



STAGE 1 SCREENING EXERCISE

PROPOSED DEVELOPMENT

BEAUPARC

COUNTY MEATH

Prepared For: -

Panda Waste Service
Rathdrinagh
Beauparc
Co. Meath

Prepared By: -

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

May 2012

TABLE OF CONTENTS

	<u>PAGE</u>
1 INTRODUCTION.....	1
1.1 METHODOLOGY	1
2 PROJECT DESCRIPTION.....	2
2.1 SITE LOCATION & SURROUNDING LANDUSE.....	2
2.2 GEOLOGY & HYDROGEOLOGY	2
2.3 SURFACE WATER DRAINAGE.....	2
2.4 NATURE OF THE FACILITY	2
3 NATURA 2000 SITES	4
4 POTENTIAL SOURCES OF EFFECTS.....	6
4.1 EMISSIONS TO AIR	6
4.2 EMISSIONS TO SURFACE WATER.....	6
4.2.1 Emergencies	7
4.3 EMISSIONS TO GROUND	7
5 SCREENING CONCLUSION & STATEMENT	8
5.1 CONCLUSIONS	8
5.2 STATEMENT	8

APPENDIX 1 - Natura Site Synopses

1 INTRODUCTION

PANDA submitted an application to the Environmental Protection Agency (the Agency) to revise the Waste Licence at its existing Materials Recovery Facility at Beuparc, Navan, County Meath. The application relates to the development of a new building to accommodate a processing system comprising dry fermentation and composting and the manufacture of refuse derived fuel in an existing building.

The Agency requested that a Screening for Appropriate Assessment be completed in accordance with the European Communities (Birds and Natural Habitats Directive) Regulations 2011. The objective was to determine if the proposed changes are or are not likely to have any significant direct, indirect or cumulative significant effects on a Natura 2000 site.

1.1 Methodology

The Stage 1 screening exercise was undertaken in accordance with the Department of the Environment, Heritage and Local Government Guidelines 2009/2010, Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities. It is based on the information on the proposed changes to waste activities presented in the Licence Review application.

Consent of copyright owner required for any other use.
For inspection purposes only.

2 PROJECT DESCRIPTION

2.1 Site Location & Surrounding Landuse

The facility is located in Rathdrinagh, Beauparc, Navan, County Meath. It is approximately 4km south of Slane, County Meath. The facility is bordered to the west by the N2 National Primary Route and to the north by a third class road, the Knockcommon Road. Surrounding activity is predominantly agriculture, however there are some commercial units adjacent the site to the west and residential dwellings along the N2 and Knockcommon Road

2.2 Geology & Hydrogeology

The site is underlain by the Balrickard Formation, which is a coarse sandstone, shale. The overlying subsoils are tills, which are at least 10m thick. The Balrickard Formation is classified as a bedrock aquifer that is generally unproductive except for local zones (P1). The aquifer vulnerability rating is Low.

2.3 Surface Water Drainage

The site is in the catchment of the River Boyne. A drain that runs along the southern boundary connects to an unnamed tributary of the Roughgrange River. The Roughgrange is a tributary of the River Boyne, which it joins approximately 3km downstream from the site. There are no known direct wastewater discharges to the Roughgrange.

2.4 Nature of the Facility

The facility only accepts non-hazardous wastes, which are processed to recover wastes that are suitable for recycling and to reduce the amount sent to landfill. At present there are three main buildings (Building 1, 2 and 3) used for waste processing. The current Waste Licence specifies the design and operational conditions that are required to ensure the facility activities neither cause pollution or gives rise to environmental impairment outset the facility boundaries

The objectives of the licence review are: -

- To extend the licence area to include a new building (Building 4), which will house a biological treatment system. The system, which is a combination of anaerobic digestion and composting, will treat organic waste to produce compost. Gases produced during the digestion stage will be used as a fuel to generate electricity and heat, which will be used at the facility and sold to electricity supply companies;

- To allow the processing of household and commercial waste to recover materials, for example paper and plastic, that are can be used as a fuel, for example in cement manufacturing. These materials are called Refuse Derived Fuel (RDF);
- To amend Condition 1.5.3 of the current licence to allow the continuous operation of the biological treatment and RDF manufacturing systems;
- To amend Condition 8.6 to allow the continued operation of the construction and demolition waste processing plant in a dedicated open area.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

3 NATURA 2000 SITES

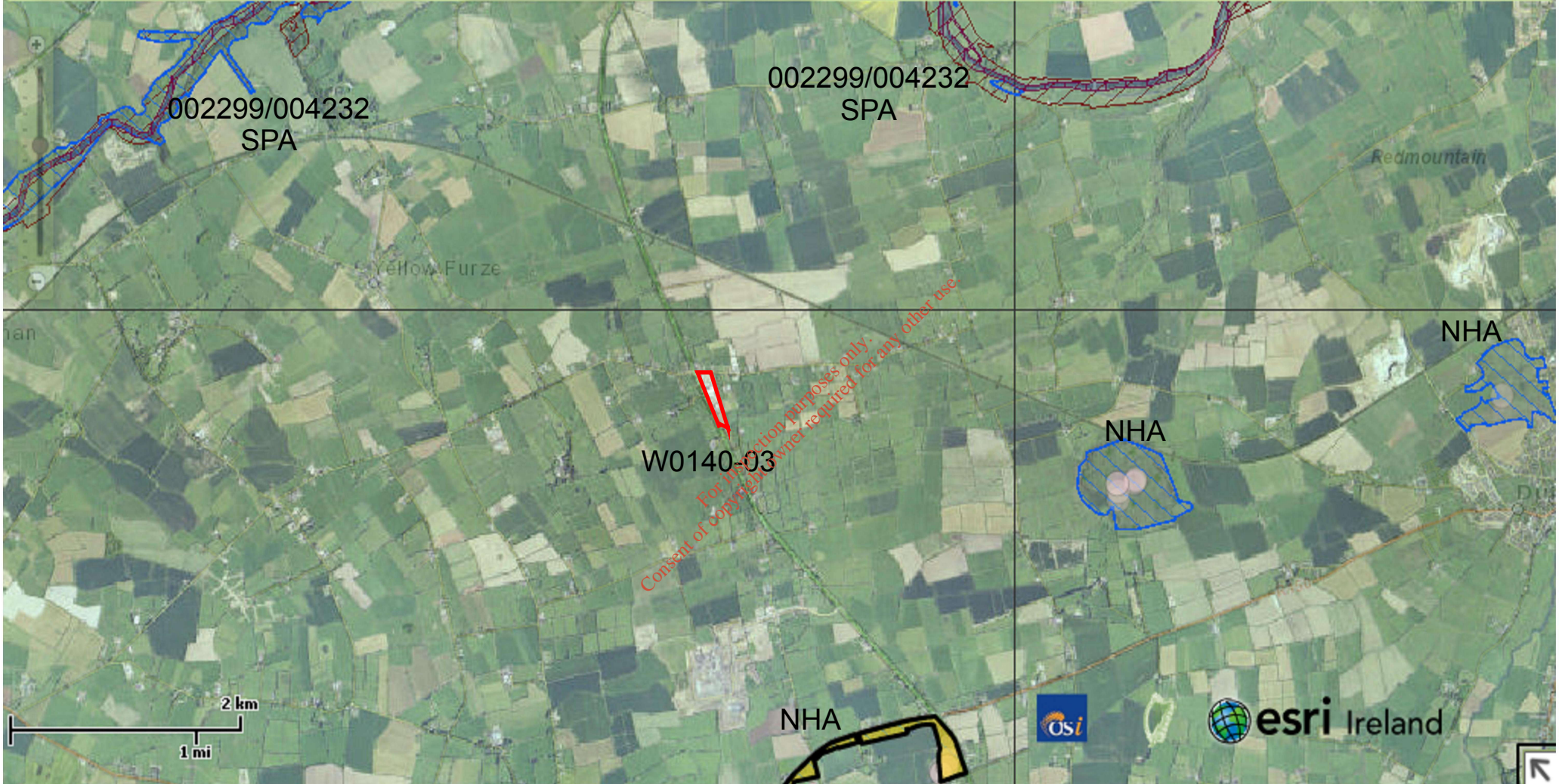
There is no Natura 2000 site immediately adjacent to the site. The closest site identified on the National Biodiversity Database is the River Boyne and River Blackwater Special Area of Conservation (SAC) and Special Protection Area (SPA)(002299/004232), the closest stretch of which is approximately 3km to the north east (Ref Figure 1) .

The site was selected as an SAC for alkaline fen and alluvial woodlands, both habitats listed on Annex I of the E.U. Habitats Directive and also for the following species listed on Annex II of the same directive – Atlantic Salmon, Otter and River Lamprey. The site was selected as an SPA as it is a breeding ground for Kingfishers. The site synopses are included in Appendix 1.

*For inspection purposes only.
Consent of copyright owner required for any other use.*



Map navigation controls including a scale bar, zoom in/out buttons, a hand icon, a location pin icon (highlighted with a yellow box), and a globe icon. On the right, there are buttons for 'Mapping', 'Aerial', and '6 Inch'.



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

CLIENT

Panda Waste Services Ltd

TITLE

AA Screening Assessment
W0140-03

Details

— Site Boundary

FIGURE NUMBER

1

Scale

Not To Scale

Revision

A

This drawing is the property of O'Callaghan Moran & Associates and shall not be used, reproduced or disclosed to anyone without the prior written permission of O'Callaghan Moran & Associates and shall be returned upon request.

4 POTENTIAL SOURCES OF EFFECTS

4.1 Emissions to Air

The proposed RDF Manufacturing and Biological Treatment activities will give rise to new emission to air. These will comply with the emission limit values that are set in the revised Waste Licence and which are designed to ensure the emissions do not adversely affect the environment.

4.2 Emissions to Surface Water

At present rainwater run-off is collected in a holding tank and removed from the site. Rainwater from the roof of Building 4 will be collected in a tank and used at the site for spraying the yards to keep dust down.

The current licence authorises the installation of a constructed wetland into which run-off from the existing paved yards will discharge after first passing through silt traps and an oil interceptor. It is intended to install the constructed wetland later in 2012. The licence sets emission limit values (ELV) for the discharge from the wetlands to the drain that runs along the southern boundary. These are set out in Table 4.1 and the proposed changes to waste activities will not result in any changes to these ELV

Table 4.1 Surface Water ELVs

Parameter	
BOD	5 mg/l
Suspended Solids	25 mg/l
Ammonia	1 mg/l

In addition, the wetland is designed to achieve the following nutrient emission levels:

Phosphorous 0.5mg/l

Nitrogen 0.25 mg/l

The drain along the southern boundary connects to an unnamed tributary of the Roughgrange River. The Roughgrange is a tributary of the River Boyne, which it joins approximately 3km from the site. At present there is no discharge to the drain.

Although not directly related to the proposed changes that are the subject of the licence review application, the constructed wetlands will, when constructed, only take rainwater run-off from paved yards that has already passed through silts traps and an oil interceptor.

Given the nature of the discharge and the distance to the River Boyne, the impact of discharge from the constructed wetlands on the SAC will be indiscernible.

4.2.1 Emergencies

The new percolate storage tanks and their containment bunds will be designed and constructed in accordance with the applicable design standards. The tanks and bunds will be subject to integrity testing during the commissioning stage. When operational, the tanks, associated pipework and bunds will be subject to routine integrity testing at the frequency that will be specified in the Waste Licence.

The design, method of construction and maintenance of the tanks, pipework and secondary containment will ensure that the risk of any accidental spills or leaks are minimised and, in the unlikely event that they occur, will be contained within the site

4.3 Emissions to Ground

Rainfall on the new concrete yards will be collected and passed through an oil interceptor and into a soakaway. These will comply with the emission limit values set in the revised Licence. A hydrogeological assessment concluded that the proposed discharge does not present a risk to either groundwater or surface waters.

For inspection purposes only.
Consent of copyright owner required for any other use.

5 SCREENING CONCLUSION & STATEMENT

5.1 Conclusions

The proposed development will not give rise to any significant direct, indirect or cumulative significant effects on a Natura 2000 site. The changes will

- Not cause reduction in the area of the habitat or Natura 2000 site
- Not cause direct or indirect damage to the physical quality of the environment (e.g. water quality and supply, soil compaction) in the Natura 2000 site.
- Not cause serious or ongoing disturbance to species or habitats for which the Natura 2000 site is selected (e.g. increased noise, illumination and human activity).
- Not cause direct or indirect damage to the size, characteristics or reproductive ability of populations on the Natura 2000 site, and
- Not interfere with mitigation measures put in place for other plans or projects.

5.2 Statement

The screening exercise has established that the proposed changes to the current activities do not have the potential for significant effects and an Appropriate Assessment is not required.

APPENDIX 1

*For inspection purposes only.
Consent of copyright owner required for any other use.*

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 1st March to 30th 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

APPENDIX 2

*For inspection purposes only.
Consent of copyright owner required for any other use.*

SITE SYNOPSIS

SITE NAME: RIVER BOYNE AND RIVER BLACKWATER SPA

SITE CODE: 004232

The River Boyne and River Blackwater SPA is a long, linear site that comprises stretches of the River Boyne and several of its tributaries; most of the site is in Co. Meath, but it extends also into Cos Cavan, Louth and Westmeath. It includes the following river sections: the River Boyne from the M1 motorway bridge, west of Drogheda, to the junction with the Royal Canal, west of Longwood, Co Meath; the River Blackwater from its junction with the River Boyne in Navan to the junction with Lough Ramor in Co. Cavan; the Tremblestown River/Athboy River from the junction with the River Boyne at Kilnagross Bridge west of Trim to the bridge in Athboy, Co. Meath; the Stoneyford River from its junction with the River Boyne to Stonestown Bridge in Co. Westmeath; the River Deel from its junction with the River Boyne to Cummer Bridge, Co. Westmeath. The site includes the river channel and marginal vegetation.

Most of the site is underlain by Carboniferous limestone but Silurian quartzite also occurs in the vicinity of Kells and Carboniferous shales and sandstones close to Trim.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher.

A survey in 2010 recorded 19 pairs of Kingfisher (based on 15 probable and 4 possible territories) in the River Boyne and River Blackwater SPA. A survey conducted in 2008 recorded 20-22 Kingfisher territories within the SPA. Other species which occur within the site include Mute Swan (90), Teal (166), Mallard (219), Cormorant (36), Grey Heron (44), Moorhen (84), Snipe (32) and Sand Martin (553) – all figures are peak counts recorded during the 2010 survey.

The River Boyne and River Blackwater Special Protection Area is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive.

25.11.2010