



Your Ref: W0167-03  
Our Ref: W0167-03/FM31102012B

Aoife Loughnane  
Inspector, Environmental Licensing Programme  
Environmental Protection Agency  
Johnstown Castle Estate  
Co. Wexford

31<sup>st</sup> October 2012

Dear Aoife,

**Re: Article 13 Compliance**

Please find enclosed the Addendum to the 2012 EIS. The addendum has been prepared in response to the questions posed by the Agency and the outline answers in each case are given below.

**1) Chapter 7 Air Quality should be updated to reflect the information requested under Question 10 of the Article 12 Compliance Requirements.**

The PEC for each modelled parameter in Tables 7.6 to 7.9 of the EIS is now outlined in Tables 7.12 – 7.15 in the Addendum to the 2012 EIS. Results indicate that compliance with all relevant ambient air quality standards and guidelines are maintained even under all four volume flow scenarios.

The PEC of each modelled parameter associated with maximum abnormal operations (as per Condition 3.20.2 of licence W0167-02) at the requested volume flow of 183,700 Nm<sup>3</sup>/hr from the stack is outlined in Table 7.16 Results indicate that compliance with all relevant ambient air quality standards and guidelines are maintained even under abnormal operations based on 60 hours per annum.

Please refer to EIS Addendum – Chapter 7 “Air Quality”.

The additional information requested, is submitted here as an addendum to the original chapter 7 of the EIS and further supports the conclusion reached in the EIS that the proposed development will not have a significant impact on air quality.

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Belgian Directors: P. De Bruycker, M. Decorte, B. Goethals





**Non Technical Summaries**

The new information requested does not impinge on the Non Technical Summaries of the EIS and Waste Licence, and so there are no amendments to same.

Yours Sincerely,

A handwritten signature in blue ink, appearing to read "Conor Jones". The signature is fluid and cursive, with a long horizontal stroke at the end.

Conor Jones  
Infrastructure Director  
Indaver Ireland Limited

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## 7 Air Quality

The PEC for each modelled parameter in Tables 7.6 to 7.9 of the EIS is now outlined in Tables 7.12 – 7.15. Results indicate that compliance with all relevant ambient air quality standards and guidelines are maintained even under all four volume flow scenarios.

The PEC of each modelled parameter associated with maximum abnormal operations (as per Condition 3.20.2 of licence W0167-02) at the requested volume flow of 183,700 Nm<sup>3</sup>/hr from the stack is outlined below in Table 7.16 Results indicate that compliance with all relevant ambient air quality standards and guidelines are maintained even under abnormal operations based on 60 hours per annum.

The additional information requested is submitted here as an addendum to the original chapter 7 of the EIS and further supports the conclusion reached in the EIS that the proposed development will not have a significant impact on air quality.

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**Table 7.12** Predicted Environmental Concentration (PEC) For Each Modelled Parameter In Table 7.6 Of The EIS (Maximum Spot Volume Flow Scenario)

Compound	Background ( $\mu\text{g}/\text{m}^3$ )	Process Contribution ( $\mu\text{g}/\text{m}^3$ ) Maximum Spot Volume Flow	Predicted Environmental Concentration ( $\mu\text{g}/\text{m}^3$ ) Maximum Spot Volume Flow	Limit Value ( $\mu\text{g}/\text{m}^3$ )
<b>NO<sub>2</sub> (1-Hr)</b>	<b>40</b>	62.96 <sup>Note 1</sup>	103.7	200
<b>NO<sub>2</sub> (Ann)</b>	<b>20</b>	0.94	20.9	40
<b>NO<sub>x</sub> (Ann)</b>	<b>25</b>	1.26	26.3	30
<b>SO<sub>2</sub> (1-Hr)</b>	<b>8</b>	30.09	34.6	350
<b>SO<sub>2</sub> (24-Hr)</b>	<b>4</b>	2.71	9.3	125
<b>PM<sub>10</sub> (24-Hr)</b>	<b>20</b>	0.20	37.3	50
<b>PM<sub>10</sub> (Ann)</b>	<b>20</b>	0.062	20.1	40
<b>PM<sub>2.5</sub> (Ann)</b>	<b>12</b>	0.062	12.1	25
<b>CO (8-hr)</b>	<b>400</b>	23.8	424	10000
<b>Benzene (Ann)</b>	<b>0.7</b>	0.062	0.76	5
<b>HCl (1-hr)</b>	<b>0.01</b>	5.31	5.3	100
<b>HF (1-hr)</b>	<b>0.005</b>	0.35	0.36	3
<b>Hg (Ann)</b>	<b>0.001</b>	0.00032	0.0013	1
<b>Cd (Ann)</b>	<b>0.001</b>	0.00032	0.0013	0.005
<b>As (Ann)</b>	<b>0.001</b>	0.00034	0.0013	0.006

Note 1 Value given as NO<sub>x</sub>.

**Table 7.13** Predicted Environmental Concentration (PEC) For Each Modelled Parameter In Table 7.7 Of The EIS (110% Maximum Volume Flow Scenario)

Compound	Background (µg/m <sup>3</sup> )	Process Contribution (µg/m <sup>3</sup> ) 110% Maximum Volume Flow	Predicted Environmental Concentration (µg/m <sup>3</sup> ) 100% Maximum Volume Flow	Limit Value (µg/m <sup>3</sup> )
NO <sub>2</sub> (1-Hr)	40	62.26 <sup>Note 1</sup>	103.7	200
NO <sub>2</sub> (Ann)	20	0.93	20.9	40
NO <sub>x</sub> (Ann)	25	1.25	26.3	30
SO <sub>2</sub> (1-Hr)	8	29.71	34.3	350
SO <sub>2</sub> (24-Hr)	4	2.68	9.2	125
PM <sub>10</sub> (24-Hr)	20	0.20	37.3	50
PM <sub>10</sub> (Ann)	20	0.062	20.1	40
PM <sub>2.5</sub> (Ann)	12	0.062	12.1	25
CO (8-hr)	400	23.5	423	10000
Benzene (Ann)	0.7	0.062	0.76	5
HCl (1-hr)	0.01	5.29	5.3	100
HF (1-hr)	0.005	0.35	0.36	3
Hg (Ann)	0.001	0.00032	0.0013	1
Cd (Ann)	0.001	0.00032	0.0013	0.005
As (Ann)	0.001	0.00034	0.0013	0.006

Note 1 Value given as NO<sub>x</sub>.

**Table 7.14** Predicted Environmental Concentration (PEC) For Each Modelled Parameter In Table 7.8 Of The EIS (Average Volume Flow Scenario)

Compound	Background ( $\mu\text{g}/\text{m}^3$ )	Process Contribution ( $\mu\text{g}/\text{m}^3$ ) Average Volume Flow	Predicted Environmental Concentration ( $\mu\text{g}/\text{m}^3$ ) Average Volume Flow	Limit Value ( $\mu\text{g}/\text{m}^3$ )
<b>NO<sub>2</sub> (1-Hr)</b>	<b>40</b>	59.80 <sup>Note 1</sup>	103.6	200
<b>NO<sub>2</sub> (Ann)</b>	<b>20</b>	0.91	20.9	40
<b>NO<sub>x</sub> (Ann)</b>	<b>25</b>	1.22	26.1	30
<b>SO<sub>2</sub> (1-Hr)</b>	<b>8</b>	28.81	33.4	350
<b>SO<sub>2</sub> (24-Hr)</b>	<b>4</b>	2.59	9.1	125
<b>PM<sub>10</sub> (24-Hr)</b>	<b>20</b>	0.20	37.3	50
<b>PM<sub>10</sub> (Ann)</b>	<b>20</b>	0.060	20.1	40
<b>PM<sub>2.5</sub> (Ann)</b>	<b>12</b>	0.060	12.1	25
<b>CO (8-hr)</b>	<b>400</b>	22.8	423	10000
<b>Benzene (Ann)</b>	<b>0.7</b>	0.060	0.76	5
<b>HCl (1-hr)</b>	<b>0.01</b>	5.18	5.2	100
<b>HF (1-hr)</b>	<b>0.005</b>	0.35	0.36	3
<b>Hg (Ann)</b>	<b>0.001</b>	0.00030	0.0013	1
<b>Cd (Ann)</b>	<b>0.001</b>	0.00030	0.0013	0.005
<b>As (Ann)</b>	<b>0.001</b>	0.00033	0.0013	0.006

Note 1 Value given as NO<sub>x</sub>.

**Table 7.15** Predicted Environmental Concentration (PEC) For Each Modelled Parameter In Table 7.9 Of The EIS (Minimum Spot Volume Flow Scenario)

Compound	Background (µg/m <sup>3</sup> )	Process Contribution (µg/m <sup>3</sup> ) Minimum Spot Volume Flow	Predicted Environmental Concentration (µg/m <sup>3</sup> ) Minimum Spot Volume Flow	Limit Value (µg/m <sup>3</sup> )
NO <sub>2</sub> (1-Hr)	40	54.16 <sup>Note 1</sup>	103.5	200
NO <sub>2</sub> (Ann)	20	0.88	20.9	40
NO <sub>x</sub> (Ann)	25	1.17	26.2	30
SO <sub>2</sub> (1-Hr)	8	26.40	30.9	350
SO <sub>2</sub> (24-Hr)	4	2.36	8.9	125
PM <sub>10</sub> (24-Hr)	20	0.19	37.3	50
PM <sub>10</sub> (Ann)	20	0.06	20.1	40
PM <sub>2.5</sub> (Ann)	12	0.06	12.1	25
CO (8-hr)	400	20.9	421	10000
Benzene (Ann)	0.7	0.058	0.76	5
HCl (1-hr)	0.01	5.02	5.0	100
HF (1-hr)	0.005	0.34	0.35	3
Hg (Ann)	0.001	0.00030	0.0013	1
Cd (Ann)	0.001	0.00030	0.0013	0.005
As (Ann)	0.001	0.00031	0.0013	0.006

Note 1 Value given as NO<sub>x</sub>.

**Table 7.16** Predicted Environmental Concentration (PEC) For Each Modelled Parameter Associated With Maximum Abnormal Operations At Volume Flow Rate 183,700 Nm<sup>3</sup>/hr (110% Maximum Volume Flow Scenario)

Compound	Background (µg/m <sup>3</sup> )	Process Contribution (µg/m <sup>3</sup> ) – Abnormal Operations <sup>Note 2</sup> – 110% Maximum Volume Flow	Predicted Environmental Concentration (µg/m <sup>3</sup> ) – Abnormal Operations <sup>Note 2</sup> – 100% Maximum Volume Flow	Limit Value (µg/m <sup>3</sup> )
NO <sub>2</sub> (1-Hr)	40	62.5 <sup>Note 1</sup>	104.6	200
NO <sub>2</sub> (Ann)	20	1.27	21.3	40
NO <sub>x</sub> (Ann)	25	1.69	26.3	30
SO <sub>2</sub> (1-Hr)	8	29.8	34.3	350
SO <sub>2</sub> (24-Hr)	4	2.69	9.2	125
PM <sub>10</sub> (24-Hr)	20	0.278	37.3	50
PM <sub>10</sub> (Ann)	20	0.084	20.1	40
PM <sub>2.5</sub> (Ann)	12	0.084	12.1	25
CO (8-hr)	400	24.9	425	10000
Benzene (Ann)	0.7	0.084	0.78	5
HCl (1-hr)	0.01	5.39	5.41	100
HF (1-hr)	0.005	0.36	0.370	3
Hg (Ann)	0.001	0.00044	0.0014	1
Cd (Ann)	0.001	0.00043	0.0014	0.005
As (Ann)	0.001	0.00054	0.0015	0.006

Note 1 Value given as NO<sub>x</sub>.

Note 2 60 hours of abnormal operations based on five hours at the start of every month.





Indaver Ireland Ltd.

# Carranstown Waste To Energy Facility Habitats Directive Screening Statement

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April 2012



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FIGURES

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APPENDICES

- Appendix A Recent Aerial Photographs of site
- Appendix B NPWS Site Synopsis
- Appendix C NPWS Conservation Objectives



## 1.0 INTRODUCTION

In December 2011, Indaver Ireland Ltd. (Indaver) commissioned WYG Environmental and Planning (Ireland) Ltd (WYG) to prepare an Article 6 Habitats Directive Screening Statement to assess the potential impacts of proposed amendments to the Carranstown Waste to Energy facility at Duleek Co Meath. This assessment was undertaken as part of a proposed planning and licensing application for amendments to their existing facility at Carranstown Co Meath,

Habitats Directive Screening is required when a project is located within or in close proximity to a Natura 2000 site (*i.e.* Special Area of Conservation (SAC) and Special Protection Area (SPA)) to assess if and when there is potential for negative impacts on these conservation sites. The existing 200,000 tonne per annum waste to energy facility was constructed between 2009 and 2011. Though no protected sites are located adjacent to the site (or within 3km), a number of sites are located within the wider area (<10km). These include three SAC and SPA sites including;

- The River Boyne and Blackwater SAC/SPA
- The Boyne Estuary SPA
- The River Nanny Estuary and Shore SPA

Detail of the conservation objectives for each of the sites are presented in Section 3 of the report. Sensitive Annex I habitats and Annex II species are present.

### 1.1 Description of the Proposed Development

The application for the proposed development primarily seeks to increase the quantity of material accepted and processed at the facility from 200,000 TPA to 220,000 TPA and accept a number of suitable hazardous waste types. A number of other amendments to operational items are also proposed to include adjustments to waste acceptance hours. Other than a very slight increase in the amount of water abstracted for the process (<300m<sup>3</sup>/day) these amendments do not entail any significant changes to the existing emissions from the facility as already permitted under the existing planning permission (Ref) and EPA licence. In terms of construction works only very minor amounts of construction are required; two existing temporary structures are to be made permanent. These are a Centralised Maintenance Facility and a Modular Office Block. The only construction works required for these aspects is the installation of a constructed roadway to the office block and a new waste water treatment plant and percolation area. A site location and layout map are presented in Figures 1 & 2. Recent aerial photographs of the site are presented in Appendix A.



## 2.0 INFORMATION ON HABITAT DIRECTIVE ASSESSMENT

### 2.1 Legislation

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora – the ‘Habitats Directive’ - provides legal protection for habitats and species of European importance. The Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status and provides the legislation to protect habitats and species of community interest through the establishment and conservation of an EU-wide network of sites known as *Natura 2000*. Natura 2000 sites are Special Areas of Conservation (SAC) designated under the Habitats Directive and Special Protection Areas (SPA) designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites.

Article 6(3) establishes the requirement for Appropriate Assessment:

*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*

Article 6(4) of the Directive deals with alternative solutions, the test of “imperative reasons of overriding public interest” (IROPI) and compensatory measures:

*If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*



## 2.2 Habitats Directive Screening Methodology

A Habitats Directive Assessment is an assessment of the potential impacts of a proposed project or plan on the conservation objectives of any Natura 2000 site and where necessary an assessment of the development mitigation and/or avoidance measures to preclude negative effects. The impacts assessed must include the direct, indirect and cumulative impacts of approving the plan or project, considered with any current or proposed activities, developments or policies impacting on the site. The potential impacts of policies outside the Natura 2000 sites, but potentially impacting upon them, must also be included in the assessment.

This Habitats Directive Screening Report has been prepared in accordance with the *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (DoEHLG 2009) and the EU issued guidelines - "Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC" (EC, 2002).

### Stage 1 – Screening

The Screening Process will identify the likely impacts upon the Natura 2000 site by a plan or project, either alone or in combination with other plans and projects and considers whether these impacts are likely to be significant.

Ultimately, this process determines whether or not an Appropriate Assessment is required *i.e.* whether the proposed development is likely to negatively affect the conservation objectives of the identified SAC/SPA

As outlined in the EU guidelines, in Stage 1 Screening the impact of the development without appropriate mitigation measures is considered in view of the Precautionary Principle *i.e.* the proposed development and potential impacts are assessed in Stage 1 screening without considering the effects of mitigation measures.

Subject to the outcome of the Screening Assessment, the further assessments that may be required include;

### Stage 2 - Appropriate Assessment

### Stage 3 - Assessment of Alternative Solutions

### Stage 4 – Assessment where Adverse Impacts Remain



### 3.0 STAGE ONE: SCREENING

#### 3.1 Introduction

This stage of the screening process identifies the likely impacts upon a Natura 2000 site of a project or plan either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

#### 3.2 Site Identification and Selection Criteria

Three SAC and SPA sites are located within 10km of the site. Other conservation sites in the vicinity of the proposed development are detailed in Table 1 below.

**Table.1. Designated sites within approximately 5 km of the study area.**

Site	Designation	Site Code	Description	Approx. distance to study area
01578	Duleek Commons	pNHA	Calcareous marsh and fen system	2 km
01593	Thomastown Bog	pNHA	Raised bog surrounded by wet woodland and wet grassland	5 km
01862	Boyne River Islands	pNHA	Alluvial wet woodland	5 km
01861	Dowth Wetland	pNHA	Floodplain marsh with an associated area of deciduous woodland	4 km
002299	River Boyne & River Blackwater	SAC/SPA	Fresh water river with alkaline fen and alluvial woodlands	3km
000554	Laytown Dunes and Nanny Estuary	pNHA	Estuarine and Shoreline habitat	7km
004158	River Nanny Estuary and Shore	SPA	Estuarine and Shoreline habitat	8km
001957	Boyne Coast and Estuary	pNHA, SPA and SAC	Estuarine and Shoreline habitat	8km
001576	Cromwells Bush Fen	pNHA	Wetland/Fen System	7km
001579	Balrath Woods	pNHA	Native Woodlands	8km

Though it is unlikely given the nature of the development and its emissions and the distances between the facility and the protected sites, the River Boyne and River Blackwater SAC, River Boyne Estuary SPA and the River Nanny Estuary SPA could potentially be affected by the proposed development. Site synopses for



each of these sites is presented in Appendix B. A copy of the conservation management plans for the sites are presented in Appendix C.

### 3.3 Annex I Habitats

The River Boyne and River Blackwater SAC are designated for two Annex I habitats. The River Boyne and River Nanny Estuaries also bear protected wetland habitats. None of these habitat types are adjacent to the site and the groundwater and surfacewater regime is unaffected by the proposed development. The habitat types are presented in Table 1 below.

**Table 1:** Potential for qualifying habitat to be located adjacent to project site - based on desktop study

Habitat Name	Present in Grid O07 (or neighbouring grids within 10km)*	Present in section of protected site nearest proposed development
Alkaline Fens	Yes	Possibly – however nearest point of SAC site is a minimum of 4km from proposed development
<i>Alluvial Forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padio, Alnion incanae, Salicion albae)</i>	Yes	Possibly – however nearest point of SAC site is a minimum of 4km from proposed development
<i>Wetland</i>	Yes	No

\*Based on NPWS Habitats Directive habitat distribution maps (NPWS 2007)

### 3.4 Annex II Protected Faunal Species

The River Boyne and River Blackwater has been designated an SAC to protect a number of Annex II species (fish and mammal), which are listed in Table 2 below. No specific ‘in-stream’ surveys were carried out to determine if the species are present in the river adjacent to the project site. This table presents an assessment of the **potential** for the section of the River Boyne nearest to the project site to support the species.





**Table 2:** Potential for qualifying species to be located locally to project site - based on desktop study and site walkover survey

Species Name	Present in Grid O07 (or neighbouring grids within 10km)*	Is there potential that these species are present in the stretch of the River Boyne nearest to/downstream of the site
River lamprey <i>Lampetra fluviatilis</i>	Yes	Yes – though there is no direct connection to the River system and overland runoff distances (4km) are so large that any emissions or abstractions at the proposed development are unlikely to result in impact on the SAC
Atlantic Salmon <i>Salmo salar</i>	Yes	Yes - though there is no direct connection to the River and overland runoff distances (4km) are so large that any emissions or abstractions at the proposed development are unlikely to result in impact on the SAC
Otter <i>Lutra lutra</i>	Yes	Yes - though there is no direct connection to the River and overland runoff distances (4km) are so large that any emissions or abstractions at the proposed development are unlikely to result in impact on the SAC

\*Based on NPWS Habitats Directive species distribution maps (NPWS 2007)

### 3.5 Assessment of Bird Species of River Boyne and River Blackwater and River Boyne and River Nanny Estuaries

The River Boyne and River Blackwater, River Boyne Estuary and River Nanny Estuary and Shore sites have been designated SPA for a number of Annex I bird species (Birds Directive) which are:

#### **River Boyne and River Blackwater SPA**

- Whooper Swan *Cygnus Cygnus*

#### **River Boyne Estuary SPA**

- Golden Plover *Pluvialis apricaria*
- Bar Tailed Godwit *Limosa Lapponica*
- Little Tern *Sterna Albifrons*



## **River nanny Estuary and Shore SPA**

- Golden Plover *Pluvialis apricaria*
- Bar Tailed Godwit *Limosa Lapponica*

## 3.6 Summary

In summary, though there are a number of protected sites for habitats, fauna and birds in the wider region around the site, none of these are adjacent or in close proximity to the proposed development site. The proposed development will not impact on the natural water regime. Air modelling conducted as part of the EIS for the development of the facility in 2006 and 2009 indicated no likely impacts on species or habitats at protected sites.

In terms of birds it is possible that bird species moving within their normal habitat or commuting during times of migration may pass through the site. The proposed development will not impact on these short term movements.

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## 4.0 CONSULTATION

On 18<sup>th</sup> November 2011, WYG discussed the proposed amendments to the development with Maurice Eakin (Regional Officer) with the National Parks and Wildlife Service (NPWS) via telephone. He indicated that given the nature of the proposed amendments to the development it was unlikely that an Appropriate Assessment would be required for the proposed development though ultimately this would be a matter for the relevant planning authority.

Previous consultation with the DOEHLG in 2006, considered the area to be largely intensive agricultural land use and that the existing Indaver facility would have no ecological issues. The ERFB highlighted the populations of brown trout in the Nanny. The Environmental Officer stated that it was imperative that preventative measures were taken to ensure non negative impact to water courses. A comprehensive series of measures have been incorporated into the design of the facility to ensure no impact on local water courses and the Nanny from the construction or operation of the facility.

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## 5.0 SCREENING

The assessment criteria below is based on the template outlined in the EU methodology and its purpose is to identify elements of the project likely to impact on the Natura 2000 sites and determine the significance of any of the identified impacts on the Natura 2000 site.

**Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.**

As outlined in the Tables above, though there are a number of protected sites for habitats, fauna and birds in the wider region around the site, none of these are adjacent or in close proximity to the proposed development site.

Based on the points above, the potential construction and operational phase impacts outlined below only consider the potential influence of site activities on the down-stream ecological receptors on the various River Boyne, Blackwater and Nanny protected sites.

**Construction Phase**

The proposed amendments entail very minimal amounts of construction within the existing site areas which have already been significantly disturbed.

**Fuel, Chemical or other deleterious material spill/run-off**

A release of fuel, chemical or contaminated waters during construction could impact negatively on the surrounding drainage network and subsequently fish, birds and mammals using the rivers downstream. As outlined above, best construction practice will be followed, so even without mitigation there will be minimum potential for deleterious material entering the river. However the facility as constructed has been designed with a surface water management system to collect and only discharge surface water runoff suitable for discharge. An inline monitoring system is already in place and working effectively to monitor any excess emissions from the facility. Therefore, it is considered highly unlikely that any contaminants could be released from the facility to the drainage network therefore there will be no significant impact on the Natura 2000 sites.

**Operational Phase**

All waste activities associated with the proposed development take place indoors. The majority of the municipal waste accepted at the facility is in solid form, therefore no leachate or liquid discharge will be anticipated. Any liquid wastes accepted are stored in designated areas with full containment. It is considered



that there will be no significant impact on the Natura 2000 sites during operation of the facility.

**Other Plans and Projects**

The Eastern River Basin District Management Plan provides the basis for implementation of the aims of the Water Framework Directive by 2015. The facility is located in the Nanny catchment area. The plan for the Nanny Area details its current condition, the objectives set for the catchment, any protected areas (important areas containing rare or vulnerable wildlife or habitats), the problems identified in those catchments and a proposed Programme of Measures to resolve those problems. The core objective of each of the management plans is to seek improvement of the water quality and maintaining it. The main pressures on the Nanny catchment include agricultural, industrial and waste water discharges from septic tanks etc. These pressures are exacerbated by the poor soil types in the Nanny area. High nutrient concentrations, low ecological ratings and poor oxygenation conditions are occurring.

The proposed facility will not entail any waste water discharges to the local river system. The surface water to be discharged from the facility will be clean run off only which will have been stored and monitored and confirmed fit for discharge prior to release.

**Cumulative elements**

The proposed development is located in close proximity to the Irish Cement facility and Quarry at Platin, Duleek, Co Meath. Platin Quarry currently abstracts a significant quantum of water from the underlying aquifer (for dewatering purposes) and discharges it to the River Nanny. The abstraction is from the Platin formation of limestones; an aquifer body identified as at Risk under the most recent ERBD report. The proposed Indaver development entails a very minor increase in the abstraction of water from the underlying aquifer to supply the main process, however ultimately the amount of water abstracted from the aquifer will be neutral i.e. Indaver will use a quantum of water in the process that Platin would otherwise need to be dewatered. Therefore, it is considered that there will be no cumulative impact from the proposed development on the aquifer and indirectly to the River Boyne and River Blackwater SAC, River Boyne Estuary SPA and River Nanny Estuary SPA.

**Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of following headings**

Size and scale

The project consists of relatively minor additions to an existing waste management facility. The facility is located in an industrial area surrounded by agricultural land uses with no direct contact with a Natura 2000 site. The works are located well away from the SAC and SPA site boundaries.



Land-take

The project will not require any land associated with the Natura 2000 sites.

Distance

The project site is located a minimum of 4km from the nearest point of a Natura 2000 site.

Resource Requirements

There will be no resource requirements from the Natura 2000 sites for the project.

Emissions

Other than clean surface water run off to local drainage which feeds the Nanny, there are no emissions from the site to the Natura 2000 sites.

Excavation requirements

There will be no excavation requirements from the Natura 2000 sites for the project.

Transportation requirements

The transportation of waste to/from the facility will be via the existing road network. The vehicles do not pass through any of the identified Natura 2000 sites. The relevant measures and procedures in place for vehicles to ensure no spillage or other losses during transportation.

**Describe any likely impacts on the Natura 2000 site as a whole in terms of: Interference with the key relationships that define the structure of the site; Interference with key relationships that define the function of the site**

Based on the information outlined above, it is considered that there will be no significant impact on the Annex I habitats or Annex II species of the Habitats Directive and no significant impact on the Annex I bird species of the Birds Directive for which the local Natura 2000 sites are designated. Therefore, there will be no interference with the key relationships that define the structure or function of the site.

**Provide indicators of significance as a result of the identification of effects set out above in terms of the following headings:**

Habitat Loss

There will be no habitat loss in the Natura 2000 sites from the proposed development.

Fragmentation

There will be no fragmentation in the Natura 2000 sites from the proposed development.



Disruption and Disturbance

There will be minimal disturbance during the construction phase, which is considered not to be of a significant scale.

Change to key elements of the site

There are no anticipated changes in the key elements of the sites by the proposed new development.

**Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts are not known**

No elements of the project have been identified to have a significant impact on the integrity of the River Boyne and River Blackwater SAC and River Nanny and River Boyne Estuaries SAC/SPA Natura 2000 sites. Therefore, it is considered that a full Habitats Directive Appropriate Assessment Report is not required.

## 6.0 CONCLUSION

Based on the Habitats Directive Screening assessment it is anticipated that there will not be a significant impact on the integrity of River Boyne and River Blackwater SAC and River Boyne Estuary SPA and River Nanny Estuary SPA Natura 2000 site from the proposed development. Therefore it is considered that a full Habitats Directive Appropriate Assessment Report is not required.

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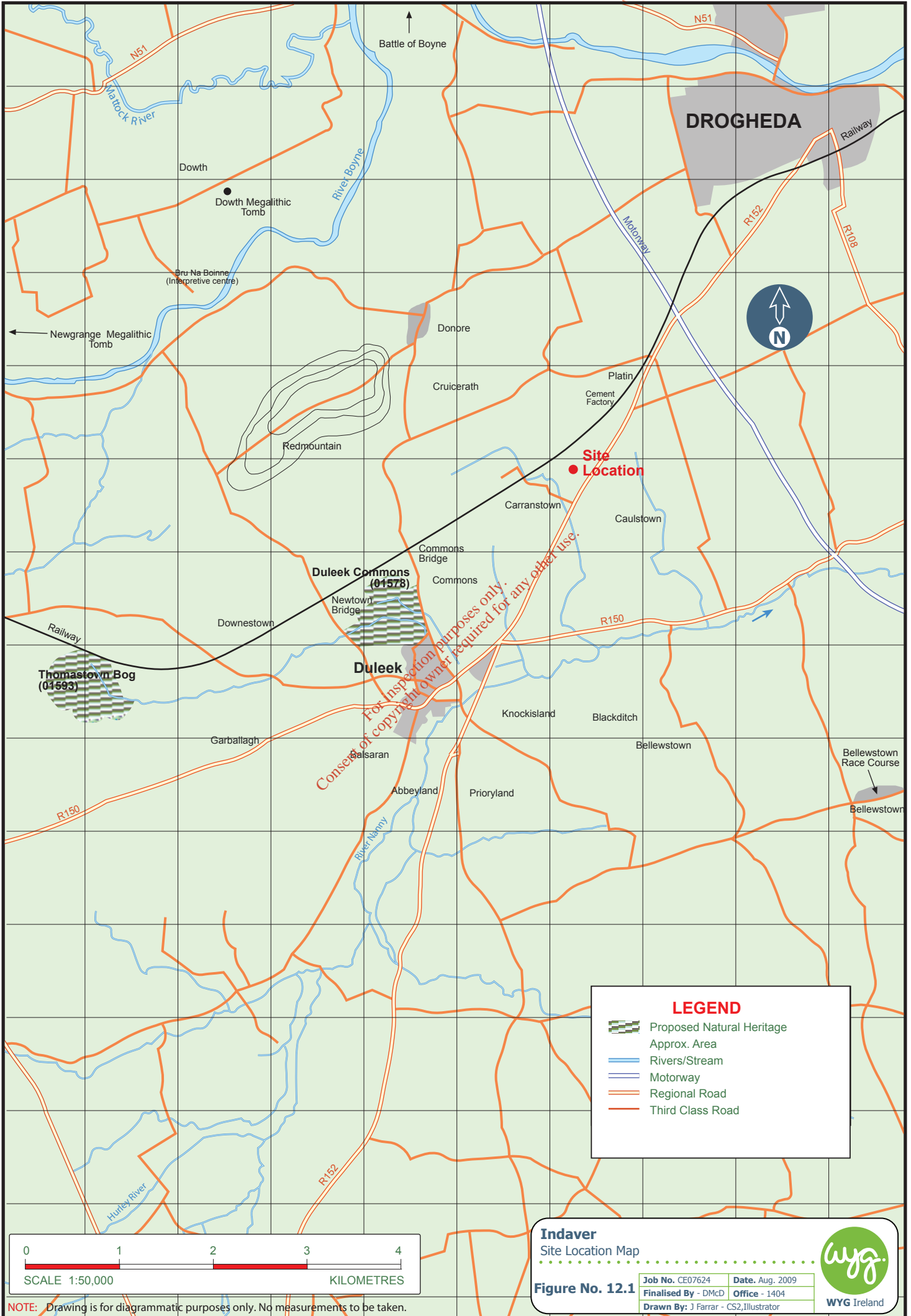
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National Biodiversity Data Centre. NBDC Website ([www.biodiversityireland.ie](http://www.biodiversityireland.ie))

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## FIGURES

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**DROGHEDA**






**Site Location**

**Duleek Commons (01578)**

**Thomastown Bog (04593)**

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**LEGEND**


-  Proposed Natural Heritage Approx. Area
-  Rivers/Stream
-  Motorway
-  Regional Road
-  Third Class Road



**Indaver**  
Site Location Map

**Figure No. 12.1**

Job No. CE07624	Date. Aug. 2009
Finalised By - DMCD	Office - 1404
Drawn By: J Farrar - CS2, Illustrator	



**WYG Ireland**

**NOTE:** Drawing is for diagrammatic purposes only. No measurements to be taken.

**DRAINAGE LEGEND :**

- ES SLO EXISTING SURFACE WATER SEWER/WASTEWATER
- PC PROPOSED DRAINAGE CHANNEL
- EX RD EXISTING ROAD DRAIN
- EX M EXISTING MAIN
- EX S EXISTING SPONGE WATER LETTER AND CHAMBER
- EX V EXISTING VALVE AND CHAMBER
- SB SITE BOUNDARY

**DRAWING LEGEND :**

- EXISTING BUILDINGS
- EXISTING HARDSTANDING AREAS
- HARDBOARD AREAS
- NEW BUILDINGS AREAS
- NEW PAVED ACCESS ROAD AREAS



PROPOSED SITE PLAN SCALE 1:500

**NOTES**

1. FOR STANDARD NOTES REFER TO DRAWING NO. CD/01.
2. RELEVANT ARCHITECTURAL, SERVICES & M/E/A DRAWINGS.
3. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED. LEVELS ARE STRUCTURAL UNLESS OTHERWISE SPECIFIED. DIMENSIONS SHOWN MAY BE CHANGED.

**Meitroy Associates**  
 Consulting Engineers & Project Managers  
**PROGRESS PRINT**  
 FOR COMMENT ONLY DATE PRINTED 21.12.11  
 NOT FOR ISSUE

BASED ON AS BUILT DRAWING RECEIVED FROM JOHN SISK AND SON ON THE 13/12/2011

REV	DESCRIPTION	DATE
A	ISSUED FOR COMMENT	09 DEC 21.12.11
B	ISSUED FOR COMMENT	09 DEC 21.12.11

CLIENT: **INDAVYR**

PROJECT: **WASTE MANAGEMENT FACILITY**  
 CARRANSTOWN CO. WEXH. IRELAND

DESIGNED	CHKD	DATE
CHKD	DATE	SCALE 1:500 @ A2
DATE	SCALE 1:500 @ A2	21.12.11
21098/CD/003	8	

# Appendix A

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## Appendix B

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## SITE SYNOPSIS

**SITE NAME: RIVER BOYNE AND RIVER BLACKWATER**

**SITE CODE: 002299**

This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath and smaller areas of Cavan and Louth. The underlying geology is Carboniferous Limestone for the most part with areas of Upper, Lower and Middle well represented. In the vicinity of Kells Silurian Quartzite is present while close to Trim are Carboniferous Shales and Sandstones. There are many large towns adjacent to but not within the site. Towns both small and large, include Slane, Navan, Kells, Trim, Athboy and Ballivor.

The site is a candidate SAC selected for alkaline fen and alluvial woodlands, both habitats listed on Annex I of the E.U. Habitats Directive. The site is also selected for the following species listed on Annex II of the same directive – Atlantic Salmon, Otter and River Lamprey.

The main areas of alkaline fen are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough. The hummocky nature of the local terrain produces frequent springs and seepages which are rich in lime. A series of base-rich marshes have developed in the poorly drained hollows, generally linked with these three lakes. Open water is usually fringed by Bulrush (*Typha latifolia*), Common Club-rush (*Scirpus lacustris*) or Common Reed (*Phragmites australis*) and this last species also extends shorewards where a dense stand of Great Fen Sedge or Saw Sedge (*Cladium mariscus*) frequently occurs. This in turn grades into a sedge and grass community (*Carex* spp., *Molinia caerulea*) or one dominated by the Black Bog-rush (*Schoenus nigricans*). An alternative direction for the aquatic/terrestrial transition to take is through a floating layer of vegetation. This is normally based on Bogbean (*Menyanthes trifoliata*) and Marsh cinquefoil (*Potentilla palustris*). Other species gradually become established on this cover, especially plants tolerant of low nutrient status e.g. bog mosses (*Sphagnum* spp.). Diversity of plant and animal life is high in the fen and the flora, includes many rarities. The plants of interest include Narrow-leaved Marsh Orchid (*Dactylorhiza traunsteineri*), Fen Bedstraw (*Galium uliginosum*), Cowbane (*Cicuta virosa*), Frogbit (*Hydrocharis morsus-ranae*) and Least Bur-reed (*Sparganium minimum*). These species tend to be restricted in their distribution in Ireland. Also notable is the abundance of aquatic Stoneworts (*Chara* spp.) which are characteristic of calcareous wetlands.

The rare plant, Round-leaved Wintergreen (*Pyrola rotundifolia*) occurs around Newtown Lough. This species is listed in the Red Data Book and is protected under the Flora Protection Order, 1999, and this site is its only occurrence in Co. Meath.

Wet woodland fringes many stretches of the Boyne. The Boyne River Islands are a small chain of three islands situated 2.5 km west of Drogheda. The islands were formed by the build up of alluvial sediment in this part of the river where water movement is sluggish. All of the islands are covered by dense thickets of wet, Willow (*Salix* spp.) woodland, with the following species occurring: Osier (*S. viminalis*), Crack Willow (*S. fragilis*), White Willow (*S. alba*), Purple Willow (*Salix purpurea*) and Grey Willow (*S. cinerea*). A small area of Alder (*Alnus glutinosa*) woodland is found on soft ground at the edge of the canal in the north-western section of the islands. Along other stretches of the rivers of the site Grey Willow scrub and pockets of wet woodland dominated by Alder have become established, particularly at the river edge of mature deciduous woodland. Ash (*Fraxinus excelsior*) and Birch (*Betula pubescens*) are common in the latter and the ground flora is typical of wet woodland with Meadowsweet (*Filipendula ulmaria*), Angelica (*Angelica sylvestris*), Yellow Iris, Horsetail (*Equisetum* spp.) and occasional tussocks of Greater Tussock-sedge (*Carex paniculata*).

The dominant habitat along the edges of the river is freshwater marsh - the following plant species occur commonly here: Yellow Flag (*Iris pseudacorus*), Creeping Bent (*Agrostis stolonifera*), Canary Reed-grass (*Phalaris arundinacea*), Marsh Bedstraw (*Galium palustre*), Water Mint (*Mentha aquatica*) and Water Forget-me-not (*Myosotis scorpioides*). In the wetter areas of the marsh Common Meadow-rue (*Thalictrum flavum*) is found. In the vicinity of Dowth, Fen Bedstraw (*Galium uliginosum*), a scarce species mainly confined to marshy areas in the midlands, is common in this vegetation. Swamp Meadow-grass (*Poa palustris*) is an introduced plant which has spread into the wild (naturalised) along the Boyne approximately 5 km south-west of Slane. It is a rare species which is listed in the Red Data Book and has been recorded among freshwater marsh vegetation on the banks of the Boyne in this site. The only other record for this species in the Republic is from a site in Co. Monaghan.

The secondary habitat associated with the marsh is wet grassland and species such as Tall Fescue (*Festuca arundinacea*), Silverweed (*Potentilla anserina*), Creeping Buttercup (*Ranunculus repens*), Meadowsweet (*Filipendula ulmaria*) and Meadow Vetchling (*Lathyrus pratensis*) are well represented. Strawberry Clover (*Trifolium fragiferum*), a plant generally restricted to coastal locations in Ireland, has been recorded from wet grassland vegetation at Trim. At Rossnaree river bank on the River Boyne, is Round-Fruited Rush (*Juncus compressus*) found in alluvial pasture, which is generally periodically flooded during the winter months. This rare plant is only found in three counties in Ireland.

Along much of the Boyne and along tributary stretches are areas of mature deciduous woodland on the steeper slopes above the floodplain marsh or wet woodland vegetation. Many of these are planted in origin. However the steeper areas of King Williams Glen and Townley Hall wood have been left unmanaged and now have a more natural character. East of Curley Hole the woodland has a natural appearance with few conifers. Broad-leaved species include Oak (*Quercus* spp.), Ash (*Fraxinus excelsior*), Willows, Hazel (*Corylus avellana*), Sycamore (*Acer pseudoplatanus*), Holly (*Ilex aquifolium*), Horse chestnut (*Aesculus* sp.) and the shrubs Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*) and Elder (*Sambucus nigra*). South-west of Slane and in Dowth, the addition of some more exotic tree species such

as Wych Elm (*Ulmus glabra*), Beech (*Fagus sylvatica*), and occasionally Lime (*Tilia cordata*), are seen. Coniferous trees, Larch (*Larix* sp.) and Scots Pine (*Pinus sylvestris*) also occur. The woodland ground flora includes Barren Strawberry (*Potentilla sterilis*), Enchanter's Nightshade (*Circaea lutetiana*) and Ground-ivy (*Glechoma hederacea*), along with a range of ferns. Variation occurs in the composition of the canopy, for example, in wet patches alongside the river, White Willow and Alder form the canopy.

Other habitats present along the Boyne and Blackwater include lowland dry grassland, improved grassland, reedswamp, weedy wasteground areas, scrub, hedge, drainage ditches and canal. In the vicinity of Lough Shesk, the dry slopes of the morainic hummocks support grassland vegetation which, in some places, is partially colonised by Gorse (*Ulex europaeus*) scrub. Those grasslands which remain unimproved for pasture are species-rich with Common Knapweed (*Centaurea nigra*), Creeping Thistle (*Cirsium arvense*) and Ribwort Plantain (*Plantago lanceolata*) commonly present. Fringing the canal alongside the Boyne south-west of Slane, are Reed Sweet-grass (*Glyceria maxima*), Great Willowherb (*Epilobium hirsutum*) and Meadowsweet.

The Boyne and its tributaries is one of Ireland's premier game fisheries and it offers a wide range of angling from fishing for spring salmon and grilse to seatrout fishing and extensive brown trout fishing. Atlantic Salmon (*Salmo salar*) use the tributaries and headwaters as spawning grounds. Although this species is still fished commercially in Ireland, it is considered to be endangered or locally threatened elsewhere in Europe and is listed on Annex II of the Habitats Directive. Atlantic Salmon run the Boyne almost every month of the year. The Boyne is most important as it represents an eastern river which holds large three-sea-winter fish from 20 –30 lb. These fish generally arrive in February with smaller spring fish (10 lb) arriving in April/May. The grilse come in July, water permitting. The river gets a further run of fish in late August and this run would appear to last well after the fishing season. The salmon fishing season lasts from 1<sup>st</sup> March to 30<sup>th</sup> September.

The Blackwater is a medium sized limestone river which is still recovering from the effects of the arterial drainage scheme of the 70's. Salmon stocks have not recovered to the numbers pre drainage. The Deel, Riverstown, Stoneyford and Tremblestown Rivers are all spring fed with a continuous high volume of water. They are difficult to fish in that some are overgrown while others have been affected by drainage with the resulting high banks.

The site is also important for the populations of two other species listed on Annex II of the E.U. Habitats Directive, namely River Lamprey (*Lampetra fluviatilis*) which is present in the lower reaches of the Boyne River while the Otter (*Lutra lutra*) can be found throughout the site. In addition, the site also supports many more of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. Common Frog, another Red Data Book species, also occurs within the site. All of these animals with the addition of the Stoat and Red Squirrel, which also occur within the site, are protected under the Wildlife Act.

Whooper Swans winter regularly at several locations along the Boyne and Blackwater Rivers. Parts of these areas are within the cSAC site. Known sites are at Newgrange (c. 20 in recent winters), near Slane (20+ in recent winters), Wilkinstown (several records of 100+) and River Blackwater from Kells to Navan (104 at Kells in winter 1996/97, 182 at Headfort in winter 1997/98, 200-300 in winter 1999/00). The available information indicates that there is a regular wintering population of Whooper Swans based along the Boyne and Blackwater River valleys. The birds use a range of feeding sites but roosting sites are not well known. The population is substantial, certainly of national, and at times international, importance. Numbers are probably in the low hundreds.

Intensive agriculture is the main landuse along the site. Much of the grassland is in very large fields and is improved. Silage harvesting is carried out. The spreading of slurry and fertiliser poses a threat to the water quality of this salmonid river and to the lakes. In the more extensive agricultural areas sheep grazing is carried out.

Fishing is a main tourist attraction on the Boyne and Blackwater and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. The Eastern Regional Fishery Board have erected fencing along selected stretches of the river as part of their salmonid enhancement programme. Parts of the river system have been arterially dredged. In 1969 an arterial dredging scheme commenced and disrupted angling for 18 years. The dredging altered the character of the river completely and resulted in many cases in leaving very high banks. The main channel from Drogheda upstream to Navan was left untouched, as were a few stretches on the Blackwater. Ongoing maintenance dredging is carried out along stretches of the river system where the gradient is low. This is extremely destructive to salmonid habitat in the area. Drainage of the adjacent river systems also impacts on the many small wetland areas throughout the site. The River Boyne is a designated Salmonid Water under the EU Freshwater Fish Directive.

The site supports populations of several species listed on Annex II of the EU Habitats Directive, and habitats listed on Annex I of this directive, as well as examples of other important habitats. Although the wet woodland areas appear small there are few similar examples of this type of alluvial wet woodland remaining in the country, particularly in the north-east. The semi-natural habitats, particularly the strips of woodland which extend along the river banks and the marsh and wet grasslands, increase the overall habitat diversity and add to the ecological value of the site as does the presence of a range of Red Data Book plant and animal species and the presence of nationally rare plant species.

6.10.2006

## 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.

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31.3.2005

## 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

# Appendix C

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## Conservation Objectives for River Boyne and River Blackwater SAC [002299]

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 Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

- ◆ [1099] *Lampetra fluviatilis*
- ◆ [1106] *Salmo salar* (only in fresh water)
- ◆ [1355] *Lutra lutra*
- ◆ [7230] Alkaline fens
- ◆ [91E0] \* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

### Citation:

NPWS (2011) Conservation objectives for River Boyne and River Blackwater SAC [002299]. Generic Version 3.0.  
Department of Arts, Heritage & the Gaeltacht.

For more information please go to: [www.npws.ie/protectedsites/conservationmanagementplanning](http://www.npws.ie/protectedsites/conservationmanagementplanning)



## Conservation Objectives for Boyne Estuary SPA [004080]

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:

◆ <i>Tadorna tadorna</i>	[wintering]
◆ <i>Haematopus ostralegus</i>	[wintering]
◆ <i>Pluvialis apricaria</i>	[wintering]
◆ <i>Pluvialis squatarola</i>	[wintering]
◆ <i>Vanellus vanellus</i>	[wintering]
◆ <i>Calidris canutus</i>	[wintering]
◆ <i>Calidris alba</i>	[wintering]
◆ <i>Limosa limosa</i>	[wintering]
◆ <i>Tringa totanus</i>	[wintering]
◆ <i>Arenaria interpres</i>	[wintering]
◆ <i>Sterna albifrons</i>	[breeding ]
◆ Wetlands	[]

### Citation:

NPWS (2011) Conservation objectives for Boyne Estuary SPA [004080]. Generic Version 4.0. Department of Arts, Heritage & the Gaeltacht.

For more information please go to: [www.npws.ie/protectedsites/conservationmanagementplanning](http://www.npws.ie/protectedsites/conservationmanagementplanning)



## Conservation Objectives for River Nanny Estuary and Shore SPA [004158]

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:

◆ <i>Haematopus ostralegus</i>	[wintering]
◆ <i>Charadrius hiaticula</i>	[wintering]
◆ <i>Pluvialis apricaria</i>	[wintering]
◆ <i>Calidris canutus</i>	[wintering]
◆ <i>Calidris alba</i>	[wintering]
◆ <i>Larus argentatus</i>	[wintering]
◆ Wetlands	[]

### Citation:

NPWS (2011) Conservation objectives for River Nanny Estuary and Shore SPA [004158]. Generic Version 4.0.  
Department of Arts, Heritage & the Gaeltacht.

For more information please go to: [www.npws.ie/protectedsites/conservationmanagementplanning](http://www.npws.ie/protectedsites/conservationmanagementplanning)