

WOOD ENVIRONMENTAL MANAGEMENT LTD

Environmental Management Consultants

Administration
Licensing Unit
Office of Climate
Licensing & Resource Use
Environmental Protection Agency
Headquarters
PO Box 3000
Johnstown Castle Estate
Co Wexford



15th July 2013

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19 JUL 2013

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Dear Sirs,

RE: Waste Licence W0286-1 The Recycling Village Ltd – Article 12 Compliance Requirements.

I refer to your recent Article 12 Compliance Requirements correspondence seeking further information and clarification in relation to the waste licence application submitted by The Recycling Village Ltd, Unit 21, Duleek Business Park, Commons, Duleek, Co Meath.

Please find below and attached the further information and clarification as sought in your correspondence dated 18th June 2013.

1. Surface Water Discharge.

The Recycling Village Ltd confirms that the only aqueous discharge from the site ie. uncontaminated yard water run off and roof water, drains to an existing mains surface water sewer via an internal surface water drainage system and interceptor sump.

The Recycling Village Ltd confirms that the above statement shall replace the statement on page 2 of 4 in Attachment 1 titled 'Existing Environment & Impact of the Activity', which incorrectly states that the yard water drains to foul sewer.

2. Process Capacity.

The existing facility is currently permitted to process upto 9,000 tonnes of WEEE and 1,000 tonnes of batteries. This is achieved over 1 x 7.5 hour shift per day operating 5 days per week. The processing capacity of the existing equipment as currently operated is summarized below.

Equipment/Area	Processing Capacity	Shift Pattern	Annual Capacity
Cathode Ray Tubes (CRT)	0.22 t/hr	7.5 hours	3,432
Flat Panel Display (FDP)	0.027 t/hr	7.5 hours	263
Small Domestic Appliances (SDA)	0.5 t/hr	7.5 hours	975
(ICT)	0.06 t/hr	7.5 hours	117
Batteries	0.85 t/hr	7.5 hours	1,657
TOTAL			6,444

The waste licence application proposes to increase the site throughput to upto 11,000 tonnes of WEEE and 4,000 tonnes of batteries. This will be achieved using the existing process equipment over 2 x 7.5 hour shifts per day operating 6 days per week. The processing capability of the existing equipment over the proposed extended operating hours is summarized below.

Equipment/Area	Processing Capacity	Shift Pattern	Annual Capacity
Cathode Ray Tubes (CRT)	0.22 t/hr	15 hours	8,237
Flat Panel Display (FDP)	0.027 t/hr	15 hours	632
Small Domestic Appliances (SDA)	0.5 t/hr	15 hours	2,340
(ICT)	0.06 t/hr	15 hours	281
Batteries	0.85 t/hr	15 hours	3,978
TOTAL			15,468

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In conclusion, the existing processing equipment has the capacity to handle the additional processing throughput by adding an extra 7.5 hour shift, extending working hours and increasing employee numbers as shown on the attached process schedule.

In order to achieve the increased throughput, the facility will operate Monday to Saturday from 6am to 9pm as detailed in the waste licence application.

3. Screening for Appropriate Assessment.

The Recycling Village Ltd has carried out a screening for Appropriate Assessment in accordance with the document 'Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009'.

The objective of the screening exercise is to establish whether the activity, individually or in combination with other plan or projects is likely to have a significant effect on European Site(s) eg. Special Areas of Conservation (SAC's), Candidate SAC's, Special Protection Areas (SPA's), Proposed SPA's.

Screening is the process that addresses and records the reasoning and conclusions in relation to whether a plan or project;

1. can be excluded from Appropriate Assessment requirements because it is directly connected with or necessary to the management of the site, and
2. either alone or in combination with other plans and projects is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

Screening is an iterative process that involves consideration of the plan or project and its likely effects, and of the Natura 2000 sites and their ecological sensitivities, and the likely interaction between these. The aim of the screening exercise is to establish whether an 'appropriate assessment' is required in relation to the 'project'.

The screening process below follows the structure and format as recommended in the document 'Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009'.

i Description of Plan or Project.

For the purposes of this screening exercise, The Recycling Village Ltd application is considered a 'project' as it is an activity that requires a waste licence.

The project involves applying to the Environmental Protection Agency for a waste licence to operate an existing WEEE Recycling facility at Unit 21, Duleek Business Park, Commons, Duleek, Co Meath.

The Recycling Village Ltd operates an existing WEEE and battery recycling facility at the current location under Waste Permit (WFP-MH-11-000501) issued by Meath County Council. Due to an increase in business and projected throughput, The Recycling Village Ltd needs to increase its WEEE and battery intake capacity from 10,000 tonnes to 15,000 tonnes per year.

ii Description of the Local Site and Area Characteristics.

The existing WEEE Recycling facility is located at Unit 21, Duleek Business Park, Common, Duleek, Co Meath (E70521, N76941). The area of the site is approximately 6,313m² (1.56 acres) and is located within a purpose built Business Park. All access roads are covered in tarmac.

There is one large building at the site measuring approximately 1,700m². All WEEE processing takes place inside the facility building and all segregated materials securely stored under cover in accordance with the sites EMS procedures.

The site yard is covered with concrete and is drained via a series of gullies that discharge to an interceptor prior to discharge to a local authority surface sewer off site.

The site is connected to the full range of utilities including; electricity, water, sewers, telephone, broadband etc. It is secured by a 2m steel fence and monitored by CCTV. The main gates to the facility are locked at night. These measures prevent unauthorised access and disposal of waste at the facility.

Environmental emissions from the site including surface yard water run off, noise and dust are regularly sampled and monitored as required by the conditions of the existing Waste Permit.

iii Identification of Relevant Natura 2000 Sites, Qualifying Interests & Conservation Objectives.

A review and assessment of all published Natura 2000 sites within a 15km radius of the project sites has been carried out (see attached Natura Site location map).

There are no registered Natura 2000 sites within or adjacent to the project site/area. The following Natura 2000 sites are located within a 15 km radius of the project site;

- Boyne Estuary SPA
- River Nanny Estuary & Shore SPA
- River Boyne & Blackwater SPA
- River Boyne & Blackwater SCA

A site summary, description of the key conservation interests of the site, conservation objectives and qualifying interest are shown below. The site synopsis for each location is provided in Appendix 1.

Natura Sites with 15km of The Recycling Village Ltd.

1. Boyne Estuary SPA 004080

Summary Description:

Estuary (Site Synopsis Appendix 1)

Conservation Objectives:

To maintain the favourable conservation condition of key species and habitats in the Boyne Estuary SPA

Key Conservation/Qualifying Interests of the site:

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

2. River Nanny Estuary and Shore SPA 004158

Summary Description:

Estuary & Shore (Site Synopsis Appendix 1)

Conservation Objectives:

To maintain the favourable conservation condition of key species and habitats in River Nanny Estuary and Shore SPA

Key Conservation/Qualifying Interests of the site:

- Oystercatcher (*Haematopus ostralegus*) [A130]
- Ringed Plover (*Charadrius hiaticula*) [A137]
- Golden Plover (*Pluvialis apricaria*) [A140]
- Knot (*Calidris canutus*) [A143]
- Sanderling (*Calidris alba*) [A144]
- Herring Gull (*Larus argentatus*) [A184]
- Wetlands & Waterbirds [A999]

3. River Boyne and River Blackwater SPA 004232

Summary Description:

River (Site Synopsis Appendix 1)

Conservation Objectives:

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

Key Conservation/Qualifying Interests of the site:

Kingfisher (*Alcedo atthis*) [A229]

4. River Boyne and River Blackwater SAC 002299

Summary Description:

River (Site Synopsis Appendix 1)

Conservation Objectives:

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

Key Conservation/Qualifying Interests of the site:

River lamprey (*Lampetra fluviatilis*) [1099]

Salmon (*Salmo salar*) [1106]

Otter (*Lutra lutra*) [1355]

Alkaline fens [7230]

Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]

iv Assessment of Likely Effects.

The following assessment of likely effects is based upon a review of existing published information in relation to Natura 2000 sites with a 15km radius of the site, available air quality and river water quality data and facility environmental emissions monitoring data.

Impact Type	Significance Indicator	Applicable/Risk	Comments
Loss of Habitation Area	% loss	No	Existing site in industrial zone. Not adjacent to Natura 2000 site.
Fragmentation	Duration/permanence	No	As above
Disturbance	Duration/permanence	No	As above
Species Population Density	Timescale for replacement	No	As above
Water Resource	Relative change	No	As above. Water provided by Council mains supply.
Water Quality	Relative change in key indicative chemicals and other elements	No	Surface water run off from the site drains into an onsite interceptor prior to discharge to the River Nanny via a Council sewer. The River Nanny flows into the Nanny Estuary SPA. Samples of yard run off water from the site are analysed on a quarterly basis as required by the facility waste permit. Water quality data provided by the EPA and Meath County Council for the River Nanny downstream of the surface water discharge point, indicate that the run off from the facility is unlikely to have a significant negative impact on the water quality of the River Nanny.

Impact Type	Significance Indicator	Applicable/Risk	Comments
Air Quality	Relative change in key indicative chemicals and other elements	No	Based on a number of internal occupational air quality surveys and 'spot' mercury measurements, air emissions from the site are not considered to have a negative impact on local air quality nor affect, individually nor in combination, any Natura site within a 15 km radius of the site. Furthermore, published air quality data for the closest air monitoring station (Balbriggan) shows that air quality is classified as good. Air emissions from the site are not expected to negatively affect air quality.
Noise	Nuisance/disturbance	No	Site boundary noise monitoring results show that there is no noise nuisance beyond site boundary. Noise emissions are not expected to have any impact on Natura sites with a 15km radius of the facility.

Screening Statement & Conclusions.

Based on a review of the available published information on Natura 2000 sites within a 15km radius of the project site, it is concluded that the project will have no significant negative effect in terms of loss of habitation area, fragmentation, disturbance, species population density or water resource in relation to any Natura 2000 site, either alone or in combination.

Based on a review of the available published air quality information and an assessment of the available air emissions data from the facility, it is concluded that the project has no potential to cause significant negative effects in terms of air quality or noise nuisance in relation to any Natura 2000 site, either alone or in combination.

Based on a review of the available River Nanny water quality data provided by the EPA and Meath County Council, together with an assessment of available water run off emissions data from the facility, it is concluded that the project has no potential to cause significant negative effects in terms of water quality in the River Nanny, or any Natura 2000 site, either alone or in combination.

In conclusion, it is contended that an Appropriate Assessment is not required in relation to The Recycling Village Ltds' waste licence application and a Natura Impact Statement is not required.

4. Application Drawings.

This Article 12 compliance request has not had any impact on the drawings already submitted in the original application.

On behalf of The Recycling Village Ltd, I hope that the above and attached information is sufficient for you to process the waste licence application.

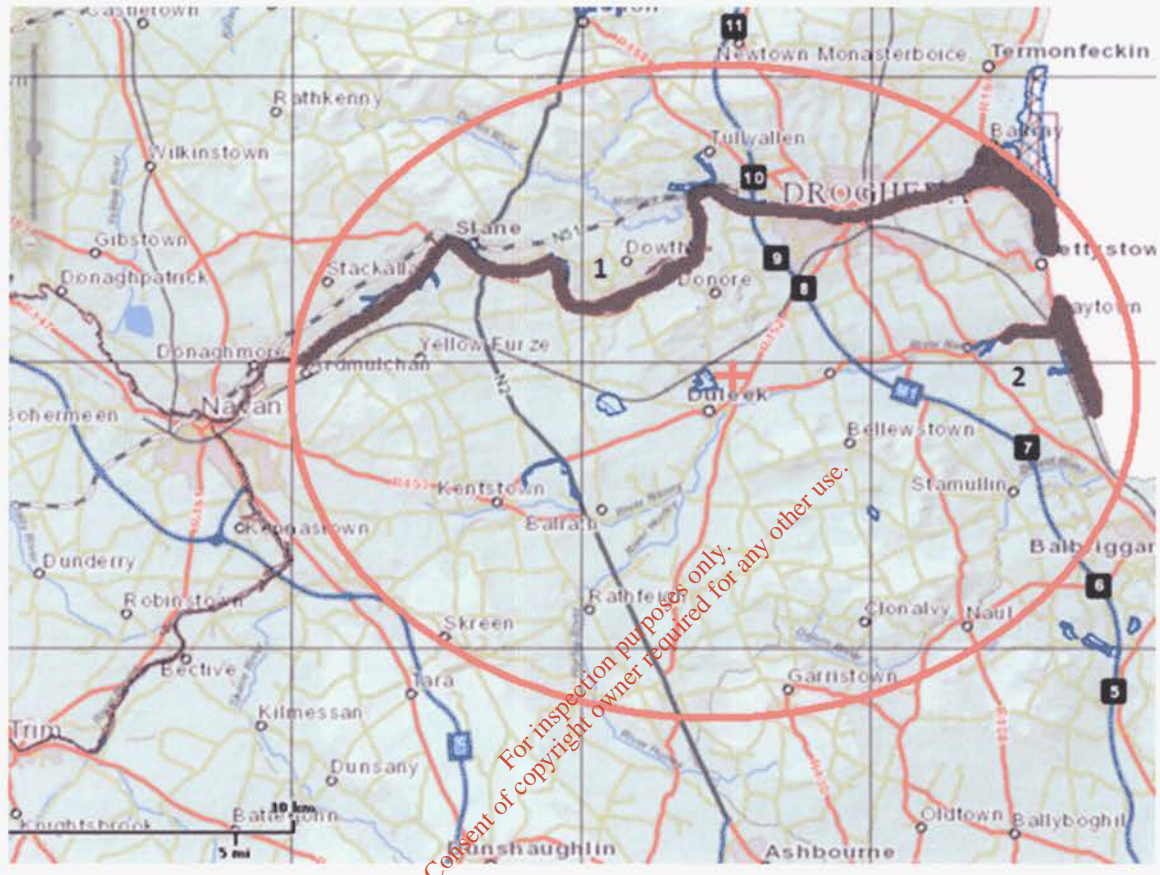
Please feel free to contact me on 087-2854171 if you would like to discuss further.

Yours faithfully,

Andrew Wood.
Managing Director.

The Recycling Village Ltd, Unit 21, Duleek Business Park, Duleek, Co. Meath, is indicated on the following map with a red cross. The red circular boundary marks out a 15km radius around The Recycling Village Ltd:

Fig. 1 Special Areas of Conservation (SAC) and Special Protected Areas (SPA)



1. 001957 Boyne Estuary & Coast SAC, 002299 Rover Boyne & River Blackwater SAC, 004080 Boyne Estuary SPA.
2. 004158 River Nanny Estuary & Shore SPA.

From the National Parks and Wildlife Service's Map Viewer(<http://webgis.npws.ie/npwsviewer/>).

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

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 land use 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