DixonBrosnan

environmental consultants

Project	**Natura 2000 screening report for a proposed development at a composting facility at Killowen, Portlaw, Co Waterford.**
Client	Ormonde Organics Ltd.

Project ref	Report no	Client ref	
1144	1144		

DixonBrosnan The Cedars, Bridewood, Ovens, Co Cork

Tel 086 851 1437 | carl@dixonbrosnan.com | www.dixonbrosnan.com

Date	Rev	Status	Prepared by	
28/10/11	0	issue to client	Carl Dixon M.Sc.	
			Vincent Murphy M. Sc.	

v180907

1. Background

According to the EU Birds Directive (79/409/EEC) and Habitats Directive (92/43/EEC), member states are required to designate areas in order to protect priority habitats and species. These sites are known as Special Protection Areas (SPA) and Special Areas of Conservation (SAC) respectively. Collectively, these sites are known as Natura 2000 sites. An "appropriate assessment" (AA) means an assessment, based on best scientific knowledge, of the potential impacts of a plan on the conservation objectives of any Natura 2000 site and the development where necessary of measures to preclude negative effects. The impact assessment must include the indirect and cumulative impacts of approving the plan considered, with any current or proposed activities, development or policies impacting on the site. All plans and projects should aim to identify any possible impacts early in the plan-making process and then either alter the plan to avoid them or introduce mitigation measures to the point where no adverse impacts remain.

An appropriate assessment is an assessment carried out under Article 6(3) and 6(4) of the Habitats Directive.

Article 6(3) of the Habitats Directive states:

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

Article 6(4) states:

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

2. Methodology for appropriate assessment

Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on *Appropriate Assessment under Article 6 of the Habitats Directive –Guidance for Planning Authorities* March 2010.

- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government 2009;

- Managing Natura 2000 Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission

- 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;

- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission.

This ecological assessment was carried out by Carl Dixon M.Sc. Applied Ecology and Vincent Murphy M.Sc Ecosystem Conservation & Landscape Management.

These assessment guidelines are usually dealt with in a step by step process. The proposed steps are as follows.

Stage 1. Screening

Screening is the technique applied to determine whether a particular plan would be likely to have significant effects on a Natura 2000 site and would thus warrant an Appropriate

Assessment. The key indicator that will determine if an Appropriate Assessment is required is the determination of whether the development is likely to have *significant environmental effects* on a Natura 2000 site or not.

Stage 2. Appropriate Assessment

This step is required if the screening report indicates that the development is likely to have a significant impacts on a Natura 2000 site. The consideration of the impact on the integrity on the Natura 2000 site of the project, either alone or in combination with other projects, with respect to the site's structure, function and conservation objectives. Where there are adverse impacts, an assessment of the potential mitigation of these impacts in also required.

3. Screening of the proposed development

3.1 Existing development

The site is approximately 19 kilometres north-west of Waterford City, 3 kilometres north of Portlaw village, 2 kilometres south of Fiddtown on the northern side of the River Suir, and 5 kilometres south of Pilltown, also located on the northern side of the River Suir. The subject site is 3.2 hectares in size, approximately, and is located in the townland of Killowen, Portlaw, County Waterford. There is an existing industrial building on site which had previously operated as a Wet Blue Tannery before planning permission was granted for the current Composting Facility operation in 2006.

3.2 Proposed development

It is proposed to expand recovery activities to include anaerobic digestion plant in a new purpose built unit that will complement existing composting operations. The gas generated from the plant will be used to generate electricity in an on-site generator. The existing buildings and structures will be retained. The new elements include:

- Two above ground Anaerobic Digester Tanks and one above ground Digestate Storage Tank in a bunded area to the south east of the disused waste water treatment tanks,

- Maturation and Pasteurisation Building (Buildings 1 and 2) to the east of the existing Compost Building,

- New Biofilter to the west of the Maturation and Pasteurisation Building,
- Waste Reception/Combined Heat and Power Plant (Building No 3) and adjacent Drier Building to the south east of the new Anaerobic Digester Tanks,
- Silage storage area to the south of Building No 3,
- Air locks on the northern and southern entrances to the CompostBuilding,
- Paved concrete yard surrounding Buildings 1, 2 and 3, and
- Roofing the disused wastewater treatment tanks.

Surface Water

The proposed changes to the site layout will not give rise to any new surface water emission points or changes in the quality of the surface water discharge. Rainwater run-off from the roofs of the new buildings and paved areas will be collected and directed via a new oil interceptor to a new attenuation tank, located in the at the north eastern site . The outlet from the tank will connect to the existing surface water drainage system. A flow control system, ('hydrobrake')will be installed on the outlet from the tank that will limit the flow to 10.9/lsec, which is equivalent to overland flow from unpaved areas. In a 50mm one hour storm event, the additional total flow from the impermeable areas of the entire site will be 196/l/sec, which equates to a 5% increase in the flow from the existing site. There will be no change to the location of the outfall to the river.

Wastewater

Wastewater generated at the site comprises sanitary wastewater from the offices which is treated in the on-site septic tank. This tank is within the footprint of the proposed AD tanks. A new sanitary wastewater treatment system will be installed.

Process water

The leachate produced in the composting process is recirculated and surplus leachate that requires treatment is typically not generated. Any surplus leachate that may arise in the

future will be treated in the AD plant. Depending on the type of biomass, there is the potential for effluent to be generated during the storage of this material. All liquid generated in the storage area will be collected in a concrete underground storage tank and fed into the AD process. The AD process will not generate a wastewater that requires treatment on-site. The liquid digestate produced in the process will be stored in the converted wastewater treatment tanks, which will provide a minimum three months storage, and then sent from the site and applied to agricultural lands. Any run-off from the silage storage area will be collected and treated in the AD plant.

3.3 Site designation

The proposed development is located approximately 300 meters from Lower Suir River cSAC (site code 002137). A full site synopsis for the SAC is included below. Fiddown island pNHA (site code 000402) and Fiddown Island Nature Reserve are both in relatively close proximity upstream of the discharge point, in this tidally influenced area of the River Suir. Maps of the protected areas within 1km of development and discharge point are shown in **Figure 1**, **Figure 2** and **Figure 3**. A list of protected sites within 10km of the proposed development site is given in **Table 1.**

Table 1. Protected sites within 10km

Site	Code	Distance
SAC &cSAC		
Lower River Suir	002137	230 meters N & E
pNHA		
Lough Cullin	000406	2.71km W
Lower River Suir (Coolfinn, Portlaw)	000399	1.92km S
Fiddown Island	000402	520 meters N
Portlaw Woods	000669	2.61km S
River Suir Below Carrick-On-Suir	000655	5.72km NNW
Tibberaghny Marshes	000411	2.98km N
Nature reserves		
Fiddown Island Nature Reserve		520 Meters N

The designated site considered relevant for the purposes of this report is the Lower River Suir SAC.

3.4 Lower River Suir (Site Code 002137) site synopsis

This site consists of the freshwater stretches of the River Suir immediately south of Thurles, the tidal stretches as far as the confluence with the Barrow/Nore immediately east of Cheekpoint in Co. Waterford and many tributaries including the Clodiagh in Co. Waterford, the Lingaun, Anner, Nier, Tar, Aherlow, Multeen and Clodiagh in Co. Tipperary. The Suir and its tributaries flows through the counties of Tipperary, Kilkenny and Waterford. Upstream of Waterford City, the swinging meanders of the Suir crisscross the Devonian sandstone rim of hard rocks no less than three times as they leave the limestone-floored downfold below Carrick. In the vicinity of Carrick-on-Suir the river follows the limestone floor of the Carrick Syncline. Upstream of Clonmel the River and its tributaries traverse Upper Palaeozoic Rocks, mainly the Lower Carboniferous Visean and Tournaisian. The freshwater stretches of the Clodiagh River in Co. Waterford traverse Silurian rocks, through narrow bands of Old Red Sandstone and Lower Avonian Shales before reaching the carboniferous limestone close to its confluence with the Suir. The Aherlow River flows through a Carboniferous limestone valley, with outcrops of Old Red Sandstone forming the Galtee Mountains to the south and the Slievenamuck range to the north. Glacial deposits of sands and gravels are common along the valley bottom, flanking the present-day river course.

The site is a candidate SAC selected for the presence of the priority habitats on Annex I of the E.U. Habitats Directive - alluvial wet woodlands and Yew Wood. The site is also selected as a candidate SAC for floating river vegetation, Atlantic salt meadows, Mediterranean salt meadows, old oak woodlands and eutrophic tall herbs, all 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 - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon and Otter.

Alluvial wet woodland is declining habitat in Europe as a result of drainage and reclamation. The best examples of this type of woodland in the site are found on the islands just below Carrick-on-Suir and at Fiddown Island. Species occurring here include Almond Willow (Salix triandra), White Willow (S. alba), Grey Willow (S. cinerea), Osier (S. viminalis), with Iris (Iris pseudacorus), Hemlock Water-dropwort (Oenanthe crocata), Angelica (Angelica sylvestris),

Pendulus Sedge (Carex pendula), Meadowsweet (Filipendula ulmaria) and Valerian (Valeriana officinalis). The terrain is littered with dead trunks and branches and intersected with small channels which carry small streams to the river. The bryophyte and lichen floras appear to be rich and require further investigation. A small plot is currently being coppiced and managed by National Parks and Wildlife. In the drier areas the wet woodland species merge with other tree and shrub species including Ash (Fraxinus excelsior), Hazel (Corylus avellana), Hawthorn (Crataegus monogyna) and Blackthorn (Prunus spinosa). This adds further to the ecological interest of this site.

Eutrophic tall herb vegetation occurs in association with the various areas of alluvial forest and elsewhere where the flood-plain of the river is intact. Characteristic species of the habitat include Meadowsweet (Filipendula ulmaria), Purple Loosestrife (Lythrum salicaria), Marsh Ragwort (Senecio aquaticus), Ground Ivy (Glechoma hederacea) and Hedge Bindweed (Calystegia sepium).

Old oak woodlands are also of importance within the cSAC. The best examples are seen in Portlaw Wood which lies on both sides of the Clodiagh River. On the south-facing side the stand is more open and the Oaks (mainly Quercus robur) are well grown and spreading. Ivy (Hedera helix) and Bramble (Rubus fruticosus) are common on the ground, indicating relatively high light conditions. Oak regeneration is dense, varying in age from 0-40 years and Holly (Ilex aquifolium) is fairly common but mostly quite young. Across the valley, by contrast, the trees are much more closely spaced and though taller are poorly grown on average. There are no clearings; large Oaks extend to the boundary wall. In the darker conditions, Ivy is much rarer and Holly much more frequent, forming a closed canopy in places. Oak regeneration is uncommon since there are as yet few natural clearings. The shallowness of the soil on the north-facing slope probably contributes to the poor tree growth there. The acid nature of the substrate has induced a “mountain” type Oakwood community to develop. There is an extensive species list present throughout including an abundance of mosses, liverworts and lichens. The rare lichen Lobaria pulmonaria, an indicator of ancient woodlands, is found.

Inchinsquillib Wood consists of three small separate sloping blocks of woodland in a valley cut by the young Multeen River and its tributaries through acidic Old Red Sandstone, and Silurian rocks. Two blocks, both with an eastern aspect, located to the north of the road, are

predominantly of Sessile oak (Quercus petraea) and Hazel, with Downy Birch (Betula pubescens), Ash and Holly. The ground flora is quite mixed with for example Wood sedge (Carex sylvatica), Bluebell (Hyacinthoides non-scriptus), Primrose (Primula vulgaris), Wood-sorrel (Oxalis acetosella), Pignut (Conopodium majus) and Hard fern (Blechnum spicant). The base poor nature of the underlying rock is, to some extent masked by the overlying drift. The third block, to the south of the road, and with a northern aspect, is a similar although less mature mixture of Sessile Oak, Birch and Holly, the influence of the drift is more marked, with the occurrence of Wood anemone (Anemone nemorosa) amongst the ground flora.

Floating river vegetation is evident in the freshwater stretches of the River Suir and along many of its tributaries. Typical species found include Canadian Pondweed (Elodea canadensis), Milfoil (Myriophyllum spp.), Fennel Pondweed (Potamogeton pectinatus), Curled Pondweed (P. crispus), Perfoliate Pondweed (P. perfoliatus), Pond Water-crowfoot (Ranunculus peltatus), other Crowfoots (Ranunculus spp.) and the moss Fontinalis antipyretica. At a couple of locations along the river, Oppositeleaved Pondweed (Groenlandia densa) occurs. This species is protected under the Flora (Protection) Order, 1999.

The Aherlow River is fast-flowing and mostly follows a natural unmodified river channel. Submerged vegetation includes the aquatic moss Fontinalis antipyretica and Stream Water-crowfoot (Ranunculus pencillatus), while shallow areas support species such as Reed Canary-grass (Phalaris arundinacea), Brooklime (Veronica beccabunga) and Water Mint (Mentha aquatica). The river bank is fringed in places with Alder (Alnus glutinosa) and Willows (Salix spp.).

The Multeen River is fast flowing, mostly gravel-bottomed and appears to follow a natural unmodified river channel. Water Crowfoots occur in abundance and the aquatic moss Fontinalis antipyretica is also common. In sheltered shallows, species such as Water-cress (Rorippa nasturtium-aquaticum) and Water-starworts (Callitriche spp.) occur. The river channel is fringed for most of its length with Alder, Willow and a narrow strip of marshy vegetation.

Salt meadows occur below Waterford City in old meadows where the embankment is absent, or has been breached, and along the tidal stretches of some of the in-flowing rivers

below Little Island. There are very narrow, non-continuous bands of this habitat along both banks. More extensive areas are also seen along the south bank at Ballynakill, the east side of Little Island, and in three large salt meadows between Ballynakill and Cheekpoint. The Atlantic and Mediterranean sub types are generally intermixed. The species list is extensive and includes Red Fescue (Festuca rubra), Oraches (Atriplex spp.), Sea Aster (Aster tripolium), Sea Couch Grass (Elymus pycnanthus), frequent Sea Milkwort (Glaux maritima), occasional Wild Celery (Apium graveolens), Parsley Water-dropwort (Oenanthe lachenalii), English Scurvygrass (Cochlearia anglica) and Sea Arrowgrass (Triglochin maritima). These species are more representative of the Atlantic sub-type of the habitat. Common Cord-grass (Spartina anglica), is rather frequent along the main channel edge and up the internal channels. The legally protected (Flora (Protection) Order, 1999) Meadow Barley (Hordeum secalinum) grows at the landward transition of the saltmarsh. Sea Rush (Juncus maritimus), an indicator of the Mediterranean salt meadows, also occurs.

Other habitats at the site include wet and dry grassland, marsh, reed swamp, improved grassland, coniferous plantations, deciduous woodland, scrub, tidal river, stony shore and mudflats. The most dominant habitat adjoining the river is improved grassland, although there are wet fields with species such as Yellow Flag (Iris pseudacorus), Meadow Sweet (Filipendula ulmaria), Rushes (Juncus spp.), Meadow Buttercup (Ranunculus acris) and Cuckoo Flower (Cardamine pratensis).

Cabragh marshes, just below Thurles, lie in a low-lying tributary valley into which the main river floods in winter. Here there is an extensive area of Common Reed (Phragmites australis) with associated marshland and peaty fen. The transition between vegetation types is often well displayed. A number of wetland plants of interest occur, in particular the Narrow-leaved Bulrush (Typha angustifolia), Bottle Sedge (Carex rostrata) and Blunt-flowered Rush (Juncus subnodulosus). The marsh is naturally eutrophic but it has also the nutritional legacy of the former sugar factory which discharged into it through a number of holding lagoons, now removed. Production is high which is seen in the size of such species as Celery-leaved Buttercup (Ranunculus sceleratus) as well as in the reeds themselves.

Throughout the Lower River Suir site are small areas of woodland other than those described above. These tend to be a mixture of native and non-native species, although there are some areas of semi-natural wet woodland with species such as Ash and Willow.

Cahir Park Woodlands is a narrow tract of mixed deciduous woodland lying on the flatlying floodplain of the River Suir. This estate woodland was planted over one hundred years ago and it contains a large component of exotic tree species. However, due to original planting and natural regeneration there is now a good mix of native and exotic species. About 5km north west of Cashel, Ardmayle pond is a long, possibly artificial water body running parallel to the River Suir. It is partly shaded by planted Lime (Tilia hybrids), Sycamore (Acer pseudoplatanus) and the native Alder. Growing beneath the trees are shade tolerant species such as Remote sedge (Carex remota).

The site is of particular conservation interest for the presence of a number of Annex II animal species, including Freshwater Pearl Mussel (Margaritifera margaritifera and M. m. durrovensis), Freshwater Crayfish (Austropotamobius pallipes), Salmon (Salmo salar), Twaite Shad (Alosa fallax fallax), three species of Lampreys - Sea Lamprey (Petromyzon marinus), Brook Lamprey (Lampetra planeri) and River Lamprey (Lampetra fluviatilis) and Otter (Lutra lutra). This is one of only three known spawning grounds in the country for Twaite Shad.

The site also supports populations of several other animal species. Those which are listed in the Irish Red Data Book include Daubenton's Bat (Myotis daubentoni), Nattererer's Bat (M. nattereri), Pipistrelle (Pipistrellus pipistrellus), Pine Marten (Martes martes), Badger (Meles meles), the Irish Hare (Lepus timidus hibernicus), Smelt (Osmerus eperlanus) and the Frog (Rana temporaria). Breeding stocks of Carp are found in Kilsheelan Lake. This is one of only two lakes in the country which is known to have supported breeding Carp. Carp require unusually high summer water temperatures to breed in Ireland and the site may therefore support interesting invertebrate populations.

Parts of the site have also been identified as of ornithological importance for a number of Annex I (EU Birds Directive) bird species, including Greenland White-fronted Goose (10), Golden Plover (1490), Whooper Swan (7) and Kingfisher. Figures given in brackets are the average maximum counts from 4 count areas within the site for the three winters between 1994 and 1997. Wintering populations of migratory birds use the site. Flocks are seen in Coolfinn Marsh and also along the reedbeds and saltmarsh areas of the Suir.

Coolfinn supports nationally important numbers of Greylag Geese on a regular basis. Numbers between 600 and 700 are recorded. Other species occurring include Mallard (21),

Teal (159), Wigeon (26), Tufted Duck (60), Pintail (4), Pochard (2), Little Grebe (2), Black-tailed Godwit (20), Oystercatcher (16), Lapwing (993), Dunlin (101), Curlew (195), Redshank (28), Greenshank (4) and Green Sandpiper (1). Nationally important numbers of Lapwing (2750) were recorded at Faithlegg in the winter of 1996/97. In Cabragh marshes there is abundant food for surface feeding wildfowl which total at 1,000 or so in winter. Widgeon, Teal and Mallard are numerous and the latter has a large breeding population - with up to 400 in summer. In addition, less frequent species like Shoveler and Pintail occur and there are records for both Whooper and Bewick's swans. Kingfisher, a species that is listed on Annex I of the EU Birds Directive, occurs along some of the many tributaries throughout the site.

Landuses adjoining the cSAC consist mainly of agricultural activities including grazing, silage production, fertilising and land reclamation. The grassland is intensively managed and the rivers are therefore vulnerable to pollution from run-off of fertilisers and slurry. Arable crops are also grown. Fishing is a main tourist attraction on stretches of the Suir and some of its tributaries and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. Both commercial and leisure fishing takes place on the rivers. The Aherlow River is a designated Salmonid Water under the EU Freshwater Fish Directive. Other recreational activities such as boating, golfing and walking are also popular. Several industrial developments discharge to the river.

The Lower River Suir contains excellent examples of a number of Annex I habitats, including the priority habitat Alluvial Forest. The site also supports populations of several Annex II animal species and a number of Red Data Book animal species. The presence of two legally protected plants (Flora (Protection) Order, 1999) and the ornithological importance of the river adds further to the ecological interest of this site.

3.3 Fiddown Island Nature Reserve, Co. Kilkenny

Location: 7km east of Carrick-on-Suir. Area (ha.): 21ha

Established in 1988 and it is State owned.

Features of Interest include an alluvial woodland dominated by tree willows formerly used for basket making. The vegetation is characterised by tall herbs, sedges and grasses. It is covered in willow scrub and bordered by reed swamps - the only known site of its type in Ireland. This is upstream of the proposed development and no impact on it is envisaged.

3.4 NPWS site designation qualifying interests

The NPWS lists the following species and habitats as qualifying interests for the River Suir cSAC **(Table 2 and 3).**

Table 2. Qualifying species

Site code	Name	Species code	*Species*
002137	Lower River Suir	1095	*Petromyzon marinus*
002137	Lower River Suir	1096	*Lampetra planeri*
002137	Lower River Suir	1099	*Lampetra fluviatilis*
002137	Lower River Suir	1103	*Alosa fallax*
002137	Lower River Suir	1106	*Salmo salar*
002137	Lower River Suir	1102	*Alosa alosa*
002137	Lower River Suir	1355	*Lutra lutra*
002137	Lower River Suir	1092	*Austropotamobius pallipes*
002137	Lower River Suir	1029	*Margaritifera margaritifera*

Table 3. Qualifying habitats

Site code	Name	Habitat Code	Habitat	% cover Approx.
002137	Lower River Suir	1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	2
002137	Lower River Suir	1410	Mediterranean salt meadows (Juncetalia maritimi)	1
002137	Lower River Suir	3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	1
002137	Lower River Suir	91A0	Old sessile oak woods with Ilex and Blechnum in British Isles	1
002137	Lower River Suir	91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	7
002137	Lower River	6430	Hydrophilous tall herb fringe	1

	Suir		communities of plains and of the montane to alpine levels	
002137	Lower River Suir	91J0	Taxus baccata woods of the British Isles	1

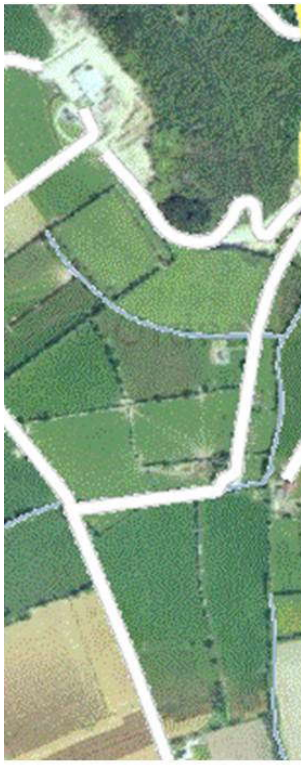

Figure1. Proposed development area outlined in red and the surface water discharge point indicated in orange in relation to the cSAC in the hatched area.

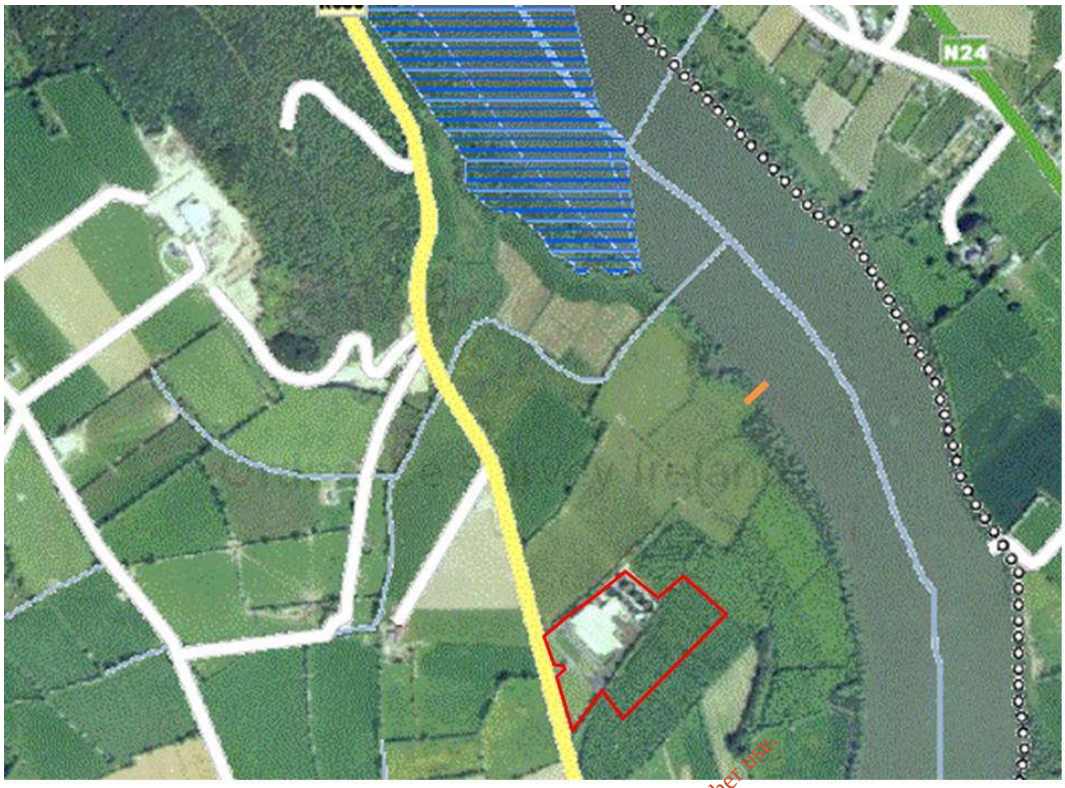

Figure 2. Proposed development area outlined in red and the discharge point indicated in orange in relation to the p NHA in the hatched area.

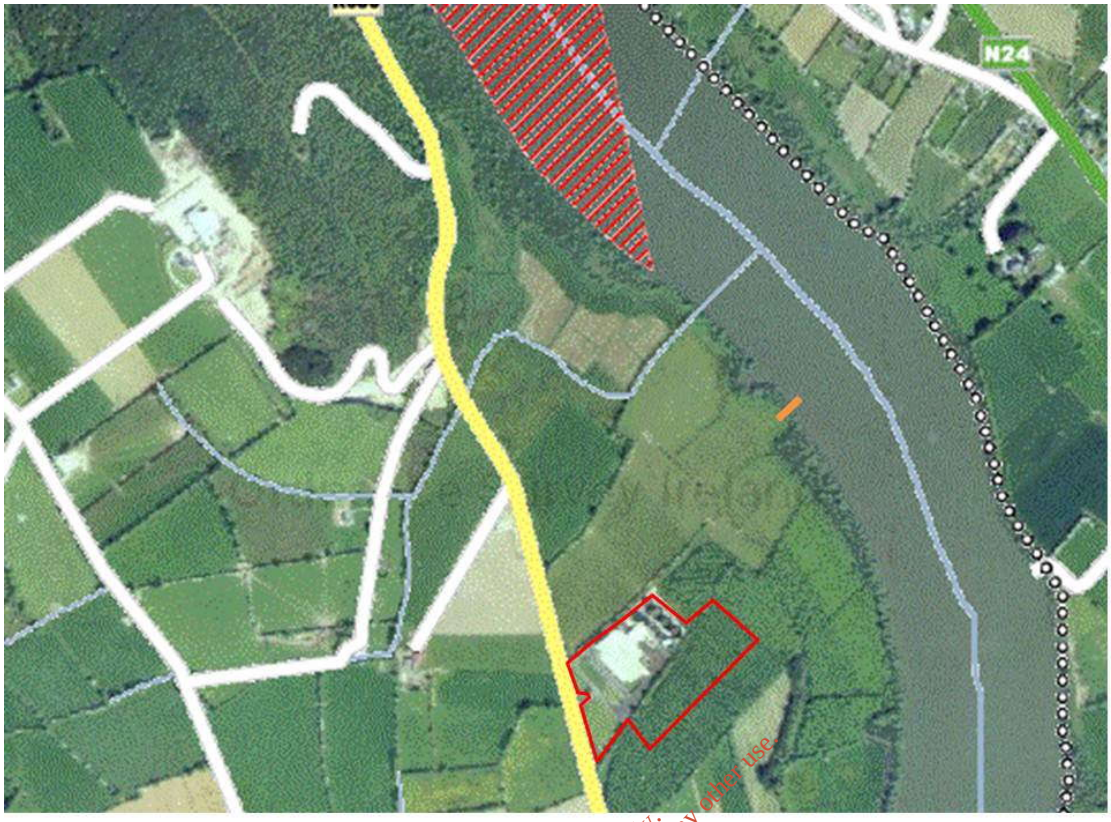

Figure 3. Proposed development area outlined in red and the discharge point indicated in orange in relation to the Fiddown Nature Reserve in the hatched area.

3.5 NPWS rare plants database

The national parks and wildlife service has only one historical of a recording rare or threatened plant species for the 10km grid square S41, and this is shown in **Table 4**. This species was not recorded on or in the vicinity of the site.

Table 4. Rare plant species

Species	Common name	Ten Km square	Recorded date
Cephalanthera longifolia	Narrow-leaved Helleborine	S41	1894

4. Conservation objectives

Draft Generic Conservation Objectives Lower River Suir SAC (002137)

European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status sites designated as Special Areas of Conservation and Special Protection Areas. The Government and its agencies are responsible for the

implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

- population data on the species concerned indicate that it is maintaining itself, and
- the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Objective 1: To maintain the favourable conservation status of the Qualifying Interests of the SAC

- Freshwater pearl mussel (*Margaritifera margaritifera*) [1029]
- White-clawed crayfish (*Austropotamobius pallipes*) [1092]
- Sea lamprey (*Petromyzon marinus*) [1095]
- Brook lamprey (*Lampetra planeri*) [1096
- River lamprey (*Lampetra fluviatilis*) [1099]
- Twaite shad (*Alosa fallax fallax*) [1103]
- Salmon (*Salmo salar*) [1106]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]
- Otter (*Lutra lutra*) [1355]
- Mediterranean salt meadows (*Juncetalia maritimi*) [1410]
- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260]
- Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]
- Old sessile oak woods with Ilex and Blechnum in British Isles [91A0]
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0]
- *Taxus baccata* woods of the British Isles [91J0]

Objective 2: To maintain the extent, species richness and biodiversity of the entire site.

Objective 3: To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

5. EPA monitoring

The Environmental Protection Agency carries out a biological assessment of most river channels in the country on a regular basis. The assessments are used to derive Q values, indicators of the biological quality of the water. The biological health of a watercourse provides an indication of long term water quality. The EPA Q value scheme is summarised in **Table 5**.

The intermediate ratings Q1-2, Q2-3, Q3-4 and Q4-5 are used to denote transitional conditions, while ratings within parenthesis indicate borderline values. Great importance is attached to the EPA biotic indices, and consequently it is these data that are generally used to form the basis of water quality management plans for river catchments.

Table 5. EPA biotic index scheme.

Q value	Water quality	Pollution	Condition
5	Good	Unpolluted	Satisfactory
4	Fair	Unpolluted	Satisfactory
3	Doubtful	Moderately polluted	Unsatisfactory
2	Poor	Seriously polluted	Unsatisfactory
1	Bad	Seriously polluted	Unsatisfactory

Source: EPA

In estuarine waterways the EPA rates water quality as Unpolluted, Intermediate, Potentially eutrophic and Eutrophic. The former two are considered to be acceptable estuarine water quality, while the latter two water quality ratings are considered as unsatisfactory.

The 2011Q values for and water quality measurements for the River Suir are shown in **Table 6**. Please note that this section of the River Suir is classified as the Middle Suir Estuary. This

designation begins 1.6 km upstream at Fiddown bridge and continues downstream to the east of Waterford City.

Table 6. EPA Q values for the waterways in relation to the proposed pipeline route

River / waterway	Location	Approx. distance from development site	2011 Q values
Suir	Kilsheelan bridge	20.8 km upstream	3-4
Suir	Churchtown, Carrick-on-Suir	15.1 km upstream	4
Suir	Carrick-on-Suir	9.8 km upstream	3-4
Suir	2km upstream of Carrick-on-Suir to Fiddown bridge	9.8 km upstream to 1.6km upstream	Estuarine & coastal water quality – Potentially eutrophic
Suir	Fiddown bridge (and adjacent to this site)	1.6km upstream to 23.3km downstream	Estuarine & coastal water quality – Eutrophic

6.Water frameworks Directive – Middle Suir Estuary status (IE SE 100 0550)

The Water Framework Directive (WFD) is a key initiative aimed at improving water quality throughout the EU. It applies to rivers, lakes, groundwater, coastal & transitional waters. The Directive requires an integrated approach to managing water quality on a river basin basis; with the aim of maintaining and improving water quality. The Directive requires that management plans be prepared on a river basin basis and specifies a structured approach to developing those plans. It requires that a programme of measures for improving water quality be brought into effect.

Specifically the WFD aims to:

- protect/enhance all waters (surface, ground and coastal waters)
- achieve "good status" for all waters by December 2015
- manage water bodies based on river basins (or catchments)

- involve the public
- streamline legislation

A) The Water Frameworks Directive assesses the water quality of rivers and ranks their status as follows:

- High
- Good
- Moderate
- Poor
- Bad
- Yet to be determined

The Middle Suir Estuary status is determined to be **Moderate** based on the following parameters.

Table 7. Parameters

Disolved Inorganic nitrogen status	Moderate
Molybdate Reactive Phoshherious status	Good
Disolved oxygen as a per cent saturation status	Moderate
Biochenical Oxygen Demand (5 day) status	Moderate
Macroalgae – phytobiomass status	Moderate
Overall protected area	Less than good
Ecological status	Moderate

B) The water frameworks directive also determines the "Risk" level of the river as follows:

- 1a – At risk of not achieving Good Status
- 1b – Probably at risk of not archiving Good Status
- 2a – Expected to achieve Good Status
- 2b – strongly expected to achieve Good Status

The Middle Suir Estuary is considered **1a - At risk of not achieving Good Status** based on the following parameters.

Table 8. Risk parameters

Overall risk from point sources – worst case (2008)	Probably at Risk
Marine direct impacts – worst case	N/A
Worst case of point overall and MDI overall overall (MIMAS) Morphological risk worst case (2008)	Probably at Risk
Transitional overall – worst case overall overall (MIMAS) Morphological risk worst case (2008)	At Risk

C) The water frameworks directive also sets out the future plans for the protection and restoration of rivers as follows:

- Protect
- Restore – 2015
- Restore – 2021
- Restore - 2027

The Middle Suir Estuary is to be **Restored – 2021**

7. Suir Estuary Water Management Unit Action Plan

The facility comes within the above management unit. The status/impacts, pressure/risks and objectives are detailed below in **Tables 9, 10 and 11** respectively.

Table 9 Status impacts

STATUS/IMPACTS	
Overall status	37 RWB - 16 good, 16 moderate, 5 poor. 4 lakes in this WMU, all are moderate status and monitored (Knockaderry Reservoir, Ballyscanlan Lough, Ballyshunnock, Carrigavantry Reservoir). 4 transitional WBs; Lower Suir Estuary, Upper Suir, Mid Suir, and Barrow/Suir/Nore Estuarie– *refer to Transitional and Coastal Action Plan for SERBD*
Status elements	Physio- chemical dictates 8 moderate RWBs (5 good, 3 moderate). The remaining RWBs are dictated by Q score. Status was extrapolated for 21 RWBs. Chemical Status not monitored. Knockaderry Reservoir, status driven by Chlorophyll, Nutrients - Ammonium, Total Phosphorus Ballyscanlan Lough, status driven by Chlorophyll, Nutrients - Total Phosphorus Ballyshunnock, status driven by Chlorophyll, Nutrients - Ammonium, Total Phosphorus Carrigavantry Reservoir, status driven by Chlorophyll, Nutrients - Total Phosphorus
Possible Impacts - EPA Water Quality 2004	SUIR - (Lowest monitoring point along Suir is the only one which falls within Suir Estuary WMU. However, it is within the Transitional waters of the Upper Suir Estuary, rather than a River WB, which is graded as Moderate Status. This monitoring point received a Q-score 3) Mostly satisfactory following improvement at eight locations. Ecological quality was good at 15 locations, moderate at two and poor at five. Continuing polluted downstream of Templemore, in and downstream of Thurles as far as Holycross, and also just upstream of Carrick-on-Suir. The crayfish, a protected species, was recorded at 15 of the 22 sites examined. These successfully reproducing populations could be threatened if reports of the introduction of an alien crayfish to the Suir turn out to be correct. (Based on Q scores from 3 to 4)

Table 10 Pressures and risks

PRESSURES/RISKS (continued)	
Wastewater Treatment Plants (WWTP) and Industrial Discharges	At risk: Fiddown Mooncoin Mullinavat Piltown Sewerage Scheme Grangemockler Portlaw WWTP - Proposed upgrade to 5250 pe. Cheekpoint Faugheen No Section 4 risks 3 IPPCs - at risk
Quarries, Mines & Landfills	There are 13 Quarry within the WMU. There are 2 landfills within the WMU: Kilbarry Landfill Site and Hardbog Landfill. There are no mines within the WMU.
Agriculture	There are 31 waterbodies at risk from agriculture within the WMU: SE_16_9, SE_16_3485, SE_16_3783, SE_16_384, SE_16_359, SE_16_4215, SE_16_3817, SE_16_4291, SE_16_3609, SE_16_1496, SE_16_4191, SE_16_3977, SE_16_869, SE_16_747, SE_16_3309, SE_16_17, SE_16_4252, SE_16_1525, SE_16_1151, SE_16_3186, SE_16_4249, SE_16_3914, SE_16_1502, SE_16_4197, SE_16_4257, SE_16_358, SE_16_1085, SE_16_4174, SE_16_4237, SE_16_3586, SE_16_4321
On-site systems	There are 9323 septic tanks in this WMU, none of them are posing a risk to water quality due to their density, location and unsuitable hydrogeological conditions.
Forestry	There are no waterbodies within the WMU at risk from Forestry.
Dangerous substances	There are no waterbodies at risk from dangerous substances within the WMU.

Morphology	There are no waterbodies at risk
Abstractions	There are 9 waterbodies at risk from abstraction within the WMU: SE_16_3609, SE_16_1496, SE_16_4252, SE_16_3914, SE_16_4174, SE_16_4321, SE_16_4249, SE_16_4237, SE_16_4291.
Other	Lower Suir Estuary transitional WB has been heavily modified.

Table 10 Pressures and risks (continued)

PRESSURES/RISKS	
Nutrient sources	Most TP is diffuse (94%) mainly from agriculture (59%), unsewered properties (10%), unsewered industry (21%) and WWTP (6%).
Point pressures	11 WWTP - Fiddown, Mooncoin, Mullinavat, Piltown, Carrick-on-Suir, Faugheen, Grangemockler, Portlaw, Ballyneil, Waterford, Cheekpoint. 7 Section 4 – 3 private companies, Concrete and Mortar Company, Building Product Producer, Quarries, Retail Centre. 15 IPPCs – Animal Health Products Company, Tape Manufacturers, Pharmaceuticals Company, 2 Plating Companies, 2 Farms, 2 Transportation Companies, Lens Production Company, Carpet Company, Crystal Manufacturers, Research and Development Company, Technology Manufacturing Company, Manufacturing Timber Company. 8 WTP - Lingaun WTP, Ahenny Treatment House, Carrickavantry WW, East Waterford, Coolnamuck Road Treatment, Ballinvir TH, Tullohea TH, Clonamy WTP. 9 EPA Licensed Waste Facilities

Table 11 Objectives

OBJECTIVES	
Restore/Protect 2015	20 river water bodies and 4 lake water bodies
Alternative Objectives	Extended Deadlines – 17 river water bodies with 2021 deadline New Modifications or Development – Piltown flood alleviation pre-feasibility study completed and Waterford City Council undertaking 1st Phase of flood alleviation scheme with OPW funding. HMWB/AWB – 1 HMWB - Lower Suir Estuary (Little Island-Cheek Point)

8. Site inspection

One site inspection was carried out on the 28th October, 2010. Habitats were classified using the general methodology outlined in the Heritage Council publication *A standard methodology for habitat survey and mapping in Ireland* (Heritage Council, 2005). All habitats were classified to level 3 of the classification scheme outlined in *A Guide to Habitats in Ireland* (Fossit, 2000). No listed rare or threatened floral species were recorded on, or in the vicinity of the site. Habitats on site and adjacent to the site are shown on **Fig. 4** and detailed in **Table 12 and 13.**

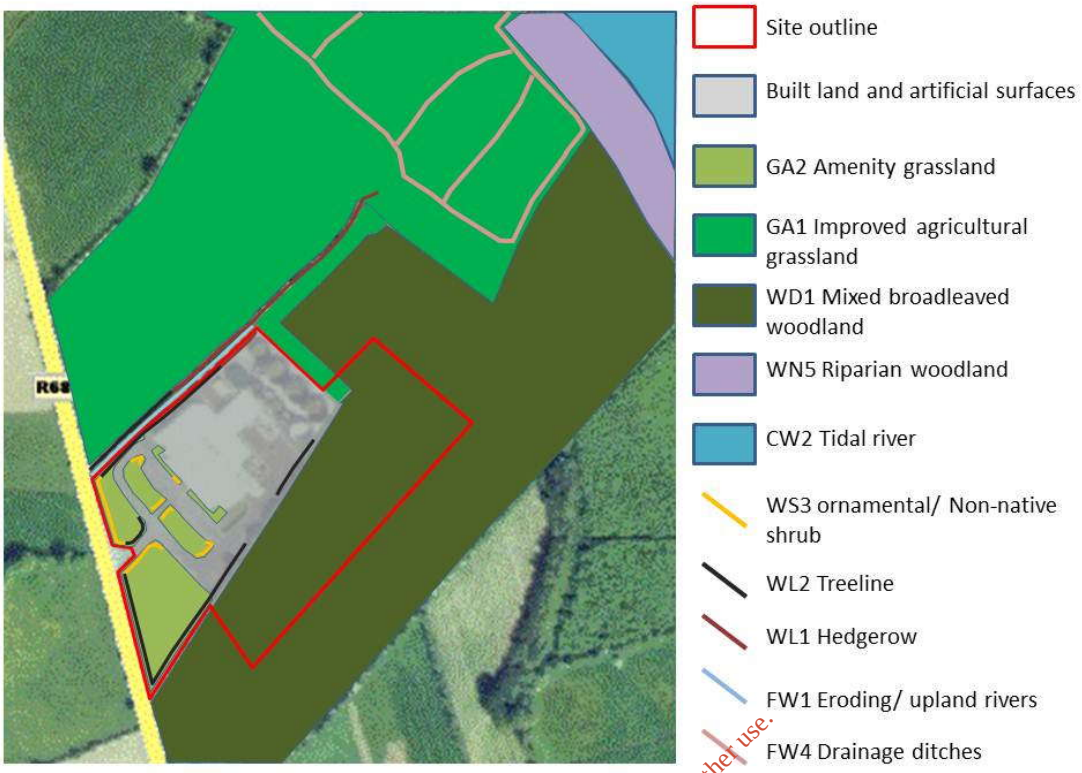

Figure 4. Habitat map.

8.1 Habitat value

The relative values of habitat types are detailed in **Table 12**. It should be noted that the value of a habitat is site specific and will be partially related to the amount of that habitat in the surrounding landscape. The evaluation scheme used in **Table 12** is based on the scheme detailed in the NRA publication *Guidelines for assessment of ecological impacts of National Road Schemes* (**Appendix 2**).

Table 12. Terrestrial habitats

Habitat Type/Species	Habitat Value	Comments
GA1 Improved agricultural grassland	**Low value E**	This habitat includes grassland that has been reseeded and regularly fertilised. It is dominated by grass species, particularly rye-grass, with a poor complement of agricultural weed species.
WD1 Mixed Broadleaved woodland	**Low -Moderate value E-D**	Two areas of plantation grown ash and sycamore. The trees are closely spaced and approximately 8 m tall.
WL1 Hedgerow	**Moderate value D**	The northern boundary of the site is marked by both hedgerow and treeline. The hedgerows is predominantly gorse with hawthorn and bramble. Downey birch and sycamore were also present in the hedgerow.
WL2 Treelines	**Low value E**	The treeline on the northern boundary of the site is a purposefully planted treeline used a screen to obscure the view of the treatment plant from the road and neighbouring houses.
WN5 Riparian woodland	**International value A**	Adjacent to the Suir River is a dense area of Riparian woodland dominated by white willow, with cracked willow and grey willow also present. This habitat will not be significantly affected.
BL3 Built land and artificial surfaces	**Low value E**	This habitat type includes all the buildings, sheds, storage tanks and yards which form the majority of the site.
WS3 Ornamental/ non-native shrubs	**Low value E**	Located at the main entrance to the site.
GA2 Amenity grassland	**Low value E**	Part of onsite landscaping.

Table 13. Aquatic Habitats

Habitat Type/Species	Relative Habitat Value	Comments
Tidal rivers CW2	**International value A**	The tidal section of the River Suir is situated approximately 300 meters to the east of the proposed development area. This section of the river is approximately 280 meters wide, with deep slow flows. The western bank, adjacent to this site, has a levy approximately 5 meters high. The riverside bank of this levy is dominated by willows including white willow, cracked willow and osier. Reed canary-grass and common reed were also present along the waters edge and along the levy.
FW1 Eroding upland rivers	**Low value E**	This habitat type includes the seasonal stream which flows along the northern boundary of the site, associated with the WL1 hedgerow and WL2 treeline habitats.
FW4 Drainage ditches	**Low value E**	Located in the fields between the facility and the River Suir.

9. Fauna

9.1 Mammals

No signs of otter, which are listed as a qualifying interest for the Lower River Suir SAC, were recorded in the vicinity of the site although it is probable that they utilise this part of the Suir River. No suitable or potential roost sites were identified along the section of river in proximity to the site. Bats may feed along the river but buildings on site are modern and do not provide suitable habitat for roosting.

9.2 Birds

A number of common bird species were noted in and around the site which including song thrush, blackbird, robin, blue tit, great tit, jackdaw, rook, hooded crow, chaffinch, woodpigeon, mallard and heron. These species were primarily associated with the treelines and river habitats.

Parts of the SAC site have also been identified as of ornithological importance for a number of Annex I (EU Birds Directive) bird species, including Greenland White-fronted Goose, Golden Plover, Whooper Swan and Kingfisher. None of these species were recorded although kingfisher may occur along the Suir River.

10. Potential impacts

The terrestrial habitats noted above are common low value habitats which are not of ecological value. An area of low diversity broadleaved plantation woodland and sections of associated treelines, which suffer moderate disturbance, will be removed. The line of riparian vegetation which borders the River Suir is of high ecological value. None of these protected habitats will be affected by the proposed changes.

The River Suir supports a number of important aquatic species which could potentially be impacted by deteriorations in water quality. Two lamprey species (*Petromyzon marinus,* and *Lampetra fluviatilis) and* salmon *(Salmo salar),* will migrate through this tidal section of river. Two shad species *(Alosa fallax and Alosa alosa)* occur within the tidal reaches. White clawed crayfish *(Austropotamobius pallipes)* and Freshwater pearl mussel *(Margaritifera margaritifera)* are unlikely to occur in this tidal section of the Suir River.

A significant deterioration in water quality could impact on directly on otters or indirectly by affecting prey species. No potential significant impacts on the qualifying Annex 1 habitats (Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*), Mediterranean salt meadows (*Juncetalia maritimi*), Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, Old sessile oak woods with Ilex and Blechnum in British Isles, Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) and *Taxus baccata* woods of the British Isles, Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation) have been identified.

11. Conclusions

The proposed changes and developments to the facility will have a minor impact on low diversity habitats within the land ownership area. No terrestrial habitats of value will be affected and there will be no significant direct impact on the Suir River.

No otters were detected although this species is likely to be present along Suir River. However in the absence of any significant increase in noise or significant impacts on water quality no impact on this species is envisaged. Similarly, no direct impact on birds including Annex 1 birds such as kingfisher is envisaged.

Impacts on water quality are the primary concern however the leachate produced in the composting process is re-circulated and surplus leachate that requires treatment is typically not generated. Foul water is treated using a septic tank and percolation area which is located a considerable distance from the Suir River and does not constitute a significant risk to water quality.

The only discharge to the Suir River will be of surface water from the existing facility. Waste is processed indoors and is only moved within the site in sealed containers; therefore no nutrient enrichment of surface water will occur.

The changes to the storm water system will be minor and there will be only a slight increase in discharged surface water (5%) during a 50mm one hour storm event. In the context of the available dilution in the River Suir, the low level of nutrients in the surface water discharge and the use of an oil interceptor the impact on surface water quality within the River Suir SAC is expected to be negligible.

This is predominantly a rural area largely dominated by one-off housing and in the absence of other major discharges no significant cumulative impacts on water quality are envisaged. The objective under the Water Framework Directive for the Middle Suir river is to restore by 2021 and thus water quality within the Lower Suir is expected to improve and reach good status by this date.

Overall there is no evidence to indicate that works will cause significant deterioration of the habitats of the qualifying species and species of special conservation interest or significant disturbance to these species thus ensuring the integrity of the site is maintained.

On the basis that no potentially significant impacts have been identified by this screening report, a Stage 2 Natura Impact Statement is not considered necessary.

Appendix 1 Site photographs

Photograph 1. The existing discharge point location

Photograph 2. View of the Lower River Suir from the discharge point.

Appendix 2 – National Roads Authority – Guidelines for assessment of ecological impacts of National Road Schemes

Rating	Qualifying criteria
A	**Internationally important** Sites designated (or qualifying for designation) as SAC* or SPA* under the EU Habitats or Birds Directives. Undesignated sites containing good examples of Annex I priority habitats under the EU Habitats Directive. Major salmon river fisheries. Major salmonid (salmon, trout or char) lake fisheries.
B	**Nationally important** Sites or waters designated or proposed as an NHA* or statutory Nature Reserves. Undesignated sites containing good examples of Annex I habitats (under EU Habitats Directive). Undesignated sites containing significant numbers of resident or regularly occurring populations of Annex II species under the EU Habitats Directive or Annex I species under the EU Birds Directive or species protected under the Wildlife (Amendment) Act 2000. Major trout river fisheries. Water bodies with major amenity fishery value. Commercially important coarse fisheries.
C	**High value, locally important** Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or significant populations of locally rare species. Small water bodies with known salmonid populations or with good potential salmonid habitat. Sites containing any resident or regularly occurring populations of Annex II species under the EU Habitats Directive or Annex I species under the EU Birds Directive. Large water bodies with some coarse fisheries value.
D	**Moderate value, locally important** Sites containing some semi-natural habitat or locally important for wildlife. Small water bodies with some coarse fisheries value or some potential salmonid habitat. Any water body with unpolluted water (Q-value rating 4-5).
E	**Low value, locally important** Artificial or highly modified habitats with low species diversity and low wildlife value. Water bodies with no current fisheries value and no significant potential fisheries value.

*SAC = Special Area of Conservation
SPA= Special Protection Area
NHA= Natural Heritage Area

Appendix 2 continued

Criteria for assessing impact significance

(a) Terrestrial habitats

Impact level	Site category* A sites Internationally important	B sites Nationally important	C Sites High value, locally important	D sites Moderate value, locally important	E sites Low value, locally important
Severe negative	Any permanent impacts	Permanent impacts on a large part of a site			
Major negative	Temporary impacts on a large part of a site	Permanent impacts on a small part of a site	Permanent impacts on a large part of a site		
Moderate negative	Temporary impacts on a small part of a site	Temporary impacts on a large part of a site	Permanent impacts on a small part of a site	Permanent impacts on a large part of a site	
Minor negative		Temporary impacts on a small part of a site	Temporary impacts on a large part of a site	Permanent impacts on a small part of a site	Permanent impacts on a large part of a site
Neutral	No impacts	No impacts	No impacts	No impacts	Permanent impacts on a small part of a site
Minor positive				Permanent beneficial impacts on a small part of a site	Permanent beneficial impacts on a large part of a site
Moderate positive			Permanent beneficial impacts on a small part of a site	Permanent beneficial impacts on a large part of a site	
Major positive		Permanent beneficial impacts on a small part of a site	Permanent beneficial impacts on a large part of a site		

Criteria for assessing impact significance

(b) Aquatic habitats

A Sites

	Temporary	Short-term	Medium-term	Long-term
Extensive	**Major**	**Severe**	**Severe**	**Severe**
Localised	**Major**	**Major**	**Severe**	**Severe**

B Sites

	Temporary	Short-term	Medium-term	Long-term
Extensive	**Major**	**Major**	**Severe**	**Severe**
Localised	**Moderate**	**Moderate**	**Major**	**Major**

C Sites

	Temporary	Short-term	Medium-term	Long-term
Extensive	**Moderate**	**Moderate**	**Major**	**Major**
Localised	**Minor**	**Moderate**	**Moderate**	**Moderate**

D Sites

	Temporary	Short-term	Medium-term	Long-term
Extensive	**Minor**	**Minor**	**Moderate**	**Moderate**
Localised	**Not significant**	**Minor**	**Minor**	**Minor**

E Sites

	Temporary	Short-term	Medium-term	Long-term
Extensive	**Not significant**	**Not significant**	**Minor**	**Minor**
Localised	**Not significant**	**Not significant**	**Not significant**	**Not significant**

In line with the EPA Guidelines (EPA 2002), the following terms are defined when quantifying duration:

Temporary: up to 1 year,
Short-term: from 1-7 years,
Medium-term: 7-15 years,
Long-term: 15-60 years,
Permanent: over 60 years.

Localised impacts on rivers are loosely defined as impacts measurable no more than 250m from the impact source. Extensive impacts on rivers are defined as impacts measurable more than 250m from the impact source. Any impact on salmonid spawning habitat, or nursery habitat where it is in short supply, would be regarded as an extensive impact as it is likely to have an impact on the salmonid population beyond the immediate vicinity of the impact source.

Attachment L.1 Section 40 WMA

Details of the emissions from the facility are presented in Section s 5, 7, 8, 10, 11 and 12 of the EIS that accompanies this application. The emissions will not result in the contravention of any relevant standard or emission limit prescribed under enactment.

The proposed activities take into consideration the BAT Guidance Note for the Waste Sector: Waste Transfer Activities published by the EPA. The facility operations, when carried out in accordance with licence conditions, will not cause environmental pollution. The facility manager and deputy will complete the FAS Waste Management Training Programme, or equivalent agreed with the Agency, prior to the start of waste acceptance under the licence.

Energy will be used efficiently in the carrying out of proposed activities. Necessary measures will be taken to ensure limited consequences for the environment from accidents or the permanent cessation of activities at the site.

A separate Appropriate Assessment Stage 1 Screening Report was completed and is included with the application.

Attachment L.2A Offences and Convictions

Ormonde Organics has not been convicted under the Waste Management Acts 1996, as amended, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1977 and 1990 or the Air Pollution Act 1987.

Attachment L.2B Technical Competence and Site Management

The Facility Manager has 16 years experience in Waste Management and has a Certificate in Compost Facility Operation issued by Sligo Institute of Technology. The Deputy Manager has a BAgrSci and 5 years experience in waste management. The facility is certified to ISO 14001 Environmental Management System, ISO 9001 Quality System and OHSAS 18001.

Attachment L.2C Financial Provision

Recent audited accounts for Ormonde Organics for 2011 are included in this attachment. In the extremely unlikely event of the unexpected closure and/or bankruptcy of the facility the decommissioning plan approved by the Agency will be implemented. Ormonde Organics will provide the Agency with the appropriate form of guarantee for the sum required to decommission the facility by way of a bond or other financial instrument, as may be specified by the Agency.

Attachment L3 Waste Hierarchy

National waste management policy is grounded on the Department of the Environment and Local Government's policy statement of September 1998. *"Changing Our Ways"*. This statement firmly bases national policy on the EU Waste Management Hierarchy. The most recent Waste Policy Statement 'A Resource Opportunity Waste Management Policy In Ireland 2102 is also predicated on the EU Waste Hierarchy, as amended by the EU Waste Framework Directive 2008/98/EC which was transposed into Irish Law by the European Communities (Waste Directive) Regulations 2011 (S. I. No.126 of 2011). The revised Hierarchy is:

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

The 2012 Policy Statement is based on and supported by EU legislation that requires the reduction in the volume of biodegradable waste disposed to landfill. It encompasses a range of measures across all tiers namely, prevention and minimisation, reuse, recycling, recovery and disposal. It sets out how the higher tiers can reduce our reliance on finite resources, virtually eliminate our reliance on landfill and minimise the impact on our environment.

It is a policy objective that when waste is generated, the maximum value must be extracted from it by ensuring that it is reused, recycled or recovered. In terms of recovery, the Policy recognises the importance of waste as an energy resource and the need to efficiently harness that resource.

The proposed development of the Anaerobic Digestion Plant, which will recover energy from the waste is consistent with national waste policy objectives, as it will facilitate the extracting the maximum value from the waste and significantly reduce the amount of waste going to residual landfill.

L4. Principles of Self Sufficiency and Proximity

The objective of the facility is to expand the regional and national waste recovery capacity and contribute to achieving the regional and national waste recovery targets and to manage organic wastes in accordance with the Waste Hierarchy.

The target wastes include sludges from industrial wastewater treatment plants operated by the agri-industry sector and process waste residues from the drinks industry, the majority of which operate under Integrated Pollution Prevention and Control (IPPC) Licences. Based on Annual Environmental Reports for 2009, approximately 40,000 tonnes of industrial wastewater treatment sludges and 30,000 tonnes of process residues from the drinks industry were produced in South East Region, with a further 95,000 tonnes produced in the other counties in Munster (Ref Table 3.1).

Table 1- Suitable Feedstocks

Industry	Region	Quantity (tonnes per annum)
Food	South East	~40,000
Food	Munster	~80,000
Drink	South East	~30,000
Drink	Munster	~15,000
Total		165,000

Source: AER 2009 of IPPC Licence holders in the South Eastern Region and Munster

While Ormonde Organics will focus on securing waste treatment contracts in the South East Region, the facility operates on a commercial basis and economics may dictate the acceptance of wastes from outside the region.