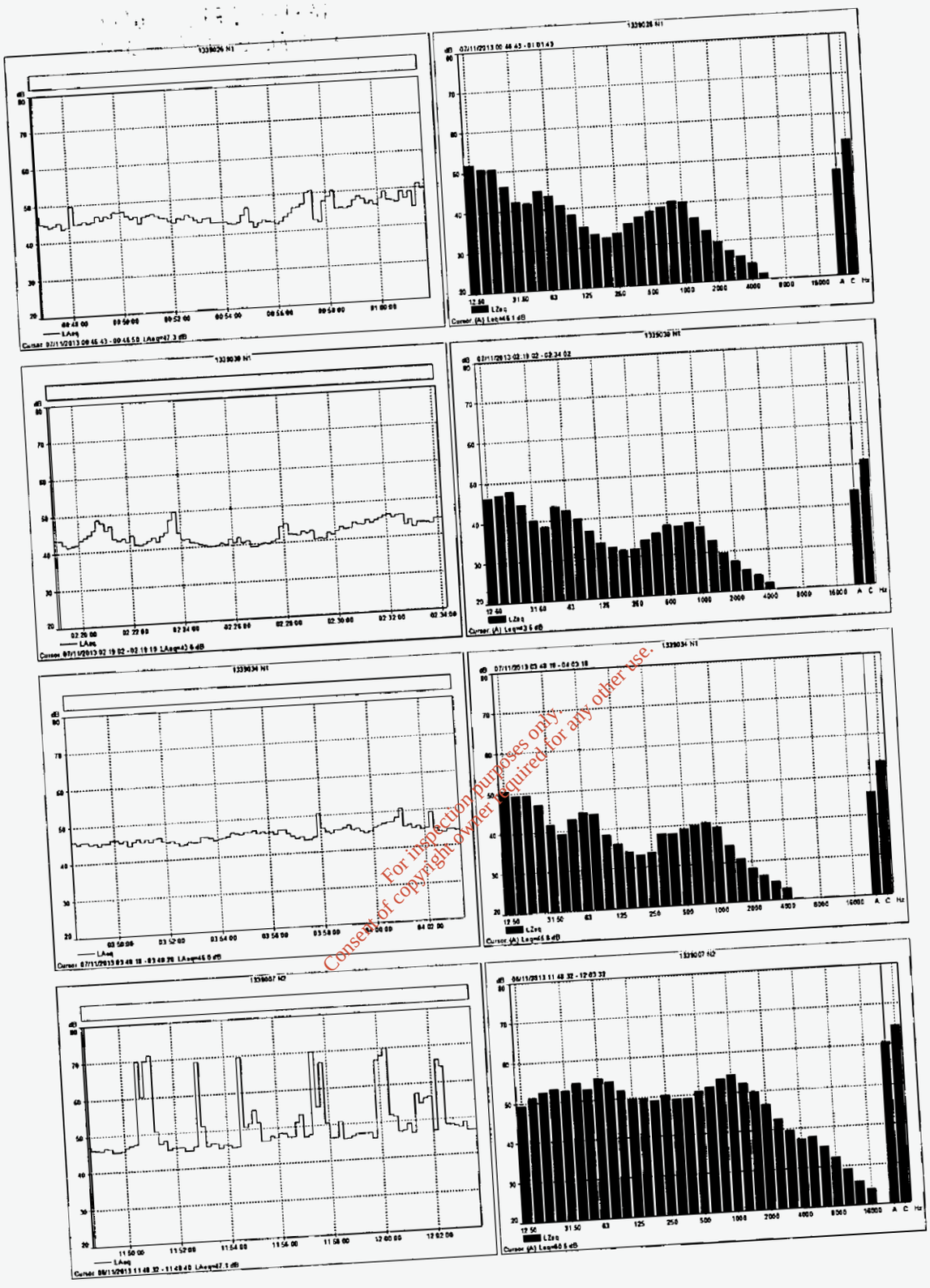
*Specific level: L_{Aeq} level considered attributable to facility during interval, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, spectral statistics and near field correction if applicable. As continuous site operations were in all cases inaudible, the specific level was estimated to be at least 5 dB below $L_{AF90\ 15\ min}$ levels. Site emissions were steady throughout the survey, and it is therefore considered reasonable to assume that the specific level at each station is less than the lower of both values estimated at each station.

Facility shut down Survey date: 06.11.13—07.11.13

Station	Time	$L_{Aeq\ 15\ min}$ dB	$L_{AF10\ 15\ min}$ dB	$L_{AF90\ 15\ min}$ dB	Noise audible
N1	2111-2126	52	53	49	M1 traffic continuously significant and dominant, except when masked by more local traffic. Distant traffic also audible in other directions. No traffic on local road. Aircraft. Watercourse faintly audible.
	2309-2324	53	51	46	As previous. Traffic in local area decreasing. Local car x1 2316. Lightly rustling trees.
	0046-0101	46	48	43	M1 traffic continuously dominant. Intermittent traffic on roads in local area. No traffic on local road. Lightly rustling trees. Watercourse faintly audible.
	0219-0234	44	46	40	As previous. M1 still dominant here, although possibly reducing slightly. No local traffic. Intermittent local area traffic now sporadic.
	0348-0403	46	47	44	As previous. M1 unchanged.
N2	2000-2015	58	51	48	M1 traffic continuously dominant. No other noise audible apart from distant traffic nearer Balbriggan, sporadic local traffic and aircraft.
	2200-2215	55	50	48	As previous, with lightly rustling vegetation slightly audible. Local traffic decreasing.
	2333-2348	47	48	45	M1 traffic continuously dominant. Other local and distant traffic decreasing. No other noise audible.
	0108-0123	50	48	43	M1 traffic continuously dominant. Sporadic distant traffic audible to N. Local car x1. Occasionally lightly rustling vegetation.
	0240-0255	44	45	41	M1 traffic dominant, albeit slightly decreased. Sporadic traffic audible to N.
N3	2019-2034	54	55	50	M1 traffic continuously dominant. Traffic on other distant roads also audible. Sporadic local traffic. Aircraft.
	2245-2300	52	51	48	As previous. Few local traffic movements.
	0022-0237	51	49	44	M1 traffic continuously dominant. Sporadic traffic on road to N clearly audible when present. Local car x2.
	0153-0208	46	48	43	As previous. M1 still dominant here, although possibly reducing slightly. No local traffic.
	0325-0340	45	47	41	As previous. M1 unchanged.
N4	2042-2057	51	52	50	M1 traffic continuously dominant. Traffic on other distant roads also audible. Occasional traffic audible on local road to N. Aircraft.
	2224-2239	51	52	49	As previous, with lightly rustling vegetation slightly audible. Few car movements on local road to N.
	0000-0015	49	51	46	M1 traffic continuously dominant. No other noise audible apart from occasional lightly rustling vegetation, and car x2 on local road to N.
	0131-0146	45	47	42	As previous, although M1 traffic possibly reducing slightly. No traffic on road to N.
	0304-0319	45	48	42	As previous. M1 unchanged.

Appendix 3: Time history profiles & frequency spectra





16-12-13 F13 A/ 0472
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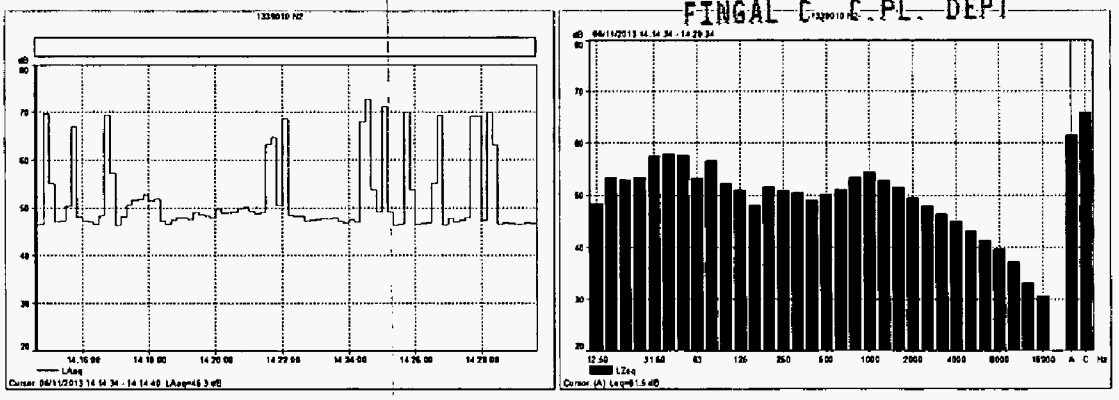

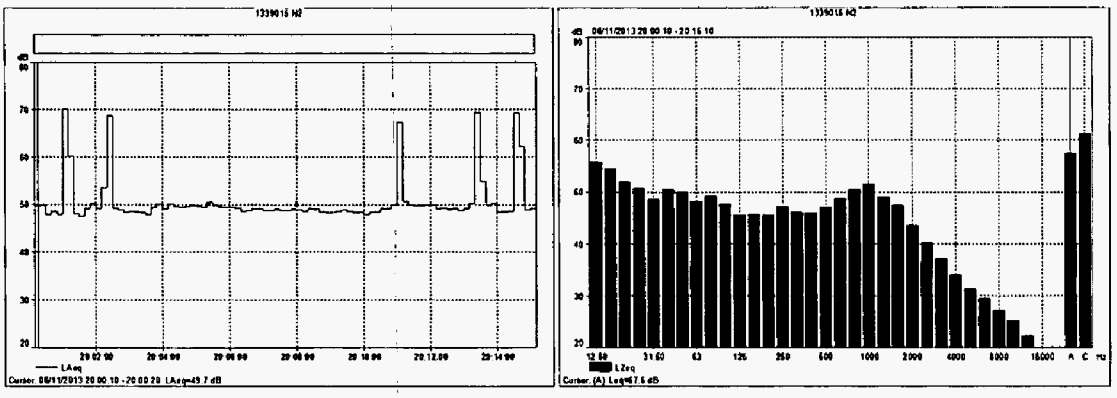

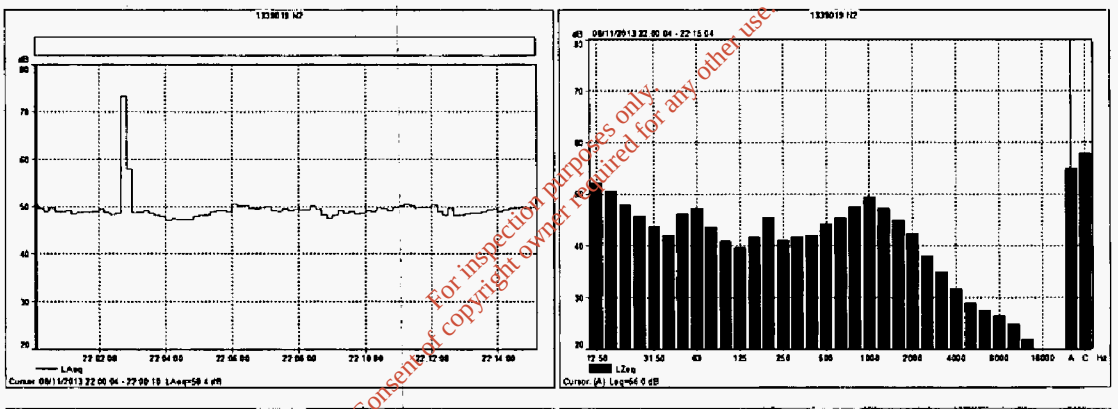

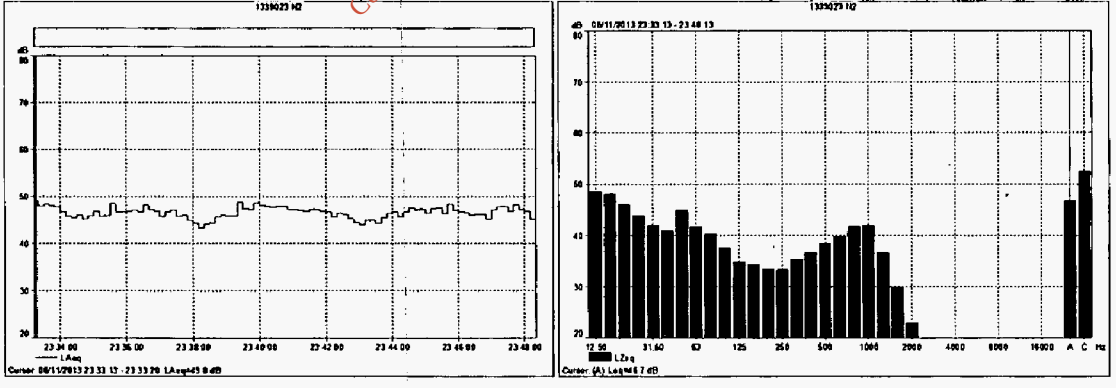

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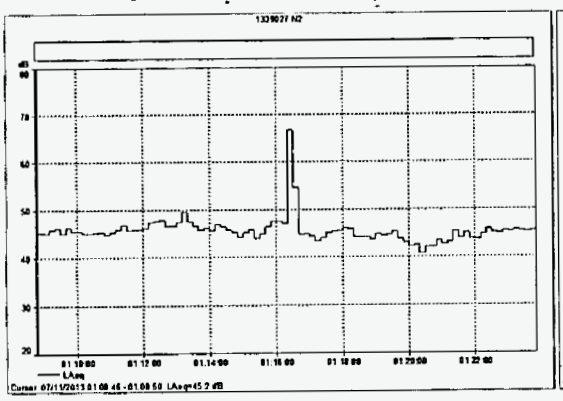

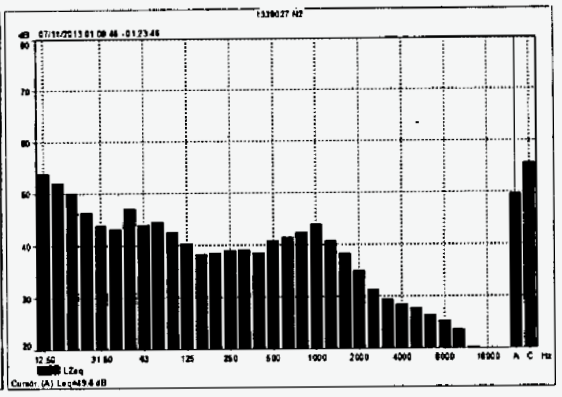

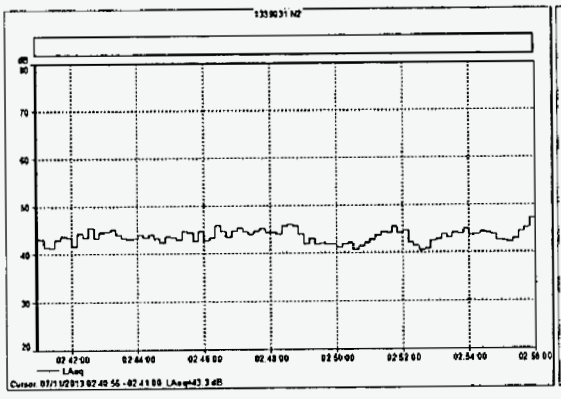

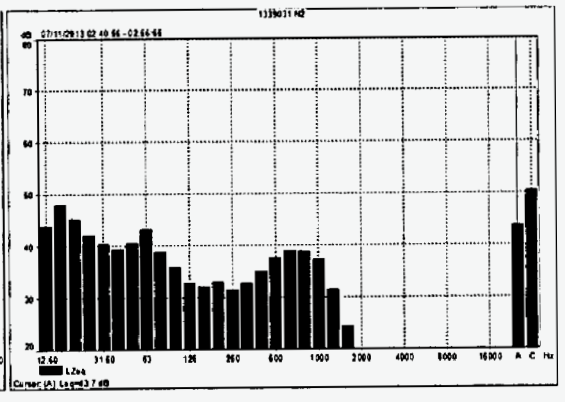

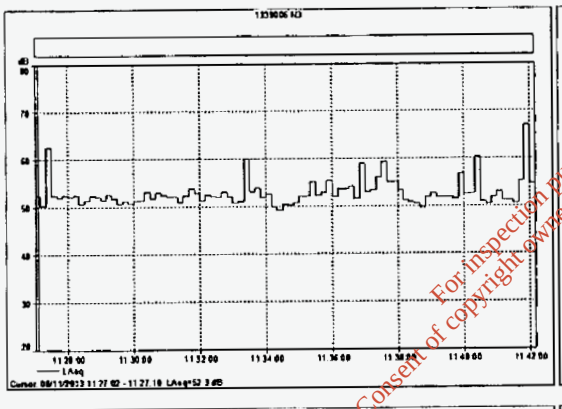

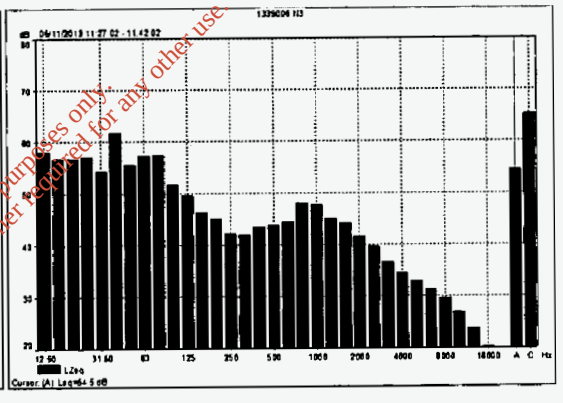

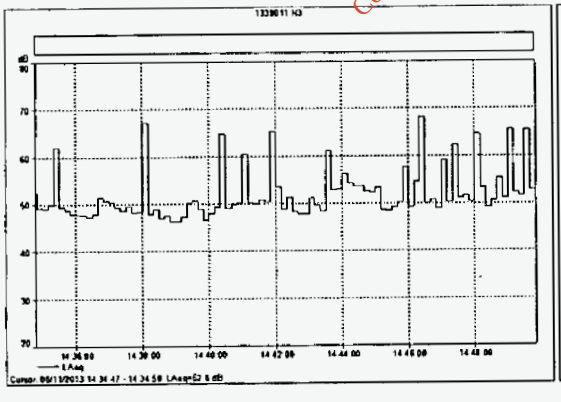

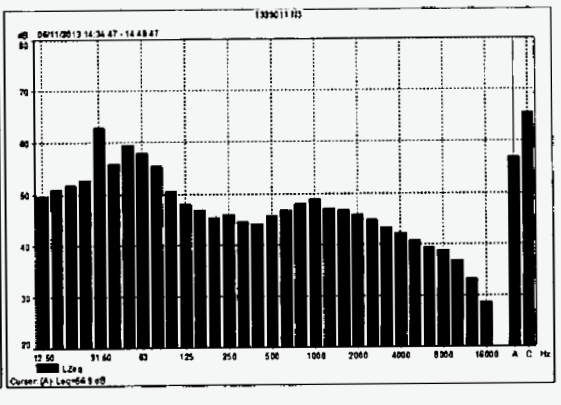

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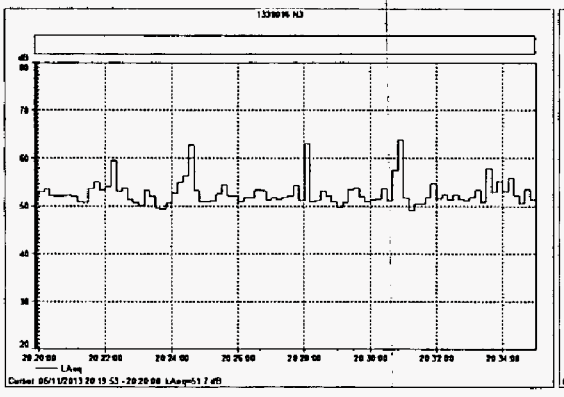

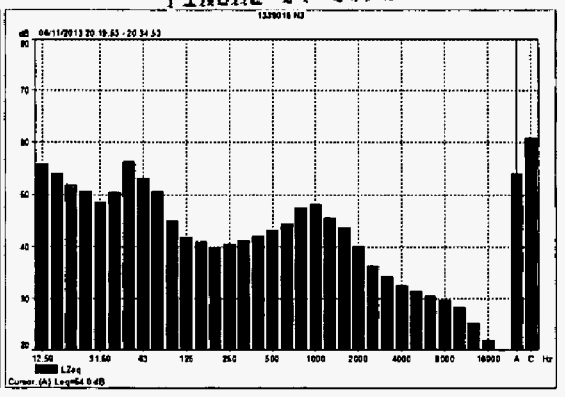

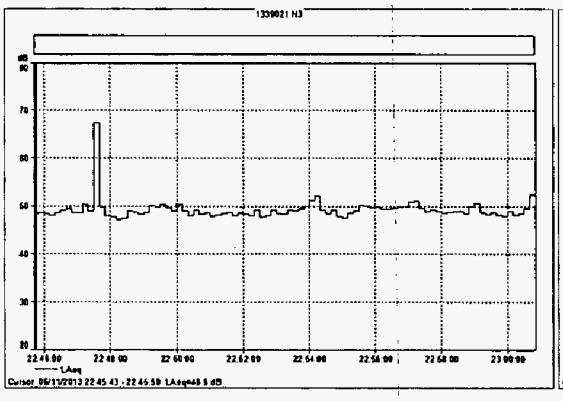

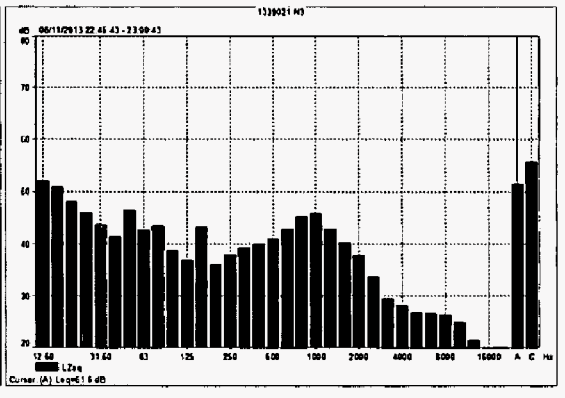

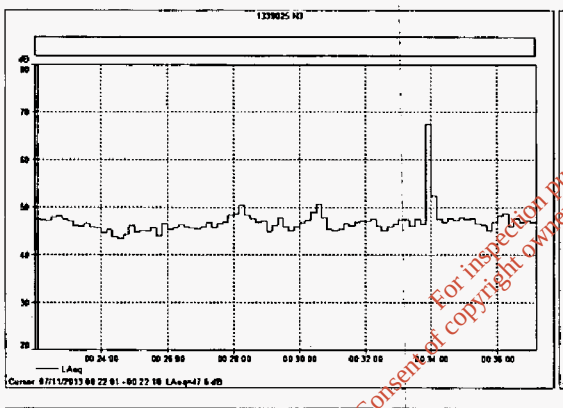

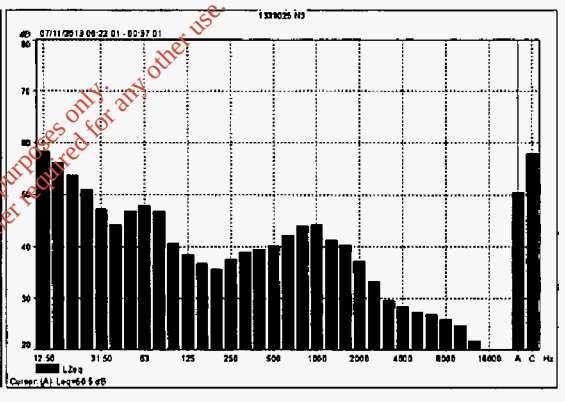

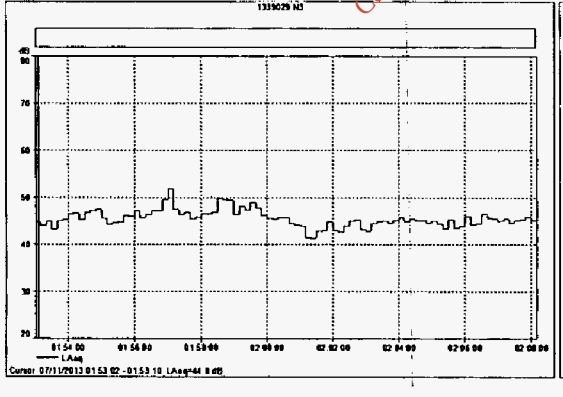

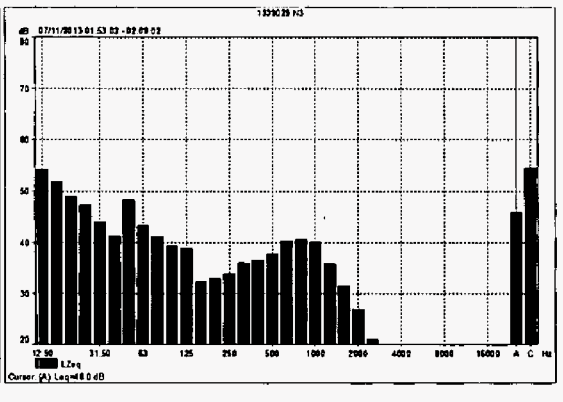

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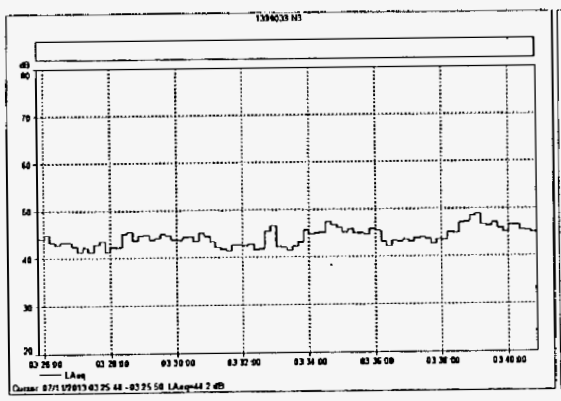
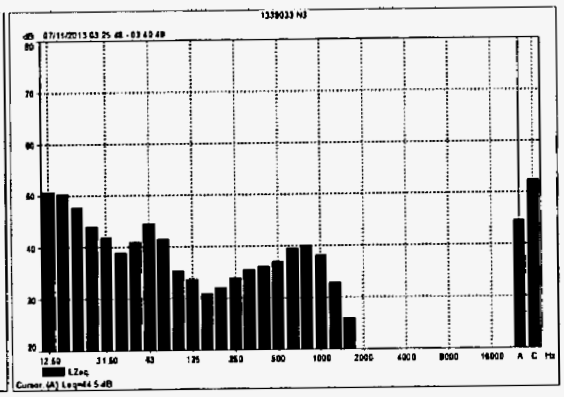
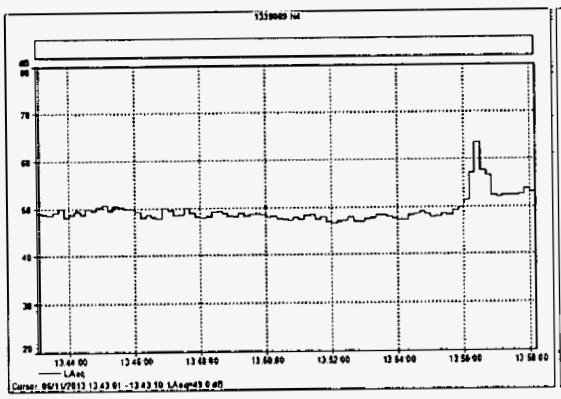
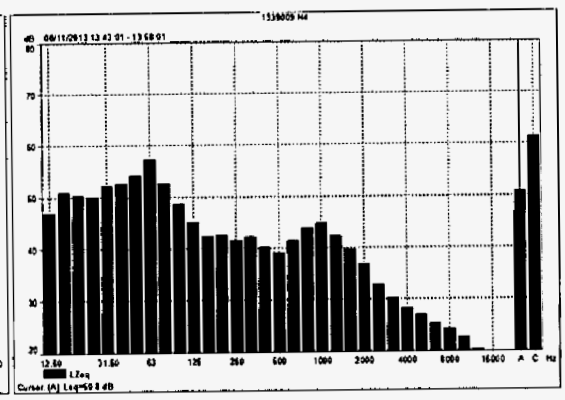
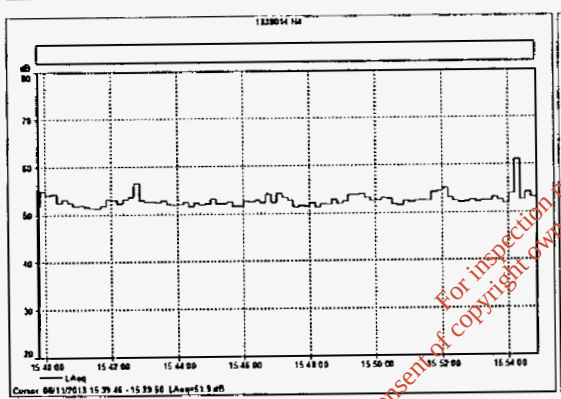
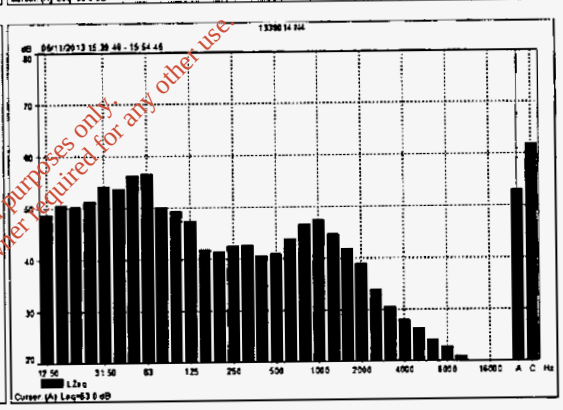


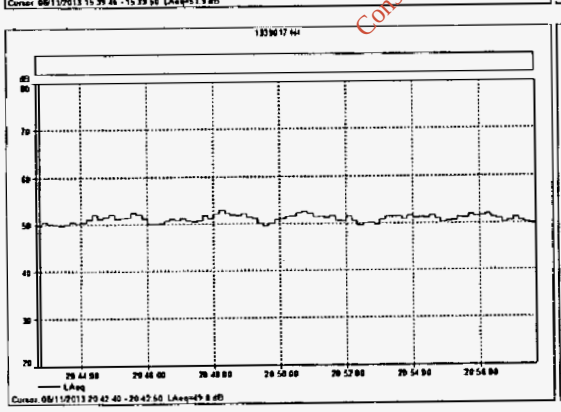


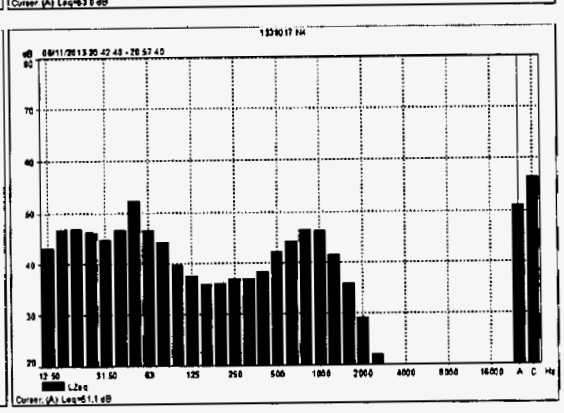


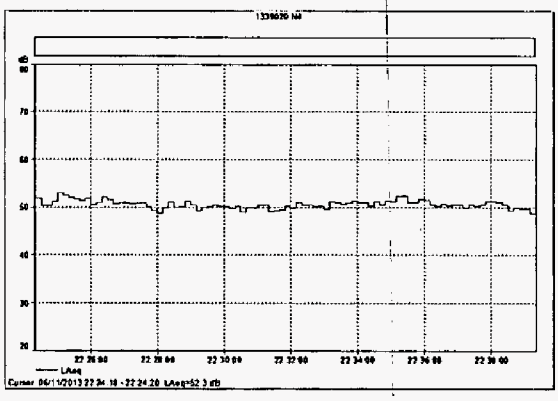


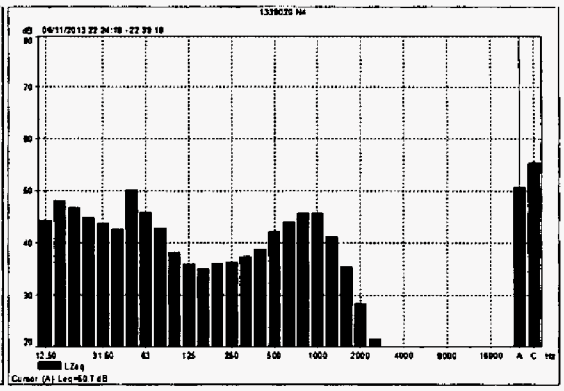


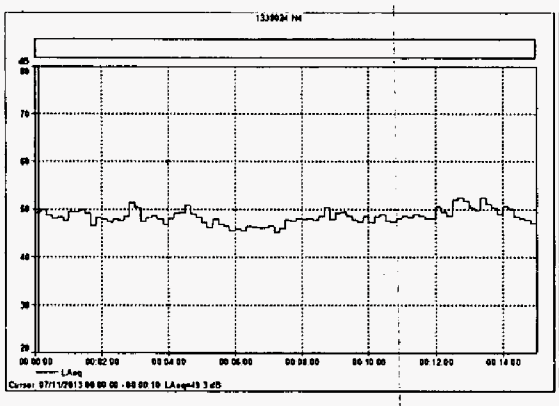


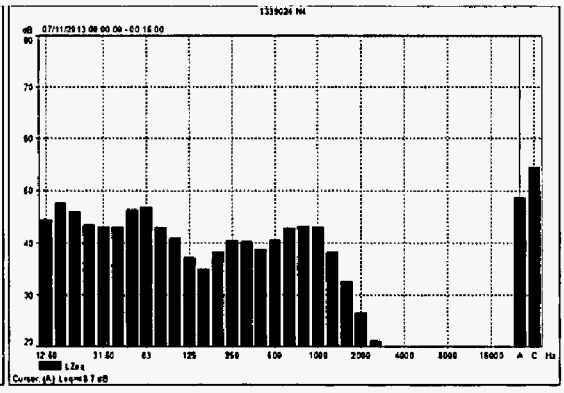


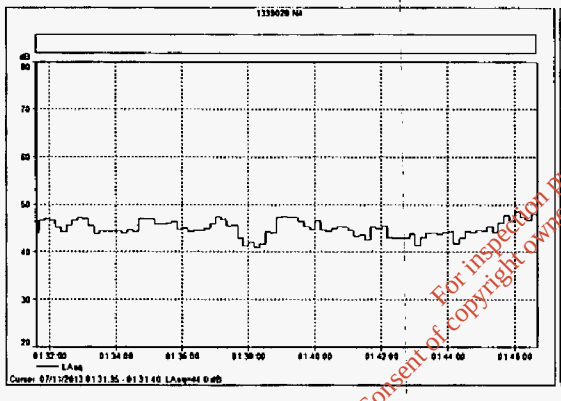


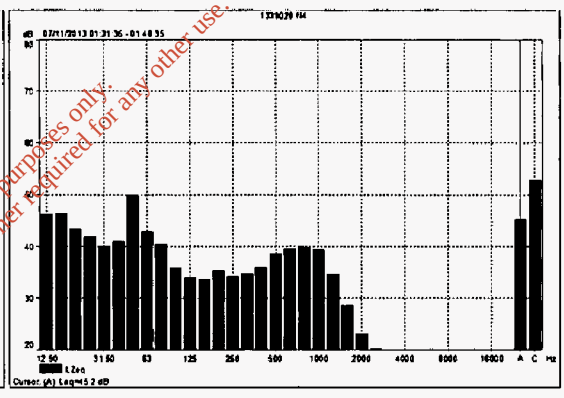


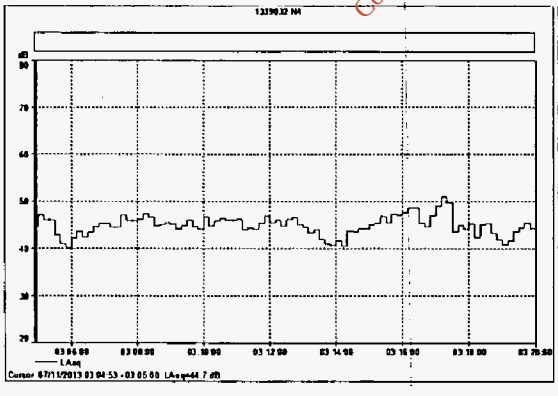


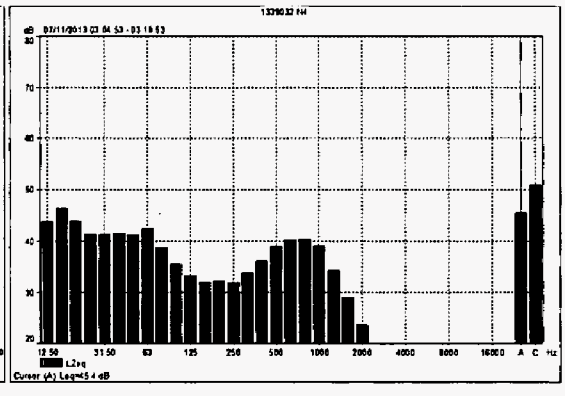












Appendix 4: Glossary

Ambient	Total noise environment at a location, including all sounds present.
Amplitude	Maximum extent of oscillation in a noise signal. Greater amplitude results in louder signal.
A-weighting	Weighting or adjustment applied to sound level to approximate non-linear frequency response of human ear. Denoted by suffix A in parameters such as L_{AeqT}, L_{AF10T}, etc.
Background level	A-weighted sound pressure level of residual noise exceeded for 90 % of time interval T. Denoted L_{AF90T}.
Broadband	Noise which contains roughly equal energy across frequency spectrum. Does not contain tones, and is generally less annoying than tonal noise.
Decibel	Shortened to dB. Unit of noise measurement scale. Based on logarithmic scale so cannot be simply added or subtracted. 3 dB difference is smallest change perceptible to human ear. 10 dB difference is perceived as doubling or halving of sound level. **Throughout this report noise levels are presented as decibels relative to 20 µPa**. Examples of decibel levels are as follows: 20 dB: very quiet room; 30-35 dB: night-time rural environment; 55-65 dB: conversation; 80 dB: busy pub; 100 dB: nightclub.
Fast response	0.125 seconds response time of sound level meter to changing noise levels. Denoted by suffix F in parameters such as L_{AF10T}, L_{AF90T}, etc.
Frequency	Number of cycles per second of a sound or vibration wave. Low frequency noise may be perceived as hum, while whine represents higher frequency. Range of human hearing approaches 20-20,000 Hertz.
Hertz	Shortened to Hz. Unit of frequency measurement.
Impulse	Noise which is of short duration, typically less than one second, sound pressure level of which is significantly higher than background.
Interval	Time period T over which noise parameters are measured at position. Denoted by T in L_{AeqT}, L_{AF90T}, etc.
L_{AeqT}	Equivalent continuous sound pressure level during interval T, effectively representing average A-weighted noise level.
L_{AF10T}	Sound pressure level exceeded for 10% of interval T, usually used to quantify traffic noise.
L_{AF90T}	Sound pressure level exceeded for 90% of interval T, usually used to quantify background noise. May also be used to describe noise level from continuous steady or almost-steady source, particularly where local noise environment fluctuates.
Masking	The rendering inaudible of one noise source by another noise source(s) which may be louder, or may contain significant acoustic energy in the same part of the frequency spectrum. In the latter case, any tone(s) in the original source emissions may become inaudible.
Noise sensitive location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires absence of noise at nuisance levels.
1/3 octave band	Frequency spectrum may be divided into octave bands. Upper limit of each octave is twice lower limit. Each octave may be subdivided into thirds, allowing greater analysis of tones.
Residual level	*Noise level remaining when specific source is absent or does not contribute to ambient.*
Reverberant level	Sound pressure level in room where emitted acoustic energy is balanced by room surface absorption, resulting in steady noise level.
Specific level	L_{AeqT} level produced by specific noise source under consideration during interval T, measured directly or by estimation or calculation.
Tone	Character of noise caused by dominance of one or more frequencies which may result in increased noise nuisance.

In this report units are generally presented using US National Institute Of Standards & Technology guidelines.

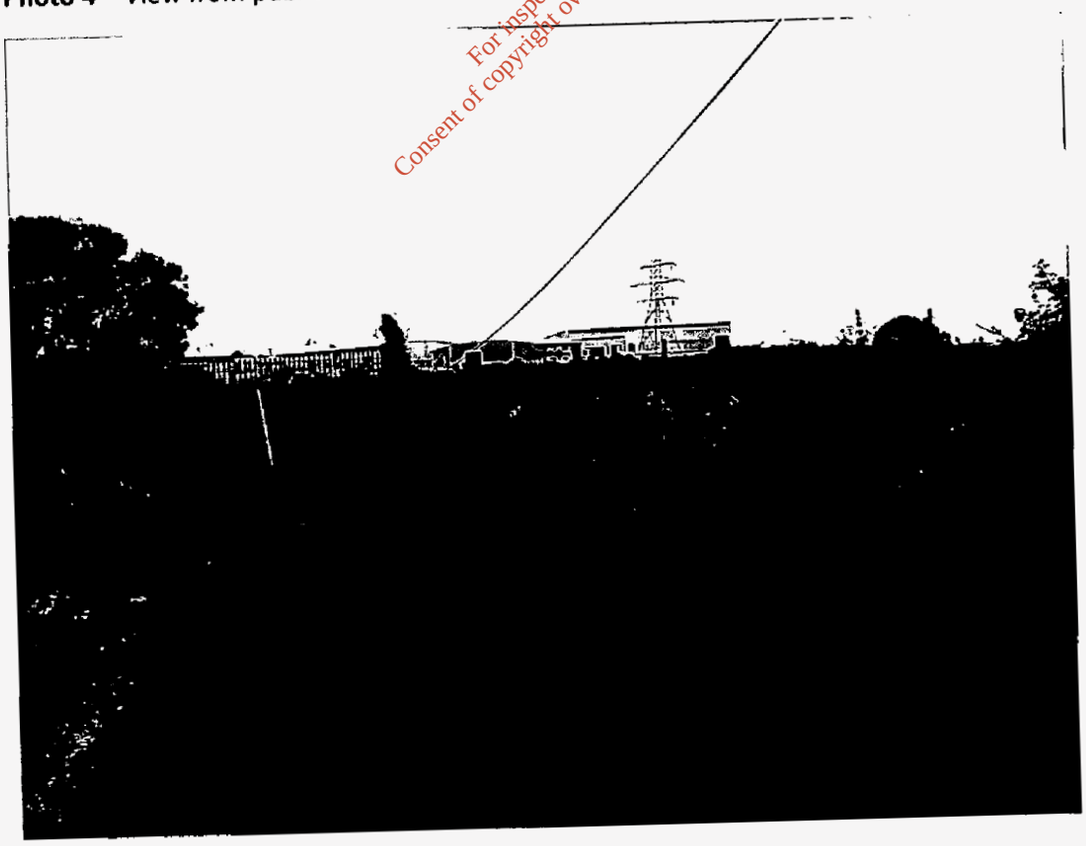
Appendix 8 – Landscape – Photos

Photo 1 – View looking east on Outer Relief Road

Photo 2 – View looking West on Outer Relief Road

Photo 3 – View from public road to the East

Photo 4 – View from public Road to the South



NATURA IMPACT STATEMENT

STAGE 1 SCREENING

PACON WASTE & RECYCLING LTD

STEPHENSTOWN BUSINESS PARK

BALBRIGGAN

COUNTY DUBLIN

Prepared For: -

Pacon Waste & Recycling Ltd,
Stephenstown Business Park,
Balbriggan
Co Dublin.

Prepared By: -
O' Callaghan Moran & Associates,
Granary House,
Rutland Street,
Cork.

December 2013

TABLE OF CONTENTS

PAGE

1. INTRODUCTION

Pacon Waste & Recycling Ltd (Pacon) intend to apply to Fingal County Council (Council) for planning permission and a Waste Permit Review to increase the amount of waste accepted at their existing facility at Stephenstown Business Park.

The applications will seek approval to increase the amount of waste that can be accepted from 22,250 tonnes to 49,950 tonnes per annum; amend the waste acceptance and operational hours, introduce new waste processes and accept new but similar waste types to those currently allowed for in the waste permit. The proposed changes do not require the construction of any new buildings or alterations to the existing site layout.

The European Union (EU) Habitats Directive (92/43/EC) and the EU Birds Directive (2009/147/EC) identify designated areas (Special Areas of Conservation (SAC) and Special Protection Areas (SPA) respectively) that are collectively known as Natura 2000 Sites. The Habitats Directive, which is implemented under the European Communities Birds and Natural Habitats) Regulations 2011 (S.I. No 477 of 2011), requires an "appropriate assessment" of the potential impacts any proposed development that may have an impact on the conservation objectives of any Natura 2000 site.

Article 6(3) of the Directive stipulates that *any plan or project not directly connected with or necessary to the management of a Natura 2000 site, but likely to have a significant effect thereon...shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.*

Guidance documents issued by Department of Environment, Heritage and Local Government and the National Parks and Wildlife Services recommend that the assessment be completed in a series of Stages, which comprise:

Stage 1: Screening

The purpose of this Stage is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a Natura 2000 site in respect of the site's conservation objectives.

Stage 2: Appropriate Assessment

This Stage is required if the Stage 1 Screening exercise identifies that the project is likely to have a significant impacts on a Natura 2000 site.

Stage 3 : Assessment of Alternative Solutions.

If Stage 2 determines that the project will have an adverse impact upon the integrity of a Natura 2000 site, despite the implementation of mitigation measures, it must be objectively concluded that no alternative solutions exist before the plan can proceed.

Stage 4 : Compensatory Measures:

Where no alternative solutions are feasible and where adverse impacts remain but imperative reasons of overriding public interest require the implementation of a project an assessment of compensatory measures that will effectively offset the damage to the Natura site 2000 is required.

Pacon commissioned O'Callaghan Moran & Associates (OCM) to complete a Stage 1 Screening to determine the effects of the proposed development on the closest Natura 2000 sites.

1.1 Methodology

The Stage 1 Screening was based on a site inspection and the scope of the proposed development. It was conducted in accordance with the guidance presented in the "Assessment of Plans and Projects significantly affecting Natura 2000 sites, Methodological Guidance on

the provisions of Articles 6(3) and 6(4) of the Habitats Directive 92/43/EEC" (2001); The Department of Environment, Heritage and Local Government (2009, revised February 2010) Appropriate Assessment of Plans and Projects in Ireland and the National Parks and Wildlife Services (2010) Circular NPW 1/10 & PSSP 2/10 Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.

2. DESCRIPTION OF PROJECT

2.1 Facility Overview

The site is located in the townland of Stephenstown on the south western edge of Balbriggan, in an area that was significantly developed for commercial and industrial activities between 2002 and 2009.

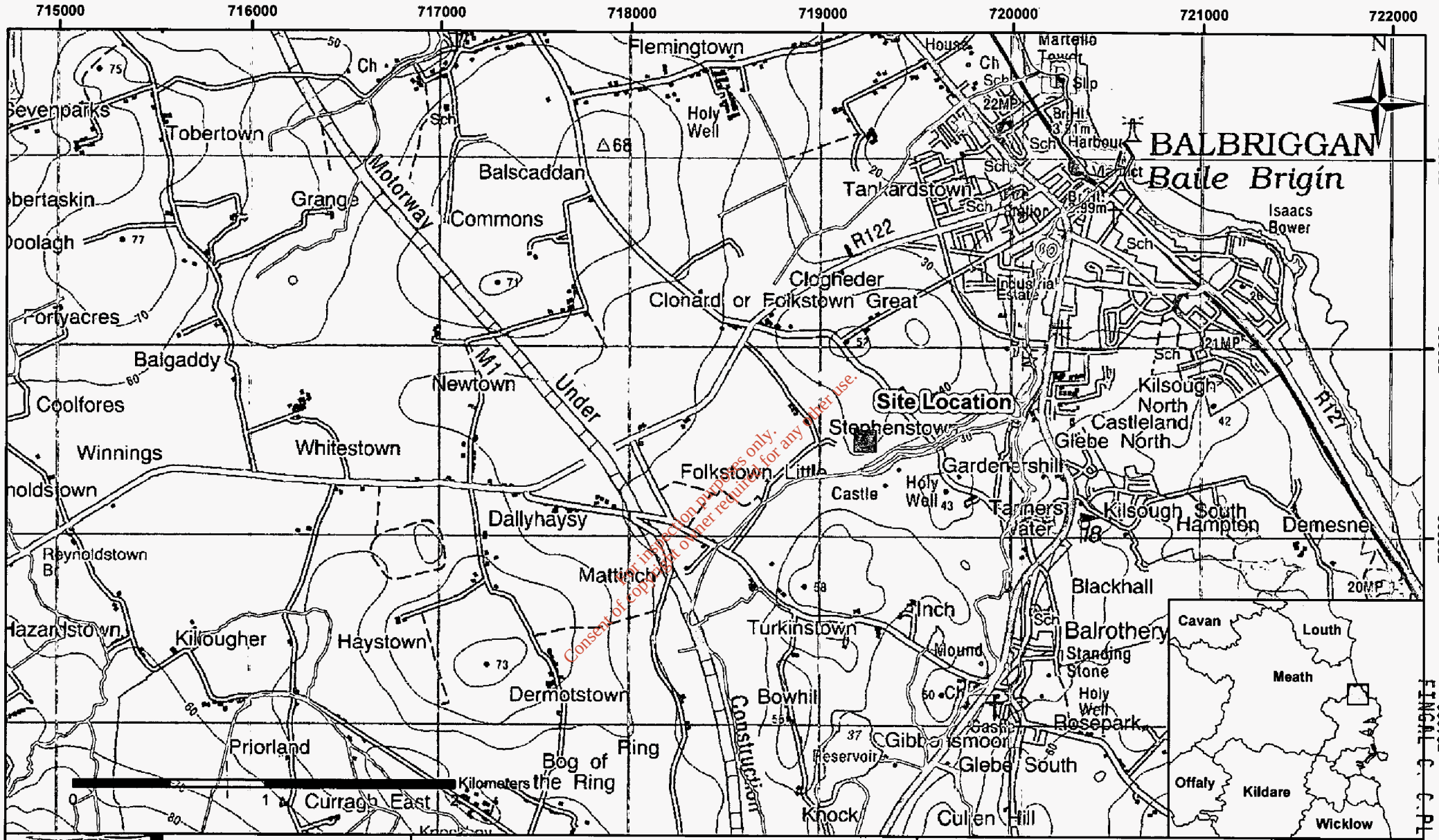
It was developed in 2007 as a purpose built waste management facility on a 1.22 hectares(ha) greenfield site and is occupied by purpose built 2,300m^2 waste processing building. Pacon accepts and processes non-hazardous mixed Construction & Demolition (C&D) wastes and source segregated dry recyclables that are primarily collected in the Dublin Region.

Waste operations are regulated by the Waste Permit (WFP-FG-10-0004-01), which authorises the acceptance of 22,250 tonnes of waste annually. The waste processing includes initial manual segregation of the waste streams on the building floor, with the waste then placed in an in-feed hopper using a grab machine and conveyed to a picking line where large fractions and recoverable materials are removed (stones, metals, hard plastics etc.).

Pacon intends increase the annual waste intake to 49,950 tonnes/year, amend the acceptance and operational times to allow for 24/7 operations and introduce a new waste processing line to manufacture solid recovered fuel (SRF). SRF is used as a replacement for non-renewable fossil fuels in cement kilns, co-incineration plants and waste to energy plants and such use is deemed to be a waste recovery activity.

2.2 Site Location

The site is in the Stephenstown Business Park, Balbriggan (Figure 2.1), which is a commercially/industrially zoned area on the south western fringe of Balbriggan and is bounded to the north by the Stephenstown Outer Relief Road and to the west by two



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CLIENT

Pacon Waste

TITLE

Site Location

Details

Site Location

Rivers

Figure 2.1

16.12.13 F13 A/0472 FINGAL C.C. PLANNING DEPT

commercial premises. To the east is an electrical substation and to the south is undeveloped scrubland and pasture lands

2.3 Site Layout

The facility is adjacent to the Stephenstown Outer Relief Road, which was constructed in 2005-2006 and serves the commercial and industrial area. It accessed by the road serving the Business Park.

The site encompasses approximately 1.22 hectares (ha) and comprises one main processing building (2,300m^2), portacabin type offices and toilets, weighbridge and open concrete paved and unpaved yards. The paved yards are in good condition and are used for vehicle manoeuvring and empty skip storage. The unpaved area, comprising hardcore fill, is along the eastern boundary and is used for empty skip storage.

2.4 Site Operations

2.4.1 Existing Waste Operations

The wastes are delivered by Pacon and third party collection vehicles and all deliveries are weighed on the weighbridge and then directed to the Main Processing Building. The key processes carried out are: -

- Segregation of recyclable materials (paper, cardboards, plastic, wood, metals, glass);
- Segregation and bulking of Construction & Demolition waste;
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets, and
- Baling of Dry Recyclables

The C&D waste comprises mixed wastes (rubble, stone, timber, metal etc.) and soil and stone that arrives in skips of varying sizes. The loads are inspected, with any contaminants removed

and placed in a dedicated skip located inside the building, and the remainder off-loaded into an internal C&D bay.

The waste processing includes an initial segregation by grab machine to remove any large items, with the waste then placed in an in-feed hopper using a grab machine and conveyed to a picking line where large fractions and recoverables are removed (stones, metals, hard plastics etc).

The waste is then conveyed through a trommel and overband magnets. The magnet recovers ferrous metals while, soil, glass and other small heavy particles are separated by the trommel screens.

The residual wastes are conveyed through a Lights Separation Air Unit (LSU) where the light fraction (paper, plastic) is separated from the heavy fraction (stones, glass, concrete, metals). The heavy fraction is then passed through a final picking station using a further overband magnet to remove all remaining ferrous metals. The recyclables are baled and all wastes are sent to off-site recovery facilities for further processing.

2.5 Proposed Development

The development will include;

- Increase in volume of waste accepted from 22,250 tonnes to 49,950 tonnes per annum
- Introduction of new SRF processing System
- Removal of restriction to waste acceptance and operational times – to 24/7
- Additional non-hazardous waste types will be accepted

2.5.1 Proposed Operations

It is proposed to introduce additional waste recovery equipment to further process the light fraction to the (SRF). This will be:

- A primary shredder to reduce the waste size to 80mm.
- An Eddy Current Overband Magnet to remove any conductive materials such as aluminium, copper, cans etc.
- A secondary high-speed shredder reducing the size to 25mm/30mm.

The process produces a light fluff, which predominantly consists of two dimensional material such as plastic foils, paper, cardboard and textiles, and is classified as Grade 1 SRF.

2.5.2 Hours of Operation

The current operational hours are 07:00 – 20:00 Monday to Friday and from 08:00 – 13:00 on Saturdays. The facility is closed on Sundays and Bank Holidays. It is proposed to amend the operational hours to allow the site to operate 24 hour per day, seven days a week. It is not intended to continuously operate the facility, but the changes are required to provide the flexibility to meet customer demands and collect wastes in the Dublin CCD, which can only occur at night time.

3. NATURA 2000 SITES

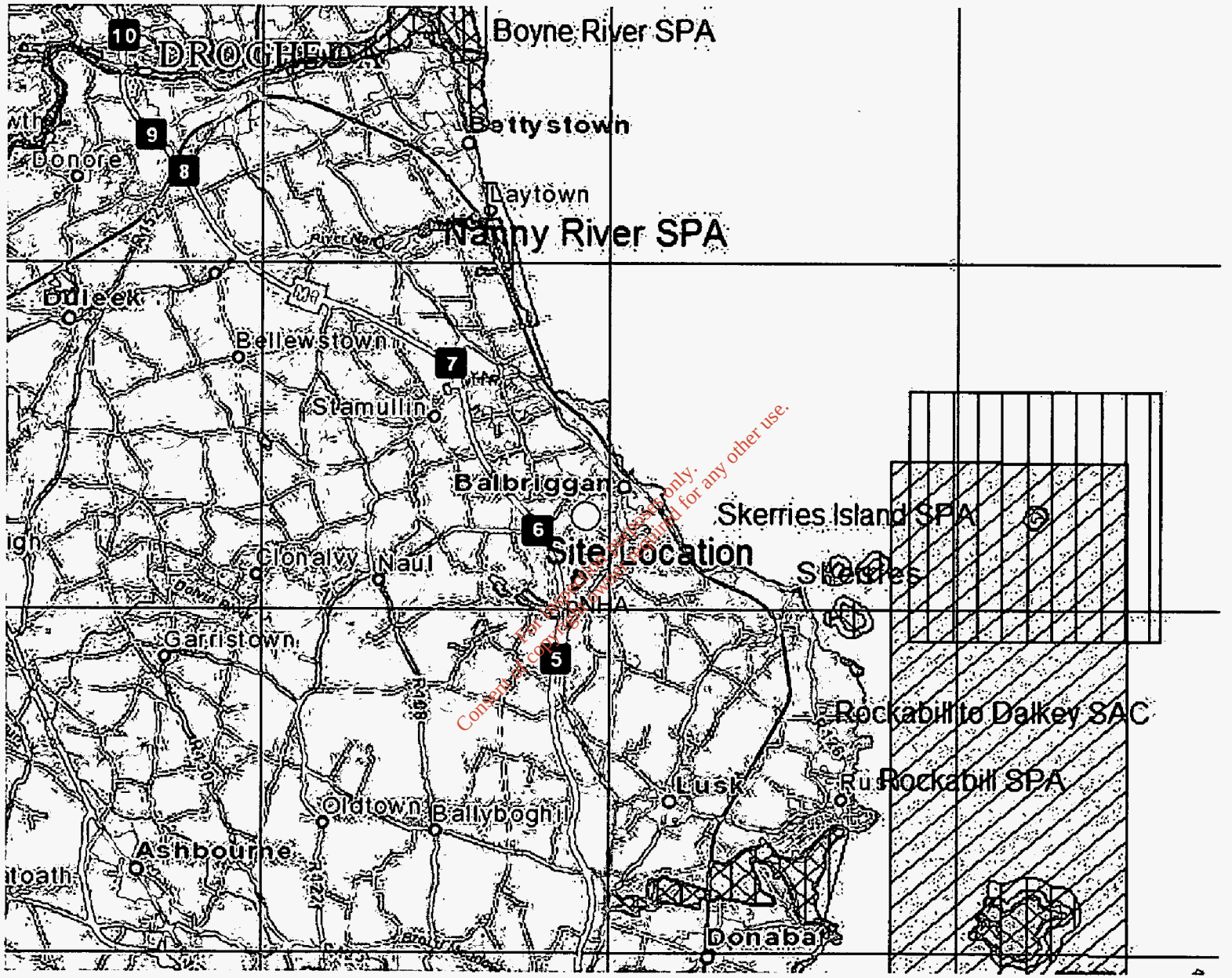
A list of designated Natura 2000 sites within 10 km of the facility is given in Table 3.1 and shown on Figure 3.1

Table 3.1 Designated Sites within 10km of Site.

Site	Code	Distance
SAC/cSAC		
Rockabill to Dalkey SAC	**003000**	**9km south east**
SPA and pSPA		
Rockabill SPA	**004014**	**9km south east**
River Nanny Estuary SPA	**004158**	**5km north**
Boyne River SPA	**004080**	**10km north**
Skerries Island SPA	**004122**	**6.7km south east**

SACs are selected for the conservation and protection of habitats listed on Annex I and species (other than birds) listed on Annex II of the Habitats Directive, and their habitats. The habitats on Annex I require special conservation measures.

SPAs are selected for the conservation and protection of bird species listed on Annex I of the Birds Directive and regularly occurring migratory species, and their habitats, particularly wetlands.



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CLIENT
Pacon Waste & Recycling LTD

TITLE
Designated Sites

Details

FIGURE NUMBER
3.1

Scale
Not To Scale

Revision
A

3.1 Conservation Objectives

A statement of Conservation Objectives is prepared for each designated site which identifies the qualifying interests or conservation features. The Conservation Objectives are intended to ensure that the relevant habitats and species present on a site are maintained, and where necessary restored, at a Favourable Conservation Status.

Favourable Conservation Status of a habitat, as defined in 2011 Birds and Natural Habitats Regulations, is when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

Conservation Status of a species is when:

- The Favourable population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats,
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

3.1 Rockabill to Dalkey SAC

This site includes a range of dynamic inshore and coastal waters in the western Irish Sea. These include sandy and muddy seabed, reefs, sandbanks and islands. This site extends southwards, in a strip approximately 7 km wide and 40 km in length, from Rockabill, running adjacent to Howth Head, and crosses Dublin Bay to Frazer Bank in south county Dublin. The site encompasses Dalkey, Muglins and Rockabill islands. The Site Synopsis that lists the full Qualifying Interests are in Appendix 1 and the information is summarised below.

Qualifying Interests

The area selected for designation represents a key habitat for the Annex II species harbour porpoise, within the Irish Sea and for Reefs.

Conservation Objectives

The conservation objectives are to maintain the favorable conservation condition of Reefs and Harbour Porpoise in Rockabill to Dalkey Island SAC. The Statement of the Conservation Objectives for the site is in Appendix 2.

3.2 Rockabill SPA

Rockabill consists of two small, low-lying, granitic islets situated *c.* 7 km off the Dublin coast. The islands are separated by a narrow channel though are connected at low spring tides. Rockabill has a long history of nesting by terns and it is now one of the most important tern colonies in Europe. A Site Synopsis for the SPA that lists the full Qualifying Interests is in Appendix 1 and the information is summarised below.

Qualifying Interests

The qualifying interests include Purple Sandpiper, Roseate Tern Sterna, Common Tern Sterna and Arctic Tern Sterna

Conservation Objectives

The conservation objectives are to maintain or restore the favorable conservation condition of the Purple Sandpiper, the Roseate Tern, the Common Tern and the Arctic Tern for which the SPA has been selected. The Statement of the Conservation Objectives for the site is in Appendix 2.

3.3 River Nanny Estuary SPA

The site comprises the estuary of the River Nanny and sections of the shoreline to the north and south of the estuary (c. 3 km in length). The estuarine channel, which extends inland for almost 2 km, is narrow and well sheltered. Sediments are muddy in character and edged by saltmarsh and freshwater marsh/wet grassland. A Site Synopsis that lists the full Qualifying Interests is in Appendix 1 and the information is summarised below.

Qualifying Interests

The qualifying interest includes, Oystercatcher, Ringed Plover, Golden Plover, Knot, Sanderling, Herring Gull and Wetlands.

Conservation Objectives

The conservation objectives are to maintain or restore the favorable conservation condition of the species for which the SPA has been selected. The Statement of the Conservation Objectives for the site is in Appendix 2.

3.4 Boyne River SPA

This moderately sized coastal site, which is situated below the town of Drogheda, comprises most of the estuary of the Boyne River. The river channel, which is navigable and dredged, is defined by training walls, these being breached in places. Intertidal flats occur along the sides of the channelled river. A Site Synopsis that lists the full Qualifying Interests is in Appendix 1 and the information is summarised below.

Qualifying Interests

The qualifying interest includes Shelduck, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Sanderling, Black-tailed Godwit, Redshank, Turnstone, Little Tern and Wetlands.

Conservation Objectives

The conservation objectives are to maintain or restore the favorable conservation condition of the species for which the SPA has been selected The Statement of the Conservation Objectives for the site is in Appendix 2.

3.5 Skerries Island SPA

The Skerries Islands are a group of three small uninhabited islands situated between 0.5 km and 1.5 km off the north Dublin coast. Shenick Island and St. Patrick's Island are of similar size, with Colt Island being somewhat smaller. Shenick Island is of most interest geologically, being composed of Ordovician volcanic siltstones and shales on the boundary between the Caboniferous and the Silurian. All are lowlying islands, with maximum heights from 8 m to 13 m above sea level. A Site Synopsis that lists the full Qualifying Interests is in Appendix 1 and the information is summarised below.

Qualifying Interests

The Skerries Islands SPA is of high ornithological importance for both breeding seabirds and wintering waterfowl, with six species having populations of National Importance. In addition there is an internationally important population of Brent Goose. Golden Plover and Short-eared Owl, EU Birds Directive Annex I species, occur regularly in winter.

Conservation Objectives

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. The Statement of the Conservation Objectives for the site is in Appendix 2.

4. LIKELY EFFECTS

4.1 Setting

The facility is not located in or adjacent to a Natura 2000 Site and the closest sites are more than 5km to the north of the facility.

4.2 Proposed Development

The proposed development does not require the construction of any building or alterations to the site layout. The changes to the operational hours will extend the period when noise emissions occur. Excessive noise and light has the potential to cause disturbance to species in designated sites.

The only potential pathway between the site and a Natura 2000 Site is the surface water discharge to the storm sewer that serves the Stephenstown Business Park and outfalls to the Matt River. The Matt River discharges to the Irish Sea at Balbriggan and could in theory connect to the Rockabill to Dalkey SAC.

4.3 Potential Impacts

Activities with the potential to impact on surface water and groundwater quality include:

- Run-off from open yard areas, that may be contaminated with silt and small amounts of oil from leaks from road vehicles and mobile site plant,
- Spills and leaks of oil, and
- Firewater run-off.

4.4 Mitigation Measures

4.4.1 Construction Stage

No construction is required for the proposed development.

4.4.2 Operational Stage

The mitigation measures already applied at the facility include:

- The provision of a surface water drainage system that collects run-off from the paved open yards and directs it to an oil interceptor upstream of the discharge point from the site;
- The provision of surface water flow attenuation tanks;
- The provision of a shut off valve on the outlet from the interceptor that can be closed in the event of an incident at the site that has the potential to contaminate surface water run-off;
- The routine inspection of the surface water and foul water drainage systems and emptying of the wastewater storage tank;
- The regular cleaning of the paved open yards and emptying of the interceptor.

4.5 Assessment of Impacts

The proposed development will not result in any new emission to surface water, will not be a new source of wastewater and does not involve any alterations to the surface water and foul water drainage systems. Therefore there will be no change in the quality of the run-off from the site. All run-off will continue to pass through the attenuation tanks and oil interceptor.

Effective mitigation measures are in place to deal with once off incidents that have the potential to cause surface water contamination.

Point and diffuse sources of water pollution, noise and artificial lighting in an urban/commercial setting can be cumulative pressure on the conservation interests of a designated site.

Given the nature of the development and the distance between the site and the closest Natura 2000 Site (5km) the proposed development will not have any perceptible effect on any of the Conservation Objectives for the Natura 2000 Sites.

5. SCREENING CONCLUSION & STATEMENT

The proposed development will not result in any new or additional emission/disturbance that could present a significant risk to the Conservation Objectives of any of the Natura 2000 Sites within 10km of the plant. Therefore Stage 2 Appropriate Assessment is not required.

APPENDIX 1

SITE SYNOPSIS

SITE NAME: RIVER NANNY ESTUARY AND SHORE SPA

SITE CODE: 004158

The site comprises the estuary of the River Nanny and sections of the shoreline to the north and south of the estuary (*c.* 3 km in length). The estuarine channel, which extends inland for almost 2 km, is narrow and well sheltered. Sediments are muddy in character and edged by saltmarsh and freshwater marsh/wet grassland. The saltmarsh is best developed in the eastern portion of the estuarine channel, with species such as Sea Plantain (*Plantago maritima*), Sea Aster (*Aster tripolium*), Red Fescue (*Festuca rubra*) and Sea Purslane (*Halimione portulacoides*) occurring. Further up the estuary, the marsh habitats support species such as Bulrush (*Typha latifolia*) and Yellow Flag (*Iris pseudacorus*). The shoreline, which is approximately 500 m in width to the low tide mark, comprises beach and intertidal habitats. It is a well-exposed shore, with coarse sand sediments. The well-developed beaches, which are backed in places by clay cliffs, provide high tide roosts for the birds. The village of Laytown occurs in the northern side of the River Nanny estuary.

This site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Oystercatcher, Ringed Plover, Golden Plover, Knot, Sanderling, Black-headed Gull and Herring Gull. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

This is an important site for wintering waders, with nationally important populations of Golden Plover (1,759), Oystercatcher (1,014), Ringed Plover (185), Knot (1,140) and Sanderling (240) present (all figures are average peaks for the 5 year period 1995/96-1999/2000). The populations of Knot and Sanderling are of particular note as they represent approximately 4% of their respective national totals. Black-headed Gull (926) and Herring Gull (609) also occur here in significant numbers. A range of other waterbirds also occurs, including Cormorant (35), Brent Goose (145), Mallard (76), Grey Plover (55), Lapwing (1,087), Dunlin (721), Bar-tailed Godwit (59), Curlew (107), Redshank (150), Turnstone (59), Common Gull (66) and Great Black-backed Gull (70). The site is of most importance as a roost area for the birds but the intertidal flats also provide feeding habitat. Many of the birds also utilise the intertidal areas and beaches further to the north and south, and also the fields above the shore.

The main threat to the wintering birds is increased levels of disturbance by beach users.

This site is of ornithological importance as it supports five species of wintering waterbirds in numbers of national significance. Two species using the site, Golden Plover and Bar-tailed Godwit, are listed on Annex I of the E.U. Birds Directive.

1.6.2007

SITE SYNOPSIS

SITE NAME: SKERRIES ISLANDS SPA

SITE CODE: 004122

The Skerries Islands are a group of three small uninhabited islands situated between 0.5 km and 1.5 km off the north Dublin coast. Shenick Island and St. Patrick's Island are of similar size, with Colt Island being somewhat smaller. Shenick Island is of most interest geologically, being composed of Ordovician volcanic siltstones and shales on the boundary between the Caboniferous and the Silurian. All are low-lying islands, with maximum heights from 8 m to 13 m above sea level. There are the remains of a Martello Tower on Shenick Island and an early christian church on St. Patrick's.

St Patrick's Island and Colt Island have low cliffs, while Shenick Island has more extensive expanses of intertidal rocky shore and sand flats. Shenick also has a shingle bar and is connected to the mainland at low tides. The vegetation of the islands is dominated by rank grasses, brambles and species such as hogweed (*Heracleum sphondylium*). The seas surrounding the islands, to a distance of 200 m, are included in the site.

The islands are of importance for both breeding seabirds and wintering waterfowl.
A survey of breeding seabirds on St Patrick's Island, the main seabird island, in 1999 recorded the following: Fulmar (10 pairs), Cormorant (558 pairs), Shag (100 pairs), Lesser Black-backed Gull (1 pair), Herring Gull (150 pairs) and Great Black-backed Gull (50 pairs). Shenick Island has breeding Fulmars (25 pairs in 1999), Herring Gulls (120 pairs in 1996) and Great Black-backed Gulls (25 pairs in 1996). Large gulls also breed on Colt Island but there has been no census in recent years. The Cormorant population, which was only established in the early 1990s, is of National Importance and when taken together with the nearby associated colonies on Lambay and Ireland's Eye, this group comprises about 35% of the total Irish population and is of International Importance. The Shag population is also of National Importance as are the Herring Gull and Great Black-backed Gull populations. Other breeding birds include Shelduck, Ringed Plover and Oystercatcher (several pairs of each).

In winter, the islands regularly support a range of waterfowl species. The following counts are the average annual peaks over the five winters 1995/96 to 1990/00: Cormorant (391), Brent Goose (242), Wigeon (205), Mallard (240), Oystercatcher (463), Ringed Plover (66), Golden Plover (240), Grey Plover (15), Lapwing (238), Purple Sandpiper (46), Dunlin (42), Snipe (27), Curlew (327), Turnstone (242), Black-headed Gull (110), Herring Gull (560), Great Black-backed Gull (250). The Brent Goose population is of International Importance, while the populations of Cormorants, Purple Sandpiper and Turnstone are of National Importance. The islands are also a regular wintering site for Short-eared Owls, with several recorded in most winters.

The birds of the Skerries Islands have been monitored regularly since the 1980s. Shenick Island became a BirdWatch Ireland Reserve in 1987 and some management for the benefit of the birds has taken place.

The Skerries Islands SPA is of high ornithological importance for both breeding seabirds and wintering waterfowl, with six species having populations of National Importance. In addition there is an internationally important population of Brent Goose. Golden Plover and Short-eared Owl, EU Birds Directive Annex I species, occur regularly in winter.

10.11.2003

SITE SYNOPSIS

SITE NAME: BOYNE ESTUARY SPA

SITE CODE: 004080

This moderately sized coastal site, which is situated below the town of Drogheda, comprises most of the estuary of the Boyne River, a substantial river which drains a large catchment. Apart from one section which is over 1 km wide, its width is mostly less than 500 m. The river channel, which is navigable and dredged, is defined by training walls, these being breached in places. Intertidal flats occur along the sides of the channelled river. The sediments vary from fine muds in the sheltered areas to sandy muds or sands towards the river mouth. The linear stretches of intertidal flats to the north and south of the river mouth are mainly composed of sand. One or more species of Eelgrass (*Zostera* spp.) occur in the estuary. Parts of the intertidal areas are fringed by salt marshes, most of which are of the Atlantic type, and dominated by Sea-purslane (*Halimione portulacoides*). Other species present include Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Lax-flowered Sea-lavender (*Limonium humile*) and Glasswort (*Salicornia* spp.). Common Cord-grass (*Spartina anglica*) occurs frequently on the flats and salt marshes.

The Boyne Estuary is the second most important estuary for wintering birds on the Louth-Meath coastline. It has a total of ten species with populations of national importance, i.e. Shelduck (218), Oystercatcher (1,099), Golden Plover (6,070), Grey Plover (98), Lapwing (4,657), Knot (1,571), Sanderling (69), Black-tailed Godwit (471), Redshank (583) and Turnstone (175) - all figures are average peaks for the 5 year period 1995/96-1999/00. Of particular note is that the site supports 7% of the national population of Knot and 4% of the total for Golden Plover. Other species which occur include Bar-tailed Godwit (76), Cormorant (97), Brent Goose (172), Wigeon (454), Teal (230), Dunlin (480), Curlew (395), Mallard (197), Red-breasted Merganser (14), Greenshank (6), Ringed Plover (80) and Mute Swan (13). The site provides both feeding and high-tide roost areas for the birds. The estuary also attracts large numbers of gulls in winter, including Black-headed Gull (593), Common Gull (145), Herring Gull (403) and Great Black-backed Gull (160).

Little Tern bred in the past but successful breeding has not occurred since 1996. In 1998 and 1999 part of the shingle bank where the birds nested was washed away by storms. Also, human pressure in the beach areas has increased in recent years.

In general, the site has been modified by human activities. The river is regularly dredged to accommodate cargo ships, which can cause disturbance to the bird, fish and invertebrate communities in the estuary. Several factories operate upstream from the estuary and pollution and disturbance associated with these has had an impact on the ecology of the area. Significant developments within the site could cause disturbance to the wintering birds. Nowadays there are no significant shooting pressures as the site is a Wildfowl Sanctuary

The site is of considerable ornithological importance for wintering waterfowl, with ten species having populations of national importance. Little Tern has bred in the recent past and could do so again in the future. Of particular significance is that two of the wintering species, Golden Plover and Bar-tailed Godwit are listed on Annex I of the E.U. Birds Directive. Little Tern, which last bred successfully at the site in 1996, is also listed on Annex I of this directive.

31.3.2005

SITE SYNOPSIS

SITE NAME: ROCKABILL SPA

SITE CODE: 004014

Rockabill consists of two small, low-lying, granitic islets situated *c.* 7 km off the Co. Dublin coast. The islands are separated by a narrow channel though are connected at low spring tides. The main island, known as the Lighthouse Island, is vegetated by a scrubby sward of Tree Mallow (*Lavatera arborea*), with a range of other maritime species such as Sea Mayweed (*Matricaria maritima*), Sea Campion (*Silene maritima*), Sorrel (*Rumex* spp.), Common Scurvy-grass (*Cochlearia officinalis*), Orache (*Atriplex* spp.) and Rock Sea-spurrey (*Spergularia rupicola*). Some exotic plants are present, notably Hedge Veronica (*Hebe* x *franciscana*) and Hottentot-fig (*Carpobrotus edulis*). The smaller island, known as the Bill, is very exposed and is sparsely vegetated. A lighthouse, manned until 1989, is situated on the main island.

Rockabill has a long history of nesting by terns and it is now one of the most important tern colonies in Europe. Intensive wardening, management and monitoring since the 1980s has seen the colony grow significantly. In 1999, it held 611 pairs of Roseate Tern, 610 pairs of Common Tern and 89 pairs of Arctic Tern. All three species are listed on Annex I of the E.U. Birds Directive. The Roseate population represents approximately 75% of the entire north-west European population. The Common Tern population is one of the largest in Ireland, accounting for more than 30% of the national total. The Arctic Tern population, while relatively small, is still of national importance. Sandwich Tern nested up to the 1930s but apparently not since.

The terns nest amongst the scrubby vegetation and increasingly so in the nest boxes which are provided as part of the BirdWatch Ireland/National Parks and Wildlife Service conservation programme. Large gull species are discouraged from nesting on the islands for the benefit of the terns, and visitors to the islands are strictly controlled. Detailed research is carried out each year, including studies on breeding behaviour, productivity and feeding. A ringing programme has been in operation since the 1980s and this has produced important information on the movement of the birds in an international context.

Rockabill also supports a nationally important population of Black Guillemot (34 pairs in 1999) and a small colony of Kittiwake (111 pairs in 1999). Both of these species are monitored annually and most of the chicks produced are ringed. Rockabill is also a good location for the observation of bird migration.

Owing to its international and national importance, Rockabill is a designated Refuge for Fauna. As long as the conservation programme continues, and especially wardening throughout the entire season, there are no apparent threats to the nesting seabirds. However, the on-going research on the biology and ecology of the terns is crucial for a proper understanding of the needs of the birds over the long-term.

APPENDIX 2

ISSN 2009-4086

National Parks and Wildlife Service

Conservation Objectives Series

River Nanny Estuary and Shore SPA 004158

An Roinn
Ealaíon, Oidhreachta agus Gaeltachta
Department of
Arts, Heritage and the Gaeltacht

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Citation:

NPWS (2012) Conservation Objectives: River Nanny Estuary and Shore SPA 004158. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Series Editors: Rebecca Jeffrey & Naomi Kingston
ISSN 2009-4086

Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

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

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

***** indicates a priority habitat under the Habitats Directive***

004158	River Nanny Estuary and Shore SPA	
A130	Oystercatcher *Haematopus ostralegus*	wintering
A137	Ringed Plover *Charadrius hiaticula*	wintering
A140	Golden Plover *Pluvialis apricaria*	wintering
A143	Knot *Calidris canutus*	wintering
A144	Sanderling *Calidris alba*	wintering
A184	Herring Gull *Larus argentatus*	wintering
A999	Wetlands	

Supporting documents, relevant reports & publications (listed by date)

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

Title: River Nanny Estuary and Shore SPA (004158). Conservation objectives supporting document [Version 1]

Year: 2012

Author: NPWS

Series: Unpublished Report to NPWS

A130 Oystercatcher *Haematopus ostralegus*

To maintain the favourable conservation condition of Oystercatcher in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by oystercatcher other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A137 Ringed Plover *Charadrius hiaticula*

To maintain the favourable conservation condition of Ringed Plover in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by ringed plover other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A140 Golden Plover *Pluvialis apricaria*

To maintain the favourable conservation condition of Golden Plover in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by golden plover other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A143 Knot *Calidris canutus*

To maintain the favourable conservation condition of Knot in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by knot other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A144 Sanderling *Calidris alba*

To maintain the favourable conservation condition of Sanderling in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by sanderling other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A184 Herring Gull *Larus argentatus*

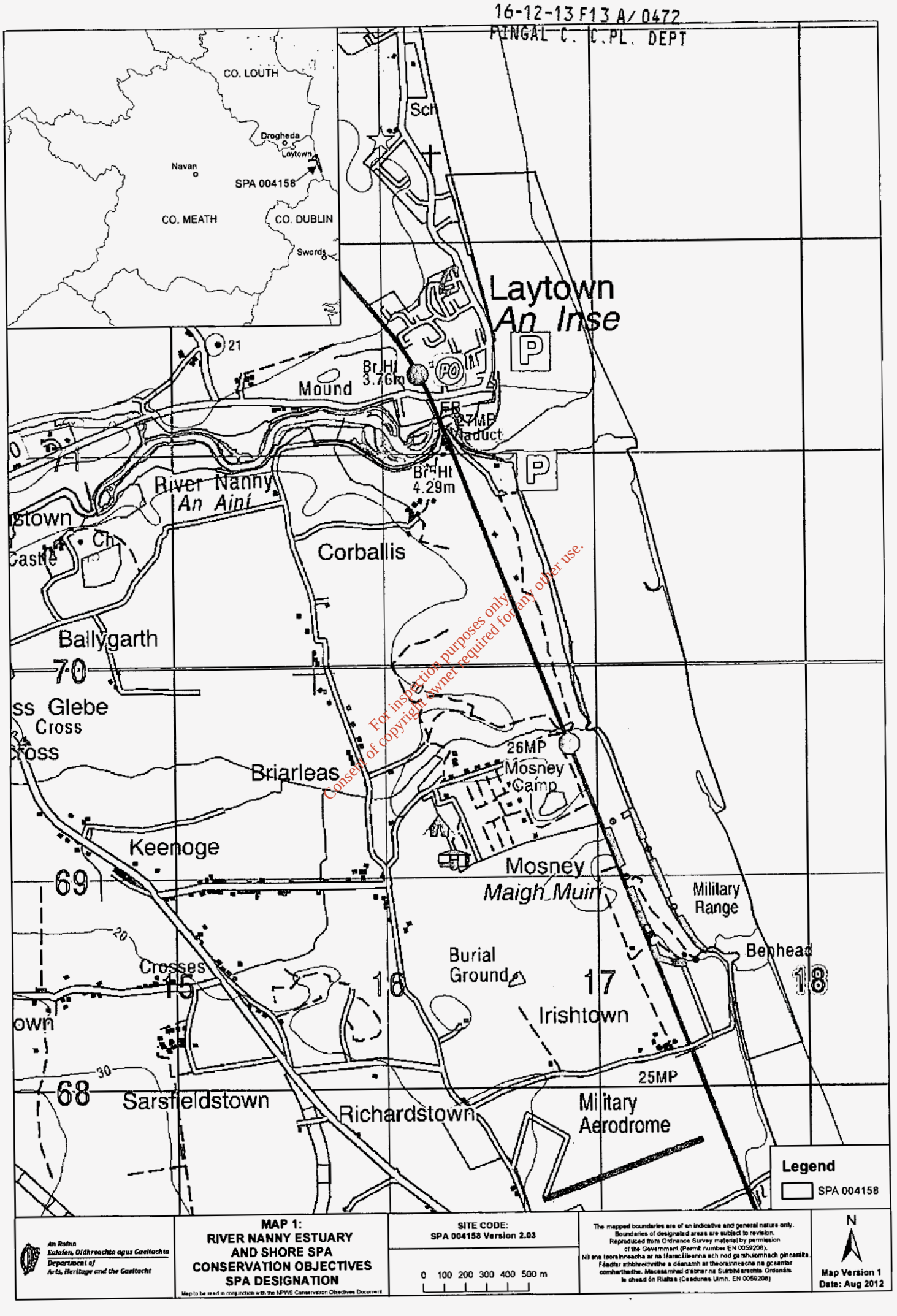
To maintain the favourable conservation condition of Herring Gull in River Nanny Estuary and Shore SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by herring gull other than that occurring from natural patterns of variation	As determined by regular low tide and other waterbird surveys. Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A999 Wetlands

To maintain the favourable conservation condition of the wetland habitat in River Nanny Estuary and Shore SPA as a resource for the regularly-occurring migratory waterbirds that utilise it. This is defined by the following attribute and target:

Attribute	Measure	Target	Notes
Wetland habitat	Area (ha)	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 230ha, other than that occurring from natural patterns of variation	The wetland habitat area was estimated as 230ha using OSi data and relevant orthophotographs. For further information see part three of the conservation objectives supporting document



Conservation Objectives for Skerries Islands SPA [004122]

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

◆ *Phalacrocorax carbo*	[breeding + wintering]
◆ *Phalacrocorax aristotelis*	[breeding]
◆ *Branta bernicla hrota*	[wintering]
◆ *Calidris maritima*	[wintering]
◆ *Arenaria interpres*	[wintering]
◆ *Larus argentatus*	[breeding + wintering]

Citation:

NPWS (2011) Conservation objectives for Skerries Islands SPA [004122]. Generic Version 4.0. Department of Arts, Heritage & the Gaeltacht.

For more information please go to: www.npws.ie/protectedsites/conservationmanagementplanning

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National Parks and Wildlife Service

Conservation Objectives Series

Boyne Estuary SPA 004080

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Citation:

NPWS (2013) Conservation Objectives: Boyne Estuary SPA 004080. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Series Editor: Rebecca Jeffrey
ISSN 2009-4086

Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

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- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

** indicates a priority habitat under the Habitats Directive*

004080	Boyne Estuary SPA
A048	Shelduck *Tadorna tadorna*
A130	Oystercatcher *Haematopus ostralegus*
A140	Golden Plover *Pluvialis apricaria*
A141	Grey Plover *Pluvialis squatarola*
A142	Lapwing *Vanellus vanellus*
A143	Knot *Calidris canutus*
A144	Sanderling *Calidris alba*
A156	Black-tailed Godwit *Limosa limosa*
A162	Redshank *Tringa totanus*
A169	Turnstone *Arenaria interpres*
A195	Little Tern *Sterna albifrons*
A999	Wetlands

Please note that this SPA overlaps with Boyne Coast and Estuary SAC (001957) and River Boyne and River Blackwater SAC (002299). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping SACs as appropriate.

Supporting documents, relevant reports & publications

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

Year :	1995
Title :	Seabird monitoring handbook for Britain and Ireland: a compilation of methods for survey and monitoring of breeding seabirds.
Author :	Walsh, P.; Halley, D.J.; Harris, M.P.; del Nevo, A.; Sim, I.M.W.; Tasker, M.L.
Series :	JNCC, Peterborough
Year :	2004
Title :	Seabird Populations of Britain and Ireland
Author :	Mitchell, P.I.; Newton, S.F.; Ratcliffe, N.; Dunn, T.E.
Series :	Poyser, London
Year :	2010
Title :	2010 report for the little tern conservation project at Baltray, Co. Louth
Author :	Reilly, M.
Series :	Unpublished report by Louth Nature Trust
Year :	2013
Title :	Seabird Monitoring Programme (SMP) Database
Author :	JNCC
Series :	http://jncc.defra.gov.uk/smp/Default.aspx
Year :	2013
Title :	BirdLife International Seabird Ecology and Foraging Range Database
Author :	BirdLife International
Series :	http://seabird.wikispaces.com
Year :	2012
Title :	Boyne Estuary SPA (site code 4080) Conservation Objectives Supporting Document V1
Author :	NPWS
Series :	Unpublished report to NPWS

Conservation Objectives for : Boyne Estuary SPA [004080]

A048 Shelduck *Tadorna tadorna*

To maintain the favourable conservation condition of Shelduck in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by shelduck, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A130 Oystercatcher *Haematopus ostralegus*

To maintain the favourable conservation condition of Oystercatcher in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing and intensity of use of areas by oystercatcher, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A140 Golden Plover *Pluvialis apricaria*

To maintain the favourable conservation condition of Golden Plover in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of theconservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by golden plover, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A141 Grey Plover *Pluvialis squatarola*

To maintain the favourable conservation condition of Grey Plover in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by grey plover, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

A142 Lapwing *Vanellus vanellus*

To maintain the favourable conservation condition of Lapwing in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by lapwing, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A143 Knot *Calidris canutus*

To maintain the favourable conservation condition of Knot in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by knot, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A144 Sanderling *Calidris alba*

To maintain the favourable conservation condition of Sanderling in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Waterbird population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by sanderling, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A156 Black-tailed Godwit *Limosa limosa*

To maintain the favourable conservation condition of Black-tailed Godwit in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by black-tailed godwit, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A162 Redshank *Tringa totanus*

To maintain the favourable conservation condition of Redshank in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by redshank, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A169 Turnstone *Arenaria interpres*

To maintain the favourable conservation condition of Turnstone in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Population trends are presented in part four of the conservation objectives supporting document
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by turnstone, other than that occurring from natural patterns of variation	Waterbird distribution from the 2011/2012 waterbird survey programme is discussed in part five of the conservation objectives supporting document

Conservation Objectives for : Boyne Estuary SPA [004080]

A195 Little Tern *Sterna albifrons*

To maintain the favourable conservation condition of Little Tern in Boyne Estuary SPA, which is defined by the following list of attributes and targets:

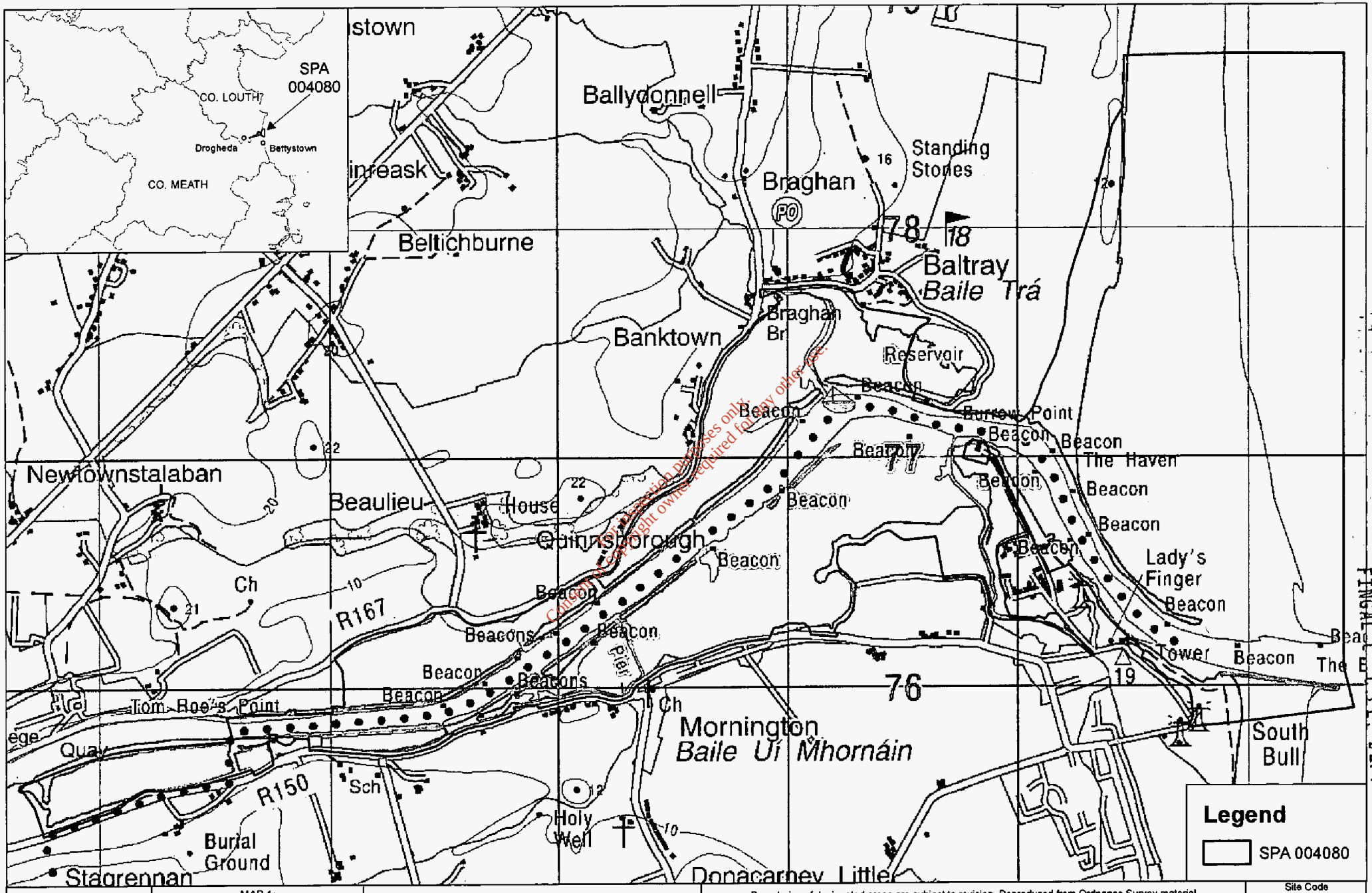
Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	Measure based on standard tern survey methods (see Walsh et al., 1995). Mitchell et al. (2004) provides summary population information for Louth. The Seabird Monitoring Programme (SMP) also provides background data (JNCC, 2013). In 2010, 43 breeding pairs were recorded at this colony (Reilly, 2010)
Productivity rate: fledged young per breeding pair	Mean number	No significant decline	Measure based on standard tern survey methods (see Walsh et al., 1995). For 2010, an estimated productivity rate of 2.2 fledged birds per breeding pair was reported (Reilly, 2010)
Distribution: breeding colonies	Number; location; area (Hectares)	No significant decline	Little tern nest in well-camouflaged shallow scapes on sand and shingle beaches, spits or inshore islets (Mitchell et al., 2004). For a description of the area used by the colony in 2010, see Reilly (2010)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: Mainly small, often juvenile, fish; invertebrates, especially crustaceans and insects. Key habitats: Very shallow water, advancing or receding tidelines, brackish lagoons and saltmarsh creeks, sand-banks close to the coast. Foraging range: Max 11km, mean max 6.94km, mean 4.14km (BirdLife International Seabird Database (Birdlife International, 2013))
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species can make extensive use of the marine waters adjacent to their breeding colonies. Foraging range: Max 11km, mean max 6.94km, mean 4.14km (BirdLife International Seabird Database (Birdlife International, 2013))
Disturbance at the breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding little tern population	Little tern nest in well-camouflaged shallow scrapes on sand and shingle beaches, spits or inshore islets (Mitchell et al., 2004)

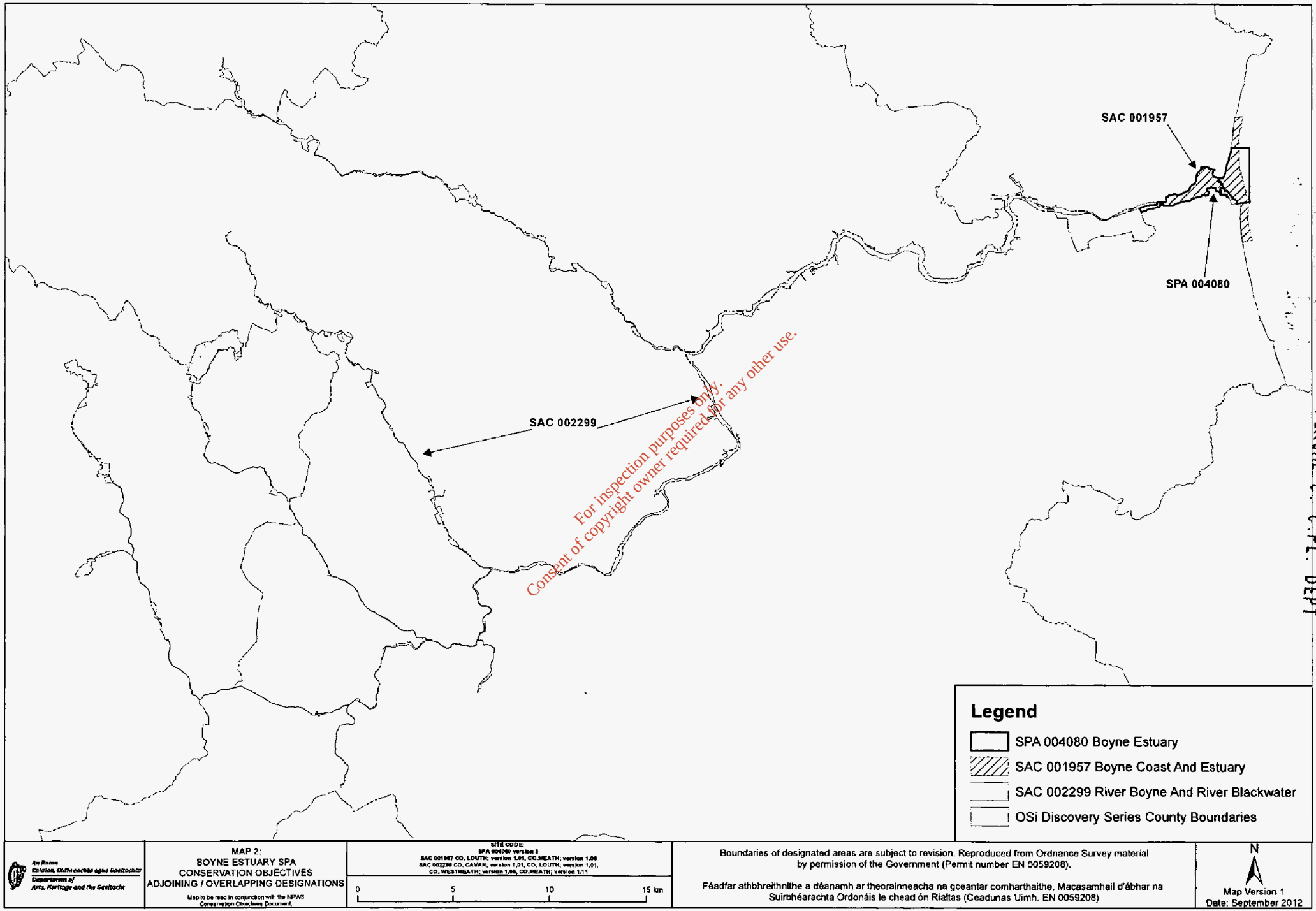
Conservation Objectives for : Boyne Estuary SPA [004080]

A999 Wetlands

To maintain the favourable conservation condition of the wetland habitat in Boyne Estuary SPA as a resource for the regularly-occurring migratory waterbirds that utilise it. This is defined by the following attribute and target:

Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 594ha, other than that occurring from natural patterns of variation	The wetland habitat area was estimated as 594ha using OSi data and relevant orthophotographs. For further information see part three of the conservation objectives supporting document





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National Parks and Wildlife Service

Conservation Objectives Series

Rockabill SPA 004014

An Roinn
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Department of
Arts, Heritage and the Gaeltacht

National Parks and Wildlife Service,
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Citation:

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Series Editor: Rebecca Jeffrey
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Introduction

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European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

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

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

** indicates a priority habitat under the Habitats Directive*

004014	Rockabill SPA
A148	Purple Sandpiper *Calidris maritima*
A192	Roseate Tern *Sterna dougallii*
A193	Common Tern *Sterna hirundo*
A194	Arctic Tern *Sterna paradisaea*

Please note that this SPA overlaps with Rockabill to Dalkey Island SAC (003000). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping site as appropriate.

References

Year :	2005
Title :	Ireland's wetlands and their waterbirds: status and distribution
Author :	Crowe, O.
Series :	BirdWatch Ireland. Newcastle, Co Wicklow
Year :	2008
Title :	Rockabill tern manual
Author :	Newton, S.F.; Glenister, L.J.
Series :	BirdWatch Ireland
Year :	2012
Title :	Irish Wetland Bird Survey: results of waterbird monitoring in Ireland in 2010/11
Author :	Crowe, O.; Boland, H.; Walsh A.
Series :	Irish Birds 9(3): 397 - 410
Year :	2012
Title :	Rockabill tern report 2012
Author :	Burke, A.; Bowgen, K.; Newton S.F.
Series :	BirdWatch Ireland
Year :	2013
Title :	BirdLife International Seabird Ecology and Foraging Range Database
Author :	BirdLife International
Series :	http://seabird.wikispaces.com

Conservation Objectives for : Rockabill SPA [004014]

A148 Purple Sandpiper *Calidris maritima*

To maintain the favourable conservation condition of Purple Sandpiper in Rockabill SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Population trend	Percentage change	Long term population trend stable or increasing	Numbers occuring at the site are monitored by the Irish Wetland Bird Survey (see Crowe et al., 2012). Numbers appear to have declined but survey effort may have had an influence on latest estimates. A nationally important estimate of 48 individuals (3-year mean peak 1997/98 - 1999/00) was recorded at this site (Crowe, 2005)
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by purple sandpiper other than that occurring from natural patterns of variation	During the non-breeding season purple sandpipers show a strong preference for tidal rocky shores, often utilising artificial structures such as piers or breakwaters for roosting. They have been found to be highly faithful to their wintering sites

Conservation Objectives for : Rockabill SPA [004014]

A192 Roseate Tern *Sterna dougallii*

To maintain the favourable conservation condition of Roseate Tern in Rockabill SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	For census methodology see Newton and Glenister (2008). 1,207 roseate tern nests were recorded during the 2012 breeding season (for more information see Burke et al., 2012)
Productivity rate: fledged young per breeding pair	Mean number	No significant decline	For productivity estimation methodology see Newton and Glenister (2008). A 5-year mean (2008-2012) productivity rate of 1.2 fledglings per nest was outlined in Burke et al., 2012
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	For details of the sections and enclosures delineated for Rockabill SPA, consult Newton and Glenister (2008). For the most recent information on how roseate tern nest sites are distributed within the SPA, see Burke et al. (2012)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: small schooling marine fish, very rarely small crustaceans. Key habitats: shallow and upwelling areas, including tide rips and shoals, over sandy bottoms. Foraging range: max. 30km, mean max. 18.28km, mean 12.3km (BirdLife International Seabird Database (Birdlife International, 2013)). In 2012, the main prey items recorded during nest provisioning on Rockabill SPA were clupeids and sandeels (62.5% and 35.1% respectively- for more information see Burke et al., 2012)
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species make extensive use of the marine waters adjacent to their breeding colonies. Foraging range: max. 30km, mean max. 18.28km, mean 12.3km (BirdLife International Seabird Database (Birdlife International, 2013)). For more site specific information consult Burke et al. (2012)
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding roseate tern population	For recent information on disturbance levels during the breeding season refer to Burke et al. (2012)

Conservation Objectives for : Rockabill SPA [004014]

A193 Common Tern *Sterna hirundo*

To maintain the favourable conservation condition of Common Tern in Rockabill SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	For census methodology see Newton and Glenister (2008). 2,031 common tern nests were recorded during the 2012 breeding season (for more information see Burke et al., 2012)
Productivity rate: fledged young per breeding pair	Mean number	No significant decline	For productivity estimation methodology see Newton and Glenister (2008). In 2012, a productivity rate of 0.30 (range 0.21 - 0.44) fledglings per nest was estimated (Burke et al., 2012)
Distribution: breeding colonies	Number; location; area (Hectares)	No significant decline	For details of the sections and enclosures delineated for Rockabill SPA, consult Newton and Glenister (2008). For the most recent information on how common tern nest sites are distributed within the SPA, see Burke et al. (2012)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: Small fish, crustaceans, insects and occasionally squid. Key habitats: common tern forage in/over shallow coastal waters, bays, inlets, shoals, tidal rips, drift lines, beaches, saltmarsh creeks, lakes, ponds or rivers. Foraging range: max. 37km, mean max. 33.81km, mean 8.67km (BirdLife International Seabird Database (Birdlife International, 2013)). In 2012, the main prey items recorded during nest provisioning on Rockabill SPA were clupeids and gadoids (73.3% and 22.9% respectively - for more information see Burke et al., 2012)
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species make extensive use of the marine waters adjacent to their breeding colonies. Foraging range: max. 37km, mean max. 33.81km, mean 8.67km (BirdLife International Seabird Database (Birdlife International, 2013)). For more site specifc information consult Burke et al. (2012)
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding common tern population	For recent information on disturbance levels during the breeding season refer to Burke et al. (2012)

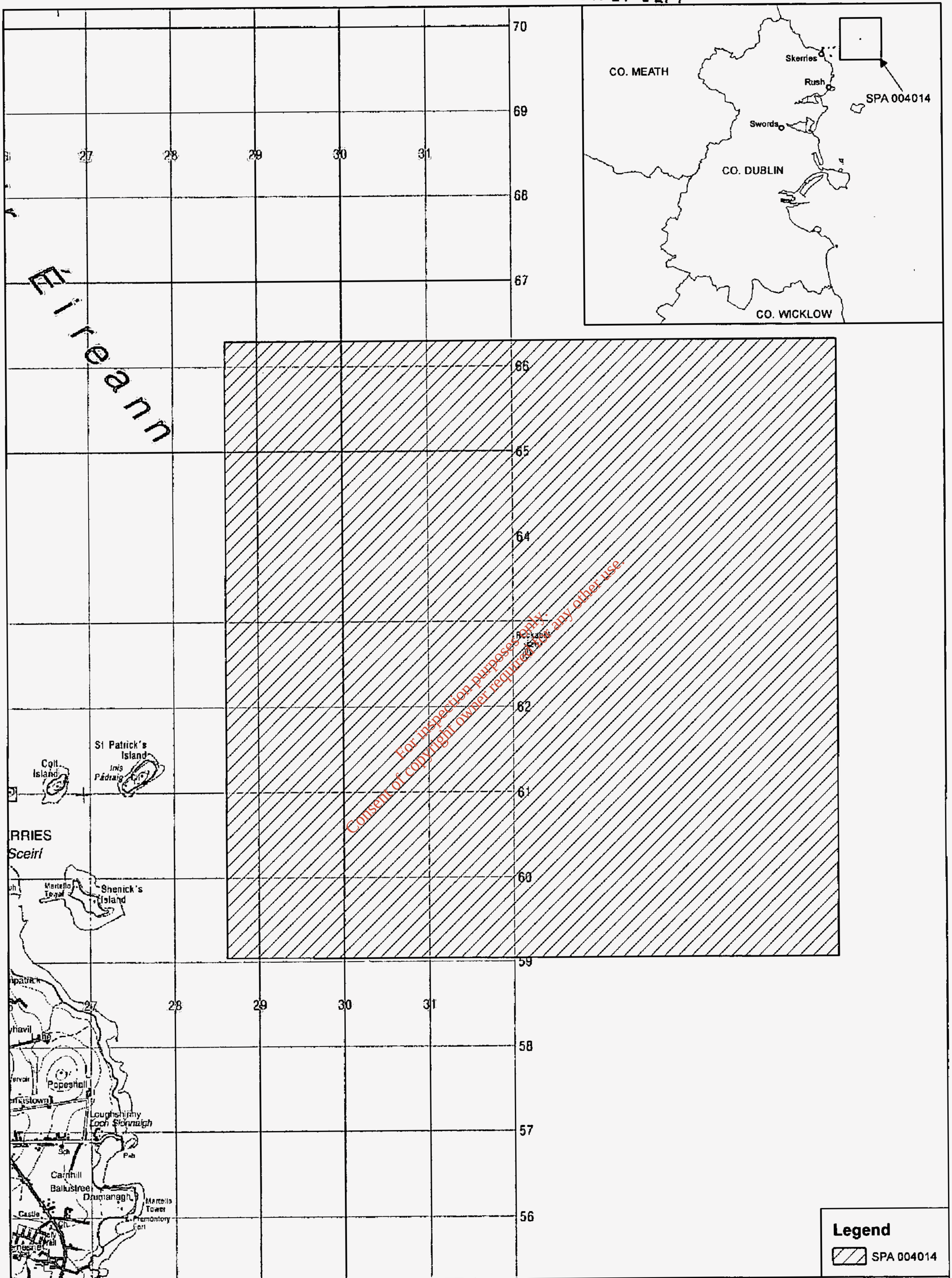
Conservation Objectives for : Rockabill SPA [004014]

A194 Arctic Tern *Sterna paradisaea*

To maintain the favourable conservation condition of Arctic Tern in Rockabill SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline	For census methodology see Newton and Glenister (2008). 165 Arctic tern nests were recorded during the 2012 breeding season (for more information see Burke et al., 2012)
Productivity rate: fledged young per breeding pair	Mean number	No significant decline	For productivity estimation methodology see Newton and Glenister (2008). In 2012, a productivity rate of 0.14 - 0.22 fledglings per nest was estimated (Burke et al., 2012)
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline	For details of the sections and enclosures delineated for Rockabill SPA consult Newton and Glenister (2008). For the most recent information on how Arctic tern nest sites are distributed within the SPA, see Burke et al. (2012)
Prey biomass available	Kilogrammes	No significant decline	Key prey items: Small fish, crustaceans and other invertebrates. Key habitats: include open waters and shallow bays, rocky shores, tidal flats, shoals, tide rips, ocean fronts and upwellings. Foraging range: max. 20.6km, mean max. 12.24km, mean 11.75km (BirdLife International Seabird Database (Birdlife International, 2013)). For more site-specific information, consult Burke et al. (2012)
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase	Seabird species make extensive use of the marine waters adjacent to their breeding colonies. Foraging range: max. 20.6km, mean max. 12.24km, mean 11.75km (BirdLife International Seabird Database (Birdlife International, 2013)) For more site-specific information, consult Burke et al. (2012)
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding Arctic tern population	For recent information on disturbance levels during the breeding season, refer to Burke et al. (2012)

16-12-13 F13 A/0472
FINGAL C. C.PL. DEPT



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Department of Arts, Heritage and the Gaeltacht

MAP 1:
ROCKABILL SPA
CONSERVATION OBJECTIVES
SPA DESIGNATION

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 004014; version 2.01

0 0.5 1 1.5 2 km

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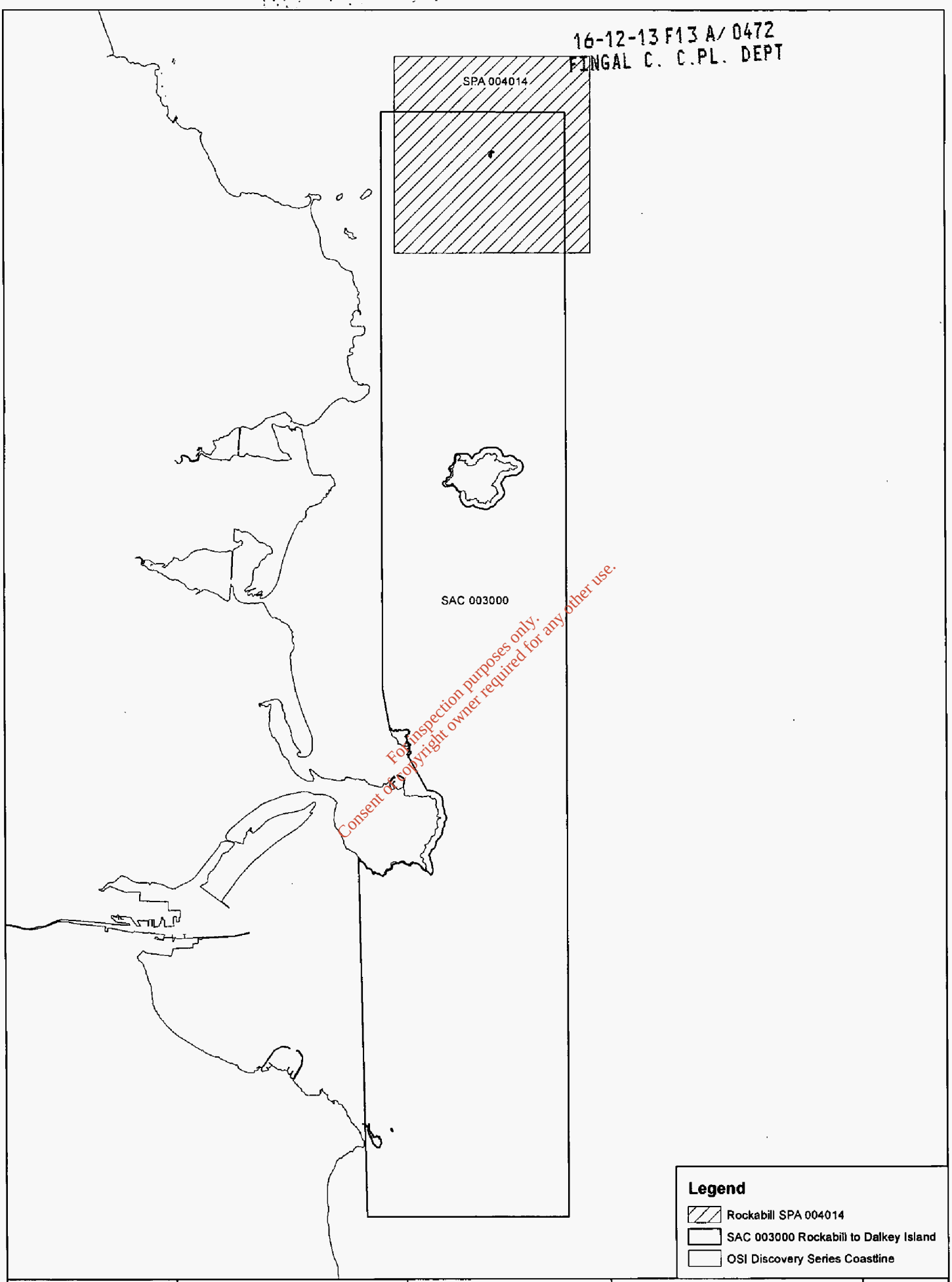
N

Map Version 1
Date: May 2013



Legend

- Rockabill SPA 004014
- SAC 003000 Rockabill to Dalkey Island
- OSI Discovery Series Coastline

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Department of Arts, Heritage and the Gaeltacht

MAP 2:
ROCKABILL SPA
CONSERVATION OBJECTIVES
ADJOINING / OVERLAPPING
DESIGNATIONS

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SPA 004014; version 2.01
SAC 003000; version 3

0 1 2 3 4 5 km

The mapped boundaries are of an indicative and general nature only.
Boundaries of designated areas are subject to revision.
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Níl ans teorainneacha ar na láithreáin ach nod garshuiomhach ginearálta.
Féadfar athbhreithniú a dhéanamh ar theorainneacha na gceantar comharthaithe. Macasamhail d'ábhar na Suirbhéireachta Ordónáis le cead ón Rialtas (Ceadúnas Uimh. EN 0059212)

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Map Version 1
Date: May 2013

ISSN 2009-4086

National Parks and Wildlife Service

Conservation Objectives Series

Rockabill to Dalkey Island SAC 003000

An Roinn
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Department of
Arts, Heritage and the Gaeltacht

National Parks and Wildlife Service,
Department of Arts, Heritage and the Gaeltacht,

7 Ely Place, Dublin 2, Ireland.

Web: www.npws.ie
E-mail: nature.conservation@ahg.gov.ie

Citation:

NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Series Editor: Rebecca Jeffrey
ISSN 2009-4086

Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

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

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

• *indicates a priority habitat under the Habitats Directive*

003000	Rockabill to Dalkey Island SAC
1170	Reefs
1351	Harbour porpoise *Phocoena phocoena*

Please note that this SAC overlaps with North Bull Island SPA (004006), Rockabill SPA (004014), Lambay Island SPA (004069), Howth Head Coast SPA (004113), Ireland's Eye SPA (004117) and Dalkey Islands SPA (004172). It is also adjoins Howth Head SAC (000202), Lambay Island SAC (000204) and Ireland's Eye SAC (002193). See map 2. The conservation objectives for this site should be used in conjunction with those for overlapping and adjacent sites as appropriate.

Supporting documents, relevant reports & publications

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

References

Year :	2010
Title :	Irish sea reef survey project report
Author :	MERC
Series :	Unpublished report to NPWS
Year :	2012
Title :	Intertidal reef survey of Lambay Island SAC and SPA, Rockabill Island SPA, Ireland's Eye SAC, Dalkey Islands SPA and Muglins
Author :	MERC
Series :	Unpublished report to the Marine Institute and NPWS
Year :	2012
Title :	Subtidal reef survey of Lambay Island SAC and SPA, Rockabill Island SPA, Ireland's Eye SAC, Dalkey Islands SPA and Muglins
Author :	MERC
Series :	Unpublished report to the Marine Institute and NPWS

NPWS Documents

Year :	2013
Title :	Rockabill to Dalkey Island SAC (site code 3000) Conservation objectives supporting document- marine habitats and species V1
Author :	NPWS
Series :	Conservation objectives supporting document

Spatial data sources

Year :	Interpolated 2013
Title :	2009 and 2010 subtidal and intertidal reef surveys
GIS Operations :	Polygon feature classes from marine community types base data sub-divided based on interpolation of marine survey data. Expert opinion used as necessary to resolve any issues arising
Used For :	Marine community types, 1170 (maps 3 and 4)
Year :	2005
Title :	OSi Discovery series vector data
GIS Operations :	High water mark (HWM) and low water mark (LWM) polyline feature classes converted into polygon feature classes and combined; EU Annex I Saltmarsh and Coastal data erased out if present
Used For :	Marine community types base data (map 4)
Year :	2005
Title :	OSi Discovery series vector data
GIS Operations :	Low Water Mark (LWM) polyline feature class converted into polygon feature class; clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used For :	1351 (map 5)

Conservation Objectives for : Rockabill to Dalkey Island SAC [003000]

1170 Reefs

To maintain the favourable conservation condition of Reefs in Rockabill to Dalkey Island SAC, which is defined by the following list of attributes and targets:

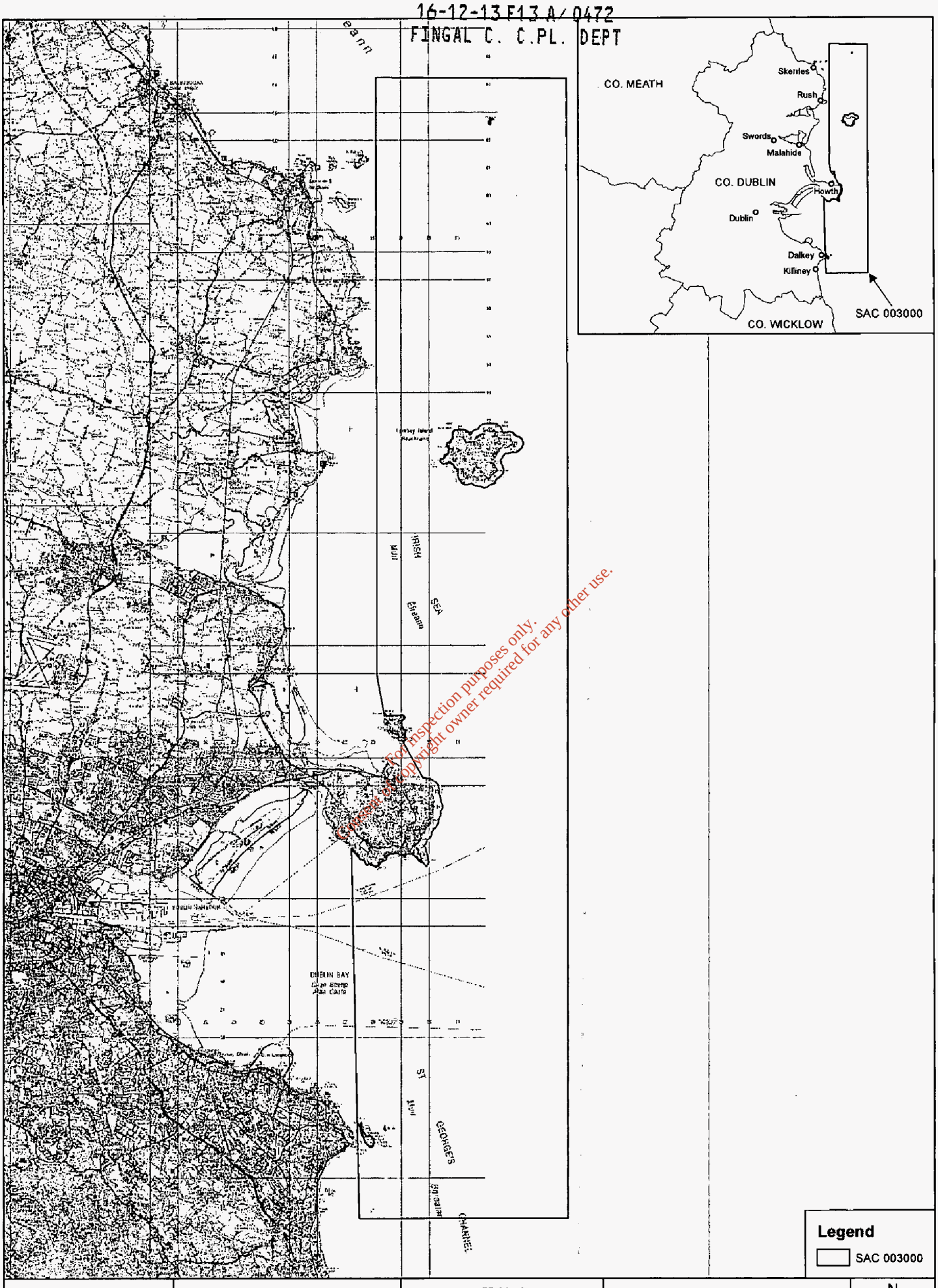
Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent area is stable or increasing, subject to natural processes. See map 3	Habitat area estimated as 182ha using 2010 and 2011 intertidal and subtidal reef survey data (MERC, 2010, 2012a,b), InfoMar bathymetry and the Arklow to Skerries Islands Admiralty Chart (1468_0)
Habitat distribution	Occurrence	Distribution is stable or increasing, subject to natural processes. See map 3	Distribution derived from 2010 and 2011 intertidal and subtidal reef survey data (MERC, 2010, 2012a,b), InfoMar bathymetry and the Arklow to Skerries Islands Admiralty Chart (1468_0). See marine supporting document for further details
Community structure	Biological composition	Conserve the following community types in a natural condition: Intertidal reef community complex; and Subtidal reef community complex. See map 4	Reef community mapping based on 2010 and 2011 intertidal and subtidal reef survey data (MERC, 2010, 2012a,b). See marine supporting document for further details

Conservation Objectives for : Rockabill to Dalkey Island SAC [003000]

1351 Harbour porpoise *Phocoena phocoena*

To maintain the favourable conservation condition of Harbour porpoise in Rockabill to Dalkey Island SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Access to suitable habitat	Number of artificial barriers	Species range within the site should not be restricted by artificial barriers to site use. See map 5	See marine supporting document for further details
Disturbance	Level of impact	Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site	See marine supporting document for further details



Legend

SAC 003000

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MAP 1:
ROCKABILL TO DALKEY ISLAND SAC
CONSERVATION OBJECTIVES
SAC DESIGNATION

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 003000; version 3

0 1 2 3 4 5 km

The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision. Reproduced from Ordnance Survey material by permission of the Government (Permit number EN 0059212).
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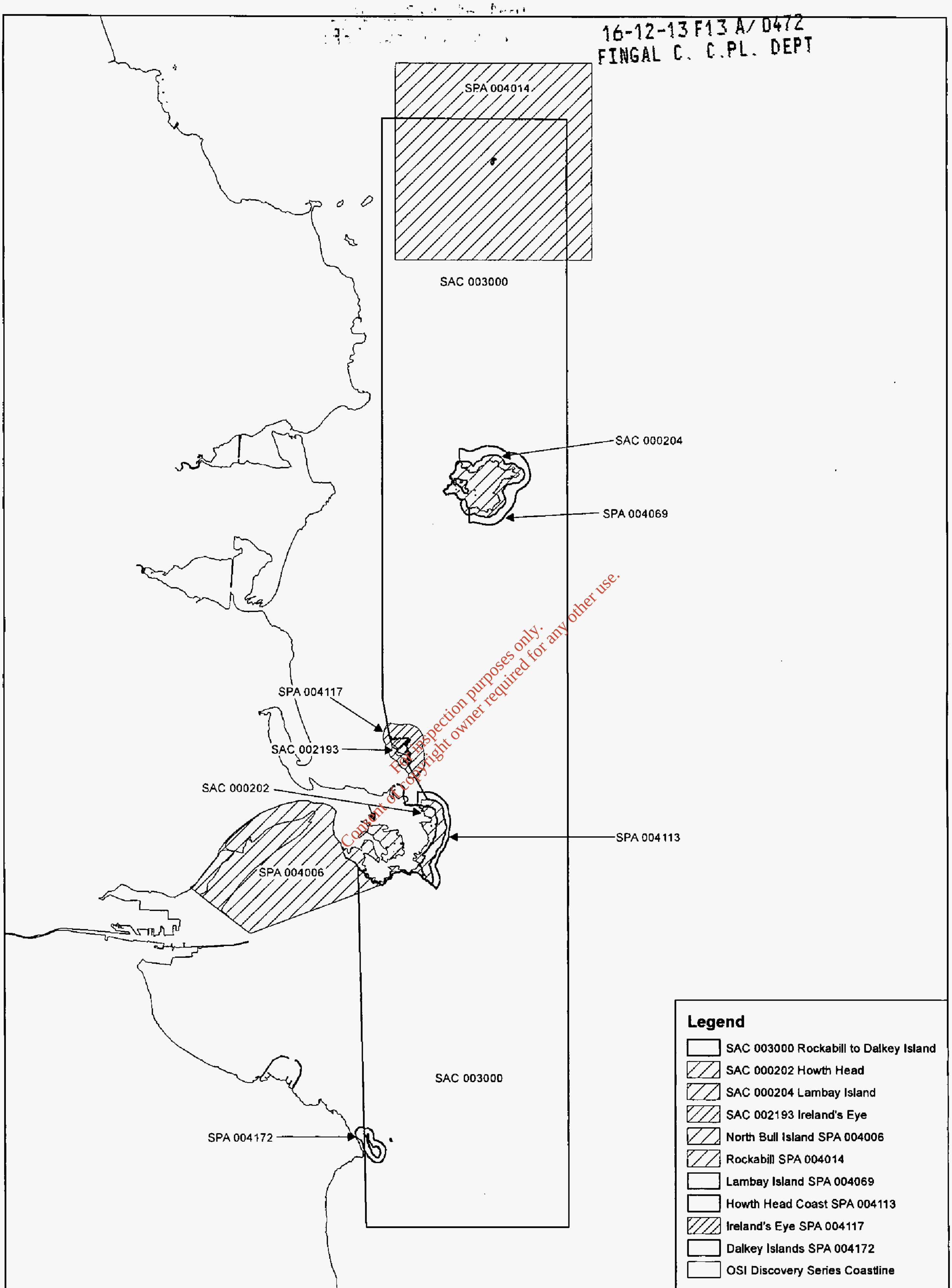
Map Version 1
Date: May 2013



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MAP 2:
ROCKABILL TO DALKEY ISLAND SAC CONSERVATION OBJECTIVES ADJOINING / OVERLAPPING DESIGNATIONS

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 000202; version 3. SAC 000204; version 3
SAC 002193; version 3. SAC 003000; version 3
SPA 004006; version 2. SPA 004014; version 2.01
SPA 004069; version 1.01. SPA 004113; version 2
SPA 004117; version 1.03. SPA 004172; version 2

0 1 2 3 4 5 km

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Map Version 1
Date: May 2013

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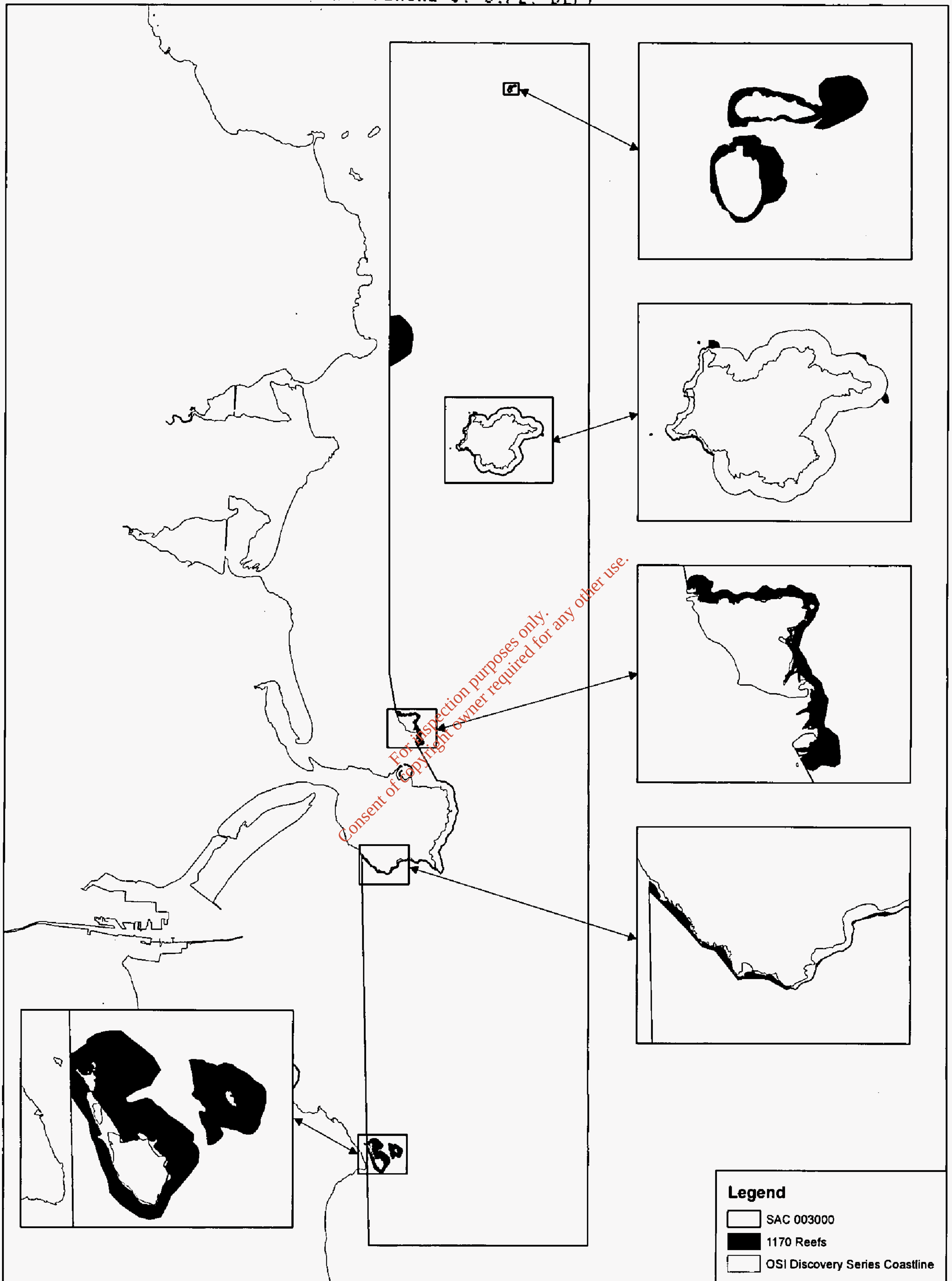

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MAP 3:
ROCKABILL TO DALKEY ISLAND SAC CONSERVATION OBJECTIVES REEFS

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 003000; version 3

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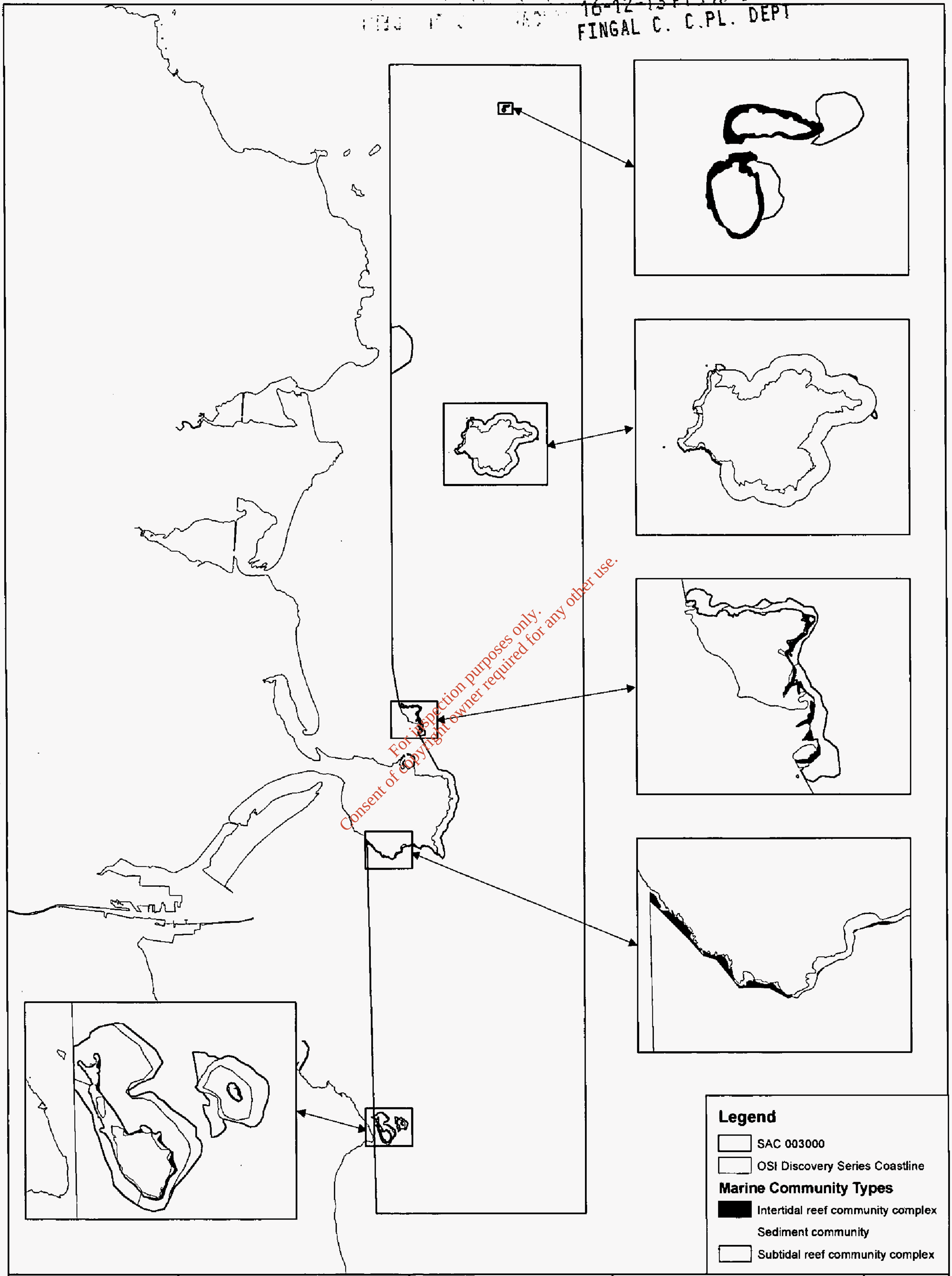
Map Version 1
Date: May 2013



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MAP 4:
ROCKABILL TO DALKEY ISLAND SAC
CONSERVATION OBJECTIVES
MARINE COMMUNITY TYPES

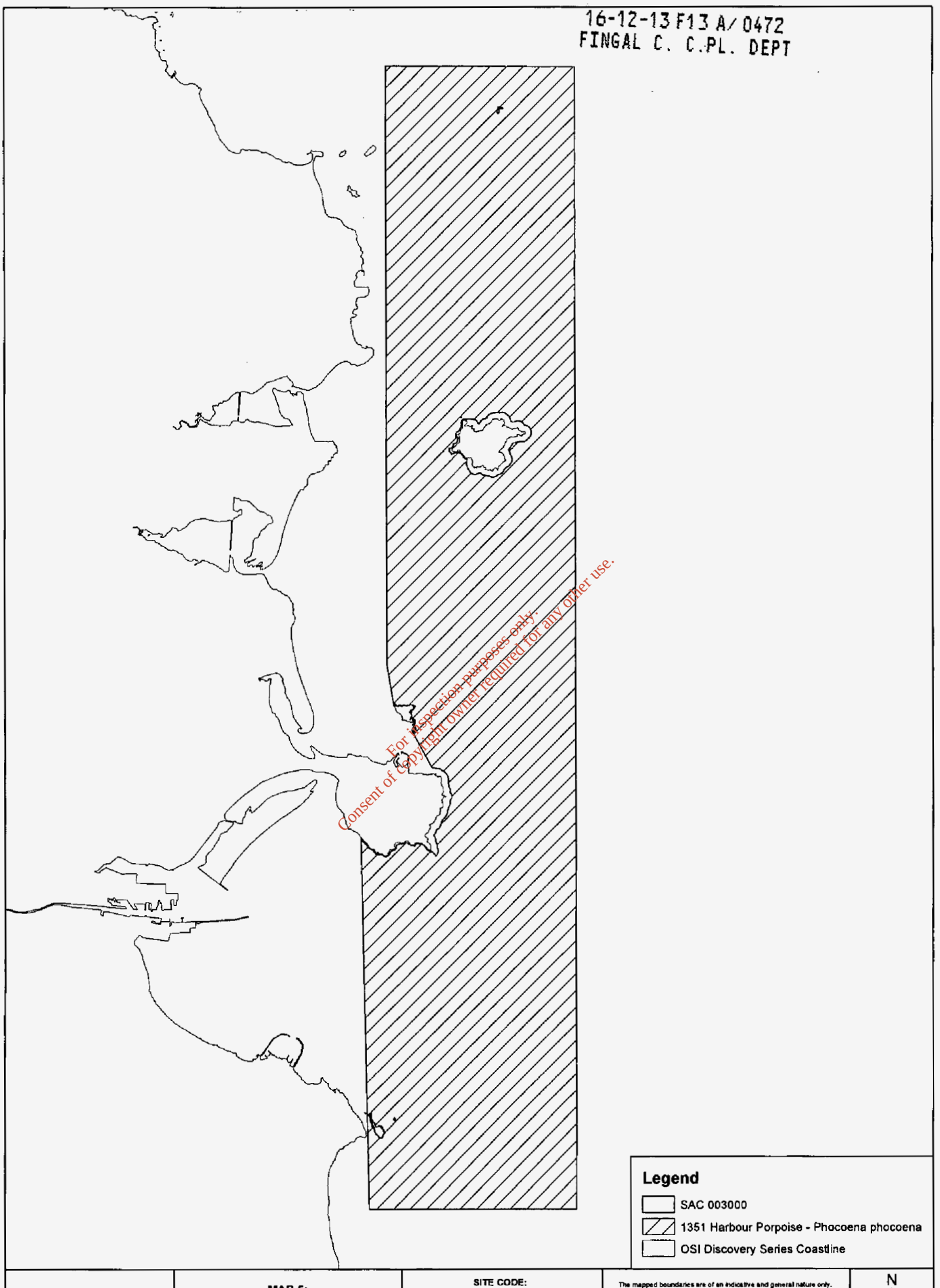
Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 003000; version 3

0 1 2 3 4 5 km

N

Map Version 1
Date: May 2013



Legend

- SAC 003000
- 1351 Harbour Porpoise - Phocoena phocoena
- OSI Discovery Series Coastline

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MAP 5:
ROCKABILL TO DALKEY ISLAND SAC
CONSERVATION OBJECTIVES
HARBOUR PORPOISE

Map to be read in conjunction with the NPWS Conservation Objectives Document.

SITE CODE:
SAC 003000; version 3

0 1 2 3 4 5 km

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N

Map Version 1
Date: May 2013

PF/0170/14

CONTRIBUTION
Numero Levy: NIL
EXEMPT
Class Source:
SECURITY:
Bond:
Cash:
Other:

COMHAIRLE CONTAE FHINE GALL

RECORD OF EXECUTIVE BUSINESS AND MANAGER'S ORDER

Reg. Ref.: F13A/0472

Register Reference: **F13A/0472**

Date of Registration: 16 December, 2013

Correspondence: Fingal Planning Consultants Suite 7C, Balbriggan Street, Skerries, Co. Dublin

Development: Extend the permitted waste acceptance and operational hours to 24 hours, 7 days per week to increase the amount of waste accepted from 24,950 to 49,950 tonnes anually, and accept and process other compatible non-hazardous waste types at existing facility. The facility is a non-hazardous waste recovery and recycling operation. An Environmental Impact Statement will accompany the application. There will be no changes to the existing buildings or site infrastructure associated with this proposal. this proposal is in accorance with EU and National Waste Management policy. This proposal is in accordance with Local Objective 43 - To facilitate the expansion of the existing waste facility. This proposal will require a review to the existing Waste Facility Permit (WFP-FG-10-0004-01).

Location: Stephenstown Business Park, Stephenstown, Balbriggan, Co. Dublin.

Applicant: Pacon Waste & Recycling Ltd.

Application Type: Permission

Zoning: 'GE' – The objective of which is to 'Provide Opportunities for general enterprise and employment'

Planning Officers Report:

RB/AF

Report of the Planning Officer Typed 11th February 2014.

Nature Of Development:
This is an application for **PERMISSION** to extend the permitted waste acceptance and operational hours to 24 hours, 7 days per week to increase the amount of waste accepted from 24,950 to 49,950 tonnes annually, and accept and process other compatible non-hazardous waste types at existing facility. The facility is a non-hazardous waste recovery and recycling operation. An Environmental Impact Statement will accompany the application. There will be no changes to the existing buildings or site infrastructure associated with this proposal. this proposal is in accordance with EU and National Waste Management policy. This proposal is in accordance with Local Objective 43 - To facilitate the expansion of the existing

waste facility. This proposal will require a review to the existing Waste Facility Permit (WFP-FG-10-0004-01) for PacOn Waste & Recyling Ltd. for Stephenstown Business Park, Stephenstown, Balbriggan, Co. Dublin.

Land-Use Zoning:
The subject site is within the GE zoning objective. This objective states *"Provide opportunities for general enterprise and employment."*

Local Objective 43 relates. This states *"Facilitate the expansion of the existing waste management facility."*

Planning History:
F11A/0339: Permission GRANTED for bulk and transfer of mixed municipal waste (Code 20 03 01) in addition to waste types permitted under Planning Ref. No. F06A/0369. there will be no changes to the approved buildings, site infrastructure or operating hours associated with this proposal. This proposal is in accordance with EU and National Waste Management policy. This proposal is in accordance with Local Objective 43 - To facilitate the expansion of the existing waste facility. This proposal will require a variation to the existing Waste Facility Permit (WFP-FG-10-004-01).

F06A/0369: Permission GRANTED for (i) single storey recycling facility, max height 12m, floor area 1,860m² (ii) 2 storey ancillary office building, ground floor area 160m² & (iii) all associated site works on a site of 1.22 hectares. It is expected that the recycling facility will process dry, recyclable construction and demolition materials, including: timber & timber pallets, concrete products, blocks/bricks, tiles & ceramics, wood products, glass, plastic, mixed metals, soil & stones, plaster & cement, paper & cardboard. The process will employ hand-picking and manual segregation. This proposal is in line with EU and National waste management policy and legislation and deals with waste in accordance with the recognised waste management hierarchy. The hours of operation will be as follows: 7.00am to 8.00pm - Monday to Friday inclusive; 8.00am to 1pm - Saturday & closed on Sundays. This proposal will require a Waste Permit (subject to a separate application). The applicant was Pac-On Waste & Recycling Ltd.

Pre-Application Consultation:
Pre-application discussions took place with Neil Humphries, Planning Officer, and Rita McGrath, Environment section, regarding the proposed development.

Site Location & Description:
The subject site is located at Stephenstown Business Park, southwest of Balbriggan town centre. The site has an overall stated area of 1.22 hectares fronting onto the access road for the Business Park. There is an existing purpose built waste management facility on the site which includes a waste processing building.

Objections / Submissions:
No objections/submissions have been received within the statutory time period allocated.

Engineering Requirements:
Water Services: Report notes no objections, subject to condition.

Transportation: Report notes no objections.

Environment: Report notes no objections, subject to condition.

Analysis of Proposed Development:
This is an application to extend the permitted waste acceptance and operational hours to 24 hours, 7 days per week to increase the amount of waste accepted from 24,950 to 49,950 tonnes annually, and accept and process other compatible non-hazardous waste types at existing facility.

Proposed Development:
At present, the applicant accepts and processes non-hazardous mixed construction and demolition wastes and source segregated dry recyclables that are primarily collected in the Dublin region.

Waste operations are regulated by Waste Permit (WFP-FG-10-0004-01). This permit authorises the acceptance of 22,250 tonnes of waste per annum.

The applicant now seeks planning permission (& a revised waste permit) to increase the amount and type of waste accepted at the facility. It is proposed to increase the amount of waste accepted to 49,950 tonnes per annum. Table 4.1 of the Environmental Impact Statement outlines the types of waste and estimated quantise. It is noted the amount of individual wastes may change but the overall amount shall not be exceeded.

It is also proposed to amend the acceptance and operational times to allow for 24/7 operations. The applicant notes it is not proposed to operate the facility 24 hours but flexibility is required to serve customer demands.

Lastly it is proposed to introduce a new waste processing line to manufacture solid recovered fuel (SRF). Solid recovered fuel is used as a fuel in cement kilns, co-incineration plants and waste to energy plants and such a use is considered a waste recovery activity.

Drawing no. 13/421/1 indicates the site layout. The existing facility is located within Stephenstown Business Park and is accessed via an existing access road serving the facility and other properties within the Park.

The site comprises a large processing building, portacabin type offices and toilets, a weighbridge and a large yard area.

History:

Permission was granted originally as per F06A/0369 for a recycling facility. Permission was granted for the recycling the following mixed construction and demolition materials including:

1. Timber and timber pallets
2. Concrete products
3. Blocks/Bricks
4. Tiles and Ceramics
5. Wood products
6. Glass
7. Plastic products including film
8. Mixed metals – copper, bronze, brass, aluminium, lead, zinc, tin
9. Iron and steel
10. Soil and stones
11. Plasterboard
12. Cement products
13. Paper and Cardboard products

This facility was further extended through F11A/0339 to also accept and transfer mixed municipal waste. At this time, the facility was conditioned that the waste tonnage accepted and handled at the site should not exceed 25,000 tonnes per annum.

Relevant Policy:

Dublin Waste Management Plan

The Dublin Waste Management Plan 2005 – 2011 remains in place. This plan recognises that the continued expansion of recovery facilities is required. It further states that the Dublin Region will aim to become self-reliant in terms of waste management infrastructure: waste generated in Dublin should be managed in Dublin as far as possible, in the interests of sustainability.

Fingal Development Plan:

The Fingal Development Plan promotes an increase in the amount of waste reused and recycled consistent with the Waste Management Plan for the Dublin Region and Waste Hierarchy and facilitate recycling of waste by generators through both adequate provision of facilities and good design.

The subject site is within the GE zoning objective. This objective states *"Provide opportunities for general enterprise and employment."* Waste disposal and recovery facilities are permitted in principle within this zoning objective.

Furthermore, Local Objective 43 also relates. This states *"Facilitate the expansion of the existing waste management facility."*

Assessment:

Environmental Impact Assessment:

An EIS was submitted with the application in accordance with the requirements of Part 2 of Schedule 5 of the Planning and Development Regulations, 2001 – subsection 11(b) –

'Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this Schedule'. The EIS is accompanied by a non-technical summary.

Alternative sites and configuration and technologies are considered, but given the existence of a waste processing facility already on site, alternatives are not considered necessary.

Maps and diagrams contained within the EIS are clear and legible.

The information contained within the EIS complies with paragraph 2 of the Second Schedule of the European Communities EIA Regulations 1989, as amended. The EIS is generally satisfactory in that it clearly describes the existing environment, identifies potential impacts and outlines any mitigation measures which will be put in place. The EIS follows the structure recommended in the Guidelines on the Information to be Contained in Environmental Impact Statements, March 2002.

The Planning Officer also notes the applicant held EIS scoping meetings with Fingal County Council, spoke with the immediately adjoining neighbours and placed a public notice of intention to submit the planning application.

Principle of Development:
The proposed development is considered to be in consistent with national and regional policies as it will increase the capacity of the Dublin region.

It is also considered to be consistent with Fingal Development Plan policies, in terms of zoning objective, the specific local objectives and the waste management objectives.

Traffic:
Chapter 6 of the Environmental Impact Statement outlines the existing traffic conditions and the impacts of the proposed changes on the local road network. Table 6.1 indicates the current traffic rates. Table 6.2 shows the trips will be generated at maximum capacity. As stated the numbers of trips will increase significantly.

The local road network is relatively new and has been designed to accommodate the development of the subject site and the adjoining zoned lands. The Transportation Planning Sections notes no objections to the proposed development.

Noise:
Chapter 11 of the EIS outlines the existing noise environment and the impacts of the increase in tonnage throughput, the introduction of the new processing system and the increase in hours of operation.

There are no Noise Sensitive Locations (NSL's) within 200m of the facility. Noise Sensitive Locations are defined as dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.

The current waste permit sets the following daytime noise emission limits:
Noise emission from the facility shall not give rise to noise levels at noise sensitive locations in the vicinity of the activity in excess of:

i. *55dBA Leq_{LT} during the hours of 08.00 – 20.00*
ii. *45 dBA Leq_{LT} during the hours of 20.00 – 08.00*
iii. *There shall be no clearly audible tonal component or impulsive component in the noise emission from the development at any noise sensitive location.*

A noise monitoring survey was carried out in November 2013. Noise emissions from the current operation comply with the limits specified in the waste permit.

Noise impacts at NSL's associated with the daytime operations comply with the 55dBA limit. The proposed extension to operating hours will not result in changes to the amplitude or character of the existing emissions.

Table 11.3 of the EIS looks at the night time impacts at NSL. This indicates the night time noise emissions will not exceed 45dBA. The night time noise levels at the NSL's shall be less than 42dBA.

This is acceptable. It is considered reasonable that a condition reiterating these noise limits be attached to any grant of planning permission.

Other Issues:
Climate:
The development will have an imperceptible impact on climate.
Soils & Geology:
The proposed development does not involve any excavation works or discharges to ground or groundwater and will therefore have no impact on the soils and geology.
Water:
The proposed development does not involve any excavation works or new discharges to ground or groundwater and will therefore have no impact on the soils and geology.
There is no record of any flood either within or outside the site boundary. The proposed changes will not result in any change in the volume of rainwater run-off from the site and there will be no additional risk of flooding.
Ecology:
There are no sensitive ecological sites within the site boundary. The site is not inside the boundaries of any designated Natura 2000 site and the development will not result in the direct loss of any habitats or damage any Natura site.
The applicant has submitted a Natura Impact Screening Statement. This concludes the proposed development will have no impact on either the local ecosystem or any designated site.
Air:
The proposed development will have a negligible adverse impact on air quality.
Landscape & Visual Amenity:

The site and surrounding area is not of any scenic importance. There will be no impact on the landscape as a result of the proposed development.

Human Beings:

The closest residence is more than 200m from the site boundary and the proposed development is considered to have a negligible impact on human beings in the surrounding area.

Archaeology:

There are no records of any archaeological monuments within or immediately adjacent to the subject site.

Material Assets:

The proposed development will not have any impact on the material assets of the business park or in the surrounding area.

Conclusion:

Having regard to the location of the proposed development within an existing waste management facility; to the provisions of the Fingal Development Plan, particularly the GE zoning at the subject site and Local Objective 43 which facilitates the expansion of the waste management facility; it is considered that, subject to compliance with the conditions set out below, the proposed development would be acceptable in terms of traffic safety and convenience, and would not seriously injure the amenities of the area or of property in the vicinity. The proposed development would, therefore, be in accordance with the proper planning and development of the area.

RECOMMENDATION

I recommend that a decision to **GRANT PERMISSION** be made under the Planning and Development Acts 2000-2010, subject to the following ~~(12)~~ (11) condition(s):-

Conditions and Reasons

1. The development shall be granted and retained in its entirety in accordance with the plans, particulars and specifications lodged with the application, save as may be required by the other conditions attached hereto.

   REASON: To ensure that the development shall be in accordance with the permission and that effective control be maintained.

2. This permisison permits that the subject site be operate as a non-hazardous waste recovery and recyling operation, as set out in the public notices and as per the submitted plans. Any change in this use shall not take place until full planning permission has been received from Fingal County Council or An Bord Pleanála following an appeal.

REASON: To prevent unauthorised development and in the interest of the proper planning and sustainable development of the area.

3. The waste tonnage for acceptance and handling at the site shall not exceed 50,000 tonnes per annum.

   REASON: To prevent unauthorised development and in the interest of the proper planning and sustainable development of the area.

4. Noise emission from the facility shall not give rise to noise levels at noise sensitive locations in the vicinity of the activity in excess of:

   (i) 55dBA LeqLT during the hours of 08.00 – 20.00
   (ii) 45 dBA LeqLT during the hours of 20.00 – 08.00
   (iii) There shall be no clearly audible tonal component or impulsive component in the noise emission from the development at any noise sensitive location.

   REASON: To protect the amenities of the properties in the vicinity.

5. The following requirements of the Environment Department: shall be complied with in full:

   a. The applciant or agent acting on behalf of the applicant shall review waste facility permit WFP-FG-10-0004-01 in accordance with the Waste Management (Facility Permit & Registration) Regulations, 2007 as amended, prior to the acceptance of waste at the site above the current tonnage limit of 22,500 tonnes.

   b. The applicant or agent acting on behalf of the applicant is required to hold a valid waste facility permit for these works and comply with conditions assocated with that permit.

   c. The applicant or agent acting on behalf of the applicant shall ensure that all hauliers of waste hold a valid Waste Collection Permit for the waste material collected from the site and that all waste material is delivered to authorised waste recovery/disposal facilities.

   REASON: In the interest of the proper planning and sustainable development of the area.

6. No advertising signs or structures shall be attached to these premises except those which are permitted as part of this application or those which constitute exempted development, without the prior approval of the Planning Authority.

   REASON: In the interest of the proper planning and development of the area.

7. That the requirements of the Principal Environmental Health Officer be ascertained and strictly adhered to in the development.

REASON: In the interest of public health and the environment.

8. That all necessary measures including the provision of wheel wash facilities be taken by the contractor to prevent the spillage or deposit of clay, rubble or other debris on adjoining roads during the course of the works.

REASON: To protect the amenities of the area.

9. That all public services to the proposed development, including electrical, telephone cables and equipment be located underground throughout the entire site.

REASON: To protect the amenities of the area.

10. That the water supply and drainage arrangements, including the disposal of surface water, be in accordance with the requirements of the County Council, in particular, the following conditions apply:

FOUL SEWER:

a. Prior to commencement of the extension of the operating hours at the facility the developer shall submit for the written approval of the Planning Authority, calculations showing the current and proposed foul hydraulic load, BOD and PE based on maximum occupancy over a 24 hour period. Refer to Table 3 of the EPA Wastewater Treatment Manuals – Treatment Systems for Small Communities, Business, Leisure Centres and Hotels (1999).

b. No foul drainage shall discharge into the surface water system under any circumstances.

c. The foul drainage shall be in compliance with the 'Greater Dublin Regional Code of Practice for Drainage Works Version 6.0' FCC April 2006.

SURFACE WATER:

a. No surface water/ rainwater shall discharge into the foul sewer system under any circumstances.

b. The surface water drainage shall be in compliance with the 'Greater Dublin Regional Code of Practice for Drainage Works Version 6.0' FCC April 2006.

WATER SUPPLY:

a. All water fittings and installations must incorporate best current practices in water conservation.

b. The water supply for the development must comply with the 'Guidelines for Drinking Water Supply'. FCC February 2009 Revision 1.

REASON: In the interests of public health and pollution control and to comply with the Sanitary Services Acts 1878-1964.

11. There shall be no accumulation of waste or debris on site.

REASON: In the interest of proper planning and sustainable development.

12. The developer shall pay the sum of € to the Planning Authority as a contribution towards expenditure that was and/or that is proposed to be incurred by the planning authority in respect of public infrastructure and facilities benefiting development in the area of the Authority, as provided for in the Contribution Scheme for Fingal County made by the Council. The phasing of payments and the provision of security to ensure payment shall be agreed in writing with the planning authority prior to the commencement of development.

REASON: It is considered reasonable that the payment of a contribution be required in respect of the public infrastructure and facilities benefiting development in the area of the Planning Authority and which is provided, or which is intended to be provided by, or on behalf of the Local Authority.

Note on above Condition:
Please note that with effect from 1st January 2014, Irish Water are now the Statutory Body responsible for both water and waste water services (excluding surface water). Accordingly, the contribution payable has been reduced by the amount of the contribution associated with these services. A separate charge will be levied by Irish Water in relation to the provision of water and/or wastewater treatment infrastructure and connections to same. Further details are available on the Irish Water website www.water.ie, Tel. (01) 6021000.

COMHAIRLE CONTAE FHINE GALL

RECORD OF EXECUTIVE BUSINESS AND MANAGER'S ORDER

Reg. Ref.: F13A/0472

Neal Humphreys
Senior Executive Planner

Endorsed: Martina O'Connor.
Administrative Officer 13/2/14

Order: A decision pursuant to Section 34 of the Planning and Development Act 2000 (as amended) to **GRANT PERMISSION** for the above proposal subject to the(~~12~~ 11) condition(s) set out above is hereby made.

Dated 13th February, 2014

P. M. Boyce
Senior Planner

To whom the appropriate powers have been delegated by Order of the County Manager, dated

26/8/13. C.M. 6046.

Re: Notification under Section 87(1E) (a) of the EPA Act 1992, as amended.
EPA Reg. No. P1014 -01.
Fingal Reg. Ref. F14A/0429.

Applicant: PACON Waste Recycling Ltd.
Stephenstown Business Park,
Stephenstown ,
Balbriggan,
Co. Dublin.

A Chara,

Fingal Development Plan 2011-2017

Under the Fingal Development Plan, the site is zoned GE *'Provide opportunities for general enterprise and employment'.*

Local Objective 43 relates to the subject site and states, *"Facilitate the expansion of the existing waste management facility".*

The EPA's request relates specifically to Reg. Ref. F14A/0429:

Fingal County Council, following requests and receipt of further information and clarification of further information, issued a decision under **Reg. Ref F14A/0429**, to grant Planning Permission on the 25th February 2015 for the development of;

(i) A singe storey extension to front (south) of existing building- floor area 416 sq.m. max height 11.8m.
(ii) A single storey detached building to the side (east) of existing building- floor area 765 sq.m., max height 10.0m &
(iii) Associated site works at existing facility,

to PACON Waste & Recycling Ltd., Stephenstown Business Park, Stephenstown, Balbriggan, Co. Dublin, subject to 11No. conditions.

Condition No.3 stipulates:

"The waste tonnage for acceptance and handling within the proposed building indicated as "C & D Processing & Storage" on drawing no.14/517/4/B received on the 18th February 2015 shall not exceed 22,800 tonnes per annum.

Reason: To prevent unauthorised development and in the interests of the proper planning and sustainable development of the area."

The Planning Authority is satisfied that the proposed development permitted under the said decision does not require an E.I.S/ E.I.A. under the Planning and Development Acts 2000 as amended.

Planning History

The Agency should be aware that there is an extensive planning history on the subject site, a summary is provided hereunder.

Reg. Ref. F06A/0369

Permission granted to Pacon Waste & Recycling for a single storey recycling facility of, 1860 sq.m, together with a two storey office building of 160sq.m. on a 1.22 ha. site at Stephenstown Balbriggan, to process dry, recyclables construction and demolition materials, including timber & lumber pallets, concrete products, blocks/bricks, tiles and ceramics, wood product, glass, plastic, mixed metals, soils & stones, plaster and cement, paper and cardboard. This development required a Waste Permit. No condition was attached restricting the volume of throughput.

Reg. Ref. F11A/0339

Permission granted to Pacon Waste & Recycling for the bulk and transfer of mixed municipal waste (Code 20 03 01) in addition to waste types permitted under F06A/0369 on the site at Stephenstown. This proposal required a variation to the waste permit WFP-FG-10-004-01 previously issued.

Condition No.2 required that the terms and conditions of F06A/0369 be complied with in full, save for the changes shown on the submitted plans.
Condition No.3 permitted the use of the facility for the bulk and transfer of mixed municipal waste.
Condition No.4 limited the waste tonnage per annum to 25,000 tonnes. i.e. sub EIS threshold levels.

Reg. Ref. F13A/0472

Permission granted to Pacon Waste & Recycling to extend permitted waste acceptance and operational hours to 24 hours, 7 days per week, to increase amount of waste accepted from 24,950 to 49,950 tonnes annually. The development was described as a non –hazardous waste recovery and recycling operation. An EIS accompanied the application. A Natura Impact Screening Statement was also submitted with this application. The NIS concluded that the proposed development will have no impact on either the local eco system or any designated site.

A variation to the existing Waste Facility Permit (WFP-FG-10-004-01) was required on foot of this grant of permission.

ConditionNo.2 permits the operation of a non-hazardous waste recovery and recycling operation and states that any change would require a full planning permission.
Condition No.3 states that waste tonnage for acceptance and handling shall not exceed 50,000 tonnes per annum.
Condition No.5 states that the Waste Facility Permit shall be reviewed prior to the acceptance of waste above the current tonnage limit of 22,500 tonnes.

E.I.S./E.I.A

An E.I.S. accompanied F13A/0472, the E.I.A. of which is contained within the Planning Officer's report on F13A/0472. A pdf of this report together with the E.I.S. and N.I.S. is attached.

P. Conlon SEP
25th March 2015.