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Appropriate Assessment Screening

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1. BACKGROUND

Under the E.U. Birds (79/409/EEC) and Habitats (92/43/EEC) Directives, 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 Conversation respectively. Collectively, these sites are referred to as NATURA 2000 sites. Any plan or project that is likely to have a potential on a NATURA 2000 site must undergo an Appropriate Assessment to determine potential impacts, and where necessary, devise appropriate measures to prevent or minimise any such impacts.

The requirements for an Appropriate Assessment are set out in the E.U. Habitats Directive. Articles 6(3) and 6(4) of this Directive state:

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 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.

The development will consist/consists of a Biogas Plant consisting of 2 no digester tanks, 2 no validation tanks, 1 no Homogenising tank, 3 no geo-membrane lined manure storage basins, 1 no fibre store, 1 No Feed Tank, Reception Building, Plant Building, Pasteurisation Tanks, Weighbridge and associated site works including an Integrated Constructed Wetlands to produce renewable energy and fertilizer at Barry's Hall, Timoleague, Co. Cork

The development is approximately 450 metres from the nearest SAC/SPA Courtmacsherry Estuary & Bay

2. METHODOLOGY FOR APPROPRIATE ASSESSMENT

This assessment follows the methodological guidance set out in the document 'Assessment of plans and projects significantly affecting NATURA 2000 sites, methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC' (2001). This document is referred to as the 'Guidance Document' in this report. These guidelines are read in conjunction with the document 'Managing NATURA 2000 Sites: The provision of Article 6 of the 'Habitats Directive 92/42/EEC' (2000).

The assessment requirements of Article 6 are generally dealt with in a stage by stage approach. The stages proposed by the Guidance Document are:

Stage1: Screening

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

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).

Stage 2: Appropriate Assessment

The consideration of the impact on the integrity of the NATURA 2000 site of the project or plan, either alone or in combination with other projects or plans, with respects to the sites structure and function and its conservation objectives. Additionally where there are adverse impacts, an assessment of the potential mitigation of those impacts.

Stage 3: Assessment of alternative solutions

The process which examines alternative ways of achieving the objectives of the process or the plan that avoid adverse impacts on the integrity of the NATURA 2000 site.

Stage 4: Assessment where adverse impacts remain

An assessment of compensatory measures where, in light of an assessment of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the NATURA 2000 site, there will be no requirement to proceed further. It is Best Practice however to complete a 'finding of no significant effects' report. The relationship of the four stages of this Assessment Guidance is illustrated in the Guidance Document.

This report covers Stage One (Screening) only as the proposed development plan is not expected to have significant adverse impacts on the integrity of the NATURA 2000 site.

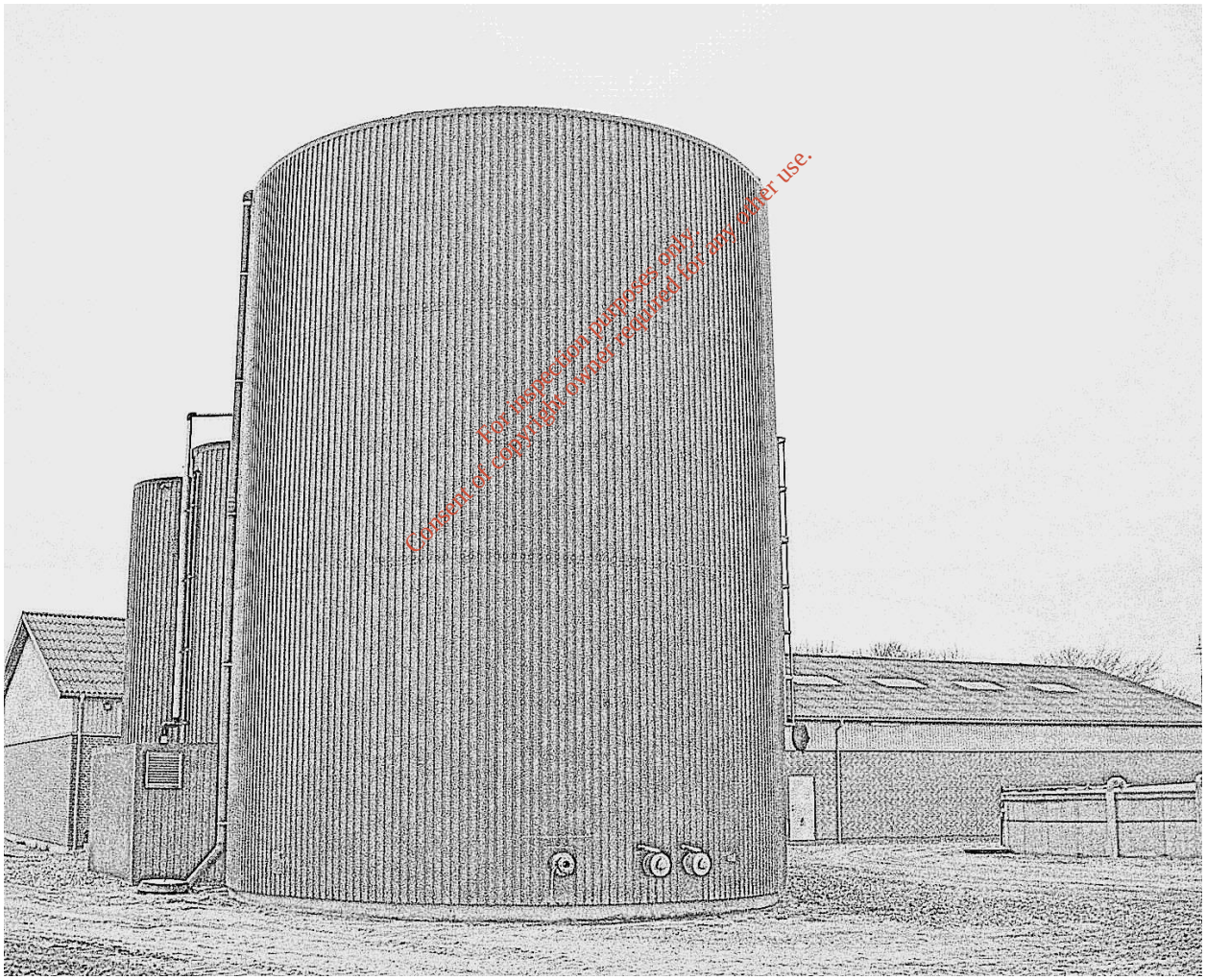
Throughout this process, those paragraphs in *italics* refer to specific instructions contained in the Guidance Document.

3. STAGE 1 (SCREENING)

3.1 Brief Description of the plan

The development will consist/consists of a Biogas Plant consisting of 2 no digester tanks, 2 no validation tanks, 1 no Homogenising tank, 3 no geo-membrane lined manure storage basins, 1 no fibre store, 1 No Feed Tank, Reception Building, Plant Building, Pasteurisation Tanks, Weighbridge and associated site works including an Integrated Constructed Wetlands to produce renewable energy and fertilizer at Barry's Hall, Timoleague, Co. Cork

The development is approximately 450 metres from the nearest SAC/SPA Courtmacsherry Estuary & Bay



Representation of an Anaerobic Digester

3.2 Brief Description of the NATURA 2000 sites

The Natura 2000 sites in the environs of the proposed development are:

Site Code	SAC Name	Potential Threats	Distance of Site from Development
001230	Courtmacsherry Estuary SAC	Aquaculture; Fishing; Coastal development; Water pollution arising from agriculture; Bait digging; Land reclamation;Coastal protection works; Spread of invasive species; Infilling; Spread of invasive species including sea-buckthorn and Spartina; Infilling; Recreational uses, including trampling, horse riding and vehicle use; Mechanised removal of tidal litter. Over and under-grazing; Sand and gravel extraction; Removal of other beach materials; Development pressure causing habitat loss. Disturbance to wintering birds.	450Metres
004219	C'macsherry Bay SPA	As Above	450 Metres
004191	Seven Heads SPA	As Above	4.5 Km
004081	Clonakilty Bay SPA	As Above	6 Km
000091	Clonakilty Bay SAC	As Above	6 Km
004190	Galley Head to Duneen Point SPA	Changes in landuse, particularly a reduction in grazing levels, could pose a threat to the species. One other potential threat is the residue left in livestock dung due to the application of broad-spectrum anti-parasitic drugs.	9 Km

Full descriptions can be found as attachments to this report and at www.npws.ie.

3.3 Conservation objectives of the NATURA 2000 site

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the NATURA 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the NATURA 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

The maintenance of habitats and species within NATURA 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

• Its natural range, and area it covers within that range, are stable or increasing, and
• The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
• The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

• Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
• The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
• There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

NPWS (2011) Conservation objectives for Courtmacsherry Estuary SAC, Courtmacsherry Bay SPA, Seven Heads SPA, Clonakilty Bay SPA, Clonakilty Bay SAC and Galley Head to Duneen Point SAC.

3.4 ASSESSMENT CRITERIA

3.4.1 Description of the elements of the project likely to give rise to impacts on the NATURA 2000 site.

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

The proposed construction will be used to extract methane from organic fertiliser whilst still being left with a useable product digestate on site. This digestate will be exported to farmers with a capacity to spread it on their lands, spreading activities carried out by or on behalf of importing farmers are regulated under the Nitrate Regulations.

Nitrate Regulations (S.I. No. 378 of 2006 & S.I. 610 of 2010) will determine how much organic fertiliser the farm can import:

Interpretation, commencement etc

15. (1) In this Part, "crop requirement", in relation to the application of fertilisers to promote the growth of a crop, means the amounts and types of fertilisers which are reasonable to apply to soil for the purposes of promoting the growth of the crop having regard to the foreseeable nutrient supply available to the crop from the fertilisers, the soil and from other sources.

(2) The amount of nitrogen or phosphorus specified in Table 7 or 8 of Schedule 2, as the case may be, in relation to a type of livestock manure or other substance specified in the relevant table shall for the purposes of this Part be deemed to be the amount of nitrogen or phosphorus, as the case may be, contained in that type of manure or substance except as may be otherwise specified in a certificate issued in accordance with Article 32.

(3) The amount of nitrogen or phosphorus available to a crop from a fertiliser of a type which is specified in Table 9 of Schedule 2 in the year of application of that fertiliser shall, for the purposes of this Part, be deemed to be the percentage specified in that table of the amount of nitrogen or phosphorus, as the case may be, in the fertiliser.

(4) The amount of nitrogen or phosphorus available to a crop from an organic fertiliser of a type which is not specified in Table 9 of Schedule 2 shall be deemed to be the amount specified in that table in relation to cattle manure unless a different amount has been determined in relation to that fertiliser by, or with the agreement of, the relevant local authority or the Agency, as the case may be.

(5) A reference in this Part to the "nitrogen index" or the "phosphorus index" in relation to soil is a reference to the index number assigned to the soil in accordance with Table 10 or 11 of Schedule 2, as the case may be, to indicate the level of nitrogen or phosphorus available from the soil.

Duty of occupier in relation to nutrient management

16. (1) An occupier of a holding shall take all such reasonable steps as are necessary for the purposes of preventing or minimising the application to land of fertilisers in excess of crop requirement on the holding.

3.4.2 Description of the likely impacts of the process on the NATURA 2000 site.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the NATURA site by virtue of:

LIKELY IMPACTS OF THE PLAN ON THE NATURA 2000 SITE BY VIRTUE OF:
Size and scale The proposed construction will take up approximately 3.67 Hectares in size and will be built on tillage ground.
Land-take There will be no land take from the NATURA sites concerned so there will be no physical change to these sites.
Distance from NATURA 2000 site or key features of the site The proposed construction is approximately 450 metres from the nearest point of the SPA/SAC, Courtmacsherry Bay/Estuary. It is not located in or bounding the NATURA sites.
Resource Requirements(water abstraction etc) The proposed construction will not require any resources from the NATURA sites concerned.

3.4.3 Description of the likely impacts of the process on the NATURA 2000 site.

DESCRIBE ANY LIKELY CHANGES TO THE SITE ARISING AS A RESULT OF:
Reduction in habitat area The proposed construction is approximately 450 metres from the nearest NATURA sites. There will be no reduction in the area of the NATURA sites thus habitats concerned will not be reduced in area.
Disturbance to key species There will be no land take from the NATURA sites concerned so there is no impact likely from a physical change or to key species. Water quality is extremely unlikely to be affected.
Habitat or Species Fragmentation There will be no land take from the NATURA sites concerned so there is no impact likely from a physical change or to key species. Water quality is extremely unlikely to be affected.
Reduction in species diversity As discussed above, there will be no land take from the NATURA sites concerned so there is no impact likely from a physical change or to key species or the diversity of such. Water quality is extremely unlikely to be affected as the spreading of organic fertilisers is governed by nitrate regulations.
Changes in key indicator s of conservation value (water quality etc) As discussed above, water quality is extremely unlikely to be affected as the spreading of organic fertilisers is governed by nitrate regulations. Other key indicators such as lichens, insect populations will not be significantly affected.

3.4.4 The likely impacts on the NATURA 2000 site as a whole.

Describe the likely impacts of the NATURA 2000 site as a whole in terms of:

- *Interference with the key relationships that define the structure of the site;*
- *Interference with the key relationships that define the function of the site.*

It is not considered likely that there will be any impacts on key relationships that define the structure or function of the site.

The chief risk to the NATURA sites from the construction or activities of this development is in the spreading of organic fertilisers such as digestate. Storage of such fertiliser's onsite will not pose a threat and the spreading by customer farmers must be carried out in accordance with nitrates regulations.

3.4.5 Indicators of significance:

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

POTENTIAL IMPACT	SIGNIFICANCE INDICATOR
Changes to key element on the site, e.g. water quality	Change in the Q-biotic index in Courtmacsherry Estuary/Bay (baseline data held by the EPA)
Disturbance to fauna	None foreseen
Habitat loss or degradation	Change in the Q-biotic index in Courtmacsherry Estuary/Bay (baseline data held by the EPA)
Fragmentation	None foreseen
Disruption	None foreseen

3.4.6 The likely significance of potential impacts:

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

It is not considered likely that the plan will result in any significant or long term impact on NATURA sites listed in this report. The fact that any other development likely to give rise to any impacts on the NATURA sites will be subject to an Appropriate Assessment under the Habitats Directive would allow for more detailed and reliable assessment of any impacts to be made when full details of the proposal are available. An Appropriate Assessment is therefore not required for this proposed construction and a finding of no significance report has been completed (see Section 5 below).

4. RECEIVING ENVIRONMENT

Survey Methodology

The basis for this assessment was a Phase 1 Habitat Survey, undertaken in accordance with the *Heritage Council's "A Guide to Habitats in Ireland"* (Fossit, 2000) and the "*Draft Habitat Survey Guidelines"* (Heritage Council, 2002). The *Guide to Habitats in Ireland* classifies habitats according to a hierarchical framework with Level 1 habitats representing broad habitat groups, Level 2 representing habitat sub-groups and Level 3 representing individual habitats. The field survey focused on identifying Level 3 habitats. The DAFOR scale was also used to characterise the vegetation within each habitat. This scale refers to plant species in terms of dominance, abundance, frequency, occasional and rare (DAFOR). In addition any evidence or records of fauna activity within or adjacent to the site were also noted during the survey, which was undertaken in July, 2012.

Ecological Evaluation

The evaluation of the ecological resource was assessed according to the National Roads Authority's *Site Evaluation Scheme* (outlined in *Table 1* below) as described in the NRA's *Guidelines for the Assessment of Ecological Impacts of National Road Schemes*. These criteria evaluate the significance of an ecological resource within a defined geographical context.

Figure 1: Hedgerow adjacent to proposed AD site

Table 1 Site Evaluation Scheme

Rating	Qualifying Criteria
A	**Internationally Important** Site designated (or qualifying for designation) as Special Area of Conservation (SAC) or Special Protection Area (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 Natural Heritage Area (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.
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

The site occupies an irregular shaped parcel of land approximately 1.2 Km South of Timoleague town an 3.67 Hectares in size. It is located in the townsland of Barryshall. The area concerned is flat to undulating without any majorly elevated areas. The site is located in a low-lying area and is approximately 450 metres West of the Courtmacsherry Estuary SAC/ Courtmacsherry SPA. The soil present at this site is a free-draining brown podzolic type soil in parts thus this site has mainly been used for tillage crops. Grassland fields adjacent to the site of the proposed development are used for sheep/cattle grazing.

The boundary of the site varies from 20 metres to 60 metres from the nearest hedgerow The dominant land use on the north and west is grassland and to the south and east is mainly used as tillage ground. The nearest NATURA sites are the aforementioned Courtmacsherry Bay SPA/Courtmacsherry Estuary SAC which are approximately 450 metres from the site of the proposed development.

Figure 2: View of the proposed site

4.1. Field Survey Results

The terrestrial habitats recorded within the survey area are three broad (Level 1) habitat groups and were identified within the survey area:

- Freshwater
- Grassland
- Cultivated and Built Land
- Linear Woodland

Each of the broad habitats and the individual habitats (Level 3 habitats) making up these broad groups are described below. Habitats that represent a transition between two individual habitats will be described in the text below under the Level 3 habitat that they most resemble and details of such transitions will be outlined.

This survey was carried out in July 2012 under dry weather conditions so results obtained for the habitats present are accurate as hedgerow and soil conditions are at their optimum to support wildlife. Soil conditions were wet but growth was good providing good cover and birds were actively nesting in hedgerows.

Figure 3: Courtmacsherry Bay

Freshwater

The freshwater habitats identified within the site have been classified as:

- Depositing/lowland rivers (FW2)

Argideen River
A depositing lowland river is located 1.6 Km North East of the site. The river is characterised by varying depths and a substrate that alternates from mud to sand. The instream vegetation includes fool's water cress (*Apium nodiflorum*), water starwort and duckweed species in areas of low flow. The following vegetation was recorded fringing the river: fool's water cress; hemlock water dropwort (*Oenanthe crocata*); water mint; clustered dock (*Rumex cconglomeratus*); soft rush; marsh bedstraw (*Galium palustre*); horsetails (*Equisetum* spp.); ash (*Fraxinus excelsior*); willows (*Salix* spp); and birch (*Betula pendula*). Sea trout (*Salmo trutta)* and salmon (*Salmo salar)* are the fish species most likely to be found in this river.

Grassland

The grassland habitats identified within the site environs have been classified as:

- Improved grassland (GA1)

The grassland areas adjacent to the site all obviously well managed land which has also been fertilised with manures resulting in fields dominated by agricultural grasses such as ryegrass *(Lolium sp*.) Although other grasses such as fescue (*Festuca sp*.), cocksfoot (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*) and bents (*Agrostis sp*.) are present and although some of these grass species will be wild strains, the vegetation is dominated by agricultural cultivars selected for their vigour. Such a distribution is to be expected where farming is intensive and where much of the land is improved pasture. Where broad-leaved plants are present they consist primarily of clover (*Trifolium sp),* dock *(Rumex sp*.), Mouse-ear chickweed (Cerastium vulgatum) thistle (*Cirsium sp*), ragwort (*Senecio* jocobacea) and nettle (*Urtica diocia*).

These are all common species, many of which thrive in fertile ground.

Given the nature of the grassland areas, it is considered extremely unlikely that any rare, endangered or uncommon species are present within these habitats and no such species were noted.

Figure 4: Perennial Rye-Grass in adjacent fields

Figure 5: Negative species found in adjacent fields

Linear Woodland

The Linear Woodland habitats identified within the site environs have been classified as:

- Hedgerow (WL1)

In intensive managed agricultural systems species diversity is often greatest at habitat interfaces such as hedges, ditches and herbaceous strips between fields. Studies have shown that almost 45% of flora may exist in these habitats, which may cover 8 - 10% of the landscape (Buckley 1989). Mature hedgerows therefore fulfil an important role on intensively farmed land where, in addition to providing food and nesting sites, they function as wildlife corridors allowing fauna to move easily from one habitat to another.

On this site typical tree hedgerow species include hawthorn *(Crataegus monogyna*), ash (*Fraxinus excelsior*) and sycamore (*Acer psuedoplatanus)* and these species make up the majority of the hedges surveyed. Other less numerous trees species include oak (*Quercus robur*), willow *(Salix)*, and blackthorn (*Prunus spinosa*). Other woody species include furze *(Ulex europeas)*, elder (*Sambucus nigra*), bramble *(Rubus fruticosis*), ivy (*Herera helix*) honeysuckle *(Lonicera periclymenum*) and bindweed *(Calystegia sepium*). Typical understorey plants include hartstongue fern (Phyllitis *Scolopendrium*), nettle (*Urticadiocia)*, Woodavens *(Geun Urbalum)*, Hedge woundwort (*Stachys Sylvaticia*), Herb Robert (*Geranium Robertianum*), umbellifers such as hogweed (*Heraclbum Sphondylium*) and Cow Parsley (*Anthriscus Sylvestris*) and barren strawberry (*Potentilla sterils)*

Figure 6: view of hedgerows on site boundary

Cultivated and built land

The cultivated and built land habitats identified within the site have been classified as:

- Arable Crops (BC1)

Cereal crops are grown to the south and east of the site and contain very low numbers of flora or fauna species. It is grown as an agricultural enterprise under nitrate regulations. Planned construction will be carried out on the barley field.

Fauna

Birds noted during the survey included species normally common in mixed farmland of this type including members of the crow family *(corvus sp),* pigeon (*columba palumbus)* and blackbirds *(turdus merula*) and the wren (*troglodytes troglodytes*). Other common birds include wagtail *(montacilla sp*), members of the tit family (*parus sp*), thrushes (*turds sp*), and other finch species

A number of the mammal species utilize farmland habitats including field mouse (*apodmus sylvatica*), brown rat (*rattus norvegicus*), rabbit (*oryclalagus coliculus*), fox (*vulpes vuples*), badger (*meles meles*), Irish hare (*lepus timidius hibernicus*). Invertrabraes species on this type of ground will include a number of common species but the presence of rare species is considered unlikely.

It is considered very unlikely that this development will impact negatively on vertebrate life as these lands are already intensively farmed. As such the vertebrate present on this type of ground will be typical of intensively farmed agricultural land and no additional impacts would be expected from a continuation of this type of farming on the rest of the land.

Figure 7: view of proposed site and hedgerow

4.2 Site Evaluation

While the overall plant species richness recorded around the site is considered to be moderate, the area of the proposed site supports a limited range of habitats and a range of a fauna species and is thus considered to be of moderate to low ecological value. The habitats mentioned appear right through the farm and surrounding land.

In relation to tillage habitats there will no impact on wildlife as there displacement of fauna due to construction and much of the surrounding area is also arable crops (BC1) and improved agricultural grassland (GA1) hence development of the site should have no significant impact on fauna populations. The flora present consists of cereal crops. The surrounding area is also of cereal crops, maize and perennial rye grass so development provides no threat to its survival in the area.

Regarding the previously mentioned table 1 listing the National Roads Authority's *Site Evaluation Scheme* this site would be regarded as E in value: *Low Value, locally important* as the NATURA sites are not impacted on by the proposed development.

Descriptions of Predicted Impacts

Direct Impacts

The proposed activities on site will result in the loss of the following habitats:

- Arable Crops (BC1)

Overall this habitat represents an area of, moderate to low ecological value and therefore the loss of habitats will constitute a moderate to low negative impact.
The loss of this habitat and the disturbance associated with the proposed activities on site will not have the potential to cause a moderate to major negative impact to wildlife supported around the site as the area taken up by the site is surrounded by improved grassland and tillage ground.

Indirect Impacts and mitigation measures

Indirect impacts come in the form of run-off from when the proposed development is operational. Any run-off water from the site will be directed to natural waterways but these will subject to monitoring points with regulars samples taken to insure no contamination of waterways. Stormwater from the development will be diverted to one outflow pipes called SW1 etc, this will be clean water which will be monitored to ensure this water is of sufficient quality to return to groundwater.

Figure 8: View of maize in adjacent field

5. NATURA IMPACT STATEMENT

The planning and development act requires that a NATURA Impact Statement is submitted as part of the screening process for Appropriate Assessment to determine whether the project is likely to have a significant effect on the NATURA sites Courtmacsherry Bay/Estuary, Clonakilty Bay Seven Heads and Galley Head to Duneen Point.

The construction of an Anaerobic Digester (AD) will improve the farm management of the main supplier of the organic slurry. Importing of organic slurry in the form of digestate must be done within nitrate regulations. The construction itself will be 450 metres from the nearest NATURA sites concerned.

Activities on the site will not affect populations of Annex I species listed in the NPWS synopsis of the sites included in this report.

Any in combination effect is not foreseen but future developments in the location will require their own Appropriate Assessment.

A sister project is being assessed for using heat produced from the Anaerobic Digester. This project consists of a glasshouse adjacent to the Anaerobic Digester and will require its own planning permission. At this time the Anaerobic Digester cannot be seen to cause any significant negative effect to the NATURA sites, either on its own or in combination with the above sister project or any other projects in the area.

Therefore it is concluded that there will be no significant adverse impacts on the NATURA sites Courtmacsherry Bay/Estuary, Clonakilty Bay Seven Heads and Galley Head to Duneen Point thus this screening suggests an Appropriate Assessment is not required.

Below is a list of threats to the NATURA sites Courtmacsherry Bay/Estuary, Clonakilty Bay, Seven heads SPA and Galley Head to Duneen Point. Very few of these threats can be said to have a connection with the proposed development, the only examples being those of agricultural activities that are regulated by Nitrate Regulations S.I. 378 of 2006 & S.I. 610 of 2010.

Documented threats to the Conservation Objectives of the NATURA sites in the environs of proposed development at Barryshall, Timoleague, Co. Cork

The NPWS 'Conservation Status Assessment Report Form' and 'Backing Document' provide information on 'structure and function' and 'impacts and threats' of each Annex I habitat. Details of the documented threats to Annex I habitats relevant to this assessment are listed below.

Annual Vegetation of Drift Lines: grazing; sand and gravel extraction – removal of beach materials; walking; horse riding and non-motorised vehicles; outdoor sports and leisure activities; other leisure and tourism impacts (beach cleaning); trampling; overuse and sea defence or coastal protection works.

Embryonic Shifting Dunes: walking; horse riding and non-motorised vehicles; motorised vehicles ; trampling; overuse; sea defence or coastal protection works; erosion and other natural processes (depletion of sediment source).

Shifting Dunes Along the Shoreline with Ammophila Arenaria (White Dunes): Grazing; sand and gravel extraction; removal of beach materials; paths, tracks, cycling routes; walking; horse riding and non-motorised vehicles; motorised vehicles; trampling; overuse; sea defence or coastal protection works; erosion and other natural processes (depletion of sediment source).

Fixed Coastal Dunes with Herbaceous Vegetation (Gray Dunes): mowing/cutting; agricultural improvement; fertilisation; grazing; abandonment of pastoral systems; overgrazing by sheep; overgrazing by cattle; overgrazing by hares, rabbits, small mammals; undergrazing; restructuring agricultural holding; stock feeding; burning; sand and gravel extraction; urbanised areas; human habitation; discontinuous urbanisation; industrial or similar activities; paths, tracks, cycling routes; auto routes; golf courses; sports pitch; camping and caravans; walking; horse riding and non-motorised vehicles; motorised vehicles; pollution; trampling; overuse; other pollution or human activities; sea defence or coastal protection works; erosion; invasion by a species and competition.

Atlantic Decalcified Fixed Dunes (Calluno-Ulicetea): agricultural improvement; grazing; overgrazing; undergrazing; restructuring agricultural land holding; stock feeding; quarries and competition.

FINDING OF NO SIGNIFICANCE REPORT	
Name of NATURA 2000 site	*Courtmacsherry Estuary SAC* *SITE CODE: 001230* The site is of ornithological importance for the many waders and wildfowl that feed on the mud and sandflats. The spread of Cord-grass on parts of the mudflats poses a threat to the quantity of the area for feeding birds and pollution is an ever-present threat in such a wetland. Courtmacsherry Estuary is an important site for the complex of coastal habitats found there, including ten listed on Annex I of the EU Habitats Directive, and for the large numbers of birds that use the area
	Courtmacsherry Bay SPA *SITE CODE: 004219* Courtmacsherry Bay SPA is an important site for wintering birds. It holds internationally important numbers of Black-tailed Godwit and nationally important numbers of a further eleven species, including three that are listed on Annex I of the E.U. Birds Directive, i.e. Great Northern Diver, Golden Plover and Bar-tailed Godwit.
	Clonakilty Bay SPA/SAC, Galley Head to Duneen Point SPA and Seven Heads SPA descriptions can be found as attachments
Description of plan or project	The development will consist/consists of a Biogas Plant consisting of 2 no digester tanks, 2 no validation tanks, 1 no Homogenising tank, 3 no geo-membrane lined manure storage basins, 1 no fibre store, 1 No Feed Tank, Reception Building, Plant Building, Pasteurisation Tanks, Weighbridge and associated site works including an Integrated Constructed Wetlands to produce renewable energy and fertilizer at Barry's Hall, Timoleague, Co. Cork
Is the plan or project directly connected with or necessary to the management of the site? (Provide details if yes)	No
Details of any other projects or plans that together with this project that could affect the NATURA 2000 sites.	None

THE ASSESSMENT OF SIGNIFICANT EFFECTS	
Describe how the plan and project (alone or in combination) is likely to affect the NATURA 2000 site	The chief risk to the NATURA sites concerned is in the unlikely event of organic slurry spreading affecting water quality. If digestate imported by customer farmers is spread on land it has the potential to pollute groundwater and watercourse but customer farmers will be spreading fertiliser in accordance with Nitrate Regulations.
Explain why these effects are not considered significant.	An EPA discussion paper (January 2005) on Anaerobic Digestion states: Digestion of agricultural slurries yields a substance that has lower pollution potential and is more suitable than raw slurries for plant uptake. If digestate is spread within the Nitrate Regulations there should be no harm caused to watercourses or groundwater leaving no effect on the NATURA sites concerned.

OVERALL CONCLUSIONS

Given the nature of the work being carried out and the end use of fertilisers produced it can be concluded that Nitrate Regulations S.I. 378 of 2006 & S.I. 610 2010 and Good Agricultural and Environmental Conditions (GAEC) should ensure the integrity of river water and ground water in the area thus the integrity of water entering the NATURA 2000 sites under assessment.
The EPA discussion paper (January 2005) on Anaerobic Digestion also states; land spreading itself is restricted by the nitrates Directive, which imposes a limit on the amount of organic fertiliser applied to land per year. The limit is the amount of organic fertiliser containing 170 Kg of Nitrogen per hectare per year. The limits in the Nitrates Directive still apply with AD.

Overall it can be said that the use of digestate over other imported materials such as sludge's and raw animal slurries by customer farms will lead to an improvement in farm environmental practises and causes no increased or significant risk to the NATURA sites covered in this report.

This report has been prepared by NRGE Ltd with all reasonable skill, care and diligence. Information report herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

D. Leahy

Dermot Leahy
(BAgrSc, Environmental Science)

6. ATTACHMENTS

- Site plan
- NATURA Map 1:10000
- NATURA Map 1:50000
- NPWS Synopsis

LEGEND

- Direction of Roofwater Flows
- Surface Water Routes
  - Downpipe
  - Armstrong Junction
- Slurry/Foul Water Routes
- Noise Monitoring Location (N)
- Leak Detction Chamber
- Leak Detction Pipework
- Proposed Buildings
- Impervious Surfaces
- Pervious Surfaces
- SPOT LEVEL 123.21

SITE AREA 3.67Ha

N

Match Line

Pipe route from Pig Farm

Match Line

Oil Interceptor

TBM

Site Notice Location on Public Road 300m Away

Weighbridge Dwg 023

Entrance Gate to Dept of Agri Requirements Dwg 024

Dwg 011 Tranformer

Dwg 022 Gas Purifier

Dwg 021 Tank Water 270m3

Dwg 016 Reception Building

Dwg 018 Workshop

Dwg 020 Pasteurisation Plant

Dwg 015 tank Homogenising 1500m3 FFL 22.5

Dwg 013 3500m3 Digester

Dwg 014 4500m3 Digester FFL 20.6

Dwg 017 Fibre Store FFL 20.50

Dwg 016 Geomembrane lined storage Basin I FFL 16.50

Dwg 016 Geomembrane lined storage Basin II FFL 16.50

Dwg 016 Geomembrane lined storage Basin III

Bridges Point Fence to Dept of Agri Requirements External Posts & Wire Stock Proof Fence 2m offset

New Post and Wire Fence

Fence Dwg 025

Fence Dwg 026

FFL 22.5 450m3 AD Validation Dwg 012

FFL 22.5 450m3 AD Validation Dwg 012

FFL 22.5

FFL 22.05

FFL 20.6

FFL 16.50

FFL 16.50

FFL 20.50

TIMOLEAGUE FOUL & LOW STATIC

Concrete copper duct for power required for any outer

For Inspection Purposes Only.

NRGE
Mooresfort
Lattin
Co Tipperary
Phone 062 53385
Fax 062 53483
Email NRGE@iol.ie

Timoleague Agrigen
Site Plan

Date	Scale	Drawing No	Drawn By
Mar 2012	1:1000/A3 1:500/A1	001	

REPS Mapping System

For REPS Purposes Only

THE DEPARTMENT OF AGRICULTURE & FOOD
AN ROINN TALMHAÍOCHTA AGUS BIA

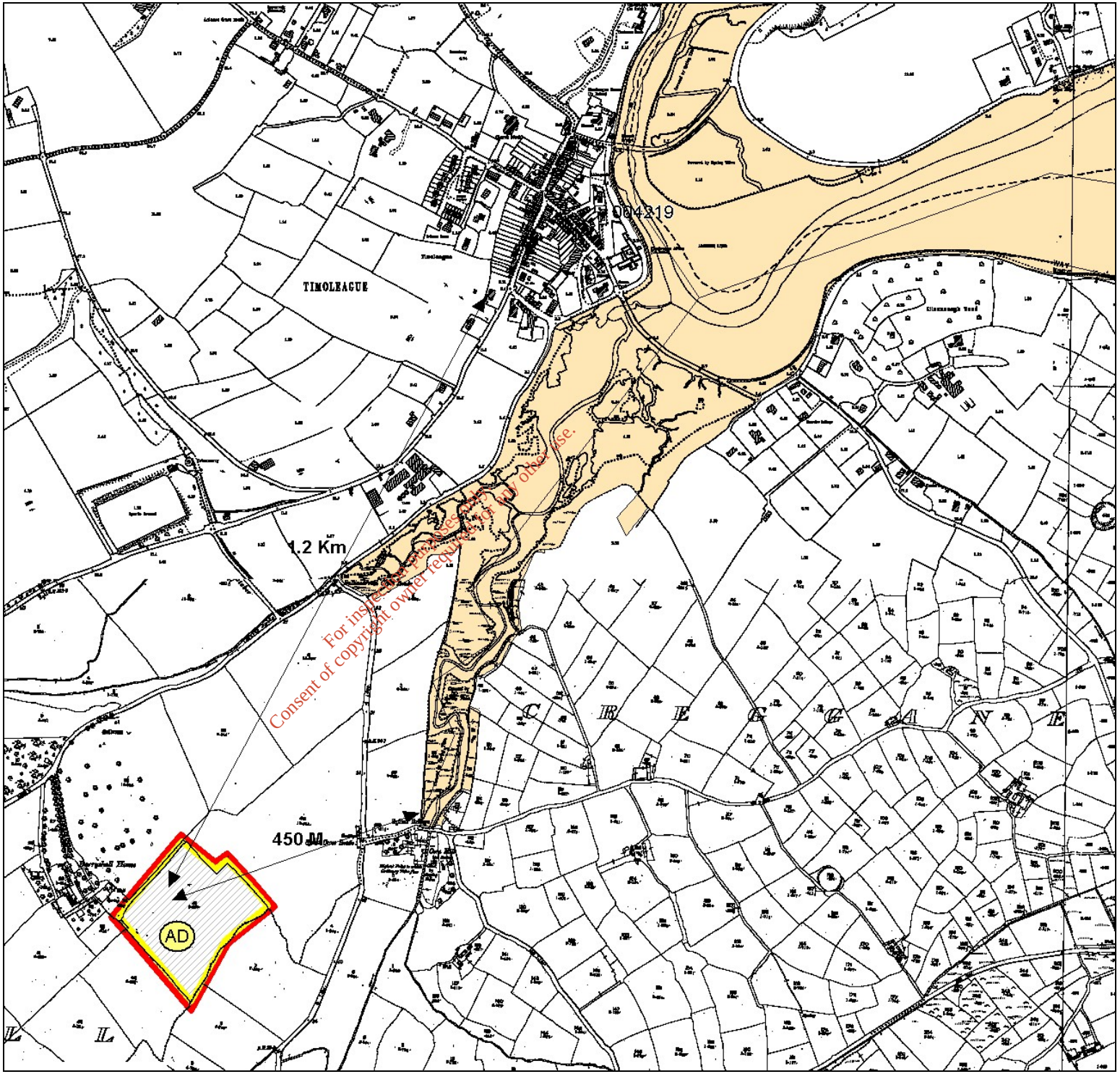
Name: **NRGE Ltd**
Address: **Mooresfort**
Lattin

County: **TIPPERARY**
Herd No.:
Planner:

Certified: _____
Date: _____
Planner Code:
Agency:
Digitised %: **23.07**
Scale: **1:10000**

LPIS : D17402083

Plot	Townland	Area (ha)	Soil Sample
AD	BARRYSHALL	1.73	N/A



REPS Mapping System

For REPS Purposes Only

THE DEPARTMENT OF AGRICULTURE & FOOD
AN ROINN TALMHAÍOCHTA AGUS BIA

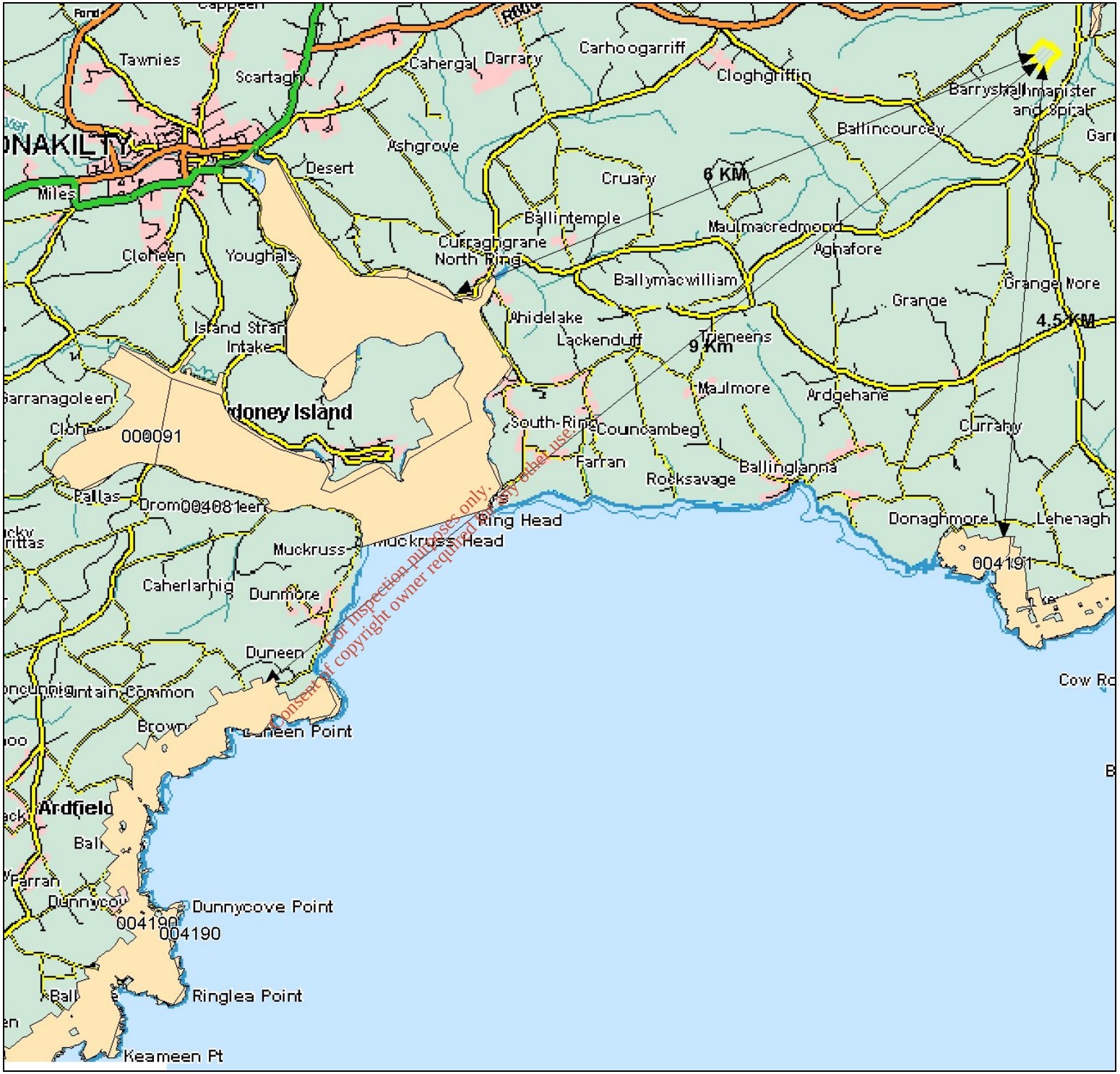
Name: **NRGE Ltd**
Address: **Mooresfort**
Lattin

County: **TIPPERARY**
Herd No.:
Planner:

Certified: _____
Date: _____
Planner Code:
Agency:
Digitised %: **23.07**
Scale: **1:50000**

LPIS : D17402083

Plot	Townland	Area (ha)	Soil Sample
AD	BARRYSHALL	1.73	N/A



SITE SYNOPSIS

SITE NAME: CLONAKILTY BAY

SITE CODE: 000091

Clonakilty Bay in west Cork is an inter-tidal expanse that stretches from Clonakilty to the open sea, and comprises two small estuaries separated by Inchydoney Island. The site also includes adjacent sand dunes and inland marshes, and therefore is a coastal complex with a good diversity of habitats including several habitats listed on Annex I of the EU Habitats Directive.

Sand flats dominate the inter-tidal area, although mud flats occur at the sheltered upper end of the inlets. The vegetation consists of algal mats (*Enteromorpha* spp.) with brown seaweeds (*Fucus* spp.) occurring where the coast is rocky. The invasive Cord-grass (*Spartina* sp.) occurs in places. The intertidal flats have a typical diversity of macro-invertebrates, including *Arenicola marina, Scrobicularia plana, Hediste diversicolor, Nephtys hombergii, N. cirrosa, Hydrobia ulvae* and *Cerastoderma edule.*

Sand dunes grade from a strandline, colonised by Frosted Orache (*Atriplex laciniata*), Sea Sandwort (*Honkenya peploides*) and Sea Rocket (*Cakile maritima*), through to fixed dunes vegetated by grasses, small herbs and several species of orchid. They also support an interesting array of introduced plants, amongst which Great Mullein (*Verbascum thapsus*), Viper's-bugloss (*Echium vulgare*) and Teasel (*Dipsacus fullonum*) are the most noticeable. Embryonic shifting dunes and white *Ammophila* dunes are also represented. Of particular interest is a small area of decalcified dune heath with some *Ulex europaeus*.

Inland of the western estuary, an extensive area of wetland occurs, which in itself contains a fine range of habitats from saline lagoons, to brackish grasslands, open freshwater marsh and Alder (*Alnus glutinosa*) scrub. Species found here are characteristic of marshy areas and include Creeping Bent (*Agrostis stolonifera*), Water Horsetail (*Equisetum fluviatile*), Marsh Cinquefoil (*Potentilla palustris*) and Marsh Willowherb (*Epilobium palustre*). The saline influence is evident by the occurrence of species such as Saltmarsh Rush (*Juncus gerardii*) and Sea Rush (*J. maritimus*).

The site contains a good diversity and density of waterfowl, with over 7,000 waders and wildfowl occurring regularly. Seven species have populations of national importance: Shelduck (168), Grey Plover (76), Lapwing (2,509), Dunlin (1,508) Curlew (1,231), Redshank (263) and Greenshank (27). The site is most noted, however, for its population of Black-tailed Godwit (866), which is of international importance and comprises over 10% of the national total. Amongst the other species which occur, there are notable populations of Golden Plover and Bar-tailed Godwit, both of which are listed on Annex I of the EU Birds Directive. All counts given are average winter peaks over either two or three seasons from 1994/95 to 1996/97. Herons commonly use the site and a heronry exists in the trees near Clonakilty.

Otter spraints were found frequently during a recent survey of the marsh area.

The site is under pressure from a number of sources, notably recreation and tourism developments and agricultural improvements, including drainage and fertiliser application.

This site is of considerable scientific interest because it contains a good diversity of coastal habitats. These habitats show a succession from salt to freshwater influences and include six which are listed on Annex I of the EU Habitats Directive. Its value is enhanced considerably by the birdlife it supports. The occurrence of Black-tailed Godwit in internationally important numbers is particularly significant. The site also supports nationally important numbers of seven other species of waterfowl as well as two species listed on Annex I of the EU Birds Directive.

7.8.1999

SITE SYNOPSIS

SITE NAME: CLONAKILTY BAY SPA

SITE CODE: 004081

Clonakilty Bay, which is located in west County Cork, is a wetland complex that stretches from the town of Clonakilty to the open sea. It comprises two small estuarine bays, Clonakility Harbour and Muckross Strand, separated by Inchydoney Island and its empoldered isthmus. Several small rivers flow into the site, notably the Fealge River. At low tide, substantial areas of sand and mud flats are exposed. The construction of a causeway across the inner part of Muckross Strand created an extensive wetland complex known as Cloheen Strand Intake. The site also includes a well-developed sand dune system, with embryonic dunes, marram dunes, fixed dunes and decalcified dune heath all represented. The dune types, as well as the intertidal sand and mud flats, are habitats that are listed on Annex I of the E.U. Habitats Directive.

Intertidal sand and mud flats occupy the majority of the site area and these provide the main food resource for the wintering waterfowl. Sand flats dominate the intertidal area, although mud flats occur at the sheltered upper end of the inlets. The vegetation consists of algal mats (*Enteromorpha* spp.), with brown seaweeds (*Fucus* spp.) occurring where the shore is rocky. The invasive Common Cord-grass (*Spartina anglica*) occurs in places. The intertidal flats have a typical diversity of macro-invertebrates, including Lugworm (*Arenicola marina*), Peppery Furrow-shell (*Scrobicularia plana*), Ragworm (*Hediste diversicolor*), the marine bristle worms *Nephtys hombergii* and *N. cirrosa*, Laver Spire-shell (*Hydrobia ulvae*) and Common Cockle (*Cerastoderma edule*).

The Cloheen Strand Intake wetland contains a fine range of habitats from saline lagoons, to brackish grasslands, open freshwater marsh and wet grassland. The saline influence is evident by the occurrence of species such as Saltmarsh Rush (*Juncus gerardi*) and Sea Rush (*J. maritimus*). This area provides the main roosting area for birds at high tide. Birds also roost elsewhere above the shoreline and on the sandy beach associated with the dune system at Inchydoney Island.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Shelduck, Dunlin, Black-tailed Godwit and Curlew. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site contains a good diversity of wintering waterbirds, with over 8,000 birds occurring regularly. The site is noted for its internationally important population of Black-tailed Godwit (888) - all count data refers to the 5-year mean peak 1994/95-1998/99. The ecology of this population has been studied in detail in recent years. Four species occur in nationally important numbers: Shelduck (155), Dunlin (1,303),

Curlew (848) and Greenshank (31). Other species occurring in significant numbers are Mute Swan (48), Wigeon (530), Teal (192), Oystercatcher (338), Ringed Plover (97), Golden Plover (865), Grey Plover (66), Lapwing (2,135), Knot (158), Bar-tailed Godwit (76) and Redshank (263). The site is also used by Mallard (97), Turnstone (48), Red-breasted Merganser (11) and Cormorant (13).

The regular occurrence of Golden Plover and Bar-tailed Godwit is of note as both are listed on Annex I of the E.U. Birds Directive. An additional species listed on Annex I of this directive that has become regular in small numbers in recent years is Little Egret (average 5, maximum 7). Grey Heron (14) commonly uses the site and a heronry is located in the trees near Clonakilty. Cloheen Strand Inlet is also a regular wintering site for usually up to 3, but occasionally 7, Short-eared Owl, also an Annex I species.

The site is a regular staging post for scarce autumn migrants, especially Little Stint, Curlew Sandpiper and Spotted Redshank. In most years it is also visited by vagrant waders from North America.

Clonakilty Bay SPA is of high ornithological importance, particularly for its internationally important population of Black-tailed Godwit. In addition, there are four species with populations of national importance. The presence of the E.U. Birds Directive Annex I species, Golden Plover, Bar-tailed Godwit, Little Egret and Short-eared Owl is of note. The bird populations have been monitored since the 1970s and the site is counted monthly each winter (September to March) as part of the Irish Wetland Bird Survey (I-W*e*BS).

30.8.2007

SITE SYNOPSIS

SITE NAME: COURTMACSHERRY BAY SPA

SITE CODE: 004219

Courtmacsherry Bay SPA is located approximately 12 km south of Bandon and immediately east of the village of Timoleague in west Co. Cork. The site, which is largely estuarine in nature, consists of the drowned valley of the Argideen River which is now filled with sediments, resulting in extensive mudflats and areas of saltmarsh. The estuary of the Kilbrittain River in the north-east of the site holds an area of well-developed saltmarsh. The seaward boundary for the site stretches from Coolmain Point to Barry Point, and includes Coolmain Bay and Broadstrand Bay.

Most of the mudflats are unvegetated, although in places Cord-grass (*Spartina anglica*) occurs. Saltmarsh has developed in a number of areas, the abundant species mostly being Sea Club-rush (*Scirpus maritimus*), Common Scurvygrass (*Cochlearia officinalis*), Sea Arrowgrass (*Triglochin maritima*), Sea Plantain (*Plantago maritima*), Thrift (*Armeria maritima*) and Saltmarsh Rush (*Juncus gerardi*).

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Great Northern Diver, Shelduck, Wigeon, Red-breasted Merganser, Golden Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Black-headed Gull and Common Gull. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site is of ornithological importance for the wintering waders and wildfowl that feed on the mudflats. It supports internationally important numbers of Black-tailed Godwit (506 - figures given here and below are mean peaks for the five winters in the period 1995/96 to 1999/00), as well as nationally important numbers of a further eleven species, i.e. Great Northern Diver (27), Shelduck (175), Wigeon (934), Red-breasted Merganser (63), Golden Plover (5,759), Lapwing (2,713), Dunlin (1,353), Bar-tailed Godwit (182), Curlew (1,357), Black-headed Gull (2,727) and Common Gull (2,226). Other species which occur include Oystercatcher (610), Redshank (227) and Greenshank (26).

Courtmacsherry Bay SPA is an important site for wintering birds. It holds internationally important numbers of Black-tailed Godwit and nationally important numbers of a further eleven species, including three that are listed on Annex I of the E.U. Birds Directive, i.e. Great Northern Diver, Golden Plover and Bar-tailed Godwit.

9.9.2010

SITE SYNOPSIS

SITE NAME: COURTMACSHERRY ESTUARY

SITE CODE: 001230

This site is located in West Cork, some 12 km south of Bandon and immediately east of the village of Timoleague. The estuary consists of the drowned valley of the Argideen River, which is now filled with sediments, resulting in an extensive mudflat. The site contains a complex of coastal habitats including ten habitats listed on Annex I of the EU Habitats Directive.

Most of the mudflat is unvegetated, although in places Cord-grass (*Spartina* sp.) occurs. Saltmarsh has developed in a number of areas, the abundant species mostly being Sea Club-rush (*Scirpus maritimus*), Common Scurvygrass (*Cochlearia officinalis*), Sea Arrowgrass (*Triglochin maritima*), Sea Plantain (*Plantago maritima*), Thrift (*Armeria maritima*) and Saltmarsh Rush (*Juncus gerardi*). On the outer edges such species as Greater Sea-spurrey (*Spergularia media*), Lesser Sea-spurrey (*S. marina*) and Lax-flowered Sea-lavender (*Limonium humile*) occur, while on their landward edge of the saltmarsh frequently support Creeping Bent (*Agrostis stolonifera*), Red Fescue (*Festuca rubra*), Silverweed (*Potentilla anserina*), Soft Rush (*Juncus effusus*), Common Sorrel (*Rumex acetosa*) and others. A particularly well-developed intact saltmarsh occurs at Garranereen Strand. The site also includes small areas of sand dune, sandy and shingle beaches, reedbeds of Common Reed (*Phragmites australis*), scrub, dry grassland, and areas of both wet and dry semi-natural broadleaved woodland, parts of which are dominated by species of Oak (*Quercus* sp.). Of note is the presence of the rare Red Data Book plant species, Sea-kale (*Crambe maritima*) on shingle, as well as the scarce grass, Tor-grass (*Brachypodium pinnatum*), on cliffs between Broadstrand and Wood Point. The occurrence of the EU priority habitat fixed dune is also of significance.

The site is of ornithological importance for the many waders and wildfowl that feed on the mud and sandflats. The winter flocks of Golden Plover (2,600) and Black-Tailed Godwit (110) constitute nationally important numbers and at least nine other species occur in significant levels for the region - Wigeon (58), Mallard (69), Red-breasted Merganser (18), Oystercatcher (162), Lapwing (629), Dunlin (215), Bar-tailed Godwit (178), Curlew (731) and Redshank (139). Although these figures are the average peaks of 4 counts between 1984/85 and 1986/87, at times the numbers present far exceed those given. For example, in January 1992, 5,800 Golden Plover, 671 Wigeon, 731 Dunlin and 456 Oystercatchers were present.

The spread of Cord-grass on parts of the mudflats poses a threat to the quantity of the area for feeding birds and pollution is an ever-present threat in such a wetland.

Courtmacsherry Estuary is an important site for the complex of coastal habitats found there, including ten listed on Annex I of the EU Habitats Directive, and for the large numbers of birds that use the area.

22.3.2000

SITE SYNOPSIS

SITE NAME: GALLEY HEAD TO DUNEEN POINT SPA

SITE CODE: 004190

The Galley Point to Duneen Point SPA is situated to the south-west of the town of Clonakilty, Co. Cork. It encompasses the sea cliffs south of Castlefreke dunes to Galley Head, north-eastwards along the coast to Dunowen Head and Ringlea Point as far as the north side of Duneen Point. The site includes the sea cliffs and the land adjacent to the cliff edge (inland for 300 m). The high water mark forms the seaward boundary. Most of the site is underlain by Devonian sandstones, siltstones and mudstones, but similar rocks of Carboniferous age also occur.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for Chough.

Sea cliffs are the predominant habitat of the site; these occur along its length and are generally well-vegetated by a suite of typical sea cliff species. Above the cliffs areas of heath, improved grassland, unimproved wet and dry grassland, and arable land occur.

The site supports an important population of breeding Chough, a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 11 breeding pairs were recorded from the site in the 1992 survey and 11 in the 2002/03 survey. In addition, flocks of 4-6 birds have been noted.

Landuse at the site is predominantly grazing by stock, but some arable farming is also carried out, particularly on Galley Head. The grazing regime, which results in a tight vegetation sward, is beneficial to Chough. Areas of semi-natural habitats occur in many places adjacent to the breeding cliffs, interspersed between other areas of relatively intensive grass production. The habitats present are quite robust, and there are few noticeable activities negatively impacting on the Chough population. However, changes in landuse, particularly a reduction in grazing levels, could pose a threat to the species. One other potential threat is the residue left in livestock dung due to the application of broad-spectrum anti-parasitic drugs.

The site supports a variety of breeding seabirds, i.e. Fulmar (106 pairs), Herring Gull (62 pairs), Cormorant (5 pairs), Shag (1 pair), Great Black-backed Gull (3 pairs) and Lesser Black-backed Gull (1 pair) – all seabird data from 1985. The site is also used by Peregrine (2 pairs in 2002).

The Galley Point to Duneen Point SPA is of particular importance for Chough; it also supports a population of Peregrine and a suite of breeding seabird species. The presence of Chough and Peregrine, both species that are listed on Annex I of the E.U. Birds Directive, is of particular significance

13.11.2006

SITE SYNOPSIS

SITE NAME: SEVEN HEADS SPA

SITE CODE: 004191

The Seven Heads SPA is situated to the south-west of the town of Courtmacsherry, Co. Cork. It encompasses the sea cliffs of the Seven Heads peninsula north-east to Barry's Point and also the cliffs of Dunworly Bay and Barry's Cove. The site includes the sea cliffs, which rise to over 50 m, notably south of Barry's Point, and the land adjacent to the cliff edge (inland for 300 m). The high water mark forms the seaward boundary. Most of the site is underlain by Devonian sandstones, siltstones and mudstones; similar rocks of Carboniferous age also occur at the eastern and western ends of the site.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for Chough.

Sea cliffs are the predominant habitat of the site; these occur along its length and are generally well-vegetated by a suite of typical sea cliff species. Above the cliffs areas of heath, improved grassland, unimproved wet and dry grassland, freshwater marsh and arable land occur.

The site supports an important population of breeding Chough, a Red Data Book species that is listed on Annex I of the E.U. Birds Directive; 13 breeding pairs were recorded from the site in the 1992 survey and 15 in the 2002/03 survey. In addition, flocks of up to 47 birds were noted in the 1992 survey and up to 25 in the 2002/03 survey.

Landuse at the site is predominantly grazing by stock, but some arable farming is also carried out, particularly on the Seven Heads Peninsula. The grazing regime, which results in a tight vegetation sward, is beneficial to Chough. Areas of semi-natural habitats occur in many places adjacent to the breeding cliffs, interspersed between other areas of relatively intensive grass production. The habitats present are quite robust, and there are few noticeable activities negatively impacting on the Chough population. However, changes in landuse, particularly a reduction in grazing levels, could pose a threat to the species. One other potential threat is the residue left in livestock dung due to the application of broad-spectrum anti-parasitic drugs.

The site supports a variety of breeding seabirds, i.e. Fulmar (18 pairs in 2002), Herring Gull (23 pairs in 2002), Great Black-backed Gull (12 pairs in 2002) and Cormorant (45 pairs in 2006). The site is also used by Peregrine (2 pairs in 2002).

The Seven Heads SPA is of particular importance for Chough; it also supports a population of Peregrine and a suite of breeding seabird species. The presence of Chough and Peregrine, both species that are listed on Annex I of the E.U. Birds Directive, is of particular significance

13.11.2006