

**Dunshaughlin Local Area Plan**

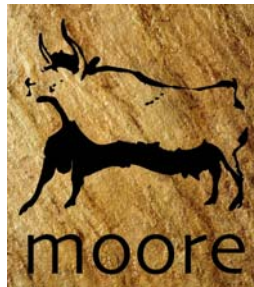
**Co. Meath**

**Screening Assessment as required under**

**Article 6(3) of the Habitats Directive**

**(Council Directive 92/43/EEC)**

**[incorporating assessment of proposed material amendments to Draft Local Area Plan]**



## 1. Introduction

The Habitats Directive (Council Directive 92/43/EEC) requires that all plans and projects must be screened for potential impact on Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). This process aims to establish whether a full Appropriate Assessment as required by Article 6 of the Directive is required in any particular case. This report presents a screening assessment for a local area plan in respect of lands at Dunshaughlin, Co. Meath.

It has been prepared by Moore Group on behalf of the Planning Department of Meath County Council in accordance with Circular Letter SEA 1/08 & NPWS 1/08 issued on 15th February 2008 by the Department of the Environment, Heritage and Local Government.

### 1.1 Background - The Habitats and Birds Directives

The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity in the EU. Under the Directive member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in a European Union context. The Birds Directive (Council Directive 79/409/EEC on the conservation of wild birds), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention. Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs. Article 6(3) and 6(4) of the Directive set out key elements of the system of protection including the requirement for Appropriate Assessment of plans and projects (see Appendix I). Article 6(3) of the Habitats Directive requires an appropriate assessment of any plan or project likely to have a significant effect on an SAC or SPA. The recent ECJ ruling against Ireland in Case 418/04 EC Commission V Ireland found that Ireland had incorrectly transposed the Habitats Directive by not providing explicitly for appropriate assessment of land use plans, (as opposed to projects), in the European Communities (Natural Habitats) Regulations, 1997. The effect of the judgment is that there is now a requirement for screening and possible appropriate assessment of all land-use plans, including local area plans.

## 1.2 Screening for Appropriate Assessment

Screening has been undertaken in fulfillment of the requirements of the Habitats Directive and taking into account the Department of the Environment, Heritage and Local Government's Circular Letter to all planning authorities dated 15th February 2008 which states the following in relation to the screening stage of Appropriate Assessment:

*“Any draft land use plan (development plans, local area plans, regional planning guidelines, schemes for strategic development zones) or amendment/variation to it proposed under the Planning and Development Act 2000 (as amended) must be screened for any potential impact on areas designated as Natura 2000 sites (normally called Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). This screening should be based on any ecological information available to the authority and an adequate description of the plan and its likely environmental impacts. This should take into account any policies that will set the terms for future development. Up to date maps of Natura 2000 sites, or areas proposed for designation, are available on [www.npws.ie](http://www.npws.ie). The results of the screening should be recorded and made available to the public. In any case where, following screening, it is found that the draft plan or amendment may have an impact on the conservation objectives of a Natura 2000 site or that such an impact cannot be ruled out, adopting a precautionary approach, an appropriate assessment of the plan must be carried out and in any case where a strategic environmental assessment (SEA) would not otherwise be required, it must also be carried out.”*

## 2. Methodology

Screening has been undertaken in accordance with the European Commission's Guidance on Appropriate Assessment (European Commission, 2001) which comprises the following steps:

1. Description of the Plan.
2. Identification of Natura 2000 sites potentially affected by the Plan.
3. Identification and description of individual and cumulative impacts likely to result from the Plan.
4. Assessment of the significance of the impacts identified on the conservation objectives of the site(s).
5. Exclusion of sites where it can be objectively concluded that there will be no significant impacts on conservation objectives.

### 3. Description of the Dunshaughlin Local Area Plan

#### 3.1 Description of the Local Area Plan Lands

The Local Area Plan (LAP) relates to the town of Dunshaughlin, Co. Meath. Dunshaughlin is located on the N3 National Primary Route c.12 km from Dunboyne to the south and c.20km from Navan to the north. It developed along the N3 and has no significant natural features such as a major river or a coast line that has impacted its urban form. Development in the town commenced at the intersection of the N3 and the R125 (Ratoath Road) and continued south along the N3. This gives Dunshaughlin a very distinctive linear urban form and is the abiding physical characteristic of the town. The N3 comprises its main street and is the focus of commercial, retail and community facilities with a whole range of land uses provided.

Dunshaughlin lies within the Eastern River Basin District in the catchment area of the Boyne and Broadmeadow Rivers. The Skane River, a tributary of the River Boyne, flows in the vicinity of Dunshaughlin town. The Rivers Boyne and Skane are classified by the EPA as slightly polluted, and as of moderate water quality status under the Water Framework Directive. The main pressure on water quality is from agriculture. The Eastern RBD Draft River Basin Management Plan (December 2008) has as an objective the restoration of these rivers to good water quality status through the implementation of a programme of measures.

Groundwater underlying the town of Dunshaughlin consists of a bedrock aquifer that is classified as locally important and generally moderately productive (Lm). The aquifer has an interim vulnerability that varies from low to extreme within the study area. The Dunshaughlin Water Supply Scheme is currently under construction and will supply groundwater to meet domestic, commercial and industrial needs to 2025. Under the Water Framework Directive, groundwater quality in the Dunshaughlin is classified as of good quality status and groundwater resource is registered as a protected area for drinking water supply.

Wastewater generated in Dunshaughlin is treated at a Wastewater Treatment Works (WWTW) in the townland of Castletown Tara which discharges into the River Boyne, a candidate SAC for certain habitats and species.

The population of Dunshaughlin Town increased by 10.5% in the period 2002-2006. This figure is further expected to increase by 49% by 2011. The bulk of the population growth is directed to the urban centre of Dunshaughlin. The Dunshaughlin LAP includes a population target of 12,000.

The local area plan lands are presented on Figure 1.

#### **4. Identification of Natura 2000 sites**

There are no SAC's or SPA's in the Plan Area or adjoining or in close proximity to the settlements therein. However, Wastewater generated in Dunshaughlin is treated at a Wastewater Treatment Works (WWTW) in the townland of Castletown Tara which discharges into the River Boyne, a candidate SAC for certain habitats and species.

The Rye Water Valley/Carton SAC is located at a distance of approximately 12.2km to the south of the LAP area.

A list of Natura 2000 sites which could potentially be affected by the Plan has been compiled (Figure 2), and a short description of each site is presented below. All sites within a 15 km radius from the site have been included. Further detail on each site is included in the National Parks and Wildlife Service's Site Synopses in Appendix II.

##### **4. 1 River Boyne and River Blackwater SAC**

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.

##### **4. 2 Rye Water Valley/Carton SAC**

This site is located between Leixlip and Maynooth. It extends along the Rye Water, a tributary of the R. Liffey. The main importance of the site lies in the presence of several rare and threatened plant and animal species, and of a rare habitat, thermal, mineral, petrifying spring. The woods found on Carton Estate and their birdlife are of additional interest.

#### **5. Identification of potential impacts to Natura 2000 sites & assessment of Significance**

There will be no direct impacts from the implementation of the LAP on any Natura 2000 site. The likelihood of any indirect impacts to nearby Natura 2000 sites also needs to be

considered. Given the nature of the residential development which may occur as a result of the implementation of the Local Area Plan indirect impacts could derive from:

- impacts arising from water abstraction which could affect nearby Natura 2000 sites
- impacts to water from foul sewerage from the site which could affect nearby Natura 2000 sites
- impacts to water from surface water flows from the site which could affect nearby Natura 2000 sites

### 5.1. Water Supply

The Dunshaughlin Water Supply Scheme is currently under construction and is due to be completed in mid 2010. It has been designed to provide a secure water supply to the Dunshaughlin area capable of supplying the 2025 demand. The scheme will be sourced from seven production wells that were recently drilled around Dunshaughlin village and will have a 3,000 cu.m/day capacity accommodated in a new 42m high elevated water tower which is due for completion in 2010. This is an increase from the current capacity of 1,200 cu.m/day. The Scheme also includes for the laying of gravity mains to connect the water tower into the existing distribution network and for the upgrading of the existing distribution network. The projected scheme has population equivalent of 14,000, including for commercial and employment uses.

This new facility is capable of supplying an adequate, sustainable and economic supply of piped water to cater for the existing and proposed population of the town up to 2025.

### 5.2. Waste Water

In relation to provision of wastewater treatment facilities, the existing WWTP at Castletown Tara, which discharges to the River Boyne candidate SAC, has a design population equivalent of 12,000 with reserve capacity of 4000 p.e. The inlet and outlet design capacities are for a maximum hydraulic capacity of 18,000 p.e. The LAP provides for a population target of 12,000 which would equate to a larger population equivalent when wastewater discharges from commercial and industrial sources are taken into account. Should implementation of the Dunshaughlin LAP result in wastewater generation equivalent to greater than 16,000 p.e. (the design and reserve capacity of the WWTP at Castletown Tara), then it will be necessary to provide for alternative wastewater treatment arrangements or to upgrade the WWTP at Castletown Tara. This will ensure that overloading of the Castletown Tara treatment plant resulting in poor quality effluent does not occur and will ensure that there are no negative impacts on the Boyne River candidate SAC. This situation will require monitoring to ensure the current capacity of 12,000 p.e. is not breached and is particularly important in protecting the quality of the River Boyne candidate SAC.

### 5.3. Surface Water

Rainfall on a greenfield site is either absorbed into the ground or runs off slowly to the nearest watercourse. With development, much of the area becomes impermeable with runoff being piped to the nearest watercourse or storm drain. Thus both the volume and the rate of runoff can dramatically increase, which may lead to flooding or increased overflows from combined sewers, neither of which is acceptable. It is the policy of the Council to prevent flooding caused by poorly drained runoff. In order to affect this, Sustainable Urban Drainage Systems (SUDS) will be incorporated into developments in order to reduce and ultimately prevent flooding. SUDS are effective technologies which aim to reduce flood risk, improve water quality and enhance biodiversity and amenity. It is proposed to continue this policy of requiring SUDS proposals to accompany all large-scale developments in Dunshaughlin.

### 6. Conclusion

A screening process in accordance with Article 6(3) of the Habitats Directive was carried out to determine whether a full appropriate assessment is required for the Dunshaughlin Local Area Plan. All Natura 2000 sites within a 15km radius of the site were considered. It was concluded that the LAP will not result in any significant impact to any of these sites. A finding of no significant effects report is presented in Appendix III in accordance with the EU Commission's methodological guidance (European Commission, 2001).

### 7. References

European Commission (2001) 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).

Dunshaughlin Local Area Plan Written Report, Meath County Council.

## Appendix I

### Article 6(3) and (4) of the Habitats Directive

3. 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.

4. 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 a 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.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.



## **Appendix II**

### **National Parks and Wildlife Service Site Synopses**

**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 Bogrush (*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 (*Spartanium 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 Tussocksedge (*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 colonized 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.

19.06.2003

## SITE SYNOPSIS

SITE CODE: RYE WATER VALLEY/CARTON

SITE CODE: 001398

This site is located between Leixlip and Maynooth. It extends along the Rye Water, a tributary of the R. Liffey. The Rye Water in Carton Estate is dammed at intervals, creating a series of lakes. Reed Grass (*Glyceria maxima*) is frequent around the lakes, along with Yellow Flag (*Iris pseudacorus*), Reed Canary-grass (*Phalaris arundinacea*), Bulrush (*Typha latifolia*), Water Forget-me-not (*Myosotis scorpioides*), Marsh Marigold (*Caltha palustris*) and Starwort (*Callitriche* spp.). Along the remainder of the site the river has recently been dredged and much of the Reed fringe removed.

To the north-west of Carton Bridge a small clump of Willows (*Salix* spp.), with Dogwood (*Cornus* sp.) some Alder (*Alnus glutinosa*), Ash (*Fraxinus excelsior*) and Elder (*Sambucus nigra*) occurs. The ground flora found here includes Golden Saxifrage (*Chrysosplenium oppositifolium*), Meadowsweet (*Filipendula ulmaria*), Common Valerian (*Valeriana officinalis*), Wavy Bitter-cress (*Cardamine flexuosa*) and Bittersweet (*Solanum dulcamara*).

The woods on Carton Estate are mostly old demesne woods with both deciduous and coniferous species. Conifers, including some Yew (*Taxus baccata*) are dominant, with Beech (*Fagus sylvatica*), Oak (*Quercus* sp.), Sycamore (*Acer pseudoplatanus*), Ash and Hazel (*Corylus avellana*) also occurring. The ground flora is dominated by Ivy (*Hedera helix*) with such species as Hedge Woundwort (*Stachys sylvatica*), Wood Speedwell (*Veronica montana*), Woodruff (*Galium odoratum*), Wood Avens (*Geum urbanum*), Common Dog-violet (*Viola riviniana*), Wild Angelica (*Angelica sylvestris*), Ramsons (*Allium ursinum*), Ground-ivy (*Glechoma hederacea*) and Ivy Broomrape (*Orobanche hederaceae*) also occurring.

Hairy St. John's-wort (*Hypericum hirsutum*), a species legally protected under the Flora Protection Order (1987), occurs in Carton Estate; there is an old record from the estate for the similarly protected, Hairy Violet (*Viola hirta*), but this has not been recorded from here in recent years. Another species listed in the Red Data Book, Green Figwort (*Scrophularia umbrosa*), occurs on the site in several locations by the Rye Water. The woods at Carton Demesne are the site of a rare Myxomycete fungus, *Diderma deplanatum*.

Within the woods, Blackcap, Woodcock and Long-eared Owl have been recorded. Little Grebe, Coot, Moorhen, Tufted Duck, Teal and Kingfisher, the latter a species listed on Annex I of the EU Birds Directive, occur on and about the lake.

The marsh, mineral spring and seepage area found at Louisa Bridge supports a good diversity of plant species, including Stoneworts, Arrowgrass (*Triglochin palustris*), Purple Moor-grass (*Molinea caerulea*), Sedges (*Carex* spp.), Common Butterwort (*Pinguicula vulgaris*), Marsh Lousewort (*Pedicularis palustris*), Grass-of-parnassus (*Parnassia palustris*) and Cuckooflower (*Cardamine pratensis*). The mineral spring found at the site is of a type considered to be rare in Europe and is a habitat listed on Annex I of the EU Habitats Directive. The Red Data Book species Blue Fleabane (*Erigeron acer*) is found growing on a wall at Louisa Bridge. The Rye Water is a spawning ground for Trout and Salmon, and the rare, White-clawed Crayfish (*Austropotamobius pallipes*) has been recorded at Leixlip. The latter two species are listed on Annex II of the EU Habitats Directive. The semi-aquatic snails *Vertigo angustior* and *V. moulinsiana* occur in marsh vegetation near Louisa Bridge; both are rare in Ireland and Europe and are listed on Annex II of the EU Habitats Directive.

The scarce Dragonfly, *Orthetrum coerulescens*, has been recorded at Louisa Bridge. The main importance of the site lies in the presence of several rare and threatened plant and animal species, and of a rare habitat, thermal, mineral, petrifying spring. The woods found on Carton Estate and their birdlife are of additional interest.

## 7.5.03

## Appendix III

### Finding of no significant effects report

#### Finding no significant effects report matrix

**Name of project or plan**

Dunshaughlin Local Area Plan

**Name and location of the Natura 2000 site(s)**

River Boyne and Blackwater SAC (Site Code 002299)

Rye Water Valley/Carton SAC (Site Code 001398)

**Description of the project or plan**

The plan refers to the Local Area Plan for Dunshaughlin, Co. Meath.

**Is the project or plan directly connected with or necessary to the management of the site(s)**

No

**Are there other projects or plans that together with the projects or plan being assessed could affect the site**

No

#### *The assessment of significance of effects*

**Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.**

No direct impacts on any Natura 2000 site will occur. A number of indirect impacts were considered including:

- a. impacts arising from water abstraction
- b. foul sewerage impacts on watercourses
- c. surface water flows to watercourses

Possible impacts on Natura 2000 sites within 15km of the Local Area Plan lands were considered.

**Explain why these effects are not considered significant.**

The Dunshaughlin Water Supply Scheme is currently under construction and is due to be completed in mid 2010. It has been designed to provide a secure water supply to the Dunshaughlin area capable of supplying the 2025 demand.

The existing WWTP at Castletown Tara, which discharges to the River Boyne candidate SAC, has a design population equivalent of 12,000 with reserve capacity of 4000 p.e. The inlet and outlet design capacities

are for a maximum hydraulic capacity of 18,000 p.e. The LAP provides for a population target of 12,000 which would equate to a larger population equivalent when wastewater discharges from commercial and industrial sources are taken into account. Should implementation of the Dunshaughlin LAP result in wastewater generation equivalent to greater than 16,000 p.e. (the design and reserve capacity of the WWTP at Castletown Tara), then it will be necessary to provide for alternative wastewater treatment arrangements or to upgrade the WWTP at Castletown Tara. This will ensure that overloading of the Castletown Tara treatment plant resulting in poor quality effluent does not occur and will ensure that there are no negative impacts on the Boyne River candidate SAC. This situation will require monitoring to ensure the current capacity of 12,000 p.e. is not breached and is particularly important in protecting the quality of the River Boyne candidate SAC.

It is the policy of the Council to prevent flooding caused by poorly drained runoff. In order to affect this, Sustainable Urban Drainage Systems (SUDS) will be incorporated into developments in order to reduce and ultimately prevent flooding. SUDS are effective technologies which aim to reduce flood risk, improve water quality and enhance biodiversity and amenity. It is proposed to continue this policy of requiring SUDS proposals to accompany all large-scale developments in Dunshaughlin.

---

**List of agencies consulted: provide contact name and telephone or e-mail address**

National Parks & Wildlife Service (NPWS), Department of the Environment Heritage & Local Government (DEHLG)

---

**Response to consultation**

There were no comments on Natural Heritage from the Development Applications Unit (DAU) of the DEHLG in responses received on the 26<sup>th</sup> and 31<sup>st</sup> March 2009.

The DAU responded via e-mail on 21/07/09 to say that there were no further comments from the NPWS in relation to these earlier responses.

---

***Data collected to carry out the assessment*****Who carried out the assessment**

Moore Group (Environmental Services), Corporate House Ballybrit Business Park, Galway.

---

**Sources of data**

NPWS database of designated sites at [www.npws.ie](http://www.npws.ie)  
Environmental Protection Agency water quality records at [www.epa.ie](http://www.epa.ie)

---

**Level of assessment completed**

Desk Study

**Where can the full results of the assessment be accessed and viewed**

Meath County Council, County Hall, Navan, Co. Meath.

---

***Overall Conclusions***

No direct impacts on Natura 2000 sites will occur as a result of the implementation of the Dunshaughlin Local Area Plan. A number of indirect impacts were identified which could potentially give rise to impacts to Natura 2000 sites. These included water abstraction, impacts to water from foul sewerage and surface water. All Natura 2000 sites within 15km of the Local Area Plan lands were assessed.

It was concluded that there will be no impacts as a result of water abstraction as the Dunshaughlin Water Supply Scheme, currently under construction, has been designed to provide a secure water supply to the Dunshaughlin area capable of supplying the 2025 demand.

There would be no impacts from waste water as the current waste water treatment facilities for the town are provided in the Castletown/Tara Waste Water Treatment Works which became operational in 2008. This facility has a population equivalent (p.e.) of 12,000 with a reserve capacity of 4,000 p.e. The inlet and outlets are designed for a p.e. of 18,000 if the need arises.

It was concluded that there will be no significant impacts on watercourses because of the Plan's It is Council's policy to prevent flooding caused by poorly drained runoff through the use of Sustainable Urban Drainage Systems (SUDS) which will be incorporated into developments in order to reduce and ultimately prevent flooding. SUDS are effective technologies which aim to reduce flood risk, improve water quality and enhance biodiversity and amenity. It is proposed to continue this policy of requiring SUDS proposals to accompany all large-scale developments in Dunshaughlin.