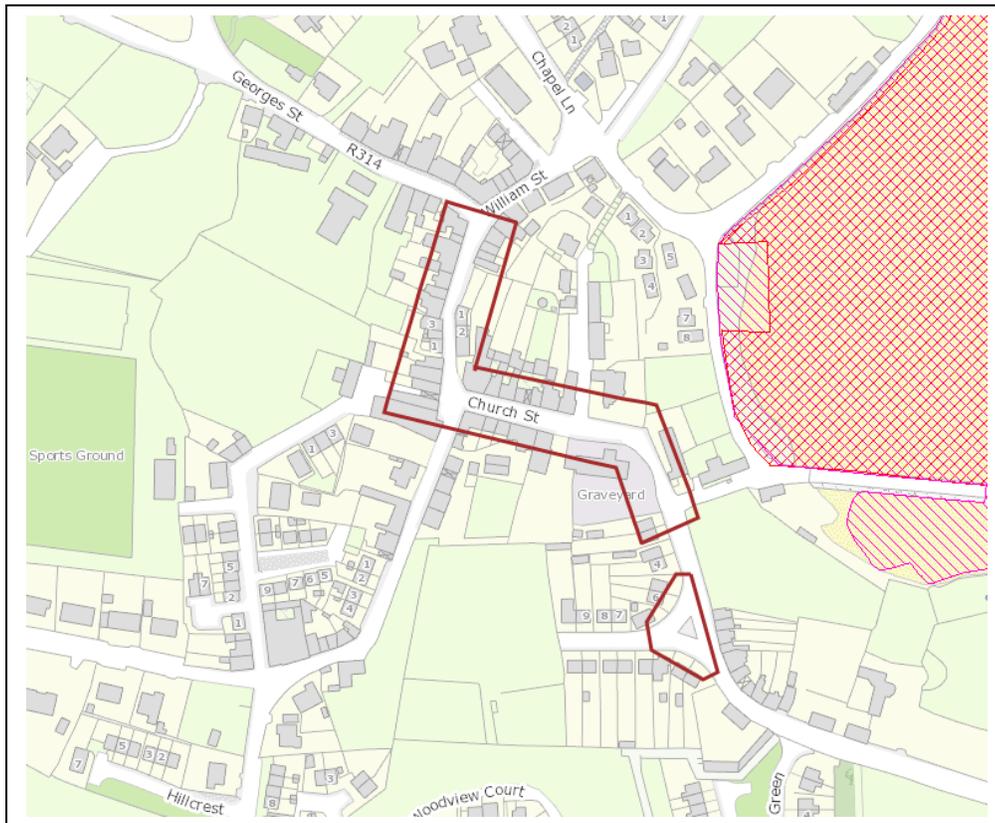


**APPROPRIATE ASSESSMENT SCREENING REPORT  
REGARDING A PART 8 PLANNING APPLICATION  
FOR THE PROPOSED  
CONSTRUCTION OF NEW AND THE REALIGNMENT OF EXISTING PUBLIC  
FOOTPATHS, INSTALLATION OF RAISED PEDESTRIAN ROAD CROSSINGS AND  
TRAFFIC FLOW CHANGES  
IN  
KILLALA TOWN CENTRE, CO. MAYO**



**Client: Mayo County Council**  
**The Mall**  
**Castlebar**  
**Co. Mayo**

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### **ACKNOWLEDGEMENTS**

We wish to acknowledge the essential contribution of **National Parks and Wildlife** whose maps, site synopsis, features of interest, Natura 2000 forms, management plans and conservation objectives which have facilitated the creation of this report..

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## 1.0 THE APPROPRIATE ASSESSMENT PROCESS

### INTRODUCTION

There is a requirement, under Article 6(3) of the ED Habitats Directive (Directive 92/43/EEC), to carry out an Appropriate Assessment. The first step of the Appropriate Assessment process is to establish whether, in relation to a particular plan or project, Appropriate Assessment is required. Article 6(3) 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.'*

A number of guidance documents on the appropriate assessment process were consulted during the preparation of this NIS. These are:

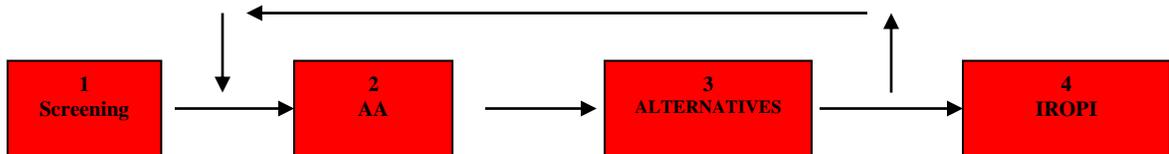
- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (NPWS 2009, Revised February 2010);
- Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (Nov. 2001 - published 2002); and
- Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (2000).
  - EU Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC (2007);

Where it cannot be deduced or proven with certainty that a development or plan will not have a significant effect on a Natura 2000 site (s) then it is necessary and essential to carry out an appropriate assessment on the ramifications of the development on the Natura site(s) with respect to their features of interest conservation objectives. The guidance for Appropriate Assessment (NPWS, 2009, revised February 2010) states:

*"AA is an impact assessment process that fits within the decision-making framework and tests of Articles 6(3) and 6(4) and, for the purposes of this guidance, it comprises two main elements. Firstly a Natura Impact Statement - i.e. a statement of the likely and possible impacts of the plan or project on a Natura 2000 site (abbreviated in the following guidance to "NIS") must be prepared. This comprises a comprehensive ecological impact assessment of a plan or project; it examines the direct and indirect impacts that the plan or project might have on its own or in combination with other plans and projects, on one or more Natura 2000 sites in view of the sites' conservation objectives. Secondly, the competent authority carries out the AA, based on the NIS and any other information it may consider necessary. The AA process encompasses all of the processes covered by Article 6(3) of the Habitats Directive, i.e. the screening process, the NIS, the AA by the competent authority, and the record of decisions made by the competent authority at each stage of the process, up to the point at which Article 6(4) may come into play following a determination that a plan or project may adversely affect the integrity of a Natura 2000 site".*

## 1.1 STAGES

The European Commission's guidance promotes a four stage process, as set out in Box 1 below, to complete the Appropriate Assessment, and outlines the tests required at each stage. Stages 1 and 2 deal with the main requirements for assessment under Article 6.3 Stage 3 may be part of Article 6(3) or a necessary precursor for Stage 4.



This screening report should include the requisite ecological impact assessment and testing required under the provisions of Article 6(3) by means of the first stage of Appropriate Assessment, the screening process (as set out in the EU Guidance documents).

EU guidance<sup>1</sup> states:

*"This stage examines the likely effects of a project or plan, either alone or in combination with other projects or plans, upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant. This assessment comprises four steps:*

- 1. determining whether the project or plan is directly connected with or necessary to the management of the site;*
- 2. describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the Natura 2000 site;*
- 3. identifying the potential effects on the Natura 2000 site;*
- 4. assessing the significance of any effects on the Natura 2000 site".*

The screening report should also provide the information required for the Competent Authority to establish that Appropriate Assessment (Stage 2) is not required .

<sup>1</sup> Paragraph 3.1 of '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 (Nov. 2001)

## **1.2 Notes on the Author**

The AA has been undertaken by Paul Neary B.Sc. (Env. Sc.) M.Sc (eco tox), whom has previously carried out Ecological surveys and damage assessments on the Kerry Mountains, Ox Mountains, Shores of Lough Conn and Lough Cullin under the auspices of NPWS, he has also been involved in formulating management plans for National Parks and lectured in ecology. A number of his Appropriate Assessment reports have been successfully defended by AN Bord Pleanála in High Court actions taken by objectors whom wished to have the Boards decisions overturned. He has also submitted a number of remedial NIS's directly to An Bord Pleanála under section 261A of the Planning and Development Act the findings of which have been ratified by the Bord.

## **2.0 APPROPRIATE ASESMENT STAGE 1 SCREENING MATRIX**

In accordance with Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC

### **Planning Application Number**

Part 8 Application Killala Town Core

#### **2.0.1 Development Type**

Planning permission is sought for the construction of new and realignment of the existing public footpaths, raised pedestrian road crossings, road resurfacing and traffic flow changes (new one way system) with all the associated hard landscaping and ancillary civil Works. The project would take approximately 3-4 months and involve 2 separate but connected location within the town centre covering areas of 0.2877Ha and 0.1339Ha of BL3 habitat.

#### **2.0.2 Development Location**

The urban brown field development area is located in Killala town core with an address at Killala Town, Co. Mayo and is located on the R314 at Church Street and the junction of Sea View Terrace with the R314. One section of the development stretches from approximately grid reference 520339, 830086 to 502441, 829915 with the Sea View Terrace section located at grid reference 820445, 829864.

#### **2.0.3 Natura 2000 site(s) within impact Zone**

Killala Bay / Moy Estuary SAC 00458,  
Killala Bay / Moy Estuary SPA 004036

#### **2.0.4 Qualifying interests of Natura 2000 site(s)**

##### **Killala Bay / Moy Estuary:**

##### **SAC 00458**

[1014] *Vertigo angustior*

[1095] *Petromyzon marinus*

[1130] Estuaries

[1140] Mudflats and sandflats not covered by seawater at low tide

[1210] Annual vegetation of drift lines

[1310] Salicornia and other annuals colonizing mud and sand

[1330] Atlantic salt meadows (*Glauco Puccinellietalia maritimae*)

[1365] *Phoca vitulina*

[2110] Embryonic shifting dunes

[2120] Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")

[2130] \* Fixed coastal dunes with herbaceous vegetation ("grey dunes")

[2190] Humid dune slack

**Killala Bay / Moy Estuary: SPA 004036**

*Charadrius hiaticula* [wintering]

*Pluvialis apricaria* [wintering]

*Pluvialis squatarola* [wintering]

*Calidris alba* [wintering]

*Calidris alpina* [wintering]

*Limosa lapponica* [wintering]

*Numenius arquata* [wintering]

*Tringa totanus* [wintering]

Wetlands

**2.1.1 Location (Attach map)**

The urban brown field development area is located in Killala town core with an address at Killala Town, Co. Mayo and is located on the R314 at Church Street and the junction of Sea View Terrace with the R314. One section of the development stretches from approximately grid reference 520339, 830086 to 502441, 829915 with the Sea View Terrace section located at grid reference 820445, 829864 see map in appendix A.

**2.1.2 Brief description of the Key Components of the project**

The project is orientated around the construction of new and realignment of the existing public footpaths, raised pedestrian road crossings and traffic flow changes (new one way system) with all the associated hard landscaping and ancillary civil Works. The project would take approximately 3-4 months and involve 2 separate but connected location within the town centre covering areas of 0.2877Ha and 0.1339Ha of BL3 habitat.

It will be completed in a phased manner and will involve relatively short duration intermittent light construction works in an urban street light environment.

The existing footpaths will be realigned with the construction of additional new footpaths. It is proposed to undertake the pouring of the new footpaths, in shuttered forms, during a dry weather period which is essential to ensure that the final finish is of the correct standard. It may be necessary to remove section of the existing footpaths where repairs are not practical which will utilize light machinery (jack hammers, compressor, light rock breaker) with the resulting material removed off site for disposal at a licensed facility. During the potential removal of sections of footpaths and the replacement / construction of the new footpaths it is proposed to place sand bags over the storm water gullies to

prevent material entering and blocking them. Although the footpaths would be poured during a dry weather period they would also be covered to prevent public access or potential damage until the concrete is cured. Concrete would be delivered in batch concrete truck to the site and poured by Shute into the forms with no mixing on site.

Resurfacing of the existing R314 road would be mechanically planed to remove the existing surface with the material removed off site for recycling and / or disposal in an appropriate manner at a licensed facility. A tarmac paver and rollers would be required to resurface the road with deliveries of tarmac by 8 wheeler covered trucks. This process would also require the use of light mechanical rubber tracked excavators and vibrating rollers and it is proposed to cover the storm water gullies with sand bags to prevent any extraneous material entering them.

The urban nature of the proposed activity dictates that no hydrocarbons would be stored on the site for the purposes of refueling which would be undertaken as required by means of a browser with a spill kit retained on the site. Potential misting to control dust may be required with all works to be carried out during normal working hours.

The new one way system will alleviate congestion in the town centre and facilitate the free movement of traffic but will not increase traffic movements through the town.

The new proposed pedestrian road crossings would also necessitate the use of small rubber tracked excavators, light rollers and the delivery of small quantities of tarmac.

All construction related machinery, plant and materials (804, shuttering) would be stored within the confines of the proposed site.

### **2.1.3 Distance of the project from Natura sites in potential Impact zone**

#### **Dual Designation**

Killala Bay / Moy Estuary SAC 00458 is located 37.9M East of the site boundary.

Killala Bay / Moy Estuary SPA 004036 is located 37.9M East of the site boundary.

### **2.2.1 Name(s) of Natura Sites**

Killala Bay / Moy Estuary SAC

Killala Bay / Moy Estuary SPA

### **2.2.2 Site Code(s)**

Killala Bay / Moy Estuary SAC 00458

Killala Bay / Moy Estuary SPA 004036

### 2.2.3 Site Description: (Detailed ecological data can be Given in the appendices)

#### KILLALA BAY / MOY ESTUARY SPA SITE CODE: 004036

This large site comprises the estuary of the River Moy and the inner part of Killala Bay. It is a funnel-shaped estuary, c. 7 km wide at its outer limit. It is very well sheltered by a sandy island, Bartragh Island, that extends across much of the outer part, and by a sandy peninsula that extends from Enniscrone on the eastern side. Extensive intertidal sand and mud flats are exposed at low tide. For the most part, these flats are unvegetated, but mats of Eelgrass (*Zostera* spp.), Beaked Tasselweed (*Ruppia maritima*) and green algae (*Enteromorpha* spp.) occur, which provide important feeding material for waterfowl species. Opposite-leaved Pondweed (*Groenlandia densa*), a species protected under the Flora (Protection) Order, 1999, has been recorded in the River Moy estuary. Salt marshes are present in sheltered parts of the site and supports a variety of plant species including Sea Plantain (*Plantago maritima*), Common Saltmarsh-grass (*Puccinellia maritima*), Thrift (*Armeria maritima*), Sea Aster (*Aster tripolium*) and Red Fescue (*Festuca rubra*). On the lower marshes, and extending out onto the most sheltered parts of the open mud flats, typical pioneering species such as Glasswort (*Salicornia* spp.) and Seablite (see appendix)

#### KILLALA BAY / MOY ESTUARY SAC 00458

North of Ballina town, the River Moy flows to the sea via a long, narrow estuarine channel. After approximately 8 km, the estuary widens to form a north-facing triangular bay, with the towns of Inishcrone (Co. Sligo) and Killala (Co. Mayo) situated on the eastern and western shores, respectively. The estuary itself forms the county boundary along its northern part. A long sandy island (Bartragh Island) separates the south-western side of the bay from the open water. Much of the inner part of the bay is intertidal. The northern part shelves to approximately -10 m. Extensive sandflats and mudflats are exposed in the estuary and bay at low tide. For the most part, these flats are unvegetated, but mats of Eelgrass (*Zostera* spp.), Beaked Tasselweed (*Ruppia maritima*) and green algae (*Enteromorpha* spp.) occur which provide important feeding material for birds. The estuary is generally in a natural state and is considered to be one of the best examples of a largely unpolluted system in Ireland (see appendix)

### 2.2.4 Qualifying Interests of the Natura 2000 Site(s) (From NPWS)

#### Killala Bay / Moy Estuary :

##### SAC 00458

[1014] *Vertigo angustior*

[1095] *Petromyzon marinus*

[1130] Estuaries

[1140] Mudflats and sandflats not covered by seawater at low tide

[1210] Annual vegetation of drift lines

[1310] Salicornia and other annuals colonizing mud and sand

[1330] Atlantic salt meadows (*Glauco Puccinellietalia maritimae*)

[1365] *Phoca vitulina*

[2110] Embryonic shifting dunes

[2120] Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")

[2130] \* Fixed coastal dunes with herbaceous vegetation ("grey dunes")

[2190] Humid dune slack

The qualifying interests listed above are based on the most up to date Ste Synopsis available from NPWS (Version date : 10/12/2015)

Killala Bay / Moy Estuary :

SPA 004036

*Charadrius hiaticula* [wintering]

*Pluvialis apricaria* [wintering]

*Pluvialis squatarola* [wintering]

*Calidris alba* [wintering]

*Calidris alpina* [wintering]

*Limosa lapponica* [wintering]

*Numenius arquata* [wintering]

*Tringa totanus* [wintering]

Wetlands

The qualifying interests listed above are based on the most up to date Ste Synopsis available from NPWS (Version date : 07/07/2014)

2.2.5 Other Notable Features of the Natura 2000 Site(s) (From Natura 2000 Data Form)

**KILLALA BAY / MOY ESTUARY SPA 004036 (Oct 2020)**

This large site comprises the inner, estuarine part of Killala Bay, at the mouth of the River Moy. It is a funnel-shaped estuary that is approximately 7 km wide at its outer limit. The site is well-sheltered by a sandy island, Bartragh Island, that extends across much of the outer part, and by a sandy peninsula which extends from Enniscrone on the eastern side. Extensive intertidal sand and mud flats are exposed at low tide. Salt marshes skirt part of the intertidal flats.

**QUALITY AND IMPORTANCE:**

This site is a fine example of an estuarine system in a natural state. It supports an excellent diversity of wintering waterfowl and is one of the most important sites in the region. Six of the species have populations of national importance: *Limosa lapponica*, *Charadrius hiaticula*, *Pluvialis squatarola*, *Calidris alba*, *Calidris canutus* and *Calidris alpina*. *Pluvialis apricaria* also occurs in numbers close to national importance. There is a regular population of *Branta bernicla hrota* which in some winters exceeds the threshold for international importance. *Gavia stellata* is regular within the site. The Red Data Book species *Groenlandia densa* occurs in the site.

## VULNERABILITY

There are no serious imminent threats to the wintering birds. There may be some disturbance from walkers, free-running dogs and sailing activities. While some pollutants enter the system from the nearby towns, these do not appear to be affecting the wintering birds.

SPA:

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
M	A08		o
M	F02.03		i
M	G01.02		i
M	E01		o

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
M	F02.03		i

## KILLALA BAY / MOY ESTUARY SAC (Oct 2020)

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
M	I01		i
H	G01.02		i
M	A02		i
H	F02.03		i
H	E01		o
H	G02.08		o
H	G02.01		o
H	G01.02		o

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
H	F02.03		i

## **2.2.6 Conservation Objectives (From NPWS)**

**The Detailed Conservation Objectives and Supporting Documents are available for reference on the NPWS Web site.**

### **Killala Bay / Mov Estuary SPA 004036: Version 1.0 28/05/13**

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. A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site.

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.

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. 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.

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.

2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out.

It is essential that the date and version are included when objectives are cited.

3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.

4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.

5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

**Killala Bay/Moy Estuary SPA004036**

\* indicates a priority habitat under the Habitats Directive.

A137 Ringed Plover *Charadrius hiaticula*

A140 Golden Plover *Pluvialis apricaria*

A141 Grey Plover *Pluvialis squatarola*

A144 Sanderling *Calidris alba*

A149 Dunlin *Calidris alpina alpina*

A157 Bar-tailed Godwit *Limosa lapponica*

A160 Curlew *Numenius arquata*

A162 Redshank *Tringa totanus*

A999 Wetlands

**[The Detailed Conservation Objectives and Supporting Documents are available for reference on the NPWS Web site.](#)**

**Killala Bay / Moy Estuary SAC 00458: Version 1.0 31/10/12**

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. A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site. 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.

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. 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.

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.

2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Killala Bay / Moy Estuary SAC 00458

1014 Narrow-mouthed Whorl Snail *Vertigo angustior*

1095 Sea Lamprey *Petromyzon marinus*

1130 Estuaries

1140 Mudflats and sandflats not covered by seawater at low tide

1210 Annual vegetation of drift lines

1310 Salicornia and other annuals colonizing mud and sand

1330 Atlantic salt meadows (*Glauco Puccinellietalia maritimae*)

1365 Harbour Seal *Phoca vitulina*

2110 Embryonic shifting dunes

2120 Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')

2130 \*Fixed coastal dunes with herbaceous vegetation ('grey dunes')

2190 Humid dune slacks

**The Detailed Conservation Objectives and Supporting Documents are available for reference on the NPWS Web site.**

### **2.3.1 Describe the individual Elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site**

The following is a list of the activities proposed to be undertaken on site.

- (1) General small scale phased short duration light construction and demolition works.
- (2) Operation of light plant
- (3) Hard Landscaping
- (4) Resurfacing of the existing R314

However given the small scale short duration phased light construction and demolition activities to be undertaken, the nature of the proposed project, the urban street lit setting of the site, the separation distance of the actual construction area from the Natura sites and intervening land use there is no potential for either significant or insignificant direct or

indirect negative impacts on the Natura sites considered.

Notwithstanding the fore mentioned the development should observe the normal general standard environmental measures covering both construction and subsequent habitation which are not specific to the protection of the Natura site but do take cognisance of other plans and projects e.g., WFD and are associated with good environmental management of construction sites (CEMP).

**2.3.2 Describe any likely direct, Indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site taking into account the following**

- (i) Size and scale.**
- (ii) Land-take.**
- (iii) Distance from the**
- (iv) Natura 2000 site or key Features of the site.**
- (v) Resource requirements (water abstraction etc.);**
- (vi) Emissions (disposal to land, water or air);**
- (vii) Excavations requirements**
- (viii) Transportation requirements**
- (ix) Duration of construction, operation, decommissioning etc;**
- (x) Other**

The location, scale and nature of the proposed development is such that it will not directly or indirectly impact on any annexed habitat or species of either the SAC or SPA nor will it contravene the conservation objectives or plans for the designated sites.

There is no land take from any of the natura sites considered with no undesignated annexed habitat present and no potential for the SAC / SPA species to utilise or inhabit the proposed site.

The urban street lit development site is not located within a natura site and is separated from them by 37.9M with the intervening lands comprised of local access roads, 2 storey commercial buildings, 2 storey dwellings, sea walls and amenity grassland.

The development location habitat is composed entirely of non annexed buildings and artificial surfaces (BL3) habitat in an urban street lit setting.

The proposed development does not require water abstraction or direct discharge to surface water, ground water, land or air with the main elements of light construction being phased and of very short duration.

No changes to surface water quality (microbiologically, chemically, physically or quantitatively) are anticipated in surface water or ground water given that there are no direct discharges to or abstraction from surface water or ground water.

There are no drains, streams or water courses located on the site or in close proximity to the proposed site.

Any material that it is required to remove off site shall be transported to a licenced facility for disposal / recycling.

Where aggregate are required it is to be sourced in a quarry that is registered under section 261/261A of the 2000 planning and development act or have a grant of planning under that act.

No maintenance of plant would occur on site with all preventative maintenance carried out prior to entry to the site.

Refuelling of plant shall only occur as necessary with no hydrocarbons for such purposes stored on site.

All empty packaging would be stored in appropriate containers for disposal as required.

Batch concrete trucks are prohibited from the washing out of the drum on site (which is now industry standard).

The restricted species as listed in appendix of this report would not be utilised or introduced for the purposes of landscaping or any other purposes.

A watertight container shall be provided for the storage of empty chemical containers which shall be removed off site and disposed of appropriately as required.

Site preparation, construction and subsequent use / management is not required to be cognisant of the Inland fisheries Ireland guidance on “The protection of fisheries habitat during construction and development works at river sites” as no in stream works are associated with the development with no natural streams, drains or the HWM within 30M of the site boundary.

No material shall be removed from or deposited in any Natura Site as a result of a grant of planning permission.

All construction related materials shall only be stored within the construction area.

No tree / scrub removal / felling/ trimming are proposed or required.

### **2.3.3 Describe any likely changes to the Site arising as a result of:**

- (i) Reduction in habitat area:**
- (ii) Disturbance to Key species:**
- (iii) Habitat or species density:**
- (iv) Changes in key indicators of conservation value (water quality etc);**
- (v) Climate change**

The proposed development does not involve the reduction in annexed habitat area associated with the Natura site i.e. no part or section of the site is within the boundary of a Natura site the closest of which is 37.9M East of the development site boundary. The project would take approximately 3-4 months and involve 2 separate but connected location within the town centre covering areas of 0.2877Ha and 0.1339Ha of BL3 habitat.

The onsite habitat is identified entirely as BL3, buildings and artificial surfaces, with no undesignated annexed habitat, tree lines or hedgerow present.

There will be no disturbance to any key species associated with the Natura sites given the separation distances to the terrestrial boundary of them with the aquatic sections even further away. The proposed site is located in an urban environment and is separated from the boundary of the SAC / SPA by the existing dwellings , commercial buildings, roads, foot paths sea wall and amenity grassland.

There is a complete absence of suitable habitat for the species for which the Natura sites were designated within or contiguous to the development site with no potential for those species to populate the urban street lit development site.

The species for which the SPA Natura site was designated are predominantly confined to the marine section or the immediate area surrounding i.e. mud flats, inter tidal / supra/sub tidal areas and tidal flats with the SAC species predominantly aquatic.

Surface water quality will not be impacted as there will be no direct discharges to surface water or ground water as a

result of the development with the project impact on ground water and surface water considered neutral.

There will be no climate change either micro or otherwise as a result of the project with the limit values for SO<sub>2</sub>, NO, NO<sub>2</sub> and O<sub>3</sub> protection of vegetation / ecosystems not of consideration given the nature of the project.

The urban street lit location of the site dictates that there will be no cumulative disturbance of the species of interest as the proposed project would be absorbed into the background during construction with no post construction impacts to consider.

Any increases in noise, light and vibration during construction would not be detectable in the Natura site due to the separation distance and the urban street lit location of the development site and would be absorbed into the background. Air over pressure is not of consideration.

The proposed project would not impact on species density or result in a reduction in SAC or SPA habitat area.

The only habitat that will be impacted is BL3 which is not an annexed habitat type.

#### **2.3.4 Describe any likely impacts on the Natura 2000 sites as a whole in terms of:**

**(i) Interference with the Key relationships that define the structure of the site.**

**(ii) Interference with key relationships that define the function of the site.**

The proposed project will not alter, interfere or impact on any of the key relationships that define either the function of or the structure of the Natura site identified given that there will be no fragmentation or disturbance of designated habitat area or the species therein. The predicted impact on water quality considered neutral and the project would be absorbed in to the background during construction due to the separation distances involved and the urban street lit location. Post constructions there are no elements associated with the project that would interfere, alter or impact on the key relationships that define the structure or function of the Natura sites.

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

- (i) Loss**
- (ii) Fragmentation**
- (iii) Disruption**
- (iv) Disturbance**
- (v) Change to key elements of the site (e.g. water quality etc.)**

There will be no loss, fragmentation, disruption or disturbance of the Natura sites or their annexed species either directly or indirectly, associated with the proposed project.

No negative changes to surface water quality (microbiologically, chemically, physically or quantitatively) are anticipated given that there are no direct discharges to or abstraction from surface water.

The proposed works are sufficiently removed from the Natura sites in an urban setting such that there will be no

impact either directly or indirectly with respect to disturbance.

The ppv of a hydraulic roller at 25M is only 1.5mms and trucks on a rough surfaces only producing a ppv of <2mm/s at 20M which dictates that ppv during construction is not of consideration with no vibration from subsequent use to consider. There will be no activities associated with the proposed development that would give rise to significant fugitive dust which would be extremely limited and only occur during the construction phase and undetectable outside of a radius of 100M. Any such fugitive dust would be classified as inert and harmless in the chemical context and would not contain any of the harmful compounds as described and listed in Atmospheric Emissions by T.A. Luft, (1986), section 2.3. During the short duration construction phase the noise source would be external in nature and as its dimensions would be small compared to the location therefore as the sound energy is radiating it will spread over an area that is proportional to the square of the distance. As this is an inverse square law then the sound level will decline by 6dB for each doubling of distance and will not have a deleterious effect on the designated site during construction or subsequent use. Due to the urban nature of the development site on and adjacent to the R314 it can be projected that noise levels at the periphery of the Natura Sites would not be elevated above background either during construction or subsequent use. Typical values in the vicinity of the development post construction would be in the order of 65 dB + due to RTN on the R314 and the urban location.

Light is not of consideration due to the separation distance to the Natura Sites boundaries and the fact that the area is already street lit – both in the area of construction and off site along the shore.

**2.3.6 Describe from the 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 is not known.**

No significant impacts are predicted given the limited scale, separation distances to the boundaries of the Natura sites and the short duration of the construction phase of the proposed project. Subsequent use is not anticipated to produce any significant impacts either directly or indirectly. All potential impacts can be accurately assessed from published data.

**Screening Conclusion**

Appropriate Assessment is not required as there would be no significant or insignificant negative impacts either directly or indirectly on the identified Natura sites with respect to annexed habitats, annexed species and the conservation objectives either during construction or subsequent use. The project would not alter or impact on the function or structure of the Natura sites nor would it contravene the conservation objectives.

No specific mitigation measures or compensation measures are required to ensure that there are no direct or indirect impacts on the Natura sites habitats or species. The general standard environmental control measures in section 2.3.2 should be observed. These should not be interpreted as mitigation or compensation measures and but are associated with the normal standard good environmental management of construction sites.

Completed by: Paul Neary B.Sc. (Hns. Env. Sc.), M.Sc (eco. Tox)

### **3.0 APPROPRIATE ASSESSMENT STAGE 1 SCREENING MATRIX**

#### **FINDING OF NO SIGNIFICANT EFFECTS MATRIX (FONSE)**

In accordance with Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC

#### **3.0.1 Planning Application Number**

Part 8 Application Killala Town Core

#### **3.0.2 Development Type**

Planning permission is sought for the construction of new and realignment of the existing public footpaths, raised pedestrian road crossings, road resurfacing and traffic flow changes (new one way system) with all the associated hard landscaping and ancillary civil Works. The project would take approximately 3-4 months and involve 2 separate but connected location within the town centre covering areas of 0.2877Ha and 0.1339Ha of BL3 habitat.

#### **3.0.3 Development Location**

The urban brown field development area is located in Killala town core with an address at Killala Town, Co. Mayo and is located on the R314 at Church Street and the junction of Sea View Terrace with the R314. One section of the development stretches from approximately grid reference 520339, 830086 to 502441, 829915 with the Sea View Terrace section located at grid reference 820445, 829864.

#### **3.0.4 Natura 2000 site(s) within impact Zone**

Killala Bay / Moy Estuary SAC 00458  
Killala Bay / Moy Estuary SPA 004036

#### **3.0.5 Qualifying interests of Natura 2000 site(s)**

##### **Killala Bay / Moy Estuary:**

##### **SAC 00458**

[1014] *Vertigo angustior*

[1095] *Petromyzon marinus*

[1130] Estuaries

[1140] Mudflats and sandflats not covered by seawater at low tide.

[1210] Annual vegetation of drift lines

[1310] Salicornia and other annuals colonizing mud and sand.

[1330] Atlantic salt meadows (*Glauco Puccinellietalia maritimae*)

[1365] *Phoca vitulina*

[2110] Embryonic shifting dunes

[2120] Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes")

[2130] \* Fixed coastal dunes with herbaceous vegetation ("grey dunes")

[2190] Humid dune slack

The qualifying interests listed above are based on the most up to date Ste Synopsis available from NPWS (Version date : 10/12/2015)

Killala Bay / Moy Estuary :

SPA 004036

*Charadrius hiaticula* [wintering]

*Pluvialis apricaria* [wintering]

*Pluvialis squatarola* [wintering]

*Calidris alba* [wintering]

*Calidris alpina* [wintering]

*Limosa lapponica* [wintering]

*Numenius arquata* [wintering]

*Tringa totanus* [wintering]

Wetlands

The qualifying interests listed above are based on the most up to date Ste Synopsis available from NPWS (Version date: 07/07/2014)

### 3.1 Name of project or plan

Part 8 Application Killala Town Core

#### 3.1.1 Name and Location of Natura 2000 Site

##### Dual Designation

Killala Bay / Moy Estuary SAC 00458 is located 37.9M East of the site boundary.

Killala Bay / Moy Estuary SPA 004036 is located 37.9M East of the site boundary.

#### 3.1.2 Description of the project or plan

The project is orientated around the construction of new and realignment of the existing public footpaths, raised

pedestrian road crossings and traffic flow changes (new one way system) with all the associated hard landscaping and ancillary civil Works.

The project will be completed in a phased manner and will involve relatively short duration intermittent light construction works in an urban street light environment.

The existing footpaths will be realigned with the construction of additional new footpaths. It is proposed to undertake the pouring of the new footpaths, in shuttered forms, during a dry weather period which is essential to ensure that the final finish is of the correct standard. It may be necessary to remove section of the existing footpaths where repairs are not practical which will utilize light machinery (jack hammers, compressor, light rock breaker) with the resulting material removed off site for disposal at a licensed facility. During the potential removal of sections of footpaths and the replacement / construction of the new footpaths it is proposed to place sand bags over the storm water gullies to prevent material entering and blocking them. Although the footpaths would be poured during a dry weather period they would also be covered to prevent public access or potential damage until the concrete is cured. Concrete would be delivered in batch concrete truck to the site and poured by Shute into the forms with no mixing on site.

Resurfacing of the existing R314 road would be mechanically planed to remove the existing surface with the material removed off site for recycling and / or disposal in an appropriate manner at a licensed facility. A tarmac paver and rollers would be required to resurface the road with deliveries of tarmac by 8 wheeler covered trucks. This process would also require the use of light mechanical rubber tracked excavators and vibrating rollers and it is proposed to cover the storm water gullies with sand bags to prevent any extraneous material entering them.

The urban nature of the proposed activity dictates that no hydrocarbons would be stored on the site for the purposes of refueling which would be undertaken as required by means of a browser with a spill kit retained on the site. Potential misting to control dust may be required with all works to be carried out during normal working hours.

The new one way system will alleviate congestion in the town centre and facilitate the free movement of traffic but will not increase traffic movements through the town.

The new proposed pedestrian road crossings would also necessitate the use of small rubber tracked excavators, light rollers and the delivery of small quantities of tarmac.

All construction related machinery, plant and materials (804, shuttering) would be stored within the confines of the proposed site.

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

No

**3.1.4 Are there other projects or plans that together with the project or plan being assessed could affect the site (provide details)**

There are no other projects or plans that in combination with the proposed project could impact on the Natura sites. The proposed plan is project to have a neutral impact given that there are no discharges to air, soil or water associated with construction or use that could impact the Natura Sites; and given the urban street lit location of the proposed

project and separation distance from the aquatic / marine section all other impacts are negated by virtue of the separation distance and intervening land use. Other plans and projects considered are;

**Directive - Birds Directive**

**Directive - Habitats Directive**

**Directive - Drinking Waters Directive**

**Directive - Major Accidents and Emergencies Directive**

**Directive - Environmental Impact Assessment Directive**

**Directive - Sewage Sludge Directive**

**Directive - Urban Waste Water Treatment Directive**

**Directive - Plant Protection Products Directive**

**Directive - Nitrates Directive**

**Directive - Integrated Pollution Prevention Control Directive**

**Other Stipulated Measure - Cost recovery for water use**

**Other Stipulated Measure - Promotion of efficient and sustainable water use**

**Other Stipulated Measure - Protection of drinking water sources**

**Other Stipulated Measure - Control of abstraction and impoundment**

**Other Stipulated Measure - Control of point source discharges**

**Other Stipulated Measure - Control of diffuse source discharges**

**Other Stipulated Measure - Authorisation of discharges to groundwaters**

**Other Stipulated Measure - Control of priority substances**

**Other Stipulated Measure - Controls on physical modifications to surface waters**

**Other Stipulated Measure - Controls on other activities impacting on water status**

**Other Stipulated Measure - Prevention or reduction of the impact of accidental pollution incidents**

**On-site waste water treatment systems**

**Freshwater Pearl Mussel sub-basin plan**

**Shellfish Pollution Reduction Plan**

**NRBMP / WFD**

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

A desk top study in conjunction with on site survey (ecological, hydrological) was carried out on site. From this it was determined that the project will not have a significant effect on the Natura sites either directly or indirectly, alone or in combination with other projects. The potential impacts are localised and limited to the construction area. There are no similar projects that could result in a synergistic impact. The potential impact on the Natura sites is considered neutral and would be absorbed into the urban background during construction and subsequent use.

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

The effects are not considered significant as all potential indirect effects are negated by virtue of the separation distance and the location of the development site within an established urban setting. The development site is bounded on all sides by the existing 2 storey commercial and residential buildings which will negate the potential for impacts from noise, ppv and dust during construction with no such considerations post construction. Light is not of consideration as the area is already street lit with no proposal for additional street lighting. The proposed development will not increase the through flow of traffic but will reduce queue times and congestion when the one way system is implemented. The phased urban construction phase of the project is of short duration with limited requirements for plant and materials. None of the species for which the Natura sites have been designated are present on the development site nor would they populate the site given its urban street lit location, the lack of suitable habitat and the existing level of anthropogenic activity and distance to suitable habitat.

There are no undesignated annexed habitats present on the proposed development site. The species for which the Natura sites were designated would not expand their range to encompass the development site as they are predominantly aquatic, marine or confined to the immediate area surrounding i.e., mud flats, inter tidal / supra/sub tidal areas and tidal flats. The construction phase of the project is of extremely short duration. All potential impacts can be accurately predicted from published data. The proposed project would not alter or interfere with the conservation objectives for either Natura site nor would it impact on the function or structure of those Natura sites.

**4.0.3 List of agencies consulted: provide contact name and telephone or email address.**

As part of the Planning Process MCC would request input from the NPWS DAU therefore to avoid duplication consultation with NPWS will be through the planning process.

**4.0.4 Response to consultation.**

N/A

**5.0 Data collected to carry out the assessment.**

Who carried out the Assessment?	Source of Data	Level of assessment completed.	Where can the full results of the assessment be accessed and viewed.
<p><b>Paul Neary Environmental Consultants</b></p>	<p><b>National Parks and Wild Life</b></p> <p><b>Geological Survey of Ireland</b></p> <p><b>Environmental Potection Agency</b></p> <p><b>Water frame Work Directive (water matters web site)</b></p> <p><b>NRBMP</b></p> <p><b>National Bio diversity Centre</b></p> <p><b>Heritage Council</b></p>	<p><b>Consultation Site Synopsis Birds and Habitats Regulations 49 &amp; 50. Threat Response Plans for Lutra Lutra Threat Response Plans for Vesper bats All Ireland Species action plan Bats All Ireland Species action Plan – Red Squirrel All Ireland Species Action Plan – Irish Lady’s Tresses, pollan, hare, corncrake. National Biodiversity Plan The Status of EU protected habitats and species in Ireland.</b></p> <p><b>Bedrock Data. Aquifer Vulnerability. Soil and Sub soils Data. Aquifer potential. Source protection, karst and ground water well data.</b></p> <p><b>Water Quality Data. Air Quality Data.</b></p> <p><b>Status and objectives for ground water and surface water</b></p> <p><b>Status and objectives for ground water and surface water</b></p> <p><b>Data on species in area</b></p> <p><b>Data on species in area</b></p>	<p><b>Paul Neary Stonehall Foxford Co. Mayo</b></p>

	<p><b>Department of the Environment</b></p> <p><b>Department of Agriculture</b></p> <p><b>Inland Fisheries</b></p> <p><b>Freshwater Life – R. Fitter R. Manuel</b></p> <p><b>Biology of Fresh Waters -PS Maitland</b></p> <p><b>Dept. of the Environment, 1994</b></p> <p><b>Planning Policy</b></p> <p><b>Guidance: Nature Conservation</b></p> <p><b>Collins Field Guide to Freshwater Life, R. Fitter, R. Manuel.</b></p> <p><b>Domino Guide to Wild Flowers of Britain and Ireland, Marjorie Blamey, Richard Fitter, Alastar Fitter.</b></p> <p><b>Collins Nature Guides to Wild Flowers of Britain and Europe, W. Lippert &amp; D. Podlech.</b></p> <p><b>Waterfowl Ecology M Owen &amp; J M Black</b></p> <p><b>Kingfisher Concise Field Guide to Animal &amp; Plants of Britain &amp; Europe, Michael Chinery</b></p>	<p><b>Circular NPW 1/10 &amp; PSSP 2/10</b></p> <p><b>Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities.</b></p> <p><b>Environmental Plan – Nutrient management plans.</b></p> <p><b>Wild Salmon Management</b></p>	
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**The Status of EU Protected Habitats and Species in Ireland, NPWS, Department of the Environment, Heritage and Local Government 2008.**

**European Commission. 2007b. Interpretation manual of European Union habitats. EUR27. European Commission, DG Environment.**

**EPA. 2002. Guidelines on information to be contained in Environmental Impact Statements. EPA, Wexford.**

**Biology of Fresh Waters, 2<sup>nd</sup> edition, P S Maitland.**

**Treweek, J. 1999 Ecological Impact Assessment Blackwell Science Ltd. Oxford**

**EPA. 2003. Advice Notes on Current Practice (in the preparation of Environmental Impact Statements). EPA, Wexford.**

**National Parks and Wildlife Service. 2008. The Status of EU Protected Habitats and Species in Ireland. Conservation status in**

**Ireland of habitats and species listed in the European Council directive on the conservation of habitats, flora and fauna 92/43/EEC. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government.**

**NPWS 2009  
Appropriate  
Assessment of Plans  
and Projects in Ireland  
- Guidance for  
Planning Authorities  
Revised February 2010  
Department of  
Environment, Heritage  
and Local Government**

**Southall, B.L., Bowles,  
A.E. Ellison, W.T.,  
Finneran, J.J. Gentry,  
R.L. Greene, C.R.,  
Kastak, D., Ketten,**

## **6.0 Overall Conclusions:**

**Appropriate Assessment is not required as there would be no significant impacts either directly or indirectly on the identified Natura sites with respect to its annexed habitats, features of interest and / or annexed species during construction or subsequent use.**

**No specific mitigation measures or compensation measures are required to ensure that there are no significant direct or indirect impacts on the Natura sites habitats or species.**

**The proposed project would not negatively impact or contravene the conservation objectives for either Natura site nor would it impact on the function or structure of those sites.**

**There is no land take from any Natura site.**

**A grant of planning would not require or cause any material to be deposited in or removed from a Natura site.**

**A grant of planning permission would not require any activity within the boundary of the Natura sites nor would it cause or require any plant to enter or traverse the Natura sites.**

**The proposed development project would be absorbed into the back ground of the urban area both during construction and subsequent use.**

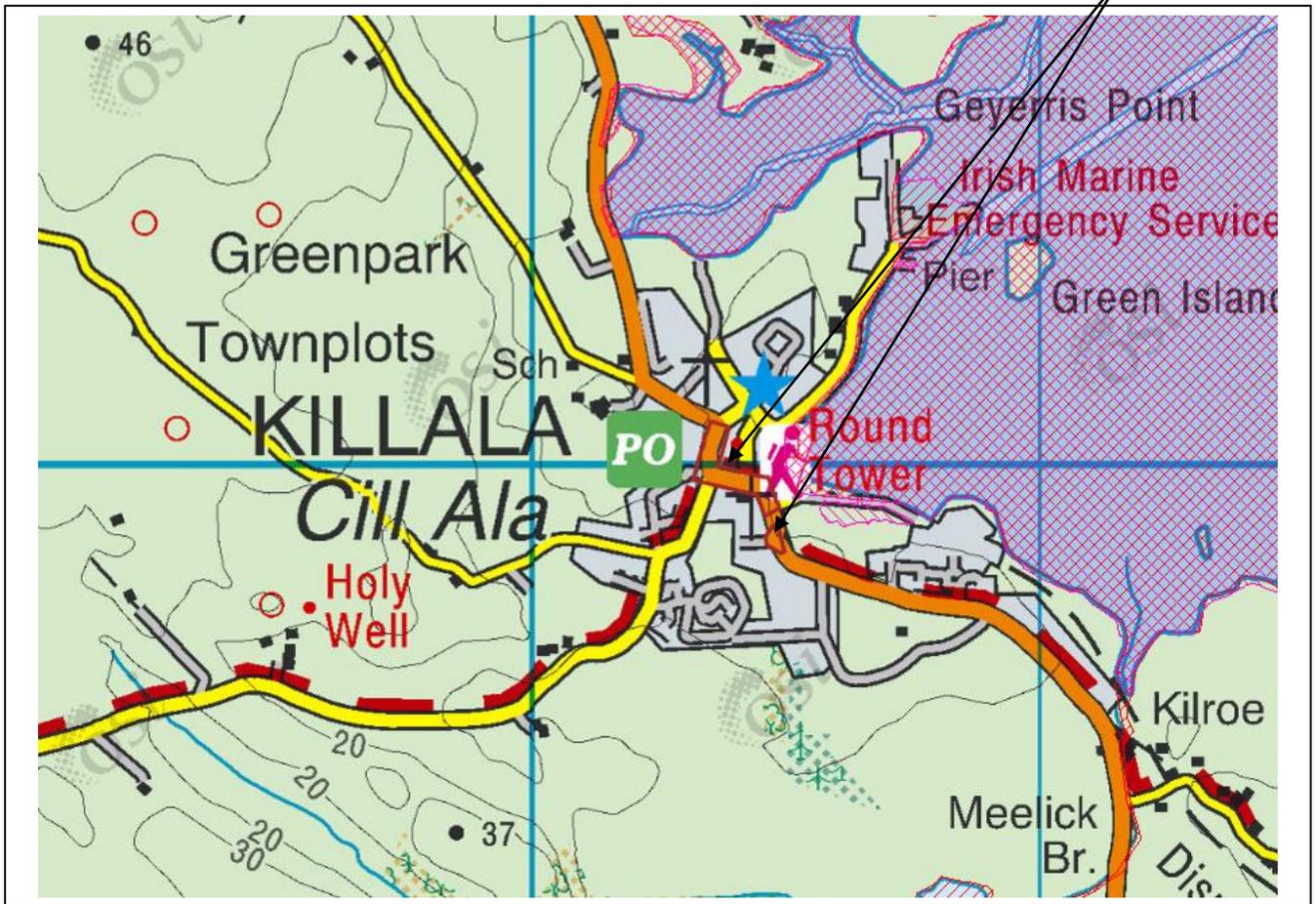
**The normal general standard environmental measures associated with good environmental management of construction sites, detailed in section 2.3.2, should be observed and are also cognisant of other plans and projects e.g. NRBMP. These should not be interpreted, considered or misconstrued as mitigation measures but are associated with good environmental management of construction sites (CEMP).**

**Appendices: Attach Relevant Ecological data as required to support findings of stage 1 screening matrix.**

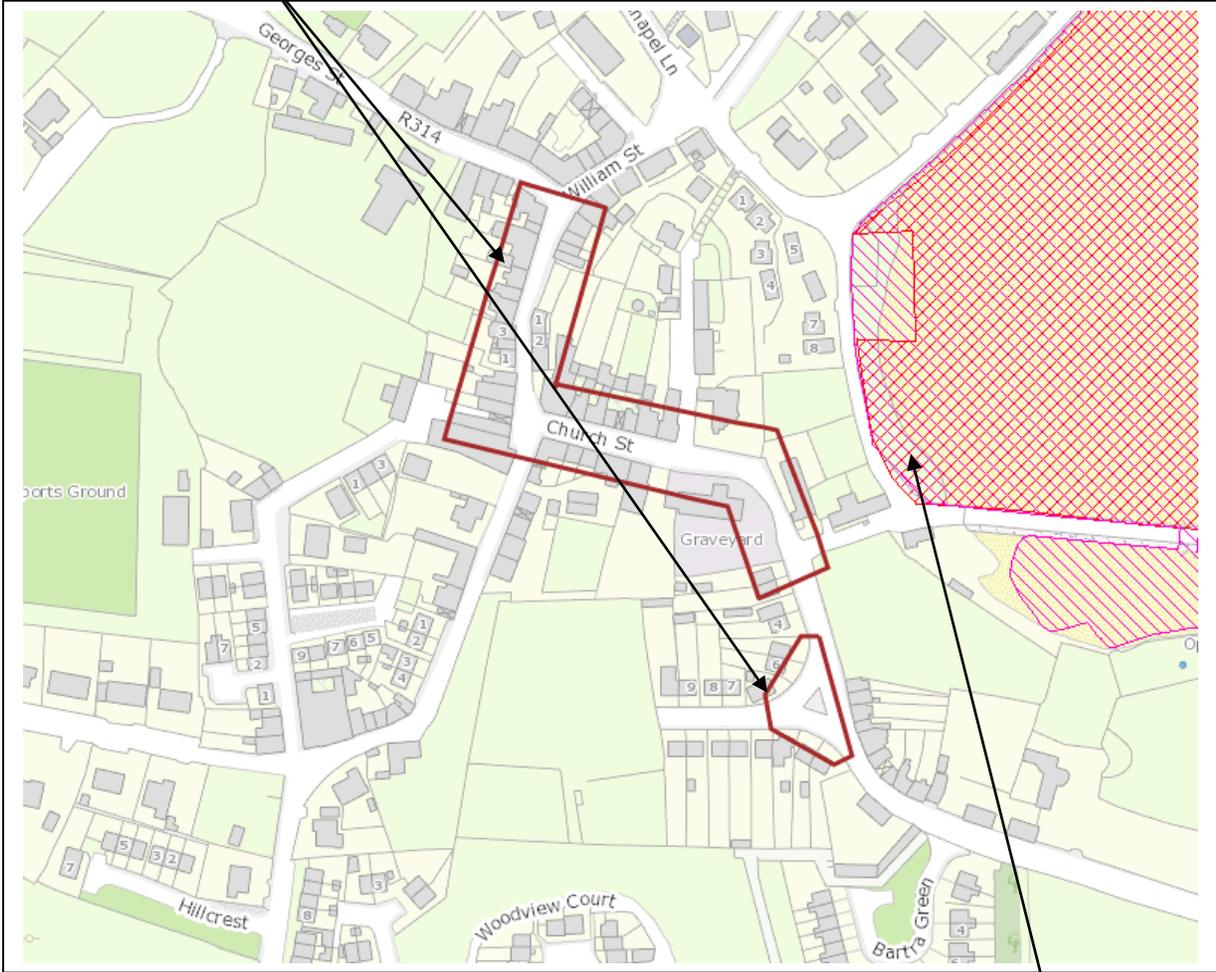
## **APPENDIX 1**

**MAP: 1 Development Location**

SITE



**Proposed Development SITE**

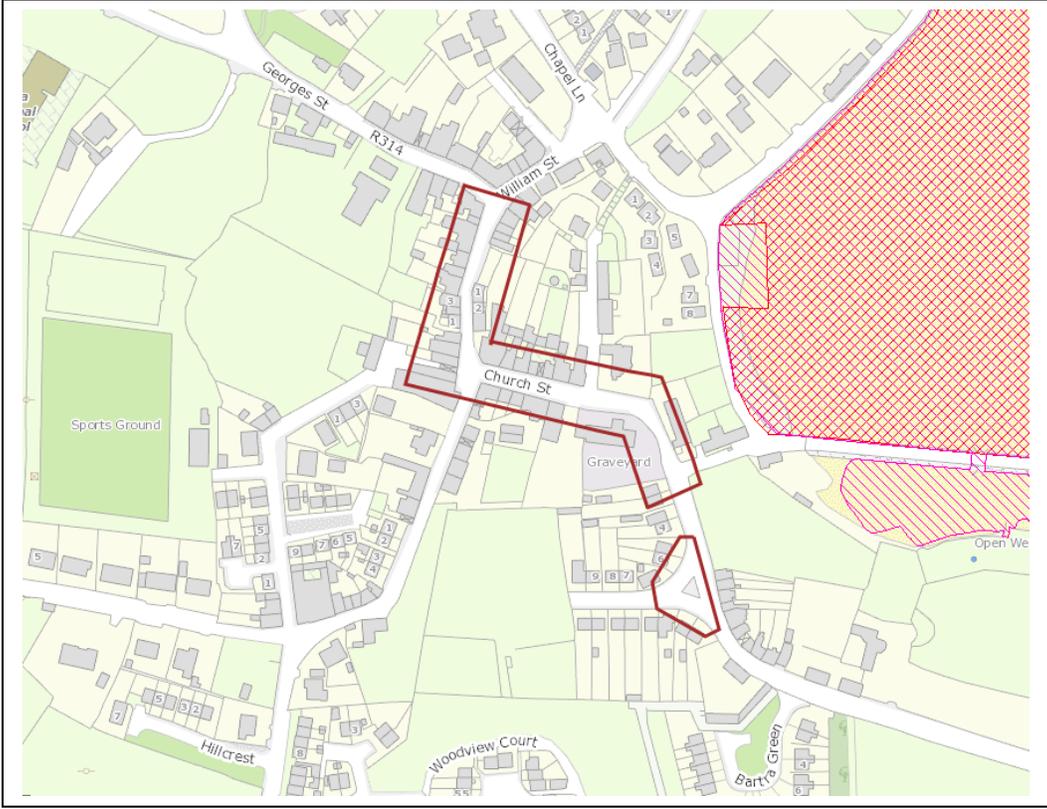


**Killala Bay / Moy Estuary SPA 004036**

**Killala Bay / Moy Estuary SAC 00458**

## **APPENDIX 2**

**ECOLOGICAL SURVEY  
REGARDING A PART 8 PLANNING APPLICATION  
FOR THE PROPOSED  
CONSTRUCTION OF NEW FOOTPATHS AND THE REALIGNMENT OF THE EXISTING  
PUBLIC FOOTPATHS, INSTALLATION OF RAISED PEDESTRIAN ROAD CROSSINGS  
AND TRAFFIC FLOW CHANGES  
IN  
KILLALA TOWN CENTRE, KILLALA, CO. MAYO**



**Client: Mayo County Council**  
**The Mall**  
**Castlebar**  
**Co. Mayo**

**Paul Neary B.Sc. (Hns. Env. Sc.) M.Sc. (Eco. Tox)**  
**Environmental Consultant**  
**Stonehall**  
**Foxford**  
**Co. Mayo**  
**Tel: 00353 87 2352811**  
**Email: pnearyfoxford@gmail.com**

Flood Plain Assessment (coastal, fluvial, pluvial), Appropriate Assessment Screening Reports, Natura Impact Assessments, Environmental Impact Assessment, Environmental Management Systems, Noise Monitoring, Isophonic Mapping, Treatment Plant Design and Review, Water & Waste Water Monitoring, Ecological Surveys,

**1.1 SITE DESCRIPTION AND DESK TOP STUDY**

**1.2 PLOT HISTORY AND CURRENT LAND USE**

**1.3 ECOLOGICAL SURVEY**

**1.3.1 Ecological survey**

**1.3.2 Botany**

**1.3.3 Fauna**

**1.3.4 Avian Species**

**1.3.5 Amphibians**

**1.3.6 Invertebrates**

**Appendix 1: Habitat Map**

## **1.1 Site Description and desk top study**

The proposed project is orientated around the construction of new and realignment of the existing public footpaths, raised pedestrian road crossings and traffic flow changes (new one way system) with all the associated hard landscaping and ancillary civil Works. The project will be completed in a phased manner and will involve relatively short duration intermittent light construction works in an urban street light environment. The existing footpaths will be realigned with the construction of additional new footpaths. It is proposed to undertake the pouring of the new footpaths, in shuttered forms, during a dry weather period which is essential to ensure that the final finish is of the correct standard. It may be necessary to remove section of the existing footpaths where repairs are not practical which will utilize light machinery (jack hammers, compressor, light rock breaker) with the resulting material removed off site for disposal at a licensed facility. During the potential removal of sections of footpaths and the replacement / construction of the new footpaths it is proposed to place sand bags over the storm water gullies to prevent material entering and blocking them. Although the footpaths would be poured during a dry weather period they would also be covered to prevent public access or potential damage until the concrete is cured. Concrete would be delivered in batch concrete truck to the site and poured by Shute into the forms with no mixing on site.

Resurfacing of the existing R314 road would be mechanically planed to remove the existing surface with the material removed off site for recycling and / or disposal in an appropriate manner at a licensed facility. A tarmac paver and rollers would be required to resurface the road with deliveries of tarmac by 8 wheeler covered trucks. This process would also require the use of light mechanical rubber tracked excavators and vibrating rollers and it is proposed to cover the storm water gullies with sand bags to prevent any extraneous material entering them. The urban nature of the proposed activity dictates that no hydrocarbons would be stored on the site for the purposes of refueling which would be undertaken as required by means of a browser. Potential misting to control dust may be required with all works to be carried out during normal working hours. The new one way system will alleviate congestion in the town centre and facilitate the free movement of traffic but will not increase traffic movements through the town. The new proposed pedestrian road crossings would also necessitate the use of small rubber tracked excavators, light rollers and the delivery of small quantities of tarmac. All construction related machinery, plant and materials (804, shuttering) would be stored within the confines of the proposed site.

The urban brown field development area is located in Killala town core with an address at Killala Town, Co. Mayo and is located on the R314 at Church Street and the junction of Sea View Terrace with the R314. One section of the development stretches from approximately grid reference 520339, 830086 to 502441, 829915 with the Sea View Terrace section located at grid reference 820445, 829864.

### **Receiving Environment:**

The urban street lit site is located in a catchment includes the area drained by the River Moy and all streams entering tidal water in Killala Bay between Benwee Head and Lenadon Point, Co. Sligo, draining a total area of 2,345km<sup>2</sup>. The largest urban centre in the catchment is Castlebar. The other main urban centres in this catchment are Ballina, Tubbercurry, Kiltimagh, Swinford, Foxford, Enniscrone and Crossmolina. The total population of the catchment is approximately 77,262 with a population density of 33 people per km<sup>2</sup>. The

lowland parts of the catchment are underlain by various types of limestones while the upland areas from the Ox Mountains and Croaghmoyle are underlain by a band of igneous and metamorphic rocks. Much of the lowland area south of Lough Conn exhibits a drumlin topography. There are extensive sand and gravel aquifers lying between Swinford and Charlestown to as far south as Knock, to the east of Ballina and southwest of Crossmolina. More specifically the site is located in the Abbeytown sc010 sub catchment and more specifically in the Moyne 010 sub basin.

The development site is not located in and SAC or SPA but is in close proximity to the Killala Bay / Moy Estuary SAC 00458 and the Killala Bay / Moy Estuary SPA 004036 which are located 37.9M to the East of the development boundary with the intervening lands comprised of 2 storey commercial and residential buildings, local access roads, footpaths, sea walls, domestic garages, car parking and amenity grassland.

The underlying geology is DPBL (dinantian pure bedded limestone) which contains a locally important aquifer (Lm) with High to Extreme (H to E) vulnerability and a groundwater protection response R21. The principal soil group on site is “Made Ground” due to the urban nature of the site which over lie a sub soil described as “Urban” with the DTB <3M. The relative risk to groundwater is considered medium with respect to N, MRP and pathogens. The on site habitat is described as buildings and artificial surfaces (BL3). The near Surface Susceptibility for Nitrogen is rated as 3 with the near surface P susceptibility is 2 with the sub surface N susceptibility classified by the EPA as 4.

The WFD / NRBMP indicate that the ground water status is “Good”, “Not at Risk” and not in an “Area for Action”. Under the WFD/ NRBMP the coastal water in Killala Bay (IE\_WE\_420-000) is considered to be of “Good” status and “not at risk”. The air quality in the area is described as very good (zone D) which translates to the following, SO<sub>2</sub> 0-49µgM<sup>-3</sup> (1hr average), NO<sub>2</sub> 0-36 µgM<sup>-3</sup> (1hr average), O<sub>3</sub> 0-39 µgM<sup>-3</sup> (1hr average) and PM<sub>10</sub> 0-19 µgM<sup>-3</sup> (24hr average).

## **1.2 Plot History and Current Land Use:**

The urban street lit development site is the location of the R314 roads through the town of Killala and is the location of a series of dwellings, commercial enterprises and foot paths.

## **1.3 ECOLOGICAL SURVEY**

(see maps)

### **1.3.1 Ecological survey:**

The dominant habitat on site is classified as;

(1) BL3 – Buildings and artificial surfaces

There are elements of GA2 present however these are of insufficient size to warrant any consideration.

### **1.3.2 Botany**

The ecological survey indicated that the site can be classified as BL3 with no meaningful species present nor would any be anticipated given the urban setting..

### **1.3.3 Fauna.**

There was no direct or indirect evidence of *Leptis timidus*, *Martes martes*, *Mustela erminea*, *Sciurulus vulgaris*, *Mustela lutreola*, *Orctyolagus cuniculus* or *Erinaceus europaeus* on site. The reclusive *Lutra lutra* would not be anticipated given the sites removed location from suitable cover / habitat in an urban setting. Similarly *Sciurulus vulgaris*, *Mustela musculus*, *Martes martes* and *Orctyolagus cuniculus* would not be anticipated given the absence of suitable habitat in an urban setting. It would be reasonable to expect the more ubiquitous species such as *Rattus norvegicus* to be present.

### **1.3.4 Avian species.**

Although only the more ubiquitous species were observed no annexed avian species recorded in the location of the proposed development nor would any be anticipated given its urban street lit terrestrial nature. The urban BL3 street lit location combined with the current anthropogenic activity and the potential for predation / disturbance from domesticated felines / canines would preclude terrestrial ground nesting avian species from using the proposed development location for roosting, nesting and / or foraging.

The development site is not located within the SPA boundary but it is 37.9M from it and therefore potential impacts on the annexed avian species for which it was designated must be considered. The features of interest for the SPA list the following species; all of which are wintering with no breeding within the SPA / SAC site.

*Charadrius hiaticula* [wintering] A137

*Pluvialis apricaria* [wintering] A140

*Pluvialis squatarola* [wintering] A141

*Calidris alba* [wintering] A144

*Calidris alpina* [wintering] A149

*Limosa lapponica* [wintering] A157

*Numenius arquata* [wintering] A160

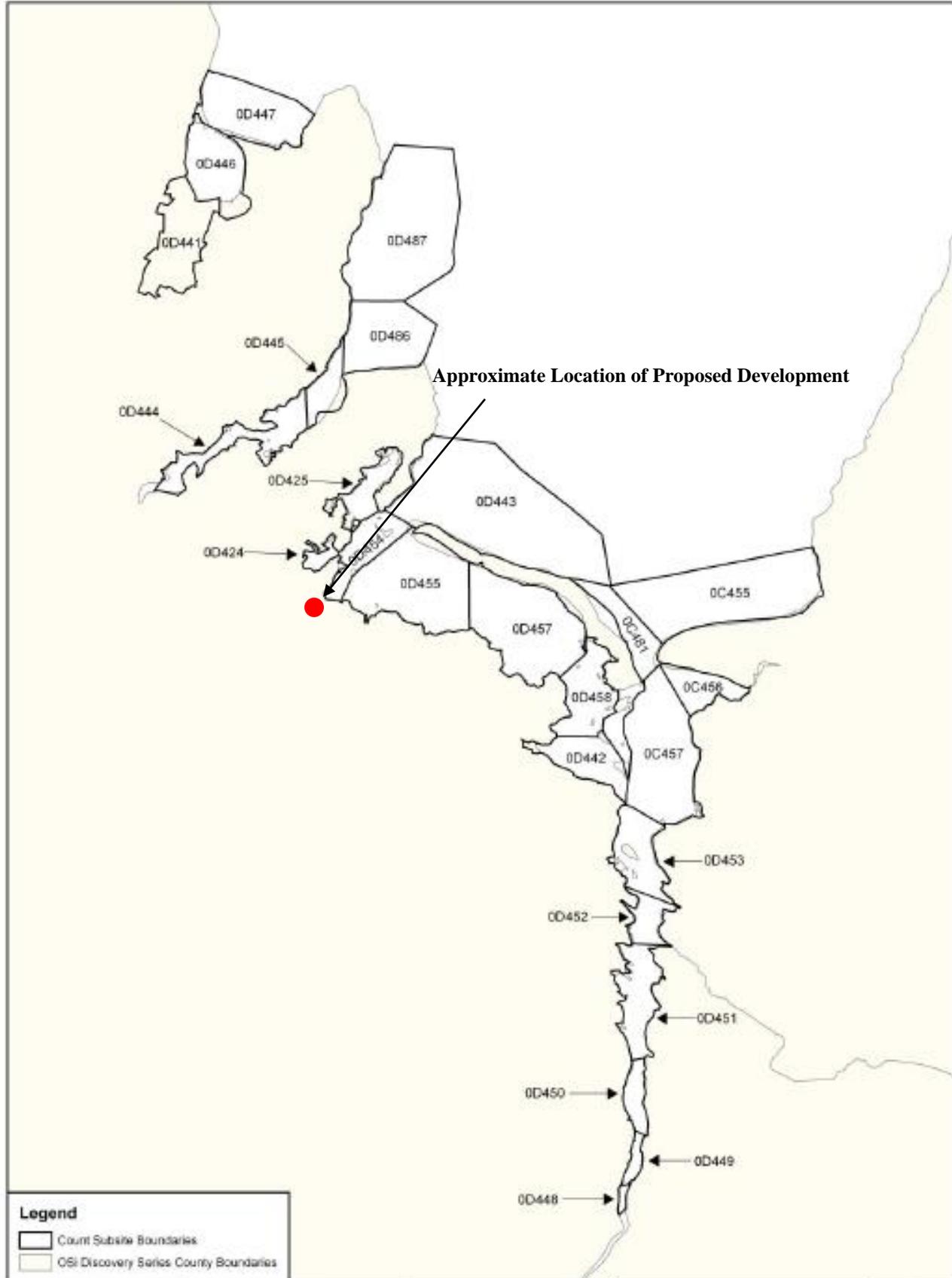
*Tringa totanus* [wintering] A162

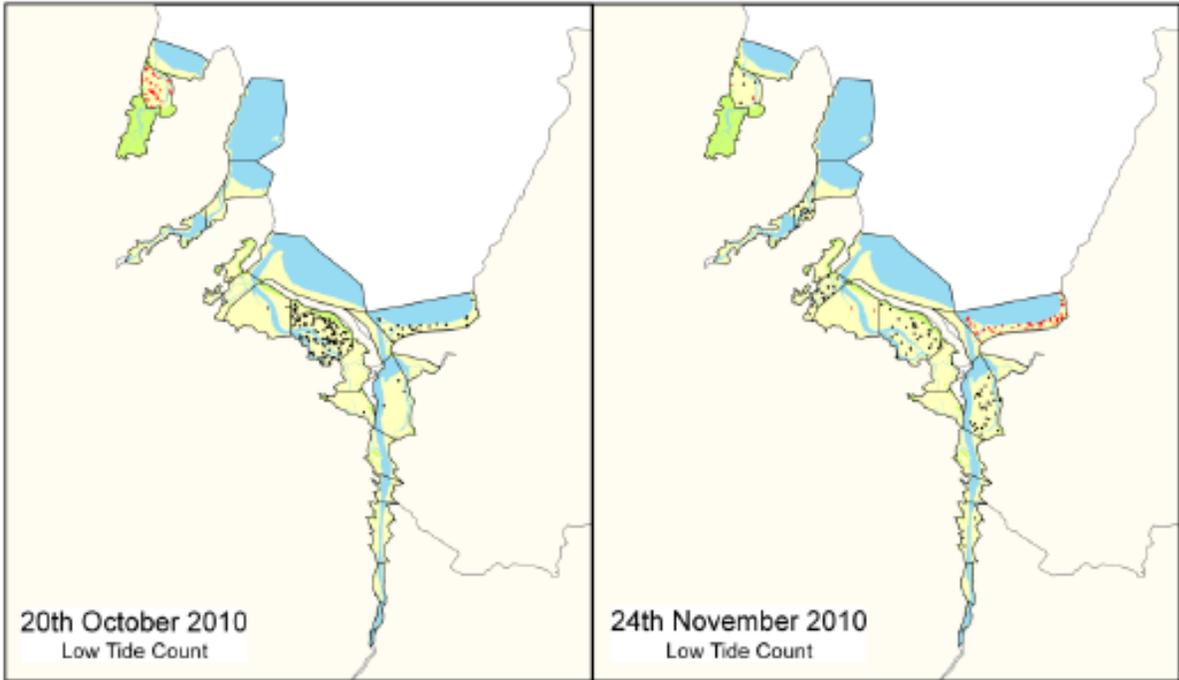
The proposed development is located 37.9M from the sub site OD454. Of the species for which the SPA was listed (see tables below and maps overleaf for full list) and are non terrestrial i.e. predominantly intertidal and sub tidal with a small element of supratidal behavior.

**Killala Bay/Moy Estuary Subsite assessment – total numbers during LT surveys (across all behaviours and habitats)** (L Low, M Moderate; H High V Very high)

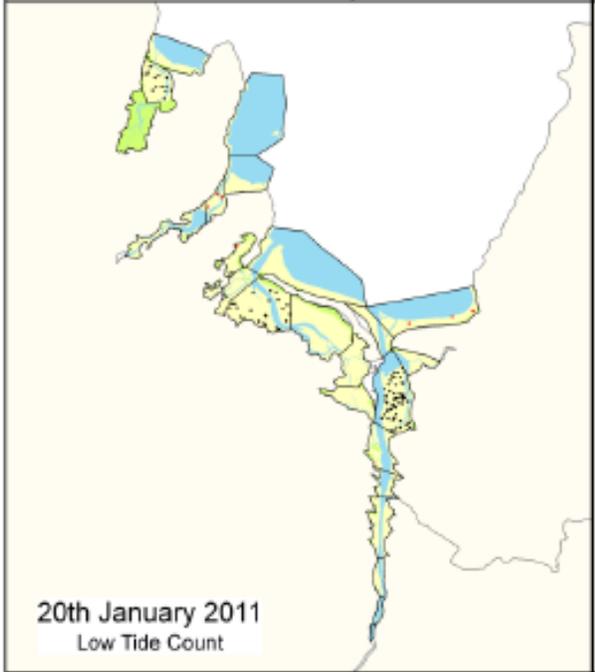


## Sub site Locations and Location of Proposed Development





**24th November 2010**  
Low Tide Count



**16th February 2012**  
Low Tide Count

**Legend**

**Count subsite boundaries & broad habitat types**

- Subtidal
- Intertidal
- Supratidal

- Ringed Plover Foraging
- Ringed Plover Roosting/Other

1 dot = 1 bird

0      2.5      5 km

The mapped boundaries are of an indicative and general nature only. Boundaries of designations are subject to revision. Reproduced from Ordnance Survey material by permission of the Government (OS map number EI1000010).

All our maps are made in our headquarters and printed on acid-free paper. If you are unable to print this document on our website, please contact our customer service team on 0800 000 0000.

Butterfield-Ordnance Survey Map of Ireland (OSNI Licence: EI1000010)

N

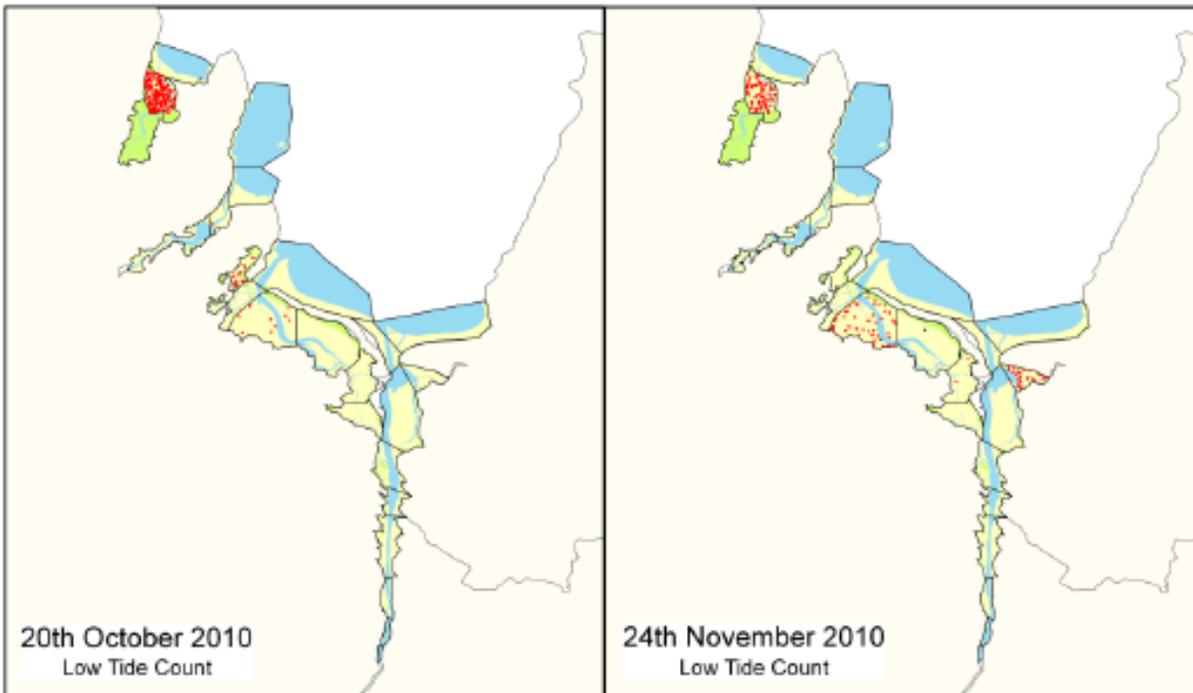
Map Version 1  
Date: Feb 13

An Roinn Talamh, Clárúcháir na n-áiní Ceilteacha, Department of Agriculture and the Sea

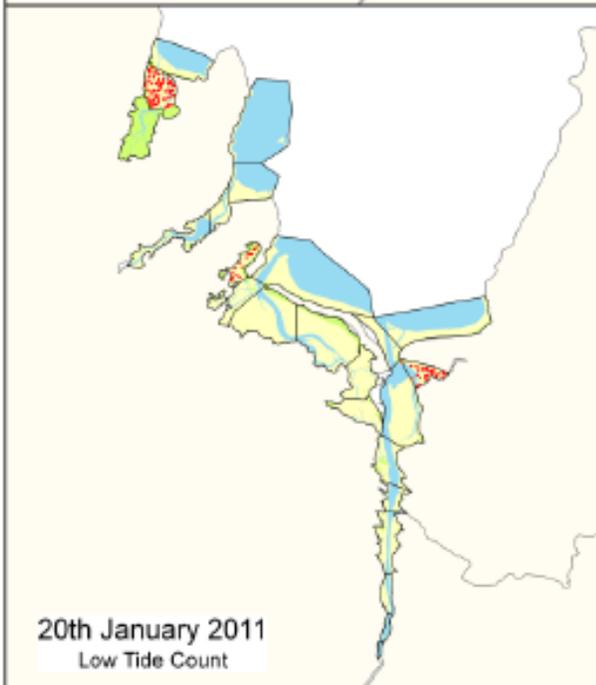
**KILLALA BAY / MOY ESTUARY SPA  
CONSERVATION OBJECTIVES  
RINGED PLOVER  
DISTRIBUTION DOT DENSITY DIAGRAMS**

Maps to read in conjunction with the SPA Conservation Objectives SPA Supporting Document.

Map Version 1  
Date: Feb 13



24th November 2010  
Low Tide Count



16th February 2012  
Low Tide Count

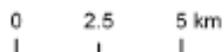
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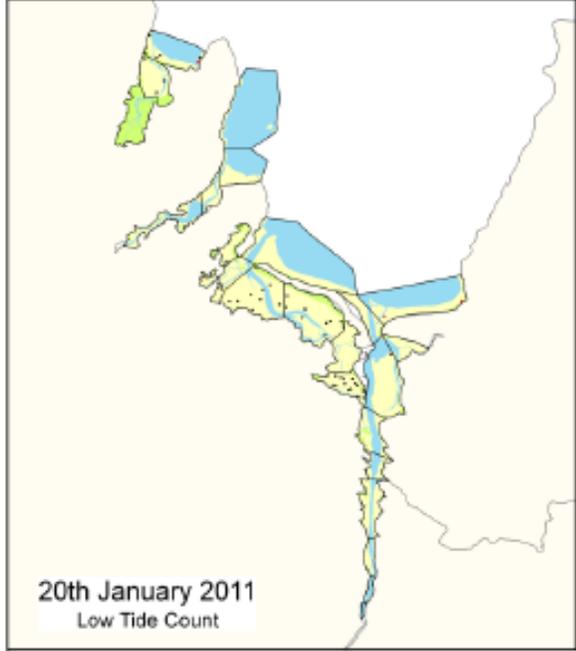
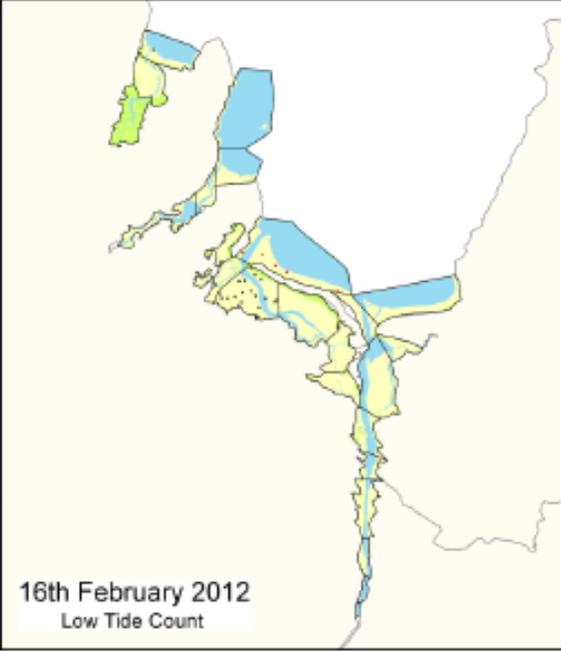
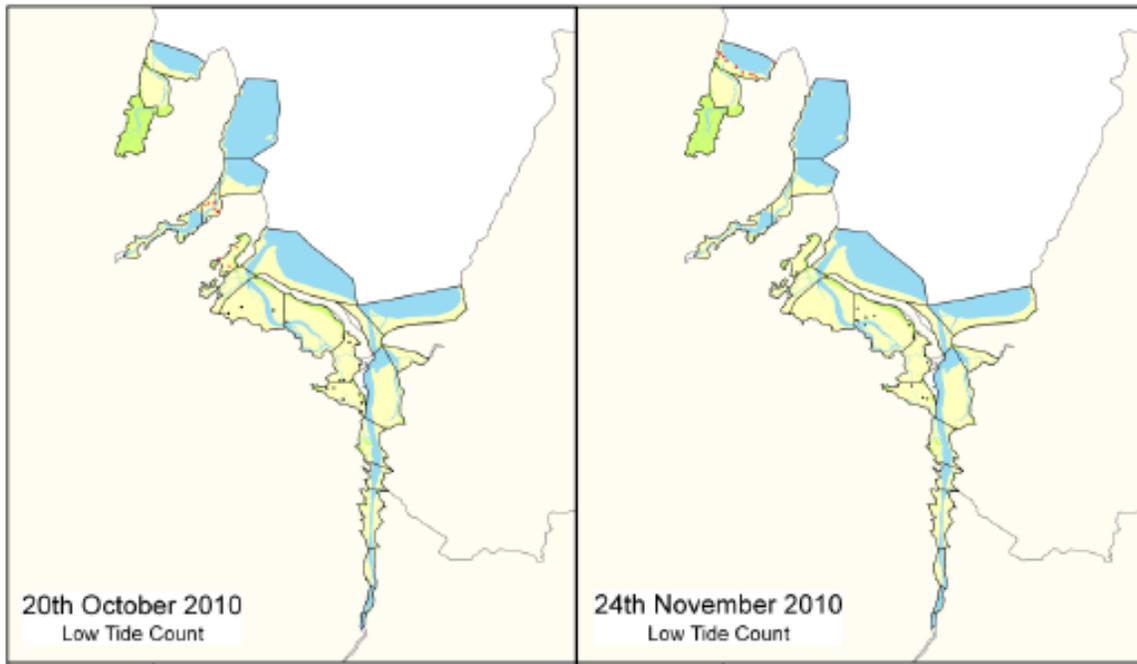
**Count subsite boundaries & broad habitat types**

-  Subtidal
-  Intertidal
-  Supratidal

-  Golden Plover Foraging
-  Golden Plover Roosting/Other

1 dot = 2 birds





**Legend**

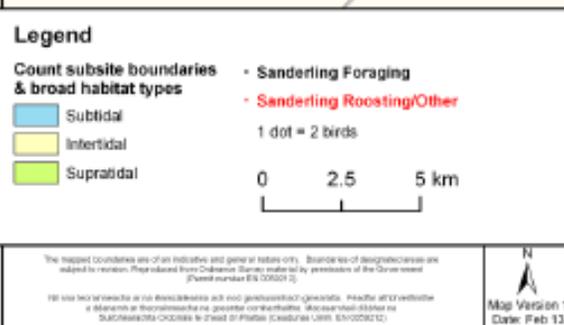
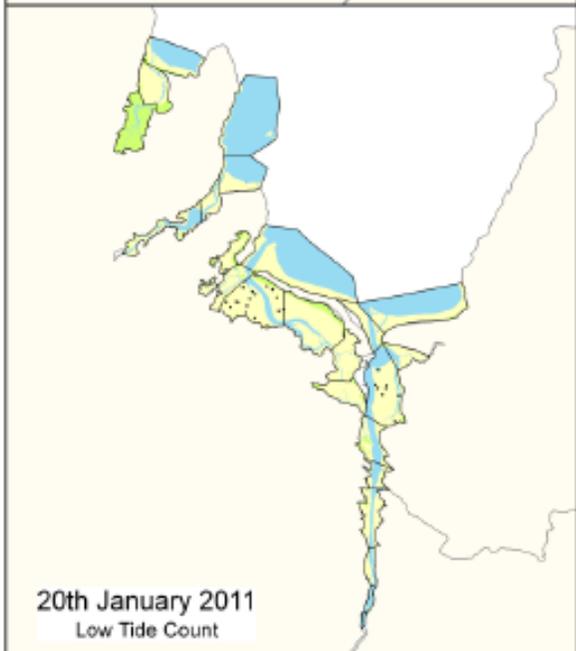
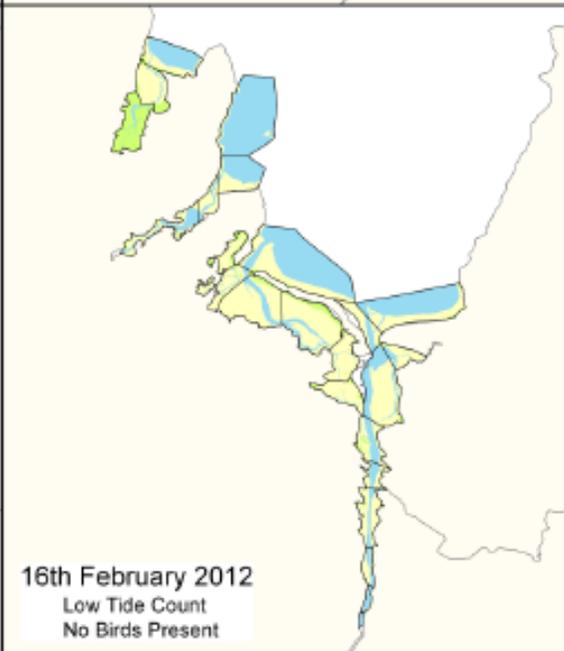
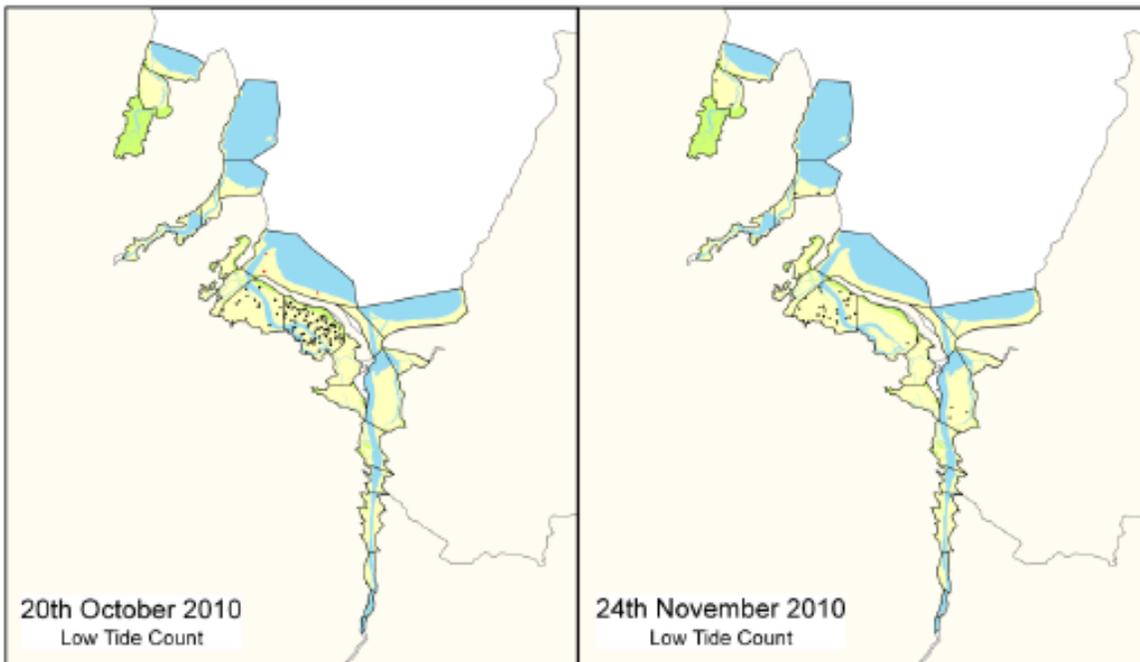
**Count subsite boundaries & broad habitat types**

- Subtidal
- Intertidal
- Supratidal

- Grey Plover Foraging
- Grey Plover Roosting/Other

1 dot = 1 bird

0      2.5      5 km



**Legend**

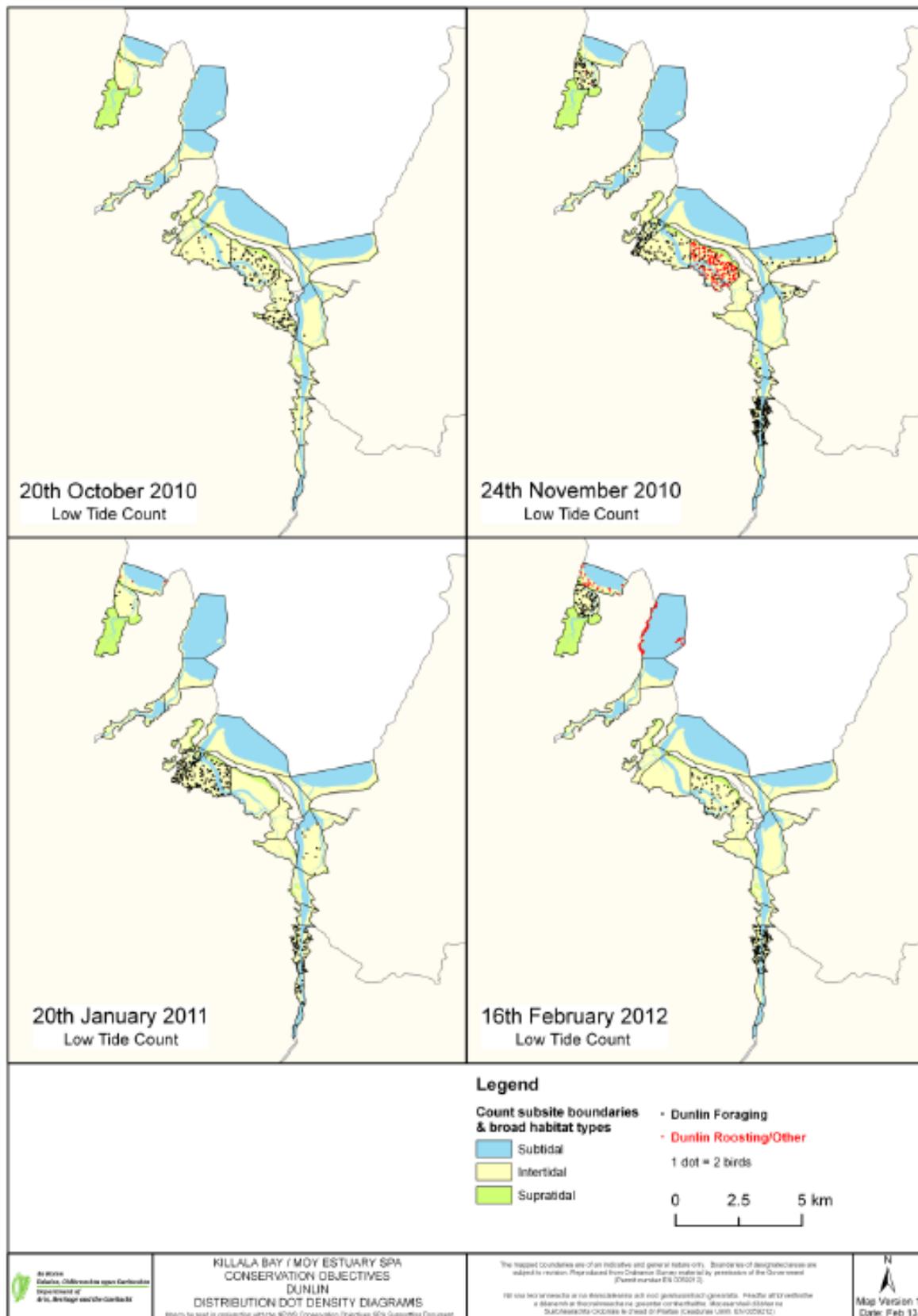
Count subsite boundaries & broad habitat types

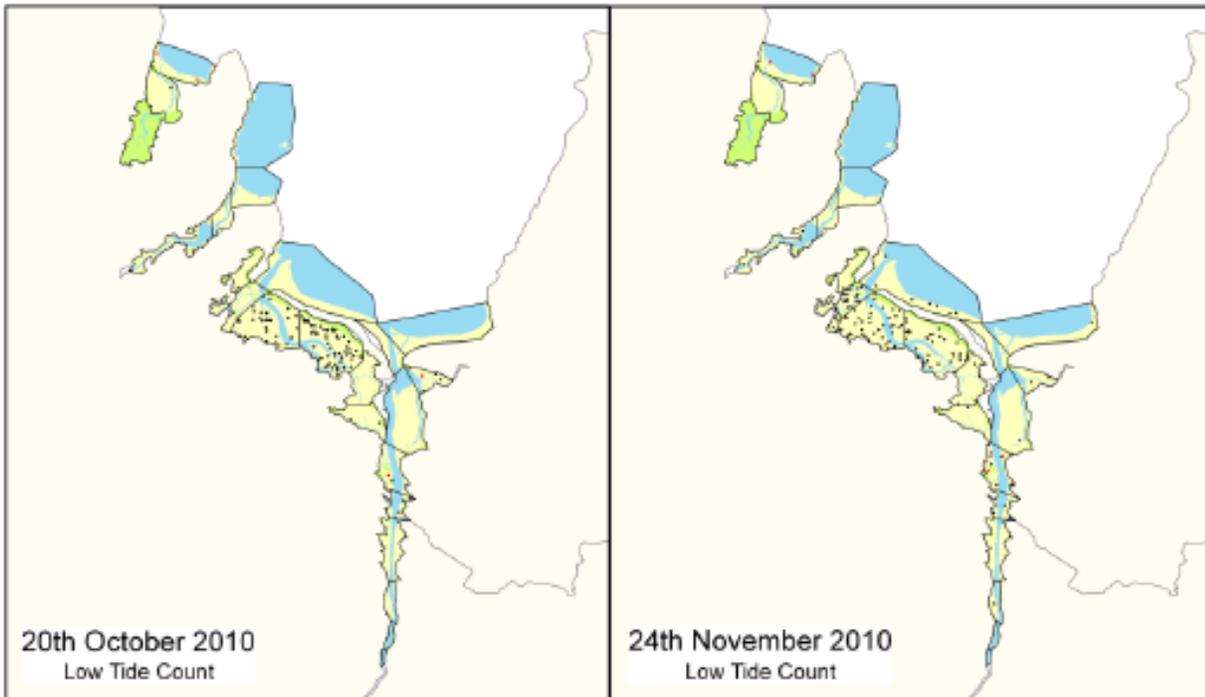
- Subtidal
- Intertidal
- Supratidal

- Sanderling Foraging
- Sanderling Roosting/Other

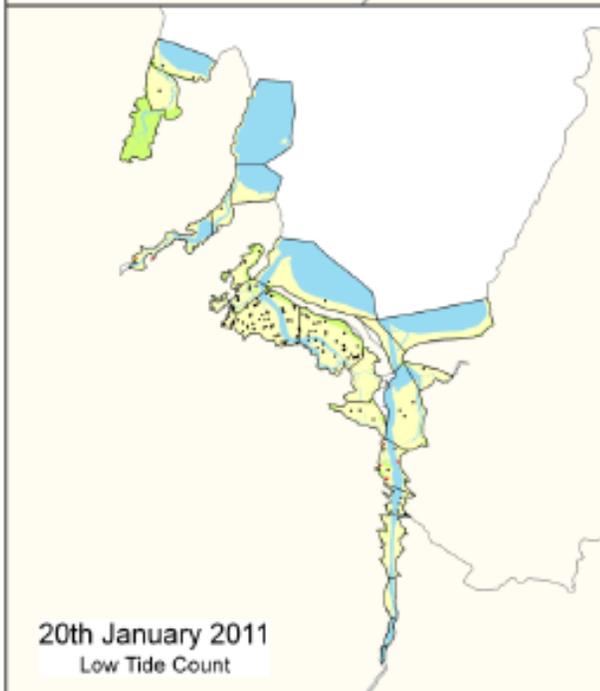
1 dot = 2 birds

0    2.5    5 km





24th November 2010  
Low Tide Count



16th February 2012  
Low Tide Count

**Legend**

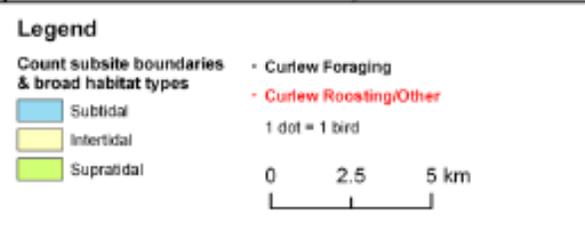
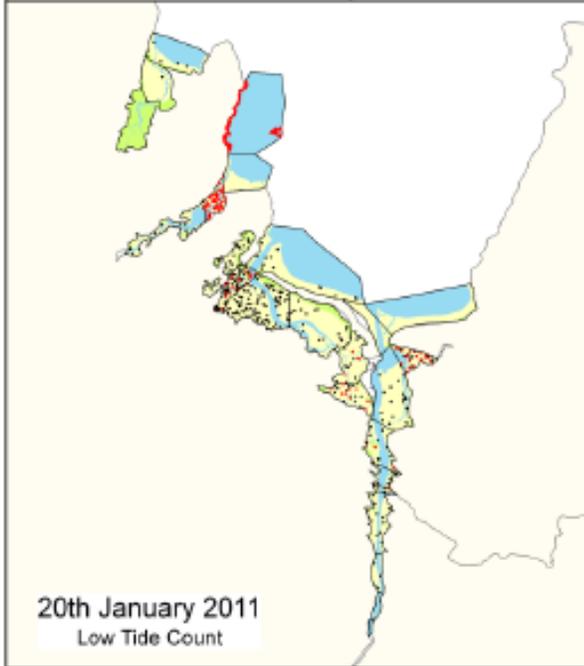
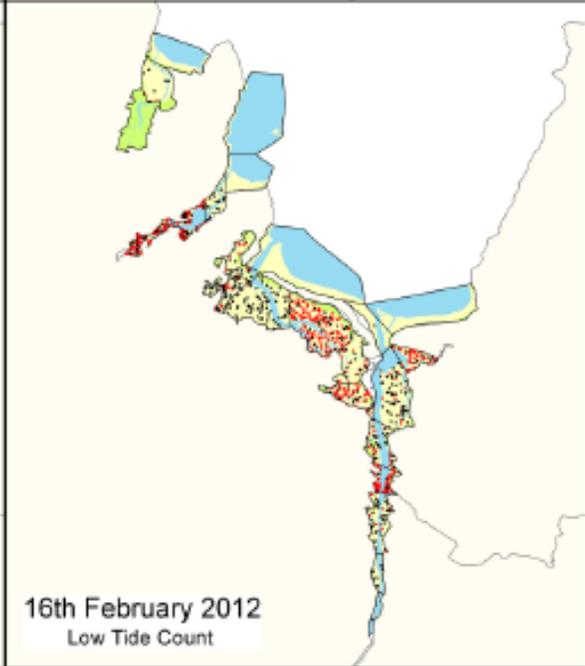
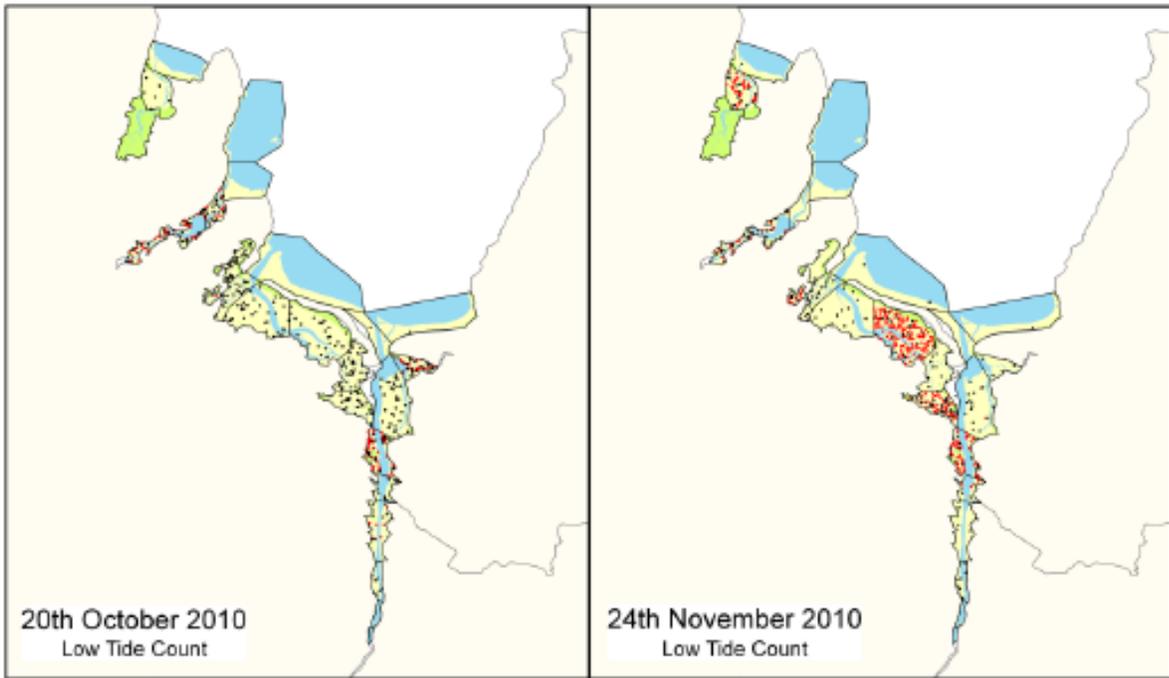
**Count subsite boundaries & broad habitat types**

- Subtidal
- Intertidal
- Supratidal

- Bar-tailed Godwit Foraging
- Bar-tailed Godwit Roosting/Other

1 dot = 2 birds

0 2.5 5 km



**Legend**

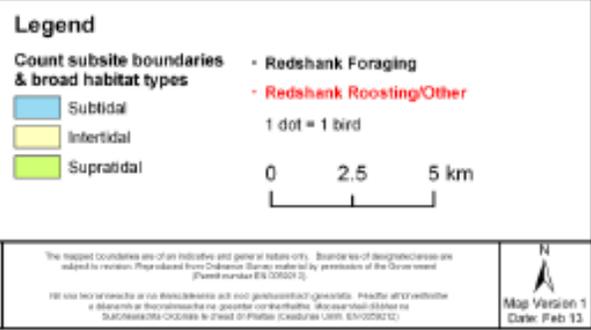
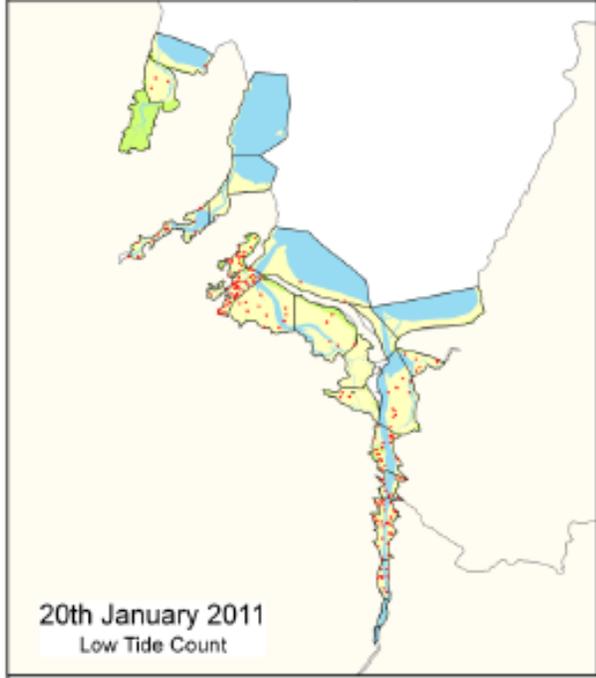
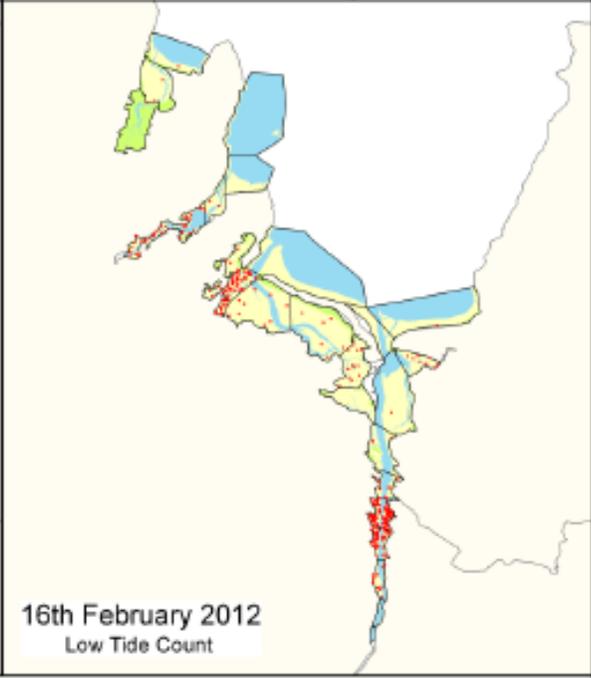
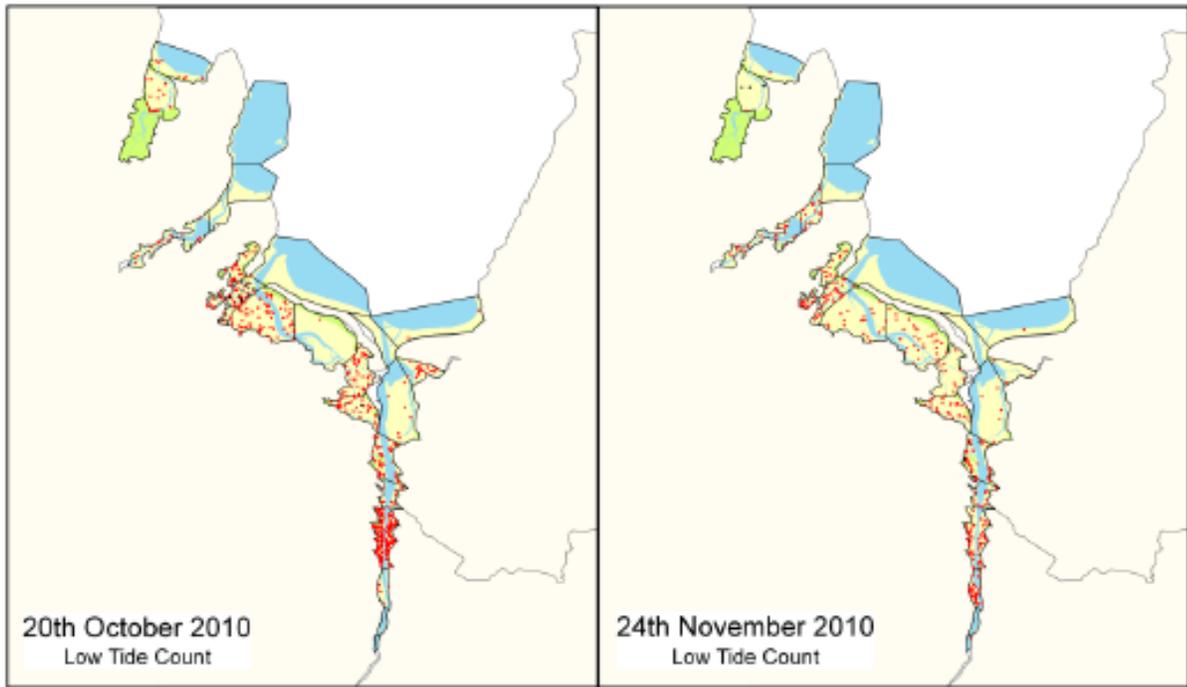
Count subsite boundaries & broad habitat types

- Subtidal
- Intertidal
- Supratidal

- Curlew Foraging
- Curlew Roosting/Other

1 dot = 1 bird

0    2.5    5 km



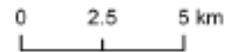
**Legend**

**Count subsite boundaries & broad habitat types**

- Subtidal
- Intertidal
- Supratidal

- Redshank Foraging
- Redshank Roosting/Other

1 dot = 1 bird



Disturbance is the key negative impact on the annexed avian species within the SPA boundary with the potential for WWTS discharges to also indirectly negatively impact on their populations by affecting prey species density and populations. NPWS has recorded the most important activities that result in disturbance and these are displayed on in the table below.

### Disturbance Assessment Summary Table

Number of activities recorded during field surveys (2011/12 waterbird survey programme) observed to cause disturbance to waterbirds. The calculated peak disturbance score is shown. Scores 0 – 3 = Low Scores 4 – 6 = Moderate Scores 7 – 9 = High. Grey shading = no activity recorded

Subsite Code	Subsite Name	Number Activities	Peak Disturbance Score	Activity Responsible
0C455	Inishcrone Beach (low-tide)	2	7	• Walking (incl. with dogs)
0C456	Barrow	2	6/7	• Horse Riding
0C457	Scurmore	-	-	
0C481	Bartragh Island East	1	7	• Walking (incl. with dogs)
0D424	Croghan Bay	-	-	
0D425	Ross Bay (Killala)	-	-	
0D441	Killogeary	-	-	
0D442	Ballysakeery	-	-	
0D443	Bartragh Island northwest	-	-	
0D444	Rathfran Friary	-	-	
0D445	Steelaun	-	-	
0D446	Lackan Bay inner	2	7	• Walking (incl. with dogs)
0D447	Lackan Bay outer	1	6	• Walking (incl. with dogs)
0D448	Quignaleka	1	5	• Walking (incl. with dogs)
0D449	Belleek	1	6	• Walking (incl. with dogs)
0D450	Garrankeel - Rathmoy	-	-	
0D451	Carrowkelly	1	7	• Walking (incl. with dogs)
0D452	Castleconnor	-	-	
0D453	Inishdugh	-	-	
0D454	Killala - Rinnaun Point	-	-	
0D455	Kilroe	2	5	• Intertidal aquaculture
0D457	Bartragh Is. South	1	6	• Intertidal aquaculture
0D458	Bullockpark	1	3	• Hand gathering of molluscs
0D486	Rathfran Bay	-	-	
0D487	Ballinlena	-	-	

From this table it can be seen that at the 73.24Ha sub site OD454 no disturbance activities are recorded however this is most likely a result of the lack of easy access to the mud flats. The proposed project would not increase or introduce those disturbance activities that have been identified by NPWS as being significant. The other Avian species also referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC but not listed as features of interest are also predominantly wintering populations but not breeding at this location.

With exception to *Hirundo rustica*, *Corvus corone corone* and *Erithacus rubecula* no direct observations of any other avian species were made on site. This would not be uncharacteristic given the small exposed urban nature of the proposed development site. The existing urban land use does not lend it to use by ground nesting avian species and the urban location dictates that it would not be frequented by overwintering species.

### **1.3.5 Amphibians.**

No Amphibian species were noted which would be anticipated given the urban setting.

### **1.3.6 Invertebrates.**

No invertebrate species of note were recorded on the site which would be anticipated given the urban setting.

Paul Neary B.Sc., M.Sc.

**\*\*PL321 (code 00805)**

**\*\*** These codes indicate that Paul Neary is an approved environmentalist by NPWS / Duchas / Dept. of Agriculture for the carrying out of ecological assessments on NHA's, SAC's, SPA's, pNHA's and National Parks and the creation of management plans and frame work plans on the afore mentioned.

# HABITAT MAP



**Dry Siliceous Heath (HH1)**



**Dense Bracken (HD1)**



**Amenity Grassland (GA2)**



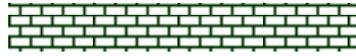
**Drainage Ditch (FW4)**



**Hedgerow (WL1)**



**Buildings and other artificial surfaces (BL3)**







## **APPENDIX 3**

**SITE NAME: KILLALA BAY / MOY ESTUARY SPA (7<sup>th</sup> July 2014)**

**SITE CODE: 004036**

This large site comprises the estuary of the River Moy and the inner part of Killala Bay, Cos Mayo and Sligo. It is a funnel-shaped estuary, c. 7 km wide at its outer limit. It is very well sheltered by a sandy island, Bartragh Island, that extends across much of the outer part, and by a sandy peninsula that extends from Enniscrone on the eastern side. Extensive intertidal sand and mud flats are exposed at low tide. For the most part, these flats are unvegetated, but mats of Eelgrass (*Zostera* spp.), Beaked Tasselweed (*Ruppia maritima*) and green algae (*Enteromorpha* spp.) occur, which provide important feeding material for waterfowl species. Opposite-leaved Pondweed (*Groenlandia densa*), a species protected under the Flora (Protection) Order, 1999, has been recorded in the River Moy estuary. Salt marshes are present in sheltered parts of the site and supports a variety of plant species including Sea Plantain (*Plantago maritima*), Common Saltmarsh-grass (*Puccinellia maritima*), Thrift (*Armeria maritima*), Sea Aster (*Aster tripolium*) and Red Fescue (*Festuca rubra*). On the lower marshes, and extending out onto the most sheltered parts of the open mud flats, typical pioneering species such as Glasswort (*Salicornia* spp.) and Seablite (*Suaeda maritima*) occur. The site is very important for wintering waterfowl and supports an excellent diversity of species. It provides excellent feeding grounds for the birds, as well as high-tide roosts. Six species have populations of national importance: Ringed Plover (185), Grey Plover (183), Knot (329), Sanderling (118), Dunlin (1,741) and Bar-tailed Godwit (335) (figures given are average peaks for the 5 winters 1995/96-1999/00). A range of other species have populations of regional or local importance, including Red-throated Diver (11), Brent Goose (157), Shelduck (63), Wigeon (234), Teal (173), Red-breasted Merganser (33), Oystercatcher (450), Golden Plover (1,396), Lapwing (1,386), Curlew (561), Redshank (300) and Greenshank (15). The site is also used by Mallard (58), Turnstone (32), Grey Heron (11) and Cormorant (22). At times, the numbers of Brent Geese exceed the threshold for International Importance (>200). Substantial numbers of gulls are present in the site during winter, including Black headed Gull (283), Common Gull (260), Herring Gull (292) and Great Blackbacked Gull (101).

There are no serious imminent threats to the wintering birds. There may be some disturbance from walkers, free-running dogs and sailing activities. While pollutants enter the system from the nearby towns, these do not appear to be adversely affecting the wintering birds.

This is one of the most important coastal sites in the region for wintering waterfowl. It supports six species that have populations of national importance, including a very substantial population of Grey Plover (2.4% of national total). The presence of Redthroated Diver, Golden Plover and Bar-tailed Godwit is of particular note as these species are listed on Annex I of the E.U. Birds Directive. The wintering birds are monitored annually as part of the I-WeBS scheme.

**SITE NAME: KILLALA BAY/MOY ESTUARY SAC (10<sup>th</sup> Dec 2015)**

**SITE CODE: 000458**

North of Ballina town, the River Moy flows to the sea via a long, narrow estuarine channel. After approximately 8 km, the estuary widens to form a north-facing triangular bay, with the towns of Inishcrone (Co. Sligo) and Killala (Co. Mayo) situated on the eastern and western shores, respectively. The estuary itself forms the county boundary along its northern part. A long sandy island (Bartragh Island) separates the south-western side of the bay from the open water. Much of the inner part of the bay is intertidal. The northern part shelves to approximately -10 m. Extensive sandflats and mudflats are exposed in the estuary and bay at low tide. For the most part, these flats are unvegetated, but mats of Eelgrass (*Zostera* spp.), Beaked Tasselweed (*Ruppia maritima*) and green algae (*Enteromorpha* spp.) occur which provide important feeding material for birds. The estuary is generally in a natural state and is considered to be one of the best examples of a largely unpolluted system in Ireland. The dune systems at Bartragh Island, Inishcrone and Ross, to the north-west, are well developed and constitute good examples of dunes with a rich and diverse flora. Shifting dunes dominated by Marram (*Ammophila arenaria*) are located at all

three sub-sites. At Enniscrone they stretch the length of the strand and are particularly well developed towards the western end. They are found along the northern stretch of Ross and also run the length of Bartragh Island. Other species found growing in this habitat include Cat's-ear (*Hypochoeris radicata*), Sow Thistle (*Sonchus oleraceus*) and Groundsel (*Senecio vulgaris*). Associated with the marram dunes are embryonic foredunes and these are particularly well represented at Enniscrone. The most commonly encountered species in the foredunes include Couch Grass (*Elymus farctus*), Sea Sandwort (*Honkenya peploides*), Sea Rocket (*Cakile maritima*) and Lyme Grass (*Leymus arenarius*). Although much of the fixed dune area has been developed as golf course or improved for agriculture, the site still contains a relatively large area of intact fixed dunes, a priority habitat listed on Annex I of the EU Habitats Directive. Species recorded include Red Fescue (*Festuca rubra*), Lady's Bedstraw (*Galium verum*), Kidney Vetch (*Anthyllis vulneraria*), Common Centaury (*Centaureum erythraea*), Sand Sedge (*Carex arenaria*), Harebell (*Campanula rotundifolia*), Wild Thyme (*Thymus praecox*), Fairy Flax (*Linum catharticum*), Common Bird's-foot-trefoil (*Lotus corniculatus*) and Pyramidal Orchid (*Anacamptis pyramidalis*). Bryophyte communities are well represented, with such species as *Brachythecium rutabulum*, *Homalothecium lutescens* and *Tortula ruraliformis*. Lichens (*Peltigera* spp.) are also frequent. Humid dune slacks occur at Ross. Species present include Jointed Rush (*Juncus articulatus*), Common Spike Rush (*Eleocharis palustris*), Water Mint (*Mentha aquatica*), Meadowsweet (*Filipendula ulmaria*), Creeping Willow (*Salix repens*), Silverweed (*Potentilla anserina*), Marsh Orchids (*Dactylorhiza* spp.), Common Twayblade (*Listera ovata*) and the moss *Calliergon cuspidatum*. A similar species complement is found in the wet hollows at Enniscrone and there also appears to be some large slack-like areas to the rear of Bartragh Island. Salt marshes are present in sheltered parts of the site, some of which occur in association with the dune systems. Species typical of Atlantic salt meadows commonly observed include Sea Plantain (*Puccinellia maritima*), Thrift (*Armeria maritima*), Sea Aster (*Aster tripolium*) and Red Fescue (*Festuca rubra*). Occasionally Lax-flowered Sea-lavender (*Limonium humile*) and Saltmarsh Flat-sedge (*Blysmus rufus*) are present, along with some stands of Sea Rush (*Juncus maritimus*). On the lower marshes, and extending out onto the most sheltered parts of the open mud flats, typical pioneering species such as Glasswort (*Salicornia* spp.) and Seablite (*Suaeda maritima*) occur. Elsewhere along the coastline are sandy beaches, shingle beaches and some bedrock shores which are occasionally backed by clay sea-cliffs. Southeast of Killala town, Lough Meelick adds habitat diversity to the site. It is significant for the presence of the Thin-lipped Mullet, a fish which is only occasionally found in the region. A number of rare plants have been found in the site. The Opposite-leaved Pondweed (*Groenlandia densa*), a species protected under the Flora (Protection) Order, 1999, has been recorded in the Moy Estuary and Hoary Whitlowgrass (*Draba incana*), a Red Data Book species has been recorded from sand dunes along the coast east of Killala town. The rare snail *Vertigo angustior* has been known at this site for over 100 years. It occurs in an area of wet marsh and this site represents one of the few remaining examples of *Vertigo angustior* in its marsh "phase". This species is listed on Annex II of the EU Habitats Directive as it is considered vulnerable in Europe and has been declining throughout much of its range due to loss of habitat, in particular, drainage of wetlands.

The site is very important for wintering waterfowl, with eight species having populations of national importance. These are as follows, with numbers referring to the average peaks over winters 1994/95 - 1997/98: Red-breasted Merganser (38), Ringed Plover (207), Grey Plover (200), Knot (429), Sanderling (135), Dunlin (1816), Bar-tailed Godwit (309) and Greenshank (19). Other notable populations include Golden Plover (1303) and Brent Goose (166). At times Brent Geese occur in numbers of International Importance (>200). The presence of Golden Plover and Bar-tailed Godwit is of particular note as these species are listed on Annex I of the EU Birds Directive.

This composite site has an excellent range of good quality coastal habitats, including a number listed on Annex I of the EU Habitats Directive. In particular, the dune complex at Bartragh Island is relatively undisturbed and is considered to be one of the best in the country in terms of its naturalness and intact state. The presence of the Annex II snail, *Vertigo angustior*, and the importance of the area for wintering waterfowl, including two Annex I Birds Directive species, add further significance to this area. The site is extremely scenic and is a significant regional amenity area for its beaches and for fishing.

## **APPENDIX 4**

### THIRD SCHEDULE

#### Non-native species subject to restrictions under *Regulations 49 and 50*

##### Part 1: PLANTS

First column	Second column	Third column
Common name	Scientific name	Geographical application
American skunk-cabbage	<i>Lysichiton tneeticunus</i>	Throughout the State
A red alga	<i>Gratdoupia doryphora</i>	Throughout the State
Brazilian giant-rhubarb	<i>Gunnera manicata</i>	Throughout the State
Broad-leaved rush	<i>Juncus planifolius</i>	Throughout the State
Cape pondweed	<i>Aponogeton distachyos</i>	Throughout the State
Cord-grasses	<i>Spartina</i> (all species and hybrids)	Throughout the State
Curly waterweed	<i>Lagarosiphon major</i>	Throughout the State
Dwarf eel-grass	<i>Zostera japonia</i>	Throughout the State
Fanwort	<i>Cabomba caroliniana</i>	Throughout the State
Floating pennywort	<i>Hydrocotyle ratmnculoides</i>	Throughout the State
Fringed water-lily	<i>Nymphoides peltata</i>	Throughout the State
Giant hogweed	<i>Heracleum mantegazzianum</i>	Throughout the State
Giant knotweed	<i>Fallopia sachalinensis</i>	Throughout the State
Giant-rhubarb	<i>Gunnera tinctoria</i>	Throughout the State
Giant salvinia	<i>Salvinia molesta</i>	Throughout the State
Himalayan balsam	<i>Impatiens glanduUfera</i>	Throughout the State
Himalayan knotweed	<i>Persicaria wallichii</i>	Throughout the State
Hottentot -fig	<i>Carpobrotus edulis</i>	Throughout the State
Japanese knotweed	<i>Pallopa japonica</i>	Throughout the State
Large-flowered waterweed	<i>Egeria densa</i>	Throughout the State
Mile-a-minute weed	<i>Persicaria perfoliata</i>	Throughout the State
New Zealand pigmyweed	<i>Crassula helmsii</i>	Throughout the State
Parrot's feather	<i>Myriophyllum uquaticum</i>	Throughout the State
Rhododendron	<i>Rhododendron ponlicum</i>	Throughout the State
Salmonberry	<i>Rubus spectabilis</i>	Throughout the State
Sea-buckthorn	<i>Hippophae rhamnoides</i>	Throughout the State
Spanish bluebell	<i>flyacinthoides hispanica</i>	Throughout the State
Three-cornered leek	<i>Alliwn triquetrum</i>	Throughout the State
Wakame	<i>Unduria pimatifida</i>	Throughout the State
Water chestnut	<i>Trupa nrtans</i>	Throughout the State
Water fern	<i>Azolla filiculoides</i>	Throughout the State
Water lettuce	<i>Pistia stratiotes</i>	Throughout the State
Water-primrose	<i>Ludwigia</i> (all species)	Throughout the State
Waterweeds	<i>Elodea</i> (all species)	Throughout the State
Wire weed	<i>Sargassum muticum</i>	Throughout the State

## Part 2: ANIMALS

A: animals to which Regulations 49 and 50 apply throughout the State or in particular places or categories of places.

First column	Second column	Third Column
Common name	Scientific name	Geographical application
A colonial sea squirt	<i>DJdemnum spp.</i>	Throughout the State
A colonial sea squirt	<i>Perophora japonica</i>	Throughout the State
All freshwater crayfish species except the white-clawed crayfish	<i>All freshwater crayfish species except Austropotamobius pallipes</i>	Throughout the State
American bullfrog	<i>Ranu catesbeiana</i>	Throughout the State
American mink	<i>Neovison vison</i>	Throughout the State
American oyster drill	<i>Urosalpinx dnerea</i>	Throughout the State
Asian oyster drill	<i>Ceratoslonia inornalum</i>	Throughout the State
Asian rapa whelk	<i>Rapana venosa</i>	Throughout the State
Asian river clam	<i>Corbiculu flunrinea</i>	Throughout the State
Bay barnacle	<i>B alarms improvisus</i>	Throughout the State
Black rat	<i>Rattus reams</i>	Offshore islands oniy
Brown hare	<i>Lepus europaeus</i>	Throughout the State
Brown rat	<i>Rattits norvegicus</i>	Offshore islands oniy
Canada goose	<i>Branta canadensis</i>	Throughout the State
Carp	<i>Cyprinus carpio</i>	Throughout the State
Chinese mitten crab	<i>Eriocheir sinensis</i>	Throughout the State
Chinese water deer	<i>Hydropotes inermis</i>	Throughout the State
Chub	<i>Leuciscus cephalus</i>	Throughout the State
Common toad	<i>Bufo bufo</i>	Throughout the State
Coypu	<i>Myocastor coy pus</i>	Throughout the State
Dace	<i>Leuciscus leuciscus</i>	Throughout the State
Freshwater shrimp	<i>Dikero gamin arus villosus</i>	Throughout the State
Fox	<i>Vulpes vulpes</i>	Offshore islands only
Grey squirrel	<i>Sciurus cnrolinensis</i>	Throughout the State
Greylag goose	<i>Anser anser</i>	Throughout the State
Harlequin Ladybird	<i>Harmonia axyridis</i>	Throughout the State
Hedgehog	<i>Erinaceus eiiropaeus</i>	Offshore islands only
Irish stoat	<i>Musteta erminea hibemiais</i>	Offshore islands only
Japanese skeleton shrimp	<i>Caprella mutica</i>	Throughout the State
Muntjac deer	<i>Muntiacus reevesi</i>	Throughout the State
Muskkrat	<i>Ondatra zibethicus</i>	Throughout the State
Quagga Mussel	<i>Dreissena rostrifonnis</i>	Throughout the State
Roach	<i>Rutilus rutilus</i>	Throughout the State
Roe deer	<i>Capreolus capreolus</i>	Throughout the Stale
Ruddy duck	<i>Oxyuru jamaicensis</i>	Throughout the State

First column	Second column	Third Column
Siberian chipmunk	<i>Tamias sibiricus</i>	Throughout the State
Slipper limpet	<i>Crepidula fornicata</i>	Throughout the State
Stalked sea squirt	<i>Styela clava</i>	Throughout the State
Tawny owl	<i>Strix aluco</i>	Throughout the State
Wild boar	<i>Sus scrofa</i>	Throughout the State
Zebra mussel	<i>Dreissena polymorpha</i>	Throughout the State

B: animals to which specified provisions of Regulations 49 and 50 apply.

First column	Second column	Third Column
Common name	Scientific name	Geographical application
Fallow deer	<i>Dama dama</i>	Throughout the State
Sika deer	<i>Cervus nippon</i>	Throughout the State

### Part 3: VECTOR MATERIALS

First column	Second column	Third Column
Vector material	Species referred to	Geographical application
Blue mussel ( <i>Mytilus edulis</i> ) seed for aquaculture taken from places (including places outside the State) where there are established populations of the slipper limpet ( <i>Crepidula fornicata</i> ) or from places within 50 km. of such places	Mussel ( <i>Mytilus edulis</i> ) Slipper limpet ( <i>Crepidula fornicata</i> )	Throughout the State
Soil or spoil taken from places infested with Japanese knotweed ( <i>Fallopia japonica</i> ), giant knotweed ( <i>Fallopia sachalinensis</i> ) or their hybrid Bohemian knotweed ( <i>Fallopia x bohémica</i> )	Japanese knotweed ( <i>Fallopia japonica</i> ) Giant knotweed ( <i>Fallopia sachalinensis</i> ) Bohemian knotweed ( <i>Fallopia x bohémica</i> )	Throughout the State

## **APPENDIX 5**

# WFD Cycle 2

Catchment Moy & Killala Bay

Subcatchment Abbeytown\_SC\_010

Code 34\_19



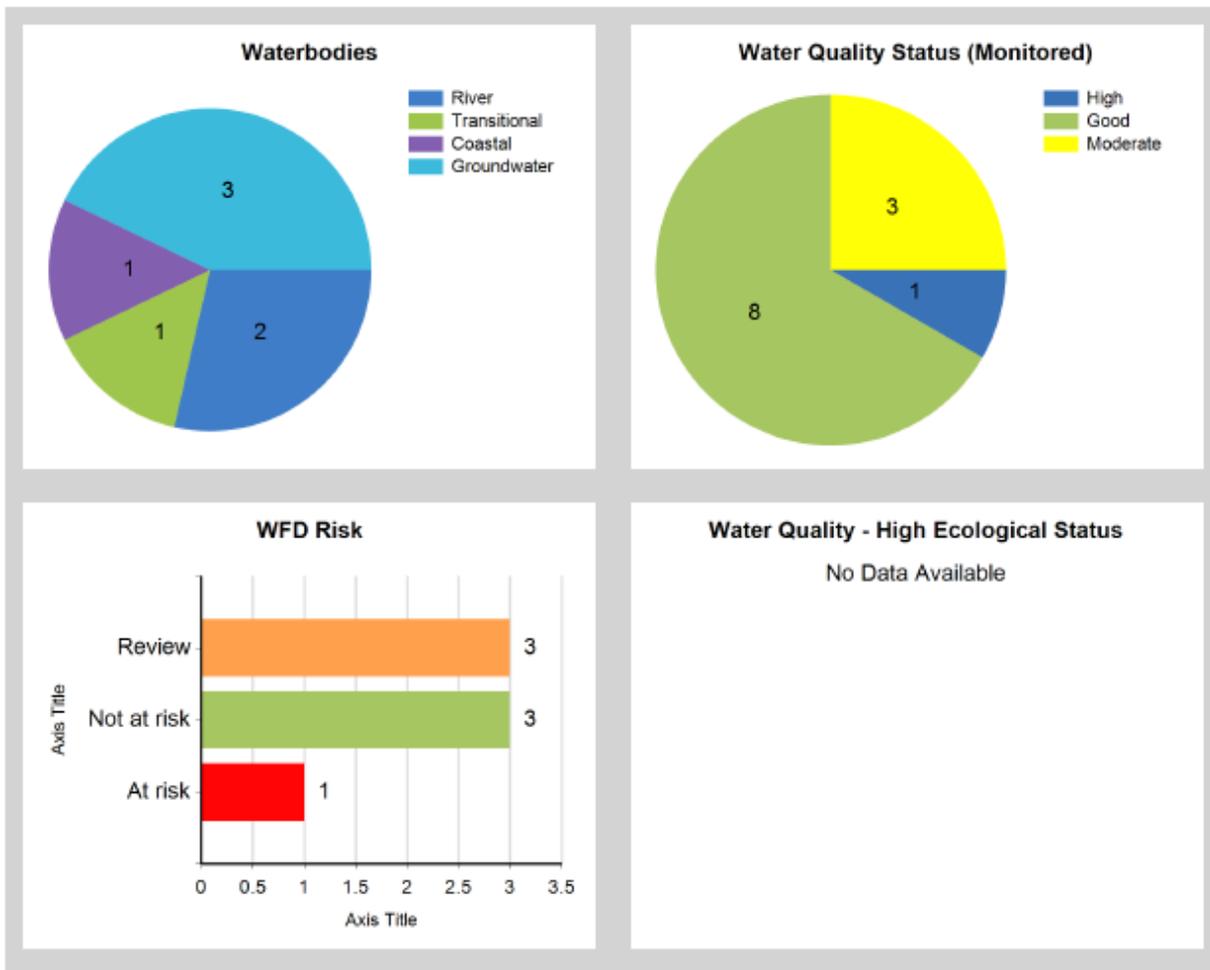
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Generated on: 15 Jan 2019

## Assessment Purpose

This assessment has been produced as part of the national characterisation programme undertaken for the second cycle of Water Framework Directive river basin management planning. It has been led by the EPA, with input from Local Authorities and other public bodies, and with support from RPS consultants.

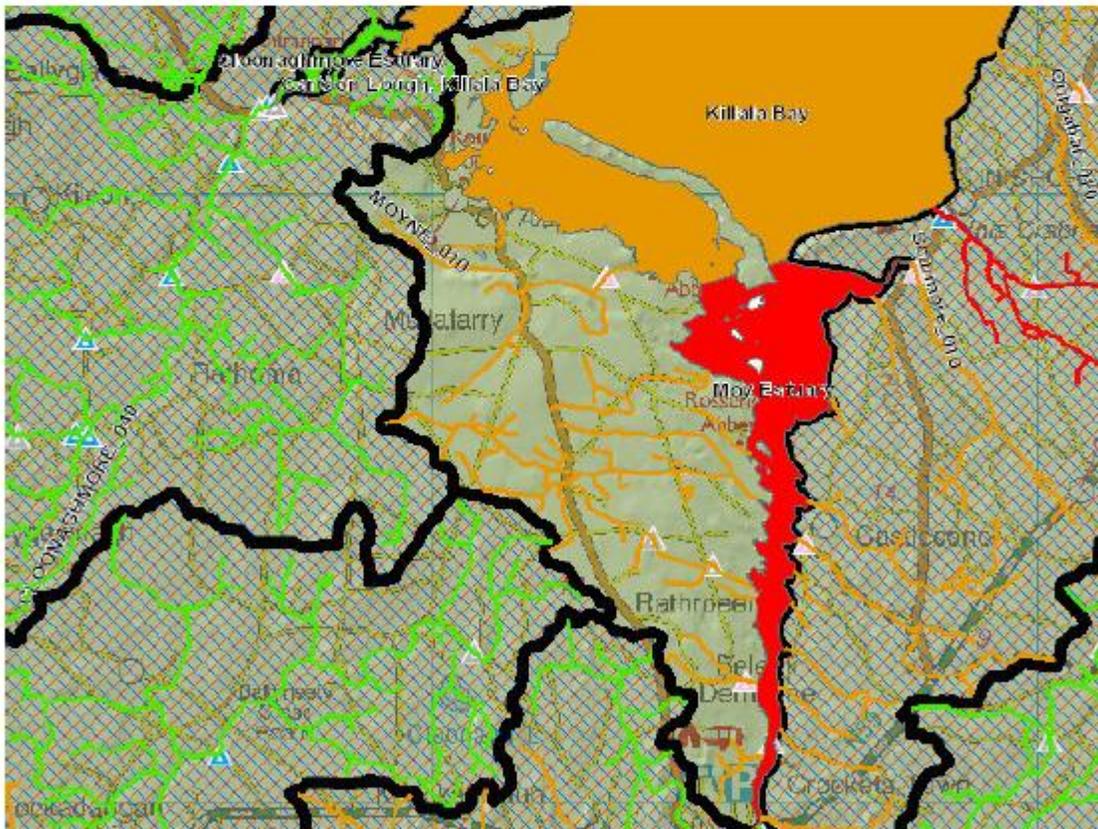
The characterisation assessments are automatically generated from the information stored in the WFD Application. They are based on information available to the end of 2015 but may be subject to change until the final 2018-21 river basin management plan is published. Users should ensure that they have the most up to date information by downloading the latest assessment before use.



## Evaluation of Priority Subcatchment Issues

Both River water bodies in this subcatchment are unassigned, therefore, both will be placed at Review, pending the outcome of local catchment assessments to determine the risk.

## Map Subcatchment Risk Map

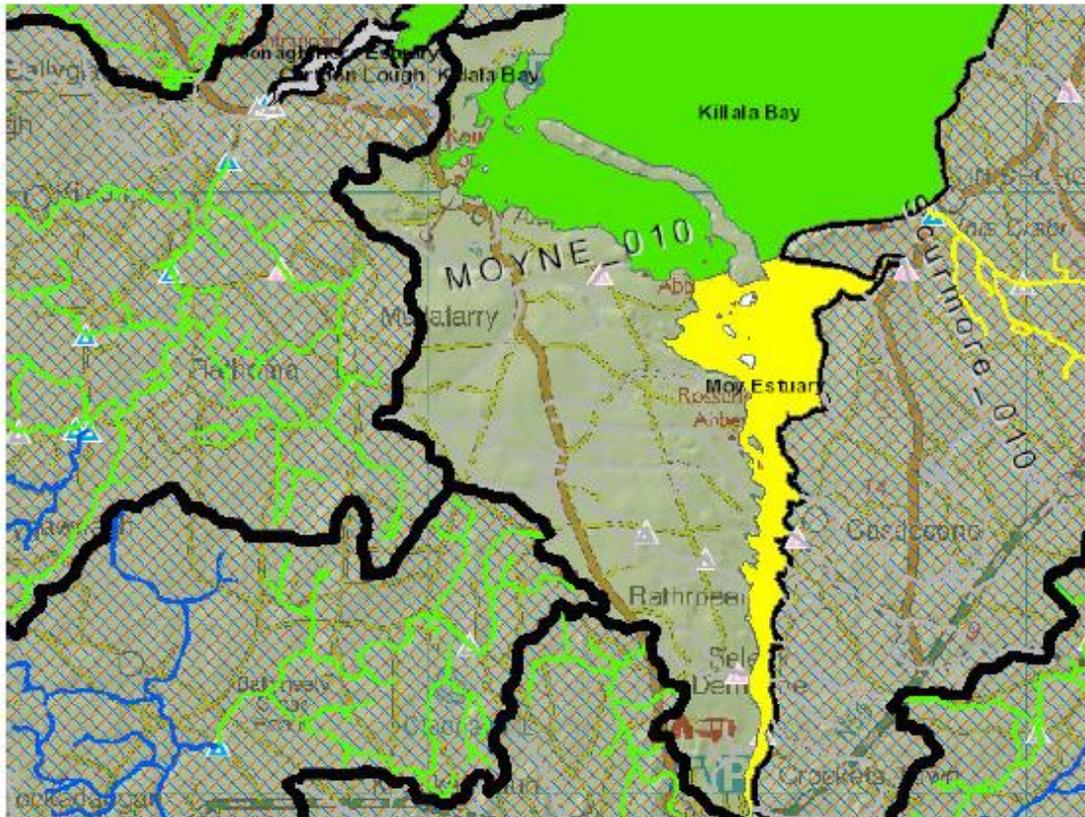


## River And Lake Waterbodies: WFD Risk

The following river and lake waterbodies are in the subcatchment.

Code	Name	Type	WFD Risk	Significant Pressure
IE_WE_34M190890	MOYNE_010	River	Review	No
IE_WE_34R010200	RATHROEEN STREAM_010	River	Review	Yes

## Map Subcatchment Water Quality Status Map



## River And Lake Waterbodies: Water Quality Status

The water quality status of river and lake waterbodies in the subcatchment is as follows.

Code	Name	Type	2007-09	2010-12	2010-15
IE_WE_34M190890	MOYNE_010	River	Unassigned	Unassigned	Unassigned
IE_WE_34R010200	RATHROEEN STREAM_010	River	Unassigned	Unassigned	Unassigned

## Potentially Dependent Transitional and Coastal Waterbodies

The Transitional and Coastal waterbodies listed below intersect spatially with river and lake waterbodies in the subcatchment ...

Code	Name	Type	Local Authority	WFD Risk
IE_WE_420_0000	Killala Bay	Coastal	Mayo County Council	Review
IE_WE_420_0300	Moy Estuary	Transitional	Mayo County Council	At risk

## Potentially Dependent Groundwater Waterbodies

The groundwaters listed below intersect spatially with river and lake waterbodies in the subcatchment ...

Code	Name	Type	Local Authority	WFD Risk
IE_WE_G_0035	Ballina	Groundwater	Mayo County Council	Not at risk
IE_WE_G_0041	Bellacorick-Killala	Groundwater	Mayo County Council	Not at risk
IE_WE_G_0047	Killala South	Groundwater	Mayo County Council	Not at risk

## Protected Areas intersecting River and Lake Waterbodies

The Protected Areas listed below intersect spatially with river and lake waterbodies in the subcatchment ...

Code	Name	Type	Waterbody Name	Association Type
IE0000458	Killala Bay/Moy Estuary SAC	SAC	MOYNE_010	Overlapping / partly within Protected Area
IE0000458	Killala Bay/Moy Estuary SAC	SAC	RATHROEEN STREAM_010	Overlapping / partly within Protected Area
IE0004038	Killala Bay/Moy Estuary SPA	SPA	RATHROEEN STREAM_010	Overlapping / partly within Protected Area
IE0004038	Killala Bay/Moy Estuary SPA	SPA	MOYNE_010	Overlapping / partly within Protected Area

## Pressures

Below is a list of all significant pressures identified in the subcatchment.

Code	Name	WFD Risk	Pressure Category	Pressure Sub Category
IE_WE_420_0300	Moy Estuary	At risk	Agriculture	Pasture
IE_WE_420_0300	Moy Estuary	At risk	Urban Waste Water	Agglomeration PE > 10,000
IE_WE_420_0300	Moy Estuary	At risk	Domestic Waste Water	Waste Water discharge
IE_WE_420_0300	Moy Estuary	At risk	Urban Waste Water	Agglomeration PE of 1,001 to 2,000
IE_WE_34R010200	RATHROEEN STREAM_010	Review	Industry	Section 4
IE_WE_420_0000	Killala Bay	Review	Anthropogenic Pressures	Unknown

## Further Characterisation Actions

The following further characterisation actions have been identified. These are necessary to help understand more fully issues in the subcatchment and their likely cause.

Code	Name	Action	Responsible Organisation
IE_WE_34M190890	MOYNE_010	IA3 Determination of Water Quality (unassigned waterbody)	Mayo County Council
IE_WE_34R010200	RATHROEEN STREAM_010	IA3 Determination of Water Quality (unassigned waterbody)	Mayo County Council

## SW 2013-2018

▼ Ecological Status or Potential	Good	
▼ Biological Status or Potential	Good	
Phytoplankton Status or Potential	Good	
Other Aquatic Flora Status or Potential	Good	
Macroalgae Status or Potential	High	
Angiosperm Status or Potential	Good	
Invertebrate Status or Potential	Good	
Hydromorphological Conditions	High	
Supporting Chemistry Conditions	High	
General Conditions	High	
Nutrient Conditions	High	
Other determinand for nutrient conditions	High	
Phosphorous Conditions	High	
Orthophosphate	High	

## **APPENDIX 6**

**The Detailed Conservation Objectives and Supporting Documents are available for reference on the NPWS Web site.**

**The Conservation Objectives used in the generation of this report are as follows**

**Killala Bay / Moy Estuary SAC 000458 Version 1: 31/10/2012**

**Killala Bay / Moy Estuary SPA 004036 28<sup>th</sup> May 2013**