

Habitats Directive
Screening for Appropriate Assessment Report

Ecological Assessment of
Likely Significant Impacts of a Proposed Development at
Tullowphelim, Tullow, Co. Carlow,
on Conservation Objectives of
Natura 2000 Sites

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1.0 INTRODUCTION

1.1 Legislative Background

The primary purpose of this report is to provide relevant material to inform a decision by the public authority, as required under Article 6.3 of the EU Habitats Directive, as to whether the proposed works is likely to have any significant impacts of on the Conservation Objectives of a Natura 2000 site.

Section 42 (1) of S.I. No. 477 of 2011, the European Communities (Birds and Natural Habitats) Regulations 2011 states: *“A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.”*

Where the screening process cannot exclude the possibility that a plan or project, individually or in combination with other plans or projects, could have a significant effect on a European site, there is a requirement under Article 42 (9) of these Regulations for the preparation of a Natura Impact Statement to inform the Appropriate Assessment process.

1.2 Site Location

The site of a proposed cycle track/footpath is located in the townland of Tullowphelim to the east of the River Slaney, in Tullow, Co. Carlow. (Location Map, Appendix 2).

1.3 Potentially Affected Natura 2000 Sites

Natura 2000 sites in the vicinity of the proposed development and with a direct physical connection to this development were checked for on the mapping system of the NPWS website <http://webgis.npws.ie/npwsviewer/>. Natura 2000 sites within 15km of the subject site are shown in Appendix 3.

No part of the site of the proposed development is within any Natura 2000 site. At its nearest point, the track is approximately 280m from the Slaney River Valley Special Area of Conservation (SAC 000781) (Appendix 4). No other Natura 2000 site is within 15Km of the proposed works and there are no pathways (physical or hydrological connections which could act as a route for potential impacts) from the source site to any other Natura 2000 site.

1.4 Proposed Project

The proposed project, known as The Tullow Orbital Pedestrian & Cycle Scheme Phase 2, is the construction of a high-quality combined footpath & cycle track, 3.5m wide and 555m long, linking up a number of housing developments with local amenities in Tullow. It is part of Active Travel, a national program of investment in walking & cycling routes across the country, in partnership between the National Transport Authority (NTA) and the Local Authorities.

1.5 Relevance of Proposed Project to Management of the SAC Site

The proposed project is not relevant to the management of the Special Area of Conservation.

1.6 Ecological Consultancy Engaged

Pascal Sweeney was engaged to carry out this report. Qualifications and past experience are presented in Appendix 5.

1.7 Report Structure

In this report, the Department of the Environment, Heritage and Local Government guidance “*Appropriate Assessment of Plans and Projects in Ireland – guidance for Planning Authorities, 2009*” and the European Commission (2018) guidelines are followed.

The implications of all aspects of the proposed works are assessed, individually and in combination with any other relevant developments, plans or projects, in light of:

- the nature and quality of habitats within the site of the proposed works;
- information relating to the ecology of the Natura 2000 site;

- the status of Qualifying Interests of the Natura 2000 site and the relevant conservation status and objectives for these species and habitats;
- the key structural and functional relationships maintaining the integrity of the Natura 2000 site;
- the scale and nature of the aspects of the project in relation to the Natura 2000 site.

The aim of the report is to provide the public authorities with the relevant information necessary to inform the decision-making process, while ensuring that the requirements of the EU legislation quoted above are fully complied with.

2.0 PROPOSED WORKS

The project would be comprised of the following works elements:

Breaking through of an opening in an existing wall,

Construction of 162m of new 3.5m wide combined footpath & cycle track with macadam surface,

Construction of 140m of new 3.5m wide combined footpath & cycle track with concrete surface,

Upgrading of 154m of existing macadam footpath to provide a 3.5m wide combined footpath & cycle track,

Upgrading of 99m of existing concrete footpath to provide a 3.5m wide combined footpath & cycle track,

Construction of 511m of timber post & rail fencing,

Installation of public lighting and associated ducting,

Soft landscaping of approx. 650m² with grass, &

Installation of associated signage and road markings as necessary.

There are no existing watercourses or drains to be crossed and no new drains will be created. No materials associated with this project will be stored or disposed of within the Natura 2000 site.

3.0 SITE ASSESSMENT (FLORA, FAUNA AND HABITATS PROTECTED UNDER THE EU HABITATS DIRECTIVE)

3.1 Natura 2000 Site

The Site Synopsis for SAC 000781 (Version 11.12.2015) and the Conservation Objectives (Version 21.10.2011) for the site are available on <http://www.npws.ie/protected-sites/sac/000781>.

The designated area comprises the freshwater stretches of the Slaney and its tributaries from the Wicklow Mountains to estuarine waters, the estuary at Ferrycarrig and Wexford Harbour. Five habitats, listed in Annex I, and eight species listed in Annex II of the EU Habitats Directive are Qualifying Interests, which must be maintained in favourable conservation status. The Qualifying Interests are listed in Appendix 6.

3.2 Development Site and Potentially Affected External Habitats/Species

The area of potential impact is taken as being the site of the proposed development and the downstream aquatic habitat. While the aquatic zone of potentially highest impact is from the location of the proposed development to 5km downstream (Escauriaza, *et al.*, 2017), potential impacts on protected habitats and species in the entire downstream section of the river were also considered.

Field work was carried out on 22/03/2022. Previously written field notes and photographs from Sweeney Consultancy surveys of the River Slaney at and downstream of Tullow were also consulted.

3.2.1 Development Site Habitat Assessment Methods

A general assessment of the site was carried out in line with the Heritage Council draft Guidelines for Survey of Habitats (Draft 2, April 2005) and habitats were classified to level 3 of the Fossitt (2000) classification system. To illustrate the general habitat quality, photographs were taken using a digital camera. Grid references were recorded using a GPS handset. Site

evaluation is based on the guidelines of the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018). The duration of impacts follows EPA *Guidelines on the Information to be Contained in Environmental Impact Statements* (EPA, 2002).

3.2.2 Qualifying Interest Habitats Assessment Methods

The floating river vegetation habitat was assessed, based on the criteria outlined by Hatton-Ellis and Grieve (2003).

Native woodland habitat was assessed, based on the criteria outlined by Cross *et al.* (2010).

Available literature and data were checked to establish the location and status of other listed Qualifying Interest habitats. Ordinance Survey maps and aerial photographs were also reviewed.

3.2.3 SAC Qualifying Interest Species Assessment Methods

Available literature and data was first checked to establish the known distribution of species listed as Qualifying Interest of the Natura 2000 site.

The status of protected species possibly occurring in the watercourses adjacent to, or downstream of the site of the proposed development was assessed as follows:

- Available records on the distribution of the freshwater pearl mussel (*Margaritifera margaritifera*) in the River Slaney were checked.
- The habitat quality for salmon (*Salmo salar*) was assessed, based on the criteria outlined by Kennedy (1984) and by Bardonnnet and Baglinière (2000) for the physical instream requirements of this species for spawning, nursery and adult habitat.
- The habitat quality for the three species of lamprey, the brook lamprey (*Lampetra planeri*), river lamprey (*Lampetra fluviatilis*), sea lamprey (*Petromyzon marinus*) was assessed, based on the criteria outlined by Maitland (1980) and by Johns (2002) for the physical instream requirements of these species for spawning, nursery and adult habitat. Available records on the distribution of these species were also checked.
- The presence of the otter (*Lutra lutra*) was checked for by examination of hard bankside surfaces for the presence of spraints and bankside mud/sand for imprints. The habitat

quality for this species was assessed, based on the criteria outlined by Chanin (2003). Available records on the distribution of this species were also checked.

3.3 Results

3.3.1 Development Site Habitats

The route of the cycle track and footpath includes areas of amenity grassland (Habitat Code GA2) (Appendix 7, Photos 1 & 2), rough/rank grassland which does not fit into any of the Heritage Council Habitat Classification codes (Photos 3, 4 and 5), disturbed ground (Appendix 7, Photo 4) and hard surfaces (Habitat Code BL3) (Appendix 7, Photo 5).

Upstream of Tullow, the River Slaney is relatively deep and slow-flowing in parts, but is fast-flowing over a stony substratum near Tullow Bridge (Habitat Code FW1/FW2) (Appendix 7, Photo 6). The main instream plants in deeper parts are *Nuphar lutea*, *Potamogeton natans* and the non-native *Elodea canadensis*, while *Ranunculus spp.* and *Callitriche spp.* are more abundant in faster flows.

3.3.2 SAC 000781 Qualifying Interest Habitats

Floating River Vegetation (Habitat Code 3260).

The river contains some water crowfoot and starworts, which could be classified as the Annex I habitat type “*Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation*”.

Old Oak Woodlands (Habitat Code 91A0).

This terrestrial habitat is not present within or close to the site of the proposed development.

Alluvial Wet Woodlands (Habitat Code 91E0).

Alluvial wet woodland occurs along banks of the Slaney, particularly in the lower reaches and the tidal section, e.g. at Macmine marshes. It does not occur within the potential impact zone of the proposed works.

Estuary (Habitat Code 1130) and Tidal Mudflats & Sandflats (Habitat Code 1140).

These habitats are found in saline conditions in the Slaney Estuary. They do not occur within the potential impact zone of the proposed works.

3.3.4 SAC 000781 Qualifying Interest Species

Atlantic Salmon (*Salmo salar*) (Species Code 1106).

The Site Synopsis for The Slaney River Valley SAC states:

“The Slaney is primarily a spring salmon fishery and is regarded as one of the top rivers in Ireland for early spring fishing. The upper Slaney and tributary headwaters are very important for spawning.” The main channel of the River Slaney is a Salmonid Water, designated under the European Communities (Quality of Salmonid Waters) Regulations of 1988 (S.I. No. 293 of 1988). Good spawning and nursery habitat is found downstream of Tullow weir.

Sea Lamprey (*Petromyzon marinus*) (Species Code 1095).

King and Linnane (2004) recorded low numbers of juvenile sea lamprey in tributaries of the river Slaney, but none in any of the 35 sites examined in the main channel. However, they did note the presence of sea lamprey redds at sites downstream of Clohamon. The weir at Clohamon, downstream of Bunclody, is currently a serious impediment to upstream migration of sea lamprey (Donnachadh Byrne, IFI, *pers. comm.*). This weir is over 20km downstream of the nearest point of the river to the proposed works site.

Brook Lamprey (*Lampetra planeri*) (Species Code 1096) and River Lamprey (*Lampetra fluviatilis*) (Species Code 1099).

King and Linnane (2004) found juvenile brook/river lamprey all sites surveyed in the main channel of the River Slaney..

Otter (*Lutra lutra*) (Species Code 1355).

Within the South Eastern River Basin District, which includes the River Slaney catchment, Baily and Rochford (2006) recorded positive results at nearly 73% of the sites surveyed, indicating a widespread distribution of the species.

Twaite Shad (*Alosa fallax*) (Species Code 1103) and Allis Shad (*Alosa fallax*) (Species Code 1102).

Allis and Twaite shad are anadromous fish which enters large estuaries in late April or May to spawn in gravels near the end of the freshwater reaches, with the only known spawning population of Twaite shad in Ireland occurring in the River Barrow (Doherty *et al.* 2004). Adult Twaite shad are also known to occur in the lower parts of the River Slaney (King and Linnane, 2004), although spawning has not been recorded here in recent years. While there are no spawning areas of Allis shad in Ireland, because spawning activity of shad is more difficult to detect than is the case with other fish, it is likely that both shad species spawn in the lower parts of the River Slaney. Specimens of both Allis and Twaite shad were captured by IFI in a fish trap a short distance downstream of the Clohamon weir and it is likely that both shad species would have travelled farther upstream to spawn if their passage had not been impeded by this weir (Donnachadh Byrne, IFI, *pers. comm.*). Rooney *et al.* (2014) state that limited records of adult shad are listed for the Slaney, up to Clohamon weir, but in a survey carried out in summer 2013, no juvenile shad were caught in the Slaney.

Freshwater Pearl Mussel (*Margaritifera margaritifera*) (Species Code 1029).

In accordance with The European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009, ecological quality objectives are set for the freshwater pearl mussel habitat of 27 listed rivers. In the Slaney catchment, this list includes the Derreen River, but not the River Slaney main channel. A single live freshwater pear mussel was found in the River Slaney in a survey of 5km downstream of Rathvilly Bridge (Sweeney Consultancy, 2012). The area of deep, slower-flowing water immediately upstream of Tullow weir is unsuitable freshwater pearl mussel habitat. Low numbers of adult freshwater pearl mussels have been found in the River Slaney downstream of the River Derreen (Moorkens, 2008) and the River Derry (Moorkens, 2000) from which they have been washed into main channel. The distance to the nearest living pearl mussel in the River Slaney downstream the nearest point of the river of the proposed works is therefore at least c. 6km.

3.3.5 Summary of SAC Qualifying Interests Present

The likely presence of each Natura 2000 habitat and species is summarised in Appendix 8.

The following habitats and species are known to be present, or considered possibly present within the site of the proposed development, or within the zone of potential impact (to 5km downstream):

Floating River Vegetation, Atlantic Salmon, River Lamprey, Brook Lamprey and Otter.

4.0 SCREENING FOR APPROPRIATE ASSESSMENT

4.1 Screening of Potential Impacts: Construction Phase

Due to the location and nature of the proposed works, with the implementation of the planned construction methodologies to be implemented by Carlow Co. Co. (Report Section 2), negative impacts on all Qualifying Interests of SAC 000781 will be avoided and can be screened out.

4.2 Screening of Potential Impacts: Operational Phase

Due to the location and nature of the proposed works, the operational phase of the proposed project will not result in contaminants entering the river. Impacts on all Qualifying Interests of SAC 000781 at operational phase can therefore be screened out.

4.3 Assessment of Significance

The proposed development will not result in any loss or fragmentation of habitats for which the SAC is designated.

The proposed development will not have any significant impact on the water quality of the River Slaney.

The proposed development will not have any significant negative impacts on the Qualifying Interests for which SAC 000781 is designated.

The proposed development will not have any significant negative impacts on the Conservation Objectives or integrity of any Natura 2000 site.

4.4 Cumulative Impacts

The proposed development will not, on its own, negatively impact on the biological water quality of the River Slaney, nor on the Qualifying Interests of the Natura 2000 site. Neither will it add to the other cumulative impacts on any Natura 2000 site from other sources.

4.5 Conclusions of Screening Report

The proposed development will have neither positive nor negative effects on the targets set in the Conservation Objectives for the various Qualifying Interests of SAC 000781.

Having assessed all relevant potential effects of the proposed development, it is considered that all potential impacts on the Conservation Objectives of Natura 2000 sites can be screened out.

APPENDIX 1

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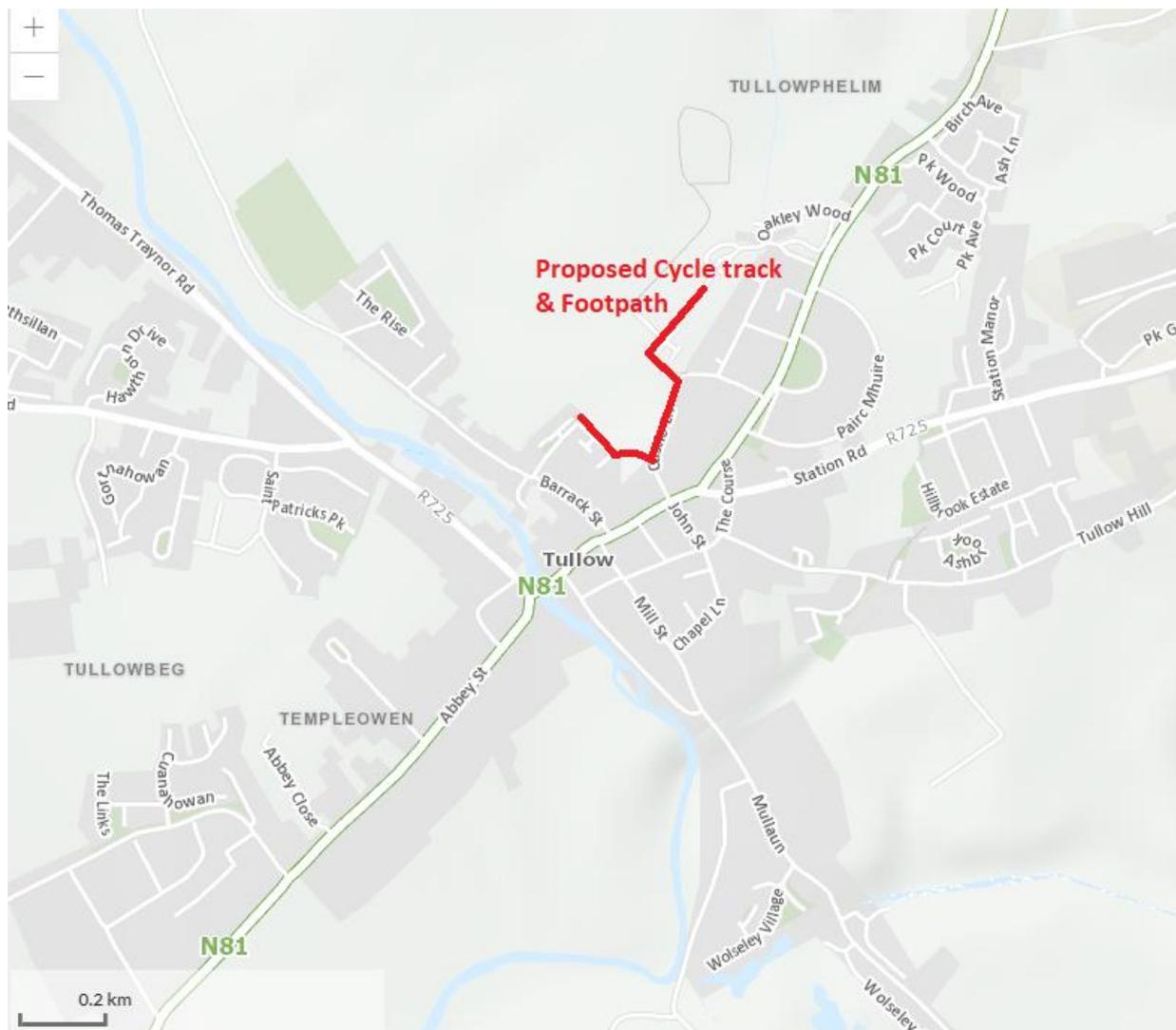
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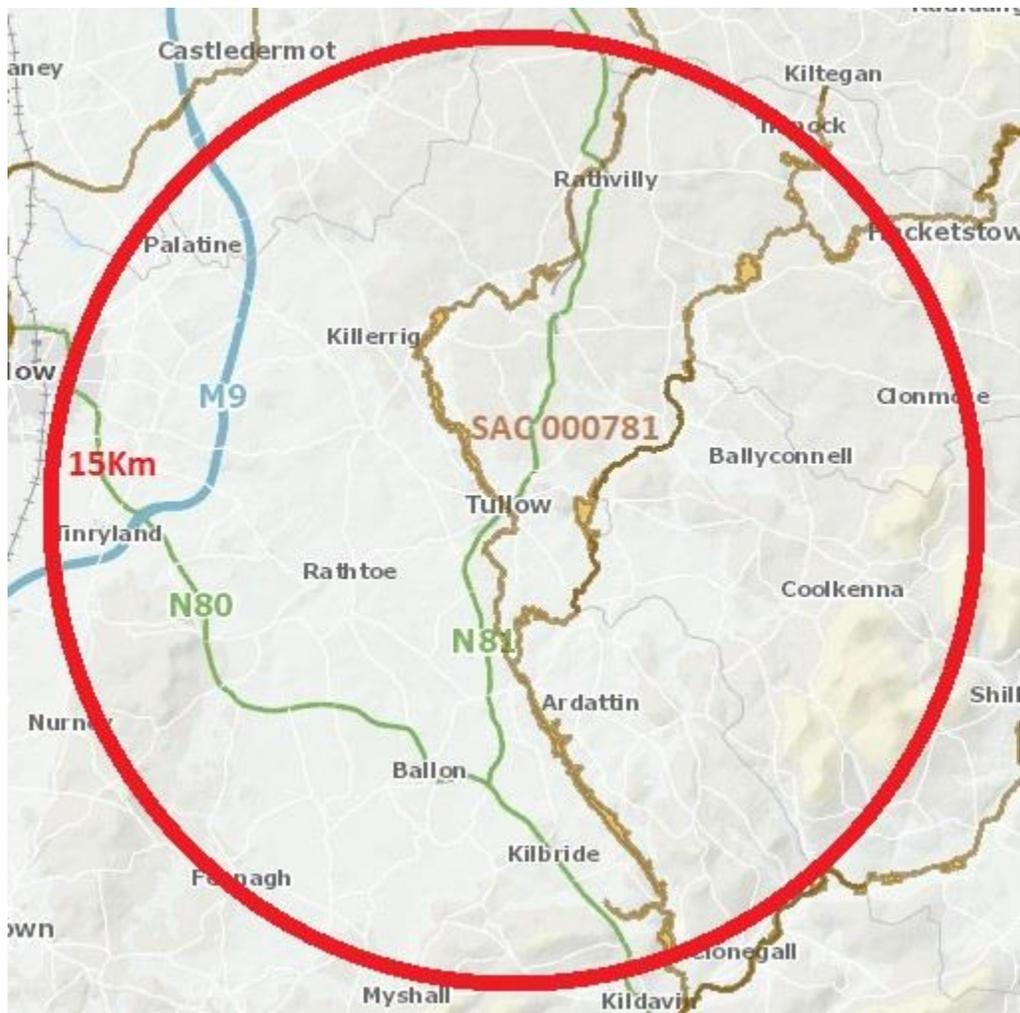
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APPENDIX 2 LOCATION MAP



APPENDIX 3 NATURA 2000 MAP



APPENDIX 4 PROPOSED CYCLE TRACK/FOOTPATH/LOCATION IN RELATION TO SAC 000781



APPENDIX 5

PASCAL SWEENEY: QUALIFICATIONS & EXPERIENCE

QUALIFICATIONS: B.Sc., M.Sc.(Res).

M.Sc. thesis by research on aquatic insect populations and eutrophication in the Killarney Lakes. Secretary of the Irish Freshwater Sciences Association, Member of the Freshwater Biological Association (UK) and the Botanical Society of the Britain and Ireland.

MAIN RELEVANT EXPERIENCE:

Habitats Directive Appropriate Assessment:

Over 250 reports for Appropriate Assessment (Screening Reports and Natura Impact Statements) for a wide variety of proposed developments, including local authority waste water treatment plants, flood defence schemes, fish passes, bridge improvements, landfills, large industrial developments and private housing.

Freshwater Biological Water Quality Monitoring:

Yearly monitoring of biological water quality of rivers for the EPA Q-scheme monitoring programme from 2012 to 2021. Water quality surveys for local authorities (Carlow, Dunlaoghaire-Rathdown, Kildare, Kilkenny, Tipperary, Waterford, Wexford Co. Cos.), semi-state bodies (Coillte, Inland Fisheries Ireland, Irish Water) and industries (e.g. Glanbia, Dairygold, Irish Sugar, Irish Distillers, Lisheen Mine, Carbury Mushrooms). Profundal species analysis of over 600 lake samples for EPA and 250 lake samples for NIEA.

Impact Assessment:

Impact assessment of proposed developments on freshwater habitats and recommendation of mitigation measures. These developments include roads, gas pipelines, landfills, quarries, hydropower stations, intensive agriculture and industries.

Agri-Environmental Schemes (REPS) and (AEOS):

Preparation of Environmental Reports, with management recommendations for REPS/AEOS and hen harrier scheme applications throughout Munster (over 680 reports).

Commonage Framework Planning:

Surveyed habitats, assessed vegetation condition and recommended management requirements on mountain and coastal commonages in Cork Tipperary, Limerick, Clare, Carlow and Wexford.

Habitat Surveys and Management Planning of Coillte Property:

Habitat and botanical surveys of potential Biodiversity Areas in Cork and Waterford.

Native Woodland Scheme:

Approved by the Forest Service as a Participating Ecologist. Preparation of the ecological aspects of the Ecological Survey/Management Plans. (49 plans).

Bat Surveys:

Bat surveys at proposed development sites, including buildings, road bridges and tree lines. Participant in the annual All Ireland Daubenton's Bat Waterways Monitoring Survey.

Freshwater Pearl Mussel Surveys:

Licensed surveys for *Margaritifera margaritifera* in the following river catchments: Munster Blackwater, Lee, Bandon, Slaney, Barrow, Nore, Suir, Owenriff, Kerry Blackwater, Mahon, Tay, Colligan and Moy.

White-Clawed Crayfish Surveys:

Licensed surveys for *Austropotamobius pallipes* in the following river catchments: Munster Blackwater, Bandon, Shannon, Liffey, Barrow, Nore and Suir.

Invasive Alien Plant Species Surveys and Management Plans:

Surveys of plants included in the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 at 33 sites in north Co. Cork for Cork CC in 2017. Surveys and Management Plans for knotweed species affected by the Bandon Flood Relief Scheme.

APPENDIX 6

Slaney River Valley SAC Qualifying Interests

(from www.npws.ie)

Annex I Habitats

EU Habitat Code	Habitat Name
1130	Estuaries
1140	Mudflats and sandflats not covered by seawater at low tide
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation. (Floating river vegetation).
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)
91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in British Isles

Annex II Species

EU Species Code	Species Taxonomic Name	Species Common Name
1029	<i>Margaritifera margaritifera</i>	Freshwater Pearl Mussel
1095	<i>Petromyzon marinus</i>	Sea Lamprey
1096	<i>Lampetra planeri</i>	Brook Lamprey
1099	<i>Lampetra fluviatilis</i>	River Lamprey
1102	<i>Alosa alosa</i>	Allis Shad
1103	<i>Alosa fallax</i>	Twaite Shad
1106	<i>Salmo salar</i>	Atlantic Salmon
1355	<i>Lutra lutra</i>	European Otter

APPENDIX 7 PHOTOGRAPHS

Photo 1: Amenity Grassland



Photo 2: Amenity Grassland



Photo 3: Rough Grassland



Photo 4: Rough Grassland and Disturbed Ground



Photo 5: Rough grassland and hard surface along Castle Lane



Photo 6: River Slaney, upstream of Tullow Bridge



APPENDIX 8
PRESENCE OF NATURA 2000 HABITATS AND SPECIES
 (within 5km downstream)

SAC 000781 Qualifying Interest	Definitely or Probably Present	Possibly Present	Not Present
Old sessile oak woods with Ilex and Blechnum in British Isles			✓
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)			✓
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	✓		
Mudflats and sandflats not covered by seawater at low tide			✓
Estuaries			✓
<i>Margaritifera margaritifera</i>			✓
<i>Petromyzon marinus</i>			✓
<i>Lampetra planeri</i>	✓		
<i>Lampetra fluviatilis</i>	✓		
<i>Alosa alosa</i>			✓
<i>Alosa fallax</i>			✓
<i>Salmo salar</i>	✓		
<i>Lutra lutra</i>	✓		