Sligo East City, Cranmore and Environs

Regeneration Masterplan 2016

Appendix E: Ecological Report



Credits

Many thanks to all who contributed to the making and the delivery of this Regeneration Masterplan

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Executive Summary

Ecological Report

This report contains information on the Natural Heritage resources in the general area of the masterplan.

It contains information from a top level down approach on the conservation of protected natural heritage sites, e.g. those of European ecological importance, for example Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Natural Heritage Areas (NHAs) to pockets of local biodiversity, e.g. green areas. This includes habitats and/or species listed in Annex I, II and IV of the EU Habitats Directive, rare plants listed in the Flora Protection Order and other semi-natural habitats of conservation value.

There are 11 European sites located within 15 km of the plan area and three of these have connectivity with the plan area: Lough Gill SAC 001976; Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC 000627 and Cummeen Strand SPA 004035. These sites are of international importance under the NRA Scheme (2009) for conservation evaluation.

The report identifies five main habitats in the Regeneration Area that were assigned evaluation ratings of locally important – higher or lower value. With regard to other species of conservation concern; the presence of Annex IV Species was identified from National Biodiversity Data Centre records and external reports on the Doorly Maisonettes Demolition Project and the Sligo Racecourse Grandstand Project.

The Habitats Directive sets out the requirement for Appropriate Assessment for the assessment of Plans or Projects that may potentially impact Natura 2000 sites and this is addressed in the separate Appropriate Assessment report with this volume.

Potential indirect impacts on water quality and high water quality dependant species such as Otter, Salmon and Lamprey will be avoided by incorporating appropriate and adequate Sustainable Urban Drainage Systems as a design feature of the masterplan.

Biodiversity in the Regeneration Area will be increased by introducing landscaping with emphasis on the

- promotion of bio diversity with native species of local provenance
- 2. protection of existing local bio diversity

Conclusions from the report for Appropriate Assessment Screening as required under Article 6(3) of the Habitats **Directive (Council Directive** 92/43/EEC)

The conclusion of the Screening Report is that there is limited biological and hydrological connectivity to the European Sites considered in this report and that it is unlikely that there would be significant impacts on the Qualifying interests or Conservation Objectives of the European sites considered if the Sligo East City, Cranmore and Environs Regeneration masterplan is adopted.

The Sligo and Environs Development Plan 2010-2016 contains numerous measures which will directly and/or indirectly contribute to the conservation of Natura 2000 sites and the protection of locally important ecological sites. These will assist in the implementation of the requirements of the Habitats Directive and will ensure that the masterplan will not have a significant impact on the Natura 2000 Network.

If the Policies and Objectives of the governing Development Plan are employed in the implementation of the Sligo East City, Cranmore and Environs Regeneration Masterplan, then the plan will not have a significant impact on habitats or species of local, regional or international importance.

Based on the information provided above, and by applying the precautionary principle, it was determined that it was possible to rule out likely significant impacts on any European Sites. It is determined that it is not necessary to undertake any further stage of the Appropriate Assessment process.

Sligo East City, Cranmore and Environs Regeneration Masterplan

Ecological Report August 2013 – Revised June 2016.

Prepared by

Moore Group – Environmental Services on behalf of the Masterplan Regeneration Team and Sligo County Council.

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Ecological Report

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1 Introduction

1.1 General Introduction

The Cranmore Regeneration Masterplan Project aims to transform the social, economic and physical landscape of the Cranmore area through collaborative long-term strategic planning, investment of resources and urban regeneration. The aim is to tackle the inherent problems – physical, social and economic and identify potential strategic interventions in the masterplan area to facilitate this regeneration. The Regeneration Initiative is planned in the context of the East City area.

The masterplan provides a framework in which development can occur. It provides an outline and flexible overview for lands adjoining Cranmore in Sligo East, to illustrate the long-term potential, and it identifies targeted solutions to address local issues and guide their delivery over a 10-year period.

This report contains information on the Natural Heritage resources in the general area of the masterplan. It has been prepared by Moore Group on behalf of Sligo County Council and the Masterplan Design Team. This report contains information from a top level down approach on the conservation of protected natural heritage sites, e.g. those of European ecological importance, for example Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Natural Heritage Areas (NHAs) to pockets of local biodiversity, e.g. green areas. This includes habitats and/or species listed in Annex I, II and IV of the EU Habitats Directive, rare plants listed in the Flora Protection Order and other semi-natural habitats of conservation value. The general study area is presented in Figure 1. The red line boundary is indicative only and encompasses the core study area with regard to ecology. However, there are areas of higher conservation concern associated with Lough Gill upstream, the Garavogue River and Sligo Bay downstream that will be considered in terms of source pathway receptors when it comes to assessing impacts of the masterplan on sites of European importance in the Appropriate Assessment process.

1.2 Legislative Background – European and National Conservation

Habitats Directive

The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity within the European Union and lists certain habitats and species that must be protected within wildlife conservation areas, considered to be important at a European, as well as at a national, level. Under the Directive, Member States are obliged to designate Special Areas of Conservation (SACs), which contain habitats or species considered important for protection and conservation in a European Union context. The main function of the Habitats Directive is to provide protection to habitats and species. It also sets out a framework for assessment of plans or projects under a system referred to as Appropriate Assessment and this is described below.

Birds Directive

The Birds Directive (Council Directive 79/409/EEC as codified by Directive 2009/147/EC), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species that are rare, vulnerable, in danger of extinction, or otherwise require special attention.

Natura 2000 Network

Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs), designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs. Article 6(3) and 6(4) of the Directive set out key elements of the system of protection including the requirement for Appropriate Assessment of plans and projects.

Appropriate Assessment

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites. Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required (Appropriate Assessment [AA]).

Article 6(3): "Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

Article 6(4): "If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to the beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

Wildlife Act (1976), Wildlife (Amendment) Act (2000)

The primary domestic legislation providing for the protection of wildlife in general, and the control of some activities adversely impacting upon wildlife is the Wildlife Act of 1976. The aims of the Wildlife Act are "to provide for the protection and conservation of wild fauna and flora, to conserve a representative sample of important ecosystems, to provide for the development and protection of game resources and to regulate their exploitation, and to provide the services necessary to accomplish such aims". All bird species are protected under the Act. The Wildlife (Amendment) Act of 2000 amended the original Act to improve the effectiveness of the Act to achieve its aims.

1.3 Data Sources

Sources of information that were used to collect data on the Natural Heritage in the study area are listed below:

- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including; the Natura 2000 network Data Form; Site Synopses; Generic Conservation Objective data
- Online data available on biodiversity as held by the National Biodiversity Data Centre from www.biodiversityireland.ie including:
 - Online database of rare, threatened and protected species
 - Publicly accessible biodiversity datasets
- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie and Google Earth aerial photography 2012
- Status of EU Protected Habitats in Ireland (National Parks and Wildlife Service, 2013)

Other Information on Habitats, Water Quality, Aquatic Ecology, and Hydrology in the area was obtained from all available studies and surveys including:

- Sligo and Environs Development Plan 2010-16
- Habitat Mapping for Sligo and Environs Development Plan 2007
- Review of Sligo Habitat Mapping 2008
- County Wetlands Reports 2008-2011
- Japanese Knotweed Survey/Mapping for Borough Area (Heritage office Report 2012)
- Final River Basin Management Plan for the Western River Basin District in Ireland (20092015) December 2009

- Eastern Garavogue Bridge and Approach Roads - Environmental Impact Statement, Nov 2007
- Doorly Park Maisonettes Demolition Natura Impact Statement (2012)
- Pearse Road Surface Water Sewer Natura Impact Statement (2012)
- North Leitrim Rural Water Supply Scheme Part VIII Application with ABP
- Floating Pontoon Doorly Park Natura Impact Statement (2015)
- Distillery and Museum Hazelwood Demesne Natura Impact Statement (2015)

1.4 Consultation

At the earliest stage of preparation for the masterplan a multidisciplinary workshop was held and a preliminary discussion were held with Ms. Siobhán Ryan, the Sligo Heritage Officer (2013). The sources of information presented above were discussed along with other possible anecdotal sources. A formal consultation process with the NPWS was undertaken as part of the Appropriate Assessment process as the main physical and infrastructural components of the masterplan were identified.

2 Description of the Plan

2.1 General Description

Building on an extensive collaborative process, the Regeneration Masterplan described here gathers together all the strands of projects under three key disciplines: social, economic and physical actions, and shows how collaboratively these streams of endeavour can respond to needs to achieve a transformative impact for Cranmore and the East City area.

The masterplan is inspired by a vision for Cranmore and the East City area that encompasses an integrated social, economic and physical approach to the transformation of Sligo East City, Cranmore and Environs, it aims to achieve the following goals:

- Make the East City area and Cranmore a more attractive place to live with better, more convenient connections to existing and new facilities, locally and in the rest of Sligo
- Enable individuals and communities of the area to avail of opportunities, with good access to employment, education, health and family support services
- See the East City area become the location of choice for future generations to live, work and visit

2.2 Masterplan Themes and **Projects**

The measures for the physical regeneration of the East City area, coordinated with the social elements and the economic elements, are derived from eight urban design themes. The Masterplan Themes and Projects are set out as follows and a description of each theme is provided below:

- A. Provide Quality Spaces for Community Facilities
- B. Improve Access to Quality Amenities and Open Spaces
- C. Improve Housing Quality and Opportunity in the
- D. Improve Quality of Roads, Streets and Urban Spaces
- E. Improve Access and Links
- F. Get the Most out of the Vacant and Potential Sites in the Area
- G. Develop and Promote Historical Assets in the
- H. Explore Options for Sustainable Energy

Under each of the Masterplan Themes, a series of projects are proposed are set out in Figure 2, these are described in more detail as follows:

Physical PlanPhysical Themes and Projects

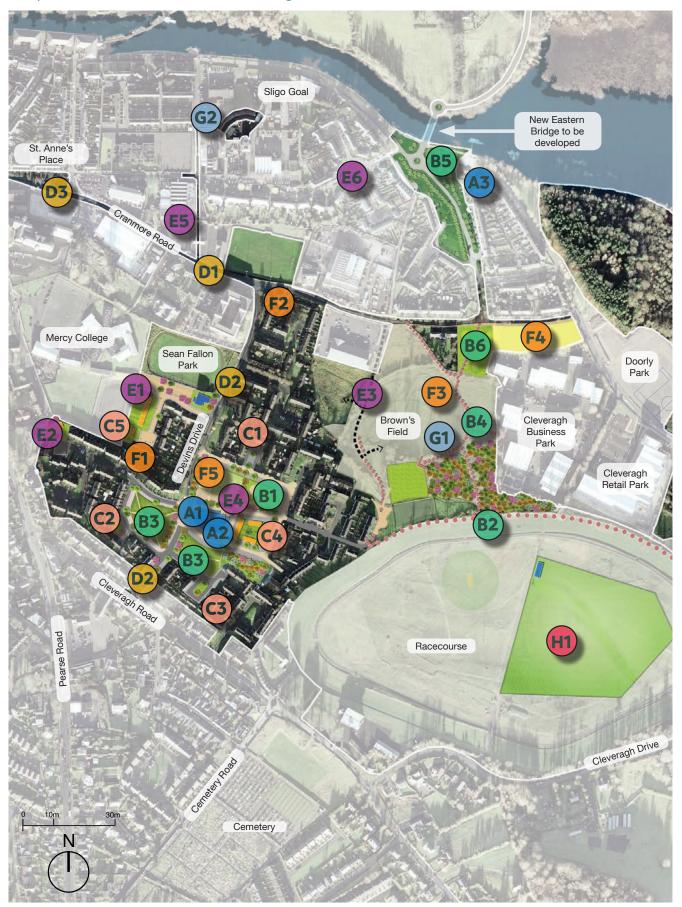


Figure 2. Showing the Main Themes and Projects of the Masterplan



Provide Quality Spaces for Community Facilities

- A1 Provide quality spaces for delivery of services and community
- A2 Space for medical services provision
- A3 Doorly Park Lodge restoration to be explored

Improve Access to Quality Amenities and Open Spaces

- B1 Play areas: Cranmore
- B2 Improve access to Regional Sports Centre and Cleveragh Regional Park
- B3 Create quality open air spaces within Cranmore area
- B4 Extend exercise trail through Brown's Field and Racecourse
- B5 Support development of water-based recreational opportunities and associated facilities at Doorly Park
- B6 New park at Doorly Park: junction of Martin Savage Terrace and Cranmore Road/Brown's Field site

Improve Housing Quality and Opportunity in the Area

- C1 Housing improvements: focus on energy efficiency for Cranmore Estate
- C2 Housing environmental improvements: Focus on Cranmore Estate building
- C3 Collery Drive/John Fallon Drive link
- C4 Housing: Centre Block site (sites also considered under F)
- C5 Housing: Geldof Drive (sites also considered under F)

Improve Quality of the Roads, Streets and Urban Spaces

- D1 Cranmore Road enhancements
- D2 Devins Drive improvements
- D3 St Anne's Place urban landscape

Improve Access and Links

- E1 Explore Mercy College pedestrian access from Geldof Drive
- E2 Joe Mc Donnell pedestrian/bicycle link to Chapel Hill
- E3 Brown's Field pedestrian/bicycle link to Cranmore
- E4 New centre block avenue (pedestrian/bicycle)
- E5 Explore Sligo Gaol to Cranmore Road link
- E6 Garavogue Villas access: traffic management plan

Get the Most out of the Vacant and **Potential Sites in the Area**

- F1 Redeveloping Geldof Drive bungalow site
- F2 Cranmore Road cleared site: new residential (apartments)
- F3 Brown's Field: mixed-use site for development
- F4 Doorly Park former maisonettes site: residential development use
- F5 Centre block site: community amenity and residential development
- F6 Cleveragh Drive rezoning: residential

Develop and Promote Historical Assets in the Area

- G1 Carnsfoot House remains of walled garden
- G2 Sligo Gaol

Explore Options for Sustainable Energy

H1 Racecourse - central site: explore geothermal potential



Urban Model

2 Description of the Plan

2.2 Masterplan Themes and Projects

A: Provide Quality Spaces for **Community Facilities**

A1 Provide quality spaces for delivery of services and community activities: sports, meeting spaces etc.

The brief for space needs are to be developed in consultation with existing community resources such as the Abbeyquarter Centre and the Co-Op to determine exact needs and business case.

A2 Space for Medical Services provision

The brief for space for medical services provision will be developed in consultation with agencies to determine exact needs and business case. Project will be subject to detailed feasibility and design studies, for further consultation, during the process for planning permission.

A3 Doorly Park Lodge restoration to be

Refurbishment of existing building provides opportunity to create a new public/community space close to the river, adjoining park and recreation areas. A brief will be developed as part of a business plan, funding needs to be sourced.

B: Improve Access to Quality **Amenities and Open Spaces**

B1 Play Areas: Cranmore

Play areas to be provided as part of the overall design of central block site (to include play area for toddlers and multi-use games area). Detail design to be developed and consulted upon.

B2 Improve Access to Regional Sports Centre and Cleveragh Regional Park

Gated access to new path to Sports Centre and Regional Park: a safe and more direct pedestrian and cycle access to Sports Centre and pitches in Regional Park. A detailed design needs to be agreed with Racecourse Committee and Sports Centre with funding to be sourced.

B3 Create Quality Open Spaces within Cranmore Area

Detailed designs for reduction of mounds to be developed and consulted upon.

B4 Extend Exercise Trail through Brown's Field and Racecourse new pedestrian and cycle routes as opportunities present.

Locations and type of equipment to be identified at detail design: funding needs to be sourced.

B5 Support the development of water based recreational opportunities and associated facilities at Doorly Park

Support for Doorly Park Pontoon proposed to be developed at the Garavogue near Doorly Gate

Support for water sports Pavillion proposal, having regard to the environmentally sensitive location and informed by taking account of the status of the area as a Special Area of Conservation and the requirements of the Habitats Directive

B6 New Park at Doorly Park: junction of Martin Savage Terrace and Cranmore Road/Brown's Fields site

The layout and potential of existing lawned open space as a more useful and attractive community resource to be reviewed in consultation with the local community.

C: Improve Housing Quality and Opportunity in the Area

C1 Housing Improvements: focus on energy efficiency for Cranmore Estate

Dwellings will be assessed to determine the nature of works needed to achieve an agreed level of energy efficiency. Measures will be undertaken on a phased basis in clusters of dwellings on a case by case basis.

C2 Housing Environmental Improvements: focussing on Cranmore Estate

Building on the series of environmental improvement projects undertaken in recent years, this project will focus on issues raised by residents such as unused backland areas and alleys and areas which are vulnerable to anti-social behaviour and dumping etc. Street by street consultations will prioritise local concerns to be addressed and detailed designs.

C3 Collery Drive/John Fallon Drive Link

This project will address security and safety issues as part of environmental improvements by improving passive surveillance, and addressing security concerns of vulnerable residents on pedestrian lane connecting Collery Drive with John Fallon Drive.

C4 Housing: Centre Block Site

Site identified with potential to meet specific housing needs for elderly and people with special needs. The project will be subject to detailed feasibility and design studies to clarify height, mix, tenure and car-parking considerations. Further consultations will be undertaken on detailed design in addition to planning process.

C5 Housing: Geldof Drive

Bungalow site with potential to meet needs for the elderly and people with special needs. Feasibility options will be developed to determine the best use of site and mix of units. Further consultations will be undertaken on detailed design in addition to planning process.

D: Improve Quality of Roads, Streets and Urban Spaces

D1 Cranmore Road Enhancements

Improvements include enhancement of urban/ street boundaries and pavement improvements to include replacing the Ray McSharry Park boundary wall with wall and railings and widen pavement, ESB frontage enhanced and new planting and pavement treatments. Detailed design proposals to be reviewed with disability groups and others.

D2 Devins Drive Improvements

Improvements include traffic calming measures, road crossings, junction treatments and landscaping to improve character and safety of street. Detailed design proposals to be developed for review with disability groups and others.

D3 St. Anne's Place Urban Landscape

Urban design proposals to be developed to improve character and attractiveness of St. Anne's open space/parking layout. Detailed design proposals to be developed for consultation with disability groups and others.

E: Improve Access and Links

E1 Explore Mercy School Pedestrian Access from Geldof Drive

A new side gated access to Mercy School for pupils to allow for pedestrian and cycle access only.

Subject to agreement with Mercy School Management and Abbeyquarter Centre. Detailed design proposals to be developed for consultation with Mercy School Management and Abbeyquarter Centre.

E2 Joe McDonnell Pedestrian/Bicycle Link to Chapel Hill

This project requires acquisition and demolition of 4 houses, and includes redevelopment of the area to provide 4 new houses overlooking pedestrian cycle link to connect Joe McDonnell Drive with Chapel Hill. Negotiations and agreement required with households affected, detail design proposals to be developed for further consultation.

E3 Brown's Field Pedestrian/Bicycle Link to Cranmore

This project involves a long term aspiration to improve urban links and connectivity through the area. It involves a new pedestrian cycle route through Brown's Field lands connecting Racecourse View with access road adjacent to Lidl. This new link is to be provided as part of the redevelopment of Brown's Field lands. This will be subject to detail design and consultation as part of the planning process.

E4 New Centre Block Avenue (pedestrian/ bicycle)

New pedestrian cycle route through centre block site connecting Langan Drive/Racecourse View with Devins Drive as part of redevelopment and relandscaping of Centre Block lands.

E5 Sligo Gaol to Cranmore Road Link

This project involves a long term aspiration to improve urban links and connectivity.

It involves a new route through lands adjacent to Aldi Store, a potential long term initiative to be explored as part of any redevelopment of the area. This will be subject to detailed design and consultation as part of planning process.

E6 Garavogue Villas Access – Traffic Management Plan

A traffic management plan to be developed and measures introduced to remove risk of heavy vehicles using Garavogue Villas as a short cut, plan will involve a review of the presentation of Neolithic stone circle, as part of proposals. Detailed design proposals to be developed for consultation with residents, disability groups and others.

F: Get the most out of the Vacant and Potential Sites in the Area

F1 Geldof Drive Bungalow Site

Bungalow site with potential to meet needs for the elderly and people with special needs. Feasibility options will be developed to determine the best use of site and mix of units. Further consultations will be undertaken on detailed design in addition to planning process.

F2 Cranmore Road Cleared Site: New Residential (apartments)

Proposed as private sector development project. The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning permission.

F3 Brown's Field: Mixed Use site for Development

Proposed as private sector development project.

The project will be subject to detailed feasibility and design studies that will clarify site layout, mix of use and other design considerations during the process for planning permission.

F4 Doorly Park Former Maisonettes Site Residential Development Use

Proposed as private sector development project.

The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning permission.

F5 Centre Block Site: community, amenity and residential Development

Site identified with potential to meet community and specific housing needs for elderly and people with special needs.

The project is subject to detailed feasibility and design studies that will clarify site layout, open spaces, height, mix, tenure and car parking considerations before further consultation during the process for planning permission.

F6 Cleveragh Drive re-zoning: Residential

It is proposed that the next Development Plan for Sligo and Environs rezones these sites to R2 low/ medium density residential use because of the adjacent open space amenities at the Racecourse, Doorly Park and Cleveragh Regional Park.

G: Develop and Promote Historical Assets in the Area

G1 Carnsfoot House: Remains of walled garden

This project involves the protection and conservation of the remains of Carnsfoot House walled garden as an attractive historical asset with learning and tourism potential.

The woodland at Carnsfoot is of moderate quality but is an old woodland site with potential for woodland restoration. It contains some semi-natural woodland features of local importance-higher value, and could be considered a Local Biodiversity Area as described in the Sligo Habitats Mapping Project.

Many have memories of Carnsfoot House and recognise its importance. Complementary use as an informal play space or garden space to be explored. Design needs to be developed in consultation and funding sourced to realise measures.

G2 Sligo Gaol

This project proposes to develop and promote the remains of Sligo Gaol as a significant historical asset with learning, tourism and employment/enterprise potential. The strategy needs to be explored and developed further in consultation with local community, interest groups, Friends of Sligo Gaol Group and others. Funding needs to be sourced to realise measures.

H: Explore Options for Sustainable Energy

H1 Racecourse - Central Site: Explore Geothermal Potential

Uses of public land for sustainable energy generation are to be explored, such as the possibility of geothermal heat pump within the Sligo County Council Racecourse lands.

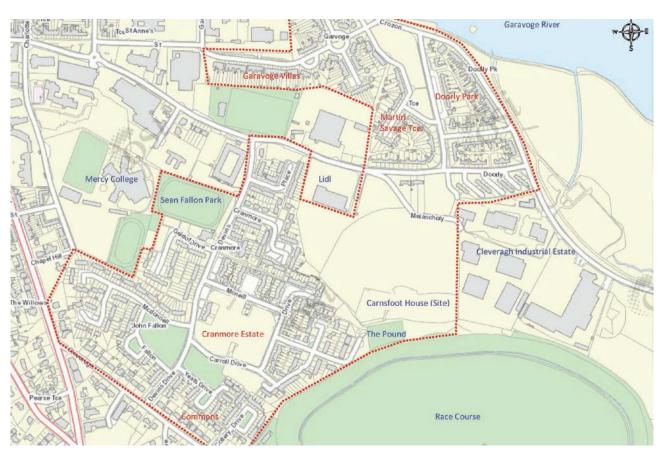
Funding needs to be sourced to realise measures.

The aims of this report are to identify the ecological constraints and considerations with regard to the proposed masterplan.

The report will set out the ecological framework for the Regeneration Masterplan Area, utilising the existing habitat mapping undertaken by Sligo County Council Heritage Office in 2007 (Fossitt to Level 3), published data and report information.

The report also provides relevant information on important and protected species including invasive species. Information gathered through screening and ecological overview will inform all masterplanning elements.

An indicative context location for the Cranmore area is shown on Figure 1. The overall plan themes are presented in Figure 2.



 $Figure \ 1: Indicative \ Context \ Location \ showing \ the \ ecological \ study \ area \ in \ the \ vicinity \ of \ Cranmore, \ Doorly \ Park \ and \ Garavogue \ Villas$

3 Ecological Considerations

3.1 Description of European Sites

Considering the Natura 2000 sites present in the region, their Qualifying Interests (QIs) and conservation objectives, and any potential impact pathways that could link those sites to the proposed development area, a distance of 15km was considered appropriate to encompass all Natura 2000 sites potentially within the Zone of Influence (ZoI) of the proposed development. The Zone of Influence can be defined as the distance within which the plan/project could potentially affect the conservation condition of QI habitats/species. This is in line with Appropriate Assessment of Plans and Projects in Ireland-Guidance for Planning Authorities,

produced by the Department of the Environment, Heritage and Local Government.

Spatial boundary data on the Natura 2000 network was extracted from the National Parks and Wildlife (NPWS) website on 26th May 2016.

There are six Special Areas of Conservation (SACs) and five Special Protection Areas (SPAs) located within 15km of the plan area, see Tables 1 below and 2 right. Distances are approximate to the nearest boundary of the Natura 2000 site from the Regeneration Masterplan Area.

Table 1 Listing the SACs located within 15 km of the Regeneration Masterplan Area

Special Area of Conservation	Site Code	Distance from Regeneration Masterplan	Biological Connectivity
Ballysadare Bay SAC	000622	5.5km	There is no relevant connectivity with the Regeneration Masterplan Area
Ben Bulben, Gleniff and Glenade Complex SAC	000623	8.6km	There is no relevant connectivity with the Regeneration Masterplan Area
Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC	000627	1km downstream	Hydrologically connected
Union Wood SAC	000638	6.1km	There is no relevant connectivity with the Regeneration Masterplan Area
Unshin River SAC	001898	6.6km	There is no relevant connectivity with the Regeneration Masterplan Area
Lough Gill SAC	001976	Adjacent	Hydrologically connected

Table 2 Listing the SPAs located within 15km of the Regeneration Masterplan Area

Special Protection Area	Site Code	Distance from Regeneration Masterplan	Biological Connectivity
Drumcliff Bay SPA	004013	6km	There is no relevant connectivity with the Regeneration Masterplan Area
Cummeen Strand SPA	004035	1.2km downstream	Hydrologically connected
Ballysadare Bay SPA	004129	5.5km	There is no relevant connectivity with the Regeneration Masterplan Area
Sligo/Leitrim Uplands SPA	004187	5.8km	There is no relevant connectivity with the Regeneration Masterplan Area
Ballintemple and Ballygilgan SPA	004234	13.5km	There is no relevant connectivity with the Regeneration Masterplan Area

Most of the sites listed above either have limited hydrological connectivity or no relevant biological connectivity to the Regeneration Masterplan Area. These sites are not considered to be of relevance as they are not located within the zone of influence of the proposed plan due to their distance and/or lack of connectivity/pathway. Furthermore, the site of the plan is not of ecological interest for any of the transient QI species of these Natura 2000 sites and they can be screened out at this stage of the report. There are two designated Natural Heritage Areas within 15km of the Regeneration Masterplan area:

- Slieveward Bog (001902) at c. 7.7km to the southwest,
- Crockauns/Keelogyboy Bogs (002435) c. 5.8km to the northeast.

As per above, these sites have limited biological connectivity with the Regeneration Masterplan Area and are not considered further in this report as they will not be impacted upon.

The six SACs listed in Table 1 above are also designated as proposed Natural Heritage Areas (pNHAs). There are four other pNHAs within 15km of the Regeneration Masterplan Area:

- Colgagh Lough (001658) at c. 3.5km to the east,
- Knocknarea Mountain and Glen (001670) c. 7km to the west,
- Lough Dargan (001906) at c. 7.6km to the southeast,
- Ballygawley Lough (001909) c. 6km to the south

With the exception of the dual conservation designation sites, these pNHAs have limited relevant biological connectivity with the Regeneration Masterplan Area and are not considered further in this report as they will not be impacted upon.

Of the sites listed, three European sites are considered relevant to the masterplan:

- Lough Gill SAC 001976
- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC
- Cummeen Strand SPA 004035

An indication of the proximity of the Regeneration Masterplan Area and these sites is presented in Figures 3, 4 and 5 below. The boundary of Lough Gill SAC extends from as far inland as Co. Leitrim to Hyde Bridge over the Garavogue River in Sligo City. The predominantly marine sites associated with Cummeen Strand extend from Sligo Bay into the City with the SAC area extending upstream to Hyde Bridge whereas the SPA area boundary is downstream at Hughes Bridge. An aerial photograph showing the location of the Natura 2000 sites and their proximity to the Masterplan Area is presented in Figure 6.

The qualifying habitats and interests of these sites are listed in Table 3 below and Site Synopses are presented in Appendix A.

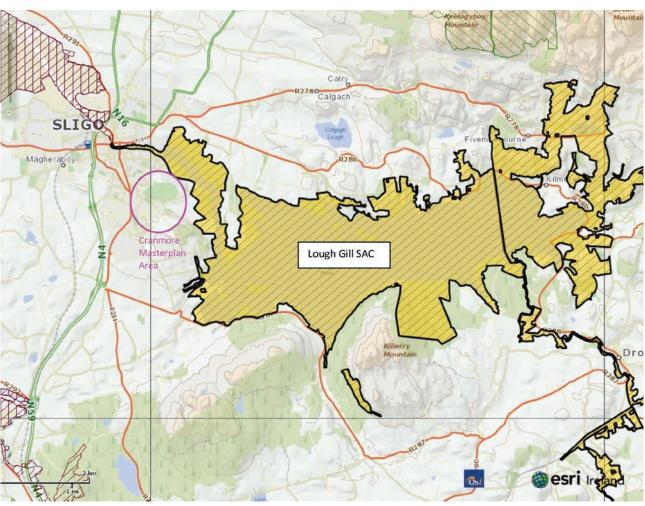
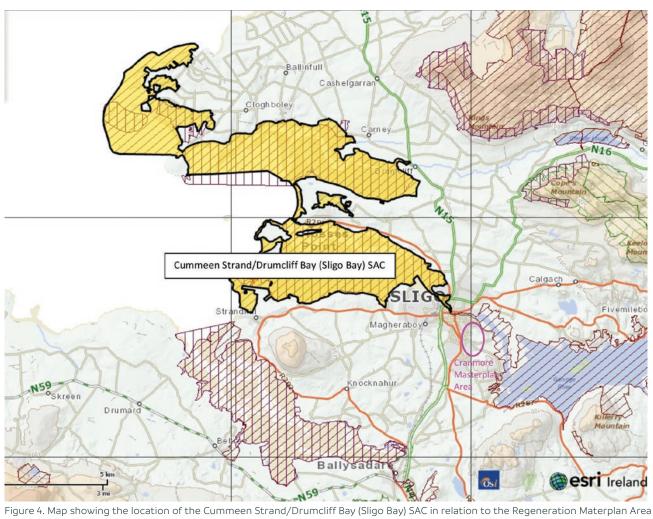


Figure 3. Map showing the Lough Gill SAC in relation to the Regeneration Masterplan Area



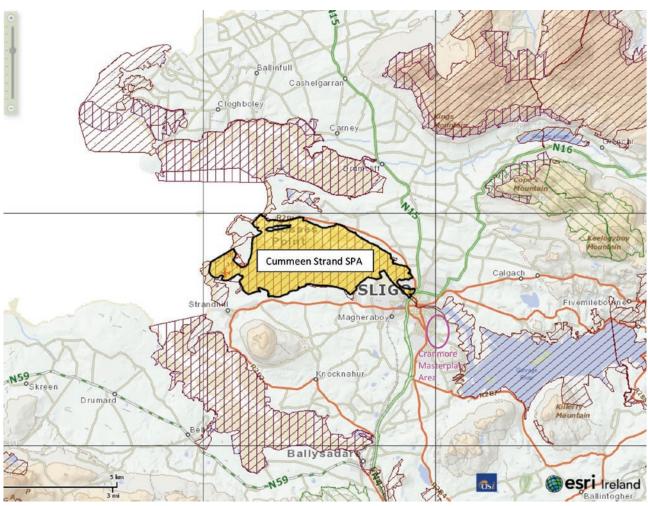


Figure 5. Map showing the location of the Cummeen Strand SPA in relation to the Regeneration Materplan Area

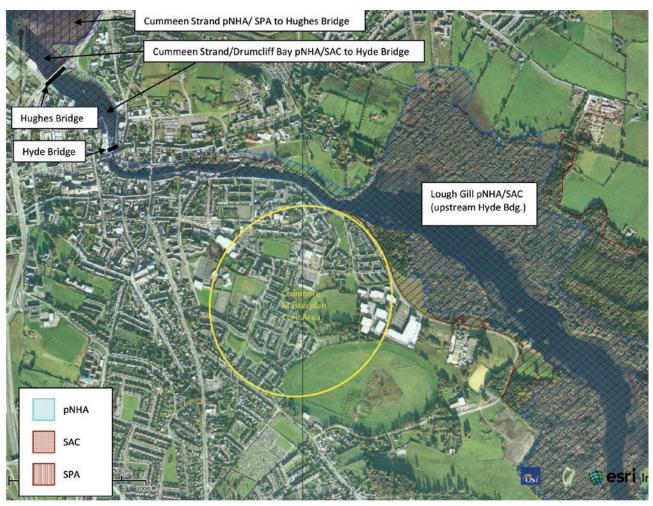


Figure 6. An aerial photograph showing the location of the Natura 2000 sites and their proximity to the Regeneration Masterplan Area

Table 3 Natura 2000 sites located adjacent to the Regeneration Masterplan Area (*indicates priority habitat)

Site Code	Site Name	Qualifying Habitats	Qualifying Species
000627	Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC	Estuaries Mudflats and sandflats not covered by seawater at low tide Embryonic shifting dunes Shifting dunes along the shoreline with Ammophila arenaria (white dunes) *Fixed coastal dunes with herbaceous vegetation (grey dunes) Juniperus communis formations on heaths or calcareous grasslands Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*Important Orchid Sites) [6210] *Petrifying springs with tufa formation (Cratoneurion)	Narrow-mouth whorl Snail (Vertigo angustior) Sea lamprey (Petromyzon marinus) River lamprey (Lampetra fluviatilis) Harbour seal (Phoca vitulina)
001976	Lough Gill Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*Important Orchid Sites) [6210] 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)		White-clawed Crayfish (Austropotamobius pallipes) Sea lamprey (Petromyzon marinus) Brook lamprey (Lampetra planeri) River lamprey (Lampetra fluviatilis) Salmon (Salmo salar) (only in freshwater) Otter (Lutra lutra)
004035	Cummeen Strand SPA	Wetland and Waterbirds [A999]	Light-bellied Brent Goose (Branta bernicla hrota) Oystercatcher (Haematopus ostralegus) Redshank (Tringa totanus)

3.2 Conservation Objectives of the Natura 2000 Sites

The following Conservation Objectives, are set out for the European sites considered. Specific attributes, measures and targets are available in the Conservation Objectives documents listed in Section 7, References of this report.

Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC [000627]. Version 1. 18th September 2013

1130 Estuaries

To maintain the favourable conservation condition of Estuaries in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1140 Mudflats and sandflats not covered by seawater at low tide

To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

2110 Embryonic shifting dunes

To maintain the favourable conservation condition of Embryonic shifting dunes in Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC.

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

To restore the favourable conservation condition of Shifting dunes along the shoreline with Ammophila arenaria ('white dunes') in Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC.

2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)

To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

5130 Juniperus communis formations on heaths or calcareous grasslands

To restore the favourable conservation condition of Juniperus communis formations on heaths or calcareous grasslands in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

7220 Petrifying springs with tufa formation (Cratoneurion)

To maintain the favourable conservation conditions of Petrifying springs with tufa formation (Cratoneurion) in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1014 Marsh Snail Vertigo angustion

To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1095 Sea Lamprey Petromyzon marinus

To restore the favourable conservation condition of Sea Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1099 River Lamprey Lampetra fluviatilis

To maintain the favourable conservation condition of River Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1365 Harbour Seal Phoca vitulina

To maintain the favourable conservation condition of Harbour Seal in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

Lough Gill SAC [001976]. Version 4. 13th February 2015

Objective:

To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected (see Table 3).

Cummeen Strand SPA [004035]. Version 1. 10th September 2013

Objective:

To maintain the favourable conservation condition of [the bird species listed] in Cummeen Strand SPA, which is defined by the following list of attributes and targets:

Population trend:

Percentage change; Long term population trend stable or increasing.

Distribution:

Range, timing and intensity of use of areas. No significant decrease in the range, timing and intensity of use of areas by [the birds listed], other than that occurring from natural patterns of variation.

A999 Wetlands

To maintain the favourable conservation condition of wetland habitat in Cummeen Strand SPA as a resource for the regularly occurring migratory waterbirds that utilise it. This is defined by the following attribute and target:

Habitat area: Hectare

The permanent area occupied by the wetland habitat should be stable and not significantly less than 1732 hectares, other than that occurring from natural patterns of variation.

3.3 Description of **Existing Habitats**

The description of habitats to follow is based on two main sources of information. The first source presented is a habitat survey undertaken specifically for the masterplan and presents an overview of the existing main habitats present in the Regeneration Masterplan Area. The second source of information comes from various surveys carried out on behalf of Sligo County Council and these provide essential information with regard to habitats both within the Regeneration Masterplan Area and in the wider area surrounding it.

3.3.1 Masterplan Area Habitats **Habitat Surveys**

The masterplan core area was surveyed on the 6th and 7th of June 2013 with a view to establishing the main habitat types in the study area as outlined on Figure 1. The field survey was conducted by Ger O'Donohoe M.Sc. of Moore Group (Environmental Services) with a view to creating an inventory of species under the study area. The survey was carried out within the optimal time for surveying the majority of the target species flora and fauna and the weather was fine during the survey. Flora and habitats were surveyed using guidance outlined in the Heritage Council Best Practice Guidance for Habitat Survey and Mapping (Smith et al. 2011). Habitat types were identified and classified using A Guide to Habitats in Ireland (Fossitt, 2000) with nomenclature following that of Parnell and Curtis, 2012.

The Garavogue River and Doorly Park were not surveyed in detail during the present habitat surveys as they are included in the Lough Gill SAC and a description of those habitats is provided in the Lough Gill SAC Site Synopsis (NPWS, 2006), an excerpt of which is presented in Section 3.3.2 below.

The Cranmore Estate is comprised of predominantly buildings and artificial surfaces (BL3 after Fossitt, 2000). The next largest habitat components are the areas of open amenity grassland (GA2), see Figure 7.

Buildings and artificial surfaces BL3 is not indicated on the habitat map (Fig. 7) but these areas are readily identified in Figure 7. These areas may be considered as low value in terms of biodiversity value. Similarly, scattered trees (WD5) are not indicated on the map (Fig. 7). The relative value of biodiversity within the Regeneration Masterplan Area is presented in Figure 8 below. This is a relative comparison and presents habitats in terms of highest value, e.g. designated conservation areas (Lough Gill SAC) to pockets of high local value such as woodland, scrub and hedgerows to lower local value areas such as managed open amenity grassland areas. Private gardens are not indicated at this level of mapping, but are acknowledged as having potential to provide low-moderate biodiversity value depending on their components, e.g. grass lawns versus paved areas.



Figure 7. Aerial photograph showing the main habitats present in the Regeneration Masterplan Area area surveyed 6-7th June 2013.



Figure 8. Aerial photograph showing the main habitats present in the Regeneration Masterplan Area area in terms of biodiversity value.

There are other small pockets of local ecology in the general Cranmore Regeneration Masterplan Area. There are two relict hedgerows in Cranmore Estate, H1 in Cranmore Place and H2 in Cranmore Drive, see Photos 1 and 2. These two hedgerows can be seen on the early six-inch OS maps (adapted from 2nd edition OS maps c. 1887-1913) of the site and as such are of interest in terms of their longevity, see Figure 9. They are referred to as hedgerows as this was their historical status. However, with age and height, they are succeeding to treelines. Note the position of Cranmore House to the north from which the present estate and street names were derived.

The Hedgerow (H3) along the field boundary to the south of Lidl acts as a green corridor between the Cranmore Estate and the SAC designated lands along the Garavogue River at Doorly Park. This is a site of high local biodiversity value and has high value as a wildlife corridor. Again it forms a historical field boundary remnant of the former Carnsfoot Estate.

There are various scattered trees (WD5) within the estate, mostly either Silver Birch (Betula pendula) or Rowan (Sorbus aucuparia). Sycamore (Acer pseudoplatanus) was also recorded in places along with Common Alder (Alnus glutinosa).



Photo 1. Old hedgerow of Hawthorn in Cranmore Place H1



Photo 2. Old hedgerow of Hawthorn in Cranmore Drive H2

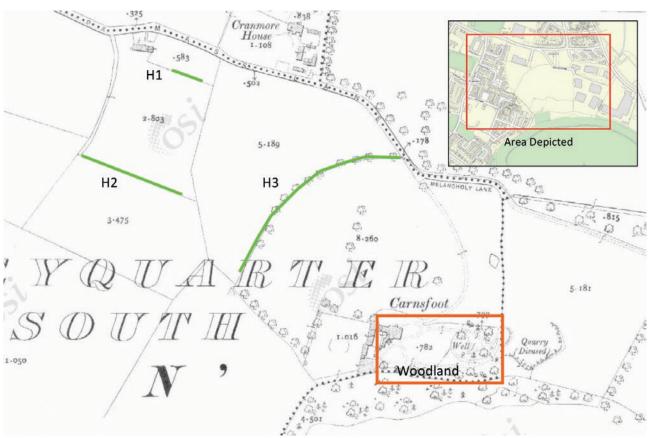


Figure 9. Showing the relict field boundaries, H1, H2, H3 and woodland area present in the Regeneration Masterplan Area and recorded on the 2nd ed. OS maps c. 1887-1913 (insert is present day OS).

There is an area of Mixed Broadleaved Woodland (WD1) on the grounds of the former Carnsfoot House, see Figure 7, and Figure 9, for the location of the former Carnsfoot House site. This area is surrounded by a grassland area.

Many of the trees in this woodland area are very old and some specimens are in good condition while others have been vandalised and burnt. Species include Ash (Fraxinus excelsior), Sycamore (Acer pseudoplantanus), Horse Chestnut (Aesculus hippocastanum), Hawthorn (Crataegus monogyna), Holly (Ilex aquifolium), Scots Pine (Pinus sylvestris), Beech (Fagus sylvatica). Shrubs include Rhododendron, Laburnum, Cherry laurel (Prunus laurocerasus) and New Zealand Holly (Olearia macrodonta).



Photo 3. Old hedgerow of Hawthorn in Carnsfoot Estate to the south or rear of Lidl (H3)

Other species present in the woodland include Bluebell (Hyacinthoides non-scripta), Pendulous sedge (Carex pendula), Montbretia (Crocosmia x crocosmiflora), Broadleaved plantain (Plantago major), Ribwort plantain (Plantago lanceolata), Hogweed (Heracleum sphondylium), Nettle (Urtica dioica), Meadow buttercup (Ranunculus acris), Snowberry (Symphoricarpos albus), Bramble (Rubus fruticosus agg.), Ground elder (Aegopodium podagraria), Ragwort (Senecio jacobaea), Germander speedwell (Veronica chamaedrys), Dock (Rumex obtusifolius) and Cleavers (Galium aparine).

The former site of Carnsfoot House itself has been colonised by a wetter grassland type community with Willow (Salix spp.) scrub and more grass species present including Meadow grasses (Poa spp.), Cocks-foot (Dactylis glomerata), and Meadow foxtail (Alopecurus pratensis). Four specimens of Greater knapweed (Centaurea scabiosa) were recorded in this area. The remains of the walled garden are intact and overgrown with grasses along with Montbretia and with Tufted vetch (Vicia cracca). Three original specimen apple trees are still in good condition. Montbretia is classified as an invasive species.

The adjacent grassland is comprised of a field of Dry meadow grassland (GS2). The field has been disturbed from quad bike or bike racing historically but does not show sign of being mown. Species include Meadow grasses (Poa spp.), Cocks-foot (Dactylis glomerata), and Meadow foxtail (Alopecurus pratensis) along with Meadow buttercup and Timothy (Phleum pratense).

Bat Survey

A bat survey was undertaken by the author in the grassland field next to the site of Carnsfoot House where it was expected that most activity might be recorded. The survey commenced at 21:00 on the 6th June 2013 using a Pettersson D230 Heterodyne bat detector and finished at 24:00. The evening was warm and dry presenting perfect conditions for bat surveying. The surveyor scanned the adjacent field boundaries and woodland at various frequencies in order to pick up possible woodland species such as Leisler's bats or Myotis species or commuting species expected to be using the adjacent hedgerows such as Pipistrelles. However, no bats were recorded, which was surprising given the abundance of commuting corridors and woodland, and the optimal conditions of the survey.

3.3.2 General Area Habitats

The Garavogue River and Doorly Park were not surveyed in detail during the present habitat surveys as they are included in the Lough Gill SAC and a description of those habitats is provided in the Lough Gill SAC Site Synopsis (NPWS, 2013), an excerpt of which is presented below.

Lough Gill itself, 2km east of Sligo town, lies at a geological junction of ancient metamorphic rocks which produce acid groundwater, and limestone which dissolves in the groundwater. The large 8km long lake has steep limestone shores and underwater cliffs and is over 20m deep in places. The lake appears to be naturally eutrophic, and thus represents a habitat listed on Annex I of the EU Habitats Directive.

There is a fringe of deciduous woodland along most of the length of the Garavogue River. In parts it is dense and impenetrable, with a very wet marshy underlayer. Some areas are dominated by Rusty Willow (Salix cinerea subsp. oleifolia), with Alder (Alnus glutinosa) also occurring commonly. Other tree species present include Goat Willow (Salix caprea), Hazel (Corylus avellana), Rhododendron (Rhododendron ponticum) and Cherry Laurel (Prunus laurocerasus). Both of the latter species are invasive aliens. In the understorey, species such as Guelder-rose (Viburnum opulus), Gipsywort (Lycopus europaeus) and Skullcap (Scutellaria galericulata) are found. Reedswamp is also common along the river.

The site is of considerable importance for the presence of four Red Data Book fish species that are listed on Annex II of the E.U. Habitats Directive - Brook Lamprey (Lampetra planeri), River Lamprey (Lampetra fluviatilis), Sea Lamprey (Petromyzon marinus) and Atlantic Salmon (Salmo salar). The Lough Gill system gets a very early run of spring salmon, while the Bonet holds stocks of salmon from spring right through to the end of the season. White-clawed Crayfish (Austropotamobius pallipes), Otter and Pine Marten are well established on this site, the first two are both Annex II species. The woodlands have a fauna, which includes several rare snail species.

Lough Gill supports low numbers of wintering waterfowl, mostly Mallard (<150), Tufted Duck (20-30) and Goldeneye (<20). A small colony of Common Tern breeds on the islands (20 pairs in 1993), while Kingfisher are found on the lake and rivers. Both of these species are listed on Annex I of the E.U. Birds Directive. A colony of Black-headed Gulls (63 pairs in 1992) occurs with the terns. The woods support a good diversity of bird species including Jay, Woodcock and Blackcap.

The site is of importance for three habitats listed on Annex I of the E.U. Habitats Directive, including one with priority status. It is also noted for the high number of rare or scarce animal and plant species. NPWS 27/11/2013.

The following reports and sources of information are included here because they either contain supplementary information on habitats or species that have been recorded either within or close to the Regeneration Masterplan Area.

Sligo and Environs Habitat Mapping (2007)

Sligo County Council undertook a survey of grasslands of conservation concern outside of designated sites during 2006. The Sligo and Environs Habitat Mapping Project completed in 2007 sought to build on the work carried out in that previous survey and to act as a step towards the completion of a county habitat map to Fossitt (Level III) in the longer term.

The project objectives were:

- To create a habitat map and vegetation survey for the area governed by the Sligo and Environs Development Plan 2004-2010 (approx. 60kms2) using the Heritage Council draft methodology.
- To undertake a desktop survey of landscape features of ecological value within the county outside of designated sites.

McCorry (2008) revised the habitat mapping data for the Sligo and Environs Area and evaluated locations for their ecological importance in the target notes. The evaluation criteria were taken from the NATURA scheme for ecological evaluation of sites (after Nairn and Fossitt, 2004). Since the report was compiled, the NRA have updated the evaluation scheme. An interpretation of the revised scheme is provided for the purposes of the present study at the end of each excerpt.

The following three areas of biodiversity interest were identified in the mapping project (2007) and in a review of the mapping project by the author, Mark McCorry (2008).

Broad-leaved woodland (WD1) at Cleaveragh Demesne

This biodiversity area is located adjacent to Cleaveragh Woodland. It contains some seminatural grassland and a small patch of broad-leaved woodland (WD1). These habitats on their own are not particularly diverse or good quality examples of these habitats. However, their value is enhanced by the proximity of the wet woodlands along the Garavoque River, which are also designated as part of Lough Gill SAC and their situation close to the urban area of Sligo Town. This is a site of 'lowmoderate' local biodiversity value.

Under the 2009 NRA guidance this habitat is considered of local importance – higher ecological value.

Mixed broadleaved/conifer woodland (WD2) at Hockey Pitch

The mapping project identifies an area of Mixed broadleaved/conifer woodland (WD2) to the rear of the Hockey pitch at the Regional Sports Centre. The woodland is described as follows: The woodland is dominated by beech and spruce. There is poor scrub structure and old plantation. The ground cover shows little biodiversity and is dominated in parts by ivy. The woodland on the south side of the road shows greater diversity in ground cover and includes hazel, violets, lady fern and meadowsweet, all of which are absent from the other woods. Ash regeneration on this side of the road is quite good. The scrub and understorey are more complex. There is dumping at the entrance. It is described as Local biodiversity area as a Secondary corridor and a Buffer area. It is also described as an area of low local importance under the older scheme. Under the 2009 NRA guidance this habitat is considered of local importance - higher ecological value.

Meadow grassland (GS2) at Sligo City Racecourse

Sligo Town Racecourse was included in the review of the Sligo and Environs Habitat Mapping (McCorry, 2008) and was determined to have a Natura rating of D-C (Nairn and Fossitt, 2004) and a Habitat Diversity rating of A, where Habitat Diversity relates to an arbitrary assessment of habitat diversity within the biodiversity area on a scale of A-C with A having the highest habitat diversity. The racecourse habitat is described as follows:

The inner part of the race-course contains some particularly diverse grassland. Most of the grassland is of moderate quality but can be classified as GS2 type meadow as it is mown for hay. A small basin contains wet grassland of higher diversity as well as some developing scrub.

This is a site of 'moderate' local biodiversity value. Its value is enhanced by its location within the urban part of Sligo Town.

Under the 2009 NRA guidance the Racecourse is considered of local importance – higher ecological value.

County Sligo Wetland Survey Phase IV

The purpose of the survey (Wilson, Foss and Crushell, 2011) was to determine and map the type, extent and condition of wetlands in the county. During the 2008 survey, Compass Informatics in association with Faith Wilson Ecological Consultant undertook a desk based assessment using Geographical Information Systems (GIS) datasets to identify the location of potential wetlands in County Sligo. A review of published reports (mostly from Environmental Impact Statements for large infrastructural projects such as national road schemes) was also conducted to determine wetland locations and collate information on wetlands in the county. This study identified 1812 potential wetland sites in the county. The most recent work was undertaken with a number of objectives inter alia to provide habitat mapping to Fossitt Level 3 for each of the wetland sites surveyed in Phase IV.

The report acknowledges the extensive cover of wetlands in County Sligo and Lough Gill is acknowledged as part of the Lough Gill SAC and containing the Fossitt classified habitats

- FL5 Eutrophic lakes
- FW1 Eroding/upland rivers
- FW2 Depositing/lowland rivers
- FW4 Drainage ditches GM1 Marsh
- PB4 Cutover bog
- PF Fens and Flushes
- WN4 Wet pedunculate oak-ash woodland
- WN5 Riparian woodland
- WN7 Bog woodland

The Annex I habitat; (3150) Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation is also acknowledged as a Qualifying Interest for the Lough Gill SAC. These habitats will be considered in greater detail under the masterplan Appropriate Assessment process with reference to the proximity of the Garavogue River and Lough Gill and are highlighted here in terms of their biological and potential hydrological connectivity to the Regeneration Masterplan Area.

Restoring Priority Woodland Habitats in Ireland 2006-2009

This project is a nature conservation project jointly funded by the EU DG-Environment and Coillte under the EU Life Programme. The project is managed by Coillte and focuses on the restoration of nine Coillte owned sites within the Natura 2000 network. One of these sites is located at Hazelwood Demesne on the northern shores of Lough Gill opposite Doorly Park and is included in the Lough Gill SAC, see Figure 10.

Hazelwood includes the Priority Habitat – Alluvial woodland – and is a habitat containing native tree species and scattered non-native broadleaves, but overgrown with Rhododendron ponticum. It is classified as former 'old woodland' and this is confirmed by the presence of broadleaved woodland on the 1830 OS map. A network of shallow drainage ditches covers the entire site.

Monitoring under the Life Project indicates change from a dense stand of Rhododendron, which has been controlled to a woodland where much more light reaches the floor. However, it is now regenerating from stumps and seeding. There has been a small change since 2008 and wetland/wet woodland plant species are starting to increase. Raspberry has invaded since 2008.

Again, these habitats will be considered in greater detail under the masterplan Appropriate Assessment process with reference to the proximity of the Garavogue River and their location within the Lough Gill SAC.

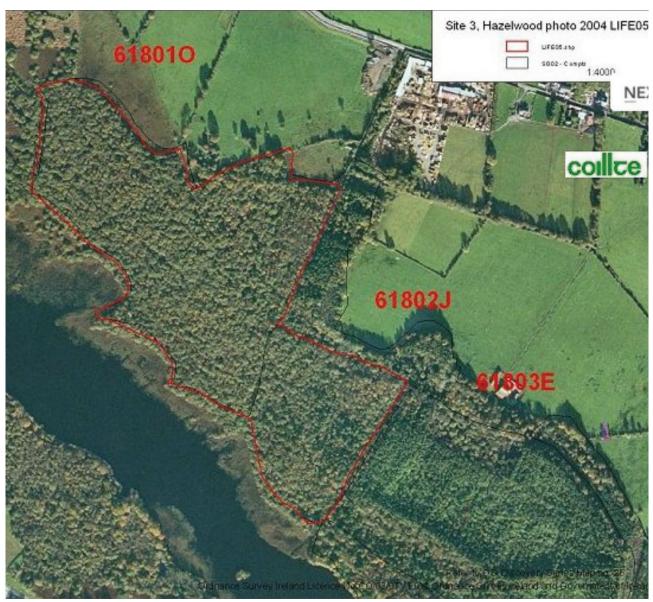


Figure 10. Showing the Coillte EU LIFE Site at Hazelwood on the Northern bank of the Garavogue River

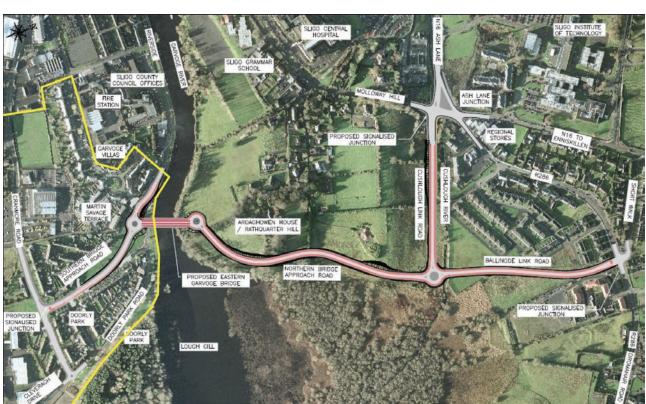


Figure 11. Proposed layout of the Eastern Garavogue Bridge and Approach Roads Scheme in relation to the Masterplan Area in the vicinity of Doorly Park.

Eastern Garavogue Bridge and Approach Roads

Sligo County Council has recognised the existing deficiency of the roads infrastructure in the city by including the Eastern Garavogue Bridge in the Sligo and Environs Development Plan 2004-2010. This objective has been included in consecutive development plans, dating from the 1960's onward. The scheme is considered crucial in terms of the future development potential of Sligo.

The An Bord Pleanála approved scheme will cross the Garavogue River, which is part of the designated area that is the Lough Gill Special Area of Conservation (SAC), see Figure 11. A clear span bridge will cross the river and overall the proposed scheme will not adversely affect the overall integrity of the SAC. Elsewhere the route will clip a small stand of wet woodland which appears similar in character to the adjoining SAC, a number of mature trees will be lost which will affect the diversity of the woodland. The Cushlough River and marsh areas around it will lose some habitat of local importance.

A clear span bridge will prevent any impact to the river considered important as a habitat for salmon and lamprey. Suitable precautions will be taken to prevent accidental contamination of watercourses with silt and pollutants during the construction and operation. This will involve the provision of pollution interceptors at all outfalls from the surface water drainage system along the route.

An AA Screening Report has been prepared for a variation to the Sligo and Environs Development Plan to include the scheme and this will be considered during the appropriate assessment of the Cranmore Regeneration Masterplan.

Doorly Park Maisonettes Demolition Project

Woodrow Sustainable Solutions were contracted by Sligo County Council to undertake a Habitats Directive screening for the demolition of 4 two story terraced blocks, consisting of 28 vacant duplex dwellings at Doorly Park with associated site works in June 2012, see Figure 12.

The requirement for the competent authority was to:

- **Determine** whether the proposal is directly connected with or necessary to site management for conservation; and if not
- **Determine** whether the proposal is likely to have a significant effect on the site either individually or in combination with other plans or projects; and if so
- Make an Appropriate Assessment of the implications (of the proposal) for the site in view of the Natura 2000's conservation objectives.

An AA Screening Report was carried out and the finding of the report was there would be no significant impact on the Natura 2000 sites considered in the report:

A Bat Survey was also carried out by Woodrow Sustainable Solutions in May and July 2012. While some remains of insects were found on the windowsills of houses, they were not considered to be bat prey remains. A single bat dropping was considered to have been deposited by a feeding bat. It was concluded that there was no significant level of bat activity around the exterior of the houses. An emergence survey recorded a total of 33 bat passes around the buildings. A single Soprano Pipistrelle appeared to emerge from the northeast facing wall of one block. Three species were recorded; Soprano Pipistrelle (Pipistrellus pygmaeus), Leisler's Bat (Nyctalus leisleri) and Myotis Sp. (Myotis spp.). From the flight paths mapped it appeared that the bats were mainly using the hedgerow to the south of the buildings as a commuting and feeding corridor.

Sligo Racecourse Grandstand Project

The Sligo Racecourse Company submitted a planning application to the local authority in August 2012 with regard to the demolition of the existing tote and grandstands and the construction of a replacement tote facility and grandstand and viewing platform with all ancillary works. The project was determined to be outside the influence of Natura 2000 sites and so AA was not required but a Bat Survey was requested through further Information. The Bat Survey was carried out by Dr. Caroline Shiel. Mitigation measures were proposed as conditions to the panning permission in order to protect bats in regard to that project.



Figure 12. Showing the location of the Doorly Maisonettes demolition project adjacent to Doorly Park.

4 Habitat Evaluation

4.1 Ecological Valuation Schemes

The following evaluation is based on guidelines for assessment of Ecological Impacts of National Road Scheme (NRA, 2009). The ecological value of sites was assessed following the guidelines set out in the Institute of Ecology and Environmental Management's Guidelines for Ecological Impact Assessment (2006) and according to the NRA Scheme for evaluating ecological sites. Judgments on the evaluation were made using geographic frames of reference, e.g. International, National, County or Local, see Table 4 below.

Table 4

Habitat Valuation Scheme according to NRA (2009)

Ecological Valuation Scheme (NRA 2009)

International Importance:

European Site 'including Special Area of Conservation (SAC), Site of Community Importance (SCI), Special Protection Area (SPA) or proposed Special Area of Conservation

Proposed Special Protection Area (pSPA)

Site that fulfils the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended).

Features essential to maintaining the coherence of the Natura 2000 Network.4

Site containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive

Resident or regularly occurring populations (assessed to be important at the national level)5 of the following:

Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and/or Species of animal and plants listed in Annex II and/or IV of the Habitats Directive

Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971)

World Heritage Site (Convention for the Protection of World Cultural and Natural Heritage, 1972)

Biosphere Reserve (UNESCO Man and The Biosphere Programme)

Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979)

Site hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979)

Biogenetic Reserve under the Council of Europe

European Diploma Site under the Council of Europe

Salmonid water designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988, (S.I. No. 293 of 1988)

Table 4

Habitat Valuation Scheme according to NRA (2009)

Ecological Valuation Scheme (NRA 2009)

National Importance:

Site designated or proposed as a Natural Heritage Area (NHA)

Statutory Nature Reserve

Refuge for Fauna and Flora protected under the Wildlife Acts

National Park

Undesignated site fulfilling the criteria for designation as a Natural Heritage Area (NHA); Statutory Nature Reserve

Refuge for Fauna and Flora protected under the Wildlife Act; and/or a National Park

Resident or regularly occurring populations (assessed to be important at the national level)7 of the following:

Species protected under the Wildlife Acts; and/or

Species listed on the relevant Red Data list

Site containing 'viable areas' 8 of the habitat types listed in Annex I of the Habitats Directive

County Importance:

Area of Special Amenity. 9

Area subject to a Tree Preservation Order

Area of High Amenity, or equivalent, designated under the County Development Plan

Resident or regularly occurring populations (assessed to be important at the County level) 10 of the following:

- Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive
- Species of animal and plants listed in Annex II and/or IV of the Habitats Directive
- Species protected under the Wildlife Acts; and/or
- Species listed on the relevant Red Data list

Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfil the criteria for valuation as of International or National importance.

County important populations of species, or viable areas of semi-natural habitats or natural heritage features identified in the National or Local BAP, if this has been prepared

Sites containing semi-natural habitat types with high biodiversity in a county context and a high degree of naturalness, or populations of species that are uncommon within the county.

Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level

Local Importance (higher value):

Locally important populations of priority species or habitats or natural heritage features identified in the Local BAP, if this has been prepared

Resident or regularly occurring populations (assessed to be important at the Local level)12 of the following:

- Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive
- Species of animal and plants listed in Annex II and/or IV of the Habitats Directive
- Species protected under the Wildlife Acts; and/or
- Species listed on the relevant Red Data list

Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality

Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value.

Local Importance (lower value):

Sites containing small areas of semi-natural habitat that are of some local importance for wildlife

Sites or features containing non-native species that are of some importance in maintaining habitat links

4.2 Natura 2000 Sites

This category includes the Special Areas of Conservation and Special Protection Areas adjacent to the Regeneration Masterplan Area or having biological or hydrological connectivity with the area. The sites considered include:

- Lough Gill SAC 001976
- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC 000627
- Cummeen Strand SPA 004035

These sites are afforded the highest level of protection being of International Importance. The biological connectivity to these sites has been established in terms of potential hydrological connectivity with the Garavogue River with connectivity upstream to Lough Gill and downstream to Sligo Bay and its constituent Natura 2000 sites. The Habitats Directive sets out the requirement for Appropriate Assessment (AA) for the assessment of plans or projects that may potentially impact these sites and this will be addressed in a separate AA document.

4.3 Non-Designated Habitats and Species

This category includes areas of semi-natural habitat types or locally important sites for wildlife. They are listed according to the Fossitt habitat classification system.

WS1 Scrub

These areas occur to the east and rear of the Lidl site and at the Carnsfoot House wooded area and comprise approximately 4% of the Regeneration Masterplan Area. They are predominantly comprised of juvenile Willow and Willow saplings and are associated with abandoned fields to the rear of Lidl or fields that were possibly cleared for development but recolonised to the east of Lidl.

The areas to the rear of Lidl are of local importance - lower value. The area associated with Carnsfoot House wood is of local importance - higher value.

GA2 Amenity Grassland

These areas occur throughout the Regeneration Masterplan Area and are comprised of green areas and playing fields. There are six areas comprising c. 4.5 Ha or almost 12% of the Regeneration Masterplan Area. These areas are of local importance - lower ecological value.

GS2 Dry Meadow

These areas were mapped during the present survey as the grassland meadow associated with the footprint of the former site of Carnsfoot House at c. 3.4 Ha or approximately 9% of the Regeneration Masterplan Area. The meadow has been affected by biking or quad biking in the past. This does not appear to have affected the habitat but may have had an effect on bird and bat species that would otherwise utilise the surrounding woodland and hedgerow habitats for nesting and foraging.

These areas are of local importance - higher value. Other similar areas of grassland can be found in the Racecourse grounds and were mapped and described in the Sligo and Environs Habitat Mapping Project (2007).

WD1 Mixed Broadleaved Woodland

This area was mapped during the present survey as the woodland associated with the footprint of the former site of Carnsfoot House at approximately 5.3 % of the overall Regeneration Masterplan Area. The woodland capacity as a wildlife refuge may have been affected by anti-social behaviour (signs of fire scorched trees in June, 2013), which in turn may have had an effect on bird and bat species that would otherwise utilise the woodland and hedgerow habitats for nesting and foraging.

This habitat is of local importance – higher value (NRA, 2009).

WL1 Hedgerows

There are three hedgerows mapped in the present study. H1 and H2 are relict field boundaries and provide a small amount refuge for insects and birds. H1 is approximately 18 m in length and between 4–5 m in height and is comprised of c. 9 Hawthorn trees which are growing out to become a short treeline. H2 is approximately 80 m in length and between 4-5m in height and is comprised of c. 30 Hawthorn trees which are also growing out to become a treeline. The Hedgerow (H3) along the field boundary to the south of Lidl has potential as a green corridor between the Cranmore Estate and the SAC designated lands along the Garavogue River at Doorly Park. H3 is approximately 210 m in length and between 4–5 m in height and is comprised of predominantly Hawthorn along with interspersed Ash.

A 'green corridor' for the purposes of the masterplan can be defined as per the Sligo Habitats Mapping Project as follows:

Primary Corridor: A large linear feature like a major river or a large wooded strip. Primary corridors can be sub-divided into reaches of broadly similar character e.g. an urban reach of river built up and modified, a poor rural reach with improved land to either side, a green valley reach with abundant woodland and wetland habitat associated with the corridor feature.

Secondary Corridor: Usually a single feature such as a river tributary, hedgerow, wooded strip or a short stretch of habitat along a railway/road.

The two short Hedgerow habitats within Cranmore Estate are of local importance – lower ecological value while the larger Hedgerow (H3) is of local importance - higher value and is considered a secondary corridor.

Urban Gardens

Urban gardens were not mapped during the present survey but those that contain amenity grassed areas or flowerbeds have some biodiversity value and can be attributed as local importance - lower value.

Invasive Species

There is extensive growth of Montbretia in the area of the former walled garden and patched throughout the woodland of Carnsfoot House. Montbretia is an invasive species and could be cleared from the site if it were to be developed as a park. This area is indicated as WD1 on Figure 7 showing the main habitats in the area.

There were no records of Japanese Knotweed during the present habitat survey. There are no records of Japanese Knotweed in the Regeneration Masterplan Areas on the National Biodiversity Data Centre Database (NBDC).

4.4 Species of Conservation Concern

There are relatively few birds or mammals recorded in the Regeneration Masterplan Area. However, the presence of bats on the periphery of the study area has been established through two reports as previously discussed.

Bats

Bats are protected species under the Wildlife Act (1976) and Wildlife [Amendment] Act (2000). All bat species are protected under Annex IV of the EU Habitats Directive, while the lesser horseshoe bat is listed under Annex II.

The woodland area around Carnsfoot House and the associated Hedgerow (H3) was identified during desktop assessment as potential areas for bat foraging. A short survey to determine their presence during optimum conditions yielded poor results.

However, there are records for bats on the National Biodiversity Data Centre (NBDC) Database (May 2016) and these are presented in Figures 13-16.

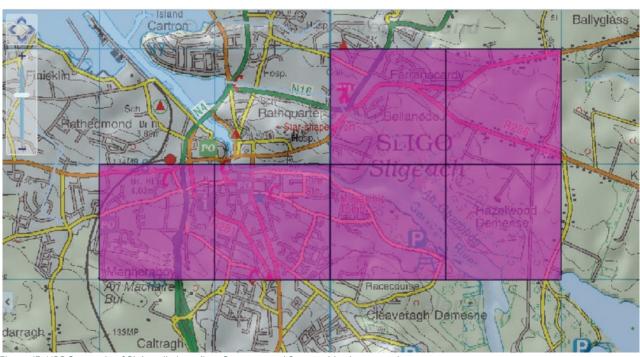


Figure 13. NBDC records of Pipistrelle bats (inc. Common and Soprano) in the general area



Figure 14. NBDC records of Natterer's bats in the general area

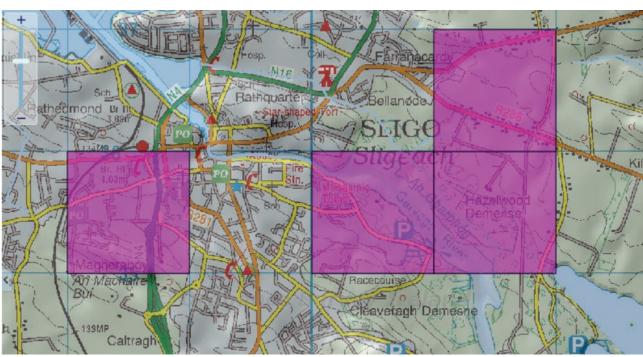


Figure 15. NBDC records of Brown Long Eared bats in the general area

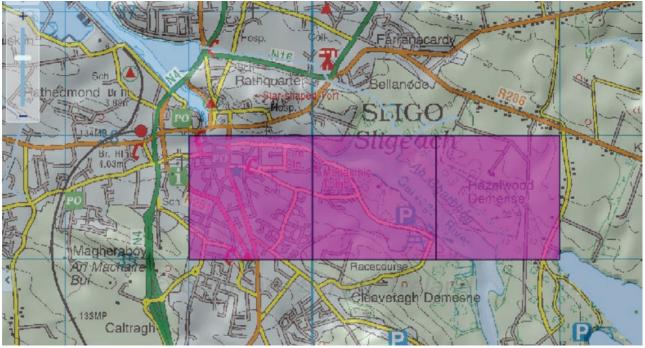


Figure 16. NBDC records of Daubenton's bats in the general area

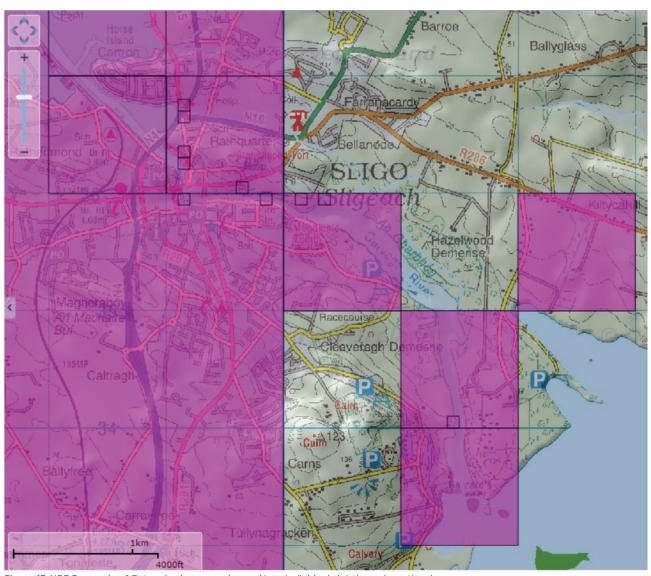


Figure 17. NBDC records of Otters in the general area. Note individual sightings along the river

From the NBDC records, it is clear that there is an area of relatively high bat activity associated with Hazelwood and Doorly Park wood and that Pipistrelle and Daubenton's activity extends into the eastern urban area of Sligo town.

Additionally, the results of two previous reports relating to the Doorly Maisonettes Demolition Project and the Racecourse Grandstand Project have shown that bats have been recorded in the Masterplan Area and environs.

The Bat Survey for the Doorly Maisonettes Demolition Project showed bat foraging activity associated with a hedgerow to the south of the project site. It is possible that bats commute from the river and Doorly Wood area into Doorly Park and northern Cranmore areas.

Otters

Otters are afforded the highest level of protection under the Habitats Directive and are included as a Qualifying Interest for the Lough Gill SAC. There have been several records of otters in the Riverside area of Sligo over the past 5 years, see Figure 17. Otters use regular paths along river banks leaving signs such as slides, which are long flattened areas of grass on the river bank where the otter slips into the water. Otters have regular feeding places such as a rock in the middle of a stream or river where feeding remains such as fish bones and the hard parts of crustaceans and molluscs can be seen. Otters also use regular latrines, again often on top of a rock or tree stump. Otters are largely solitary animals and territories, social and reproductive status are indicated to other otters by the deposition of spraints (droppings) at traditional or conspicuous sites within an individual's territory.

Salmon

Lough Gill is a well know salmon and trout fishery. Inland Fisheries Ireland hold records for Salmon in the lake which migrate along the Garvoge River. Salmon is a qualifying interest for the Lough Gill SAC and is protected in freshwater.

Lamprey

Lamprey are Annex II listed species which occur in the Garvoge River. Sea lamprey records from the NBDC reflect the review of distribution and status undertaken by Igoe et al., 2004. Sea Lamprey (Petromyzon marinus) have been recorded in the Garvogue River and both River Lamprey (Lampetra fluviatilis) and Brook Lamprey (Lampetra planeri) have been recorded in Lough Gill.

White-clawed crayfish

White-clawed crayfish are a qualifying interest for the Lough Gill SAC and records of occurrence are from water courses upstream of Lough Gill in Co. Leitrim. There are no records from the river in the areas of Sligo Town.

Birds

All species of birds are protected under the Wildlife Act 1976/Wildlife Amendment Act 2000. There were a number of typical woodland and passerine species recorded while surveying the study area in June 2013. These are presented in Table 5 below. The status of each species is listed based on BirdWatch Ireland's species of Conservation Concern. Green list species are widespread and not under threat, amber and red species are of greater conservation concern.

Table 5 Bird species recorded in June 2013 in the Masterplan Area

Birds	Scientific name	BW1	Habitat Type	
Blackbird	Turdus merula	Green	Dense woodland to open moorland, common in gardens	
Chaffinch	Fringilla coelebs	Green	Hedgerows, gardens and farmland	
Great Tit	Parus major	Green	Woods, hedges, gardens	
Goldfinch	Carduelis carduelis	Green	Open woodland, gardens and farmland	
Jackdaw	Corvus monedula	Green	Towns, cities, farmland, parkland, woodland, sea cliffs	
Magpie	Pica pica	Green	Farmland, open country with scattered trees or bushes	
Robin	Erythacus rubecula	Green	Woodland, gardens and parks	
Woodpigeon	Columba palumbus	Green	Gardens, woods, hedges	
Wren	T. troglodytes	Green	Low cover anywhere, especially woodlands	
Swallow	Hirundo rustica	Amber	Amber-listed in Ireland due to concerns over the entire European population	

5 Assessment Criteria

5.1 Examples of Direct, Indirect or Secondary Impacts

In general, any development that may result from implementation of a proposed plan, such as site construction, access roads, water and wastewater infrastructure, electricity and telecommunications infrastructure could lead to a number of impacts depending on where development is sited, the scale of development and types and quantities of emissions.

The determination of the significance of impacts is dependent on the relative quality and conservation status of the site(s) in question. This Ecological Considerations Report has identified that there are three European sites are of International Importance.

In practice and as outlined in the EU document 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, and the national guidance document Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, impacts that could potentially occur through the implementation of a proposed Project can be categorised under a number of headings:

- Habitat loss within Natura 2000 sites
- Direct species mortality
- Disturbance of species during construction
- Disturbance of species post construction
- Disturbance due to lighting
- Surface water runoff during construction
- Surface water runoff from increased hard standing areas
- Decrease in water quality and quantity (affecting local drainage - supply of water to alluvial woodlands)

- Disturbance of watercourses due to diversions, culverting
- Water Supply
- Infill of ecological areas through inappropriate disposal of material (spread of invasive species)
- Wastewater treatment plant capacity

With regard to potential impacts on Natura 2000 sites it is necessary to describe the Natura 2000 sites in the context of why they have been designated i.e. in terms of their qualifying Interests and the environmental and ecological conditions that maintain the condition of these features.

This is carried out under the Appropriate Assessment process and is the subject of a separate Report for AA Screening and Stage 2 AA if required.

This ecological report has identified that there are examples of sites of low and high ecological value within the Regeneration Masterplan Area. The above listed examples of impacts can also be transposed to Local Biodiversity Areas and local value ecological areas.

Cumulative impacts or effects are changes in the environment that result from numerous humaninduced, small-scale alterations. Cumulative impacts can be thought of as occurring through two main pathways: first, through persistent additions or losses of the same materials or resource, and second, through the compounding effects as a result of the coming together of two or more effects.

Cumulative effects will have to be considered in terms of other projects that would result in changes to the physical environment or that would have additive or in-combination impacts.

Other projects and reports that will be considered will include:

- Eastern Garavogue Bridge and Approach Roads AA
- Doorly Park Maisonettes Demolition Project AA Pearse Road Drainage Scheme NIS
- North Leitrim Rural Water Supply Scheme (affecting Doorly Wood paths)
- Doorly Park Pontoon proposed to be developed near Doorly Gate Lodge by Sligo Tourist Development Association in partnership with SCC
- Proposed Distillery and Museum: Hazelwood Demesne
- Other AA Screening reports and Natura Impact Statements available from SCC Planning section.
- Proposed drainage upgrade for R286 (Dromahair road drainage towards alluvial wetlands with constructed wetlands)

The following section sets out a review of the habitats with relevant connectivity to the area.

5.2 Habitat Evaluation Summary

In general, the core area of Cranmore is comprised predominately of buildings and artificial surfaces. However, there are large amenity grassland areas that have potential for creating and enhancing biodiversity. Opportunities exist to create mosaics of grassland, scrub, woodland and possibly wetland. These habitats create the greatest species richness and structural diversity. The reader is referred to Figure 7 for mapped areas of ecological importance in the Regeneration Masterplan Area. Additionally, the availability of green spaces in the Regeneration Masterplan Area have been identified in detail and are shown in Figure 18.

It should be noted that in order to create wetland habitats it will be necessary to identify drainage patterns and areas that may act as natural sumps or that can be created through SUDs. Artificial wetlands may require a drainage catchment of up to 10 Ha in order for component habitats and species to survive dry periods.

Sustainable Urban Drainage will also address the problem of a combined system of surface water and foul water systems. Additional native tree species such as Oak, Ash and Alder provide wildlife habitats as well as providing visual amenity. They also absorb airborne particles and produce oxygen and act as a carbon sink.

Trees introduce a natural scale to a streetscape and native deciduous trees reflecting the changing seasons, provides a psychological link with nature.

Introducing small scale local projects such as native or specimen tree planting, such as Oak introduces a sense of ownership and reduces potential antisocial activity. The woodland at Carnsfoot is of moderate quality but is an old woodland site and has potential for woodland restoration. It does contain some semi-natural woodland features of local importance - higher value and could be considered a Local Biodiversity Area as described in the Sligo Habitat Mapping Project.

This biodiversity area also acts as a green corridor linking the Racecourse biodiversity area to the Doorly Park woodland and the Garavogue River.

The woodland should be developed as Carnsfoot Wood Park and the site rehabilitated to clear the walled garden and create a park directly connected with Cranmore and forming a green corridor between Cranmore and Doorly Park.

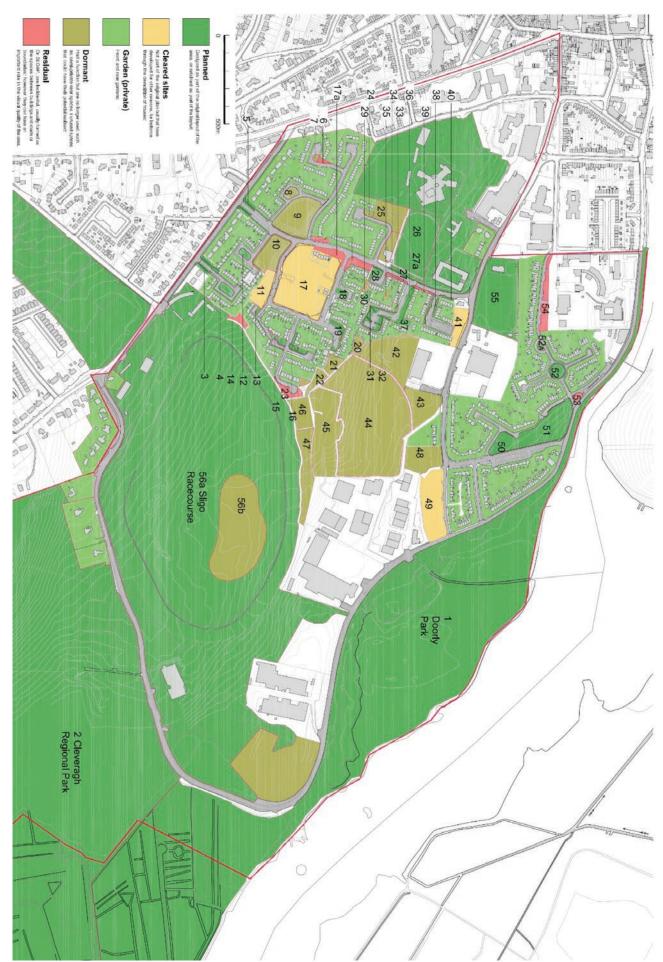


Figure 18. Green spaces identified within the Regeneration Masterplan Area

6 Conclusions

It is unlikely that there would be direct impacts on the European sites considered in this report and so potential impacts will need to be considered, in terms of indirect source – pathway vectors such as water borne impacts that may be transported to hydrologically connected sites, and has been addressed through the Appropriate Assessment process (c.f. Appropriate Assessment Screening Report).

Potential indirect impacts on water quality and high quality dependant species such as Otter, Salmon and Lamprey will be avoided by incorporating appropriate and adequate Sustainable Urban Drainage Systems and a design feature of the masterplan.

Biodiversity in the Regeneration Area will be increased by introducing landscaping with emphasis on the promotion of biodiversity with native species of local provenance and the protection of existing local biodiversity areas such as Carnsfoot House Wood as a potential amenity area. Carnsfoot is located to the rear of Cranmore Estate and is under utilised apart from shortcuts to get to Lidl and Doorly Park. It will be enhanced and the green value of the amenity embraced.

All bats are listed on Annex IV of the EU Habitats Directive. The domestic legislation that implements this Directive gives strict protection to individual bats and their breeding and resting places.

Where a proposed development will affect a site known to be used by bats, consideration will be given to the likely impact on the population(s). Even when planning permission is given, or the activity does not require such permission, the wildlife legislation applies; bats and their breeding and resting places are still protected.

In terms of the masterplan, if buildings or groups of buildings are to be demolished, the consenting authority may request a bat survey of that particular aspect of the plan.

The otter is listed on Annex IV of the EU Habitats Directive. The domestic legislation that implements this directive gives strict protection to individual otters and their breeding and resting places.

Where a proposed development will affect a site known to be used by otters, consideration will be given to the likely impact on the population. Even when planning permission is given, or the activity does not require such permission, the wildlife legislation applies; otters and their breeding and resting places are still protected.

It is unlikely that any otters or their resting places would be affected by implementing the masterplan. In terms of strategic planning, they will be considered as a qualifying interest of the Lough Gill SAC and will therefore be addressed through the Appropriate Assessment process.

The Sligo and Environs Development Plan 2010-2016 contains numerous measures which will directly and/or indirectly contribute to the conservation of Natura 2000 sites and the protection of locally important ecological sites. These will assist in the implementation of the requirements of the Habitats Directive and will ensure that the Cranmore Regeneration Masterplan will not have a significant impact on local ecology or on the integrity of Natura 2000 sites:

- **SP-Z-5** Protect designated nature conservation sites, landscape, archaeology, valuable natural amenity areas, water and natural resources, while allowing for the possible further expansion of the city in the long-term
- P-NH-3 Consult with the relevant prescribed bodies and appropriate agencies when considering undertaking, approving or authorising developments which are likely to affect designated natural heritage sites or those proposed to be designated

- O-NH-1 Require an appropriate environmental assessment in respect of any proposed development likely to have an impact on a designated natural heritage site or those sites proposed to be designated
- O-NH-2 Ensure that environmental assessments in relation to designated natural heritage sites (or those sites proposed to be designated) are carried out by appropriate professionals
- O-NH-4 Any plan or project not directly connected with or necessary to the management of a Natura 2000 site, but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to an appropriate assessment in accordance with Art. 6 of Directive 92/43/EEC, of its implications for the Natura 2000 site in view of the site's conservation objectives
- P-NH-6 Ensure that development does not have a significant adverse impact, incapable of satisfactory mitigation, on plant, animal or bird species protected by law
- P-NH-7 Consult with the National Parks and Wildlife Service, and take account of any licensing requirements, when undertaking, approving and authorising development which is likely to affect plant, animal or bird species protected by law

If the Policies and Objectives of the governing Development Plan are employed in the implementation of the Sligo East City, Cranmore and Environs Regeneration Masterplan, then the plan will not have a significant impact on habitats or species of local, regional or international importance.

7 References

- Anonymous (2009) Final River Basin Management Plan for the Western River Basin District in Ireland (2009-2015) December 2009.
- Anonymous (2010) Restoring Priority Woodland Habitats in Ireland Technical Interim Report LIFE Project Number LIFE05 NAT/IRL/000182.
- Department of the Environment, Heritage and Local Government (2010) Guidance on Appropriate Assessment of Plans and Projects in Ireland (as amended February 2010).
- European Commission (2000) Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission Environment DG (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43EEC. European Commission, Brussels.
- European Commission (2007) Guidance document on Article 6(4) of the 'Habitats Directive '92/43/ EEC: Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interests, compensatory measures, overall coherence and opinion of the Commission. European Commission, Brussels.
- Igoe, F., Quigley, D.T.G., Marnell, F., Meskell, E., O'Connor, W. and C. Byrne (2004) The Sea Lamprey Petromyzon marinus (L.), River Lamprey Lampetra fluviatilis (L.) and Brook Lamprey Lampetra planeri (Bloch) in Ireland: General Biology, Ecology, Distribution and Status with recommendations for conservation. Biology and Environment: Proceedings of The Royal Irish Academy, Vol. 104b, No. 3, 43-56 (2004).
- McCorry, M. (2008) Review of Sligo Habitat Mapping. Sligo County Council.

- Nairn, R. and J. Fossitt (2004) The Ecological Impacts of Roads, and an Approach to their Assessment for National Road Schemes. In: J. Davenport and J.L Davenport (eds) The Effects of Human Transport on Ecosystems: Cars and Planes, Boats and Trains, 98-114. Dublin. Royal Irish Academy.
- NRA (2009) Guidelines for Assessment of Ecological Impacts on National Road Schemes. Revision 2, 1st June 2009. NRA, Dublin.
- NPWS (2002) Site Synopsis for Cummeen Strand SPA 004035. Version date: 28.02.2002. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) The Status of EU Protected Habitats and Species in Ireland. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.
- NPWS (2013) Site Synopsis for Lough Gill SAC [001976]. Version date: 27.11.2013 001976_Rev13. Doc. Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Conservation Objectives: Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC 000627. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Conservation Objectives: Cummeen Strand SPA 004035. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Site Synopsis for Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC 000627. Version date: 4.09.2013 000627_Rev13.Doc. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2015) Conservation objectives for Lough Gill SAC [001976]. Generic Version 4.0. Department of Arts, Heritage and the Gaeltacht.

- Sligo County Council (2007) Habitat Mapping for Sligo and Environs Development Plan.
- Sligo Borough Council (2010) Sligo and Environs Development Plan 2010–2016
- Sligo County Wetlands Reports 2008–2011

Other Sources

- Blamey, M., Fitter, R. and A. Fitter. 2003. Wild Flowers of Britain and Ireland. A and C Black, London.
- Cope, T. and Gray, A. 2009. Grasses of the British Isles. BSBI Handbook No. 13.
- Curtis T.G.F. & and McGough H.N. 1988. The Irish Red Data Book. 1. Vascular Plants. The Stationery Office, Dublin.
- Fossitt, J.A. 2000. Guide to Habitats in Ireland. The Heritage Council.
- Haslam, S., Sinker, C. & and P. Wolseley. 1982. British Water Plants. Field Studies Council Publications (Rev. 1995).
- Hayden, T. and Harrington, R. 2001. Exploring Irish Mammals. Town House, Dublin.
- Jermy A.C., Simpson, D.A., Foley, M.J.Y. and Porter, M.S. 2007. Sedges of the British Isles. BSBI Handbook No. 1, Ed. 3.
- Nash, D., Boyd, T. and D. Hardiman. 2012. Ireland's Butterflies; A Review. The Dublin Naturalists' Field Club.
- Parnell, J. and T. Curtis. 2012. Webb's An Irish Flora. Cork University Press.
- Shiel, C. 1999. Bridge Usage by Bats in County Leitrim and County Sligo. The Heritage Council, Rothe House, Kilkenny City.
- Smith, G., O'Donoghue, P., O'Hora, K. and E. Delaney. 2011. Best Practice Guidance for Habitat Survey and Mapping. The Heritage Council.
- Svensson, L. & and P.J. Grant. 1999. Collins Bird Guide. Harper Collins Publishers, London.

Appendix A

Natura 2000 – Site Synopses Source: National Park and Wildlife Service

Site Name: Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC

Site Code: 000627

Version date: 4.09.2013 000627_Rev13.Doc

This large coastal site extends from Cullamore in the north-west to Killaspug in the south-west, and from Sligo town in the south-east to Drumcliff village in the north-east. It encompasses two large, shallow bays, Drumcliff Bay and Sligo Harbour, and both Ardboline and Horse Island. Sand dunes and sand hills at Rosses Point, Killaspug, Yellow Strand and Coney Island are included, as are grasslands at Ballintemple and Ballygilgan (Lissadell), along with a variety of other habitats such as woodland, saltmarsh, sandy beaches, boulder beaches, shingle, fen, freshwater marshes, rocky sea cliffs and lakes. The site is largely underlain by Carboniferous limestone, but acidic rocks are also found on the Rosses Point peninsula. At Serpent Rock in the north-western section of the site the most complete section of the north-western Carboniferous strata is exposed. Here are found an excellent series of fossilised corals which, in some strata, stand out from the rock matrix.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I/II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [1130] Estuaries
- [1140] Tidal Mudflats and Sandflats
- [2110] Embryonic Shifting Dunes
- [2120] Marram Dunes (White Dunes)
- [2130] Fixed Dunes (Grey Dunes)*
- [5130] Juniper Scrub
- [7220] Petrifying Springs*
- [1014] Narrow-mouthed Whorl Snail (Vertigo angustior)
- [1095] Sea Lamprey (Petromyzon marinus)
- [1099] River Lamprey (Lampetra fluviatilis)
- [1365] Common (Harbour) Seal (Phoca vitulina)

The dominant habitats on the site are estuaries and intertidal sand and mud flats. Sligo Harbour receives the waters of the Garavogue River, which flows from Lough Gill, while Drumcliff Bay receives the Drumcliff River which flows from Glencar Lough. At low tide extensive areas of intertidal flats are exposed in both of these sheltered estuarine bays. The intertidal flats support a diverse macrofauna, with invertebrate species such as lugworm (Arenicola marina), common cockle (Cerastoderma edule), sand mason worm (Lanice conchilega), Baltic tellin (Macoma balthica), spire shell (Hydrobia ulvae) and common mussel (Mytilus edulis) being frequent. Of particular note is the presence of the eelgrasses Zostera noltii and Z. angustifolia beds in both bays. Areas of saltmarsh fringe both bays in places.

Sand dune habitats are rare and threatened in Europe and three types are found in this site embryonic dunes, Marram (Ammophila arenaria) dunes and fixed dunes. Embryonic dunes, with characteristic species including Sand Couch (Elymus farctus), occur at the southern end of the sand spit at Rosses Point. Shifting Marram dunes are found in a number of locations, including Rosses Point, Strandhill, Coney Island and Yellow Strand. In the latter three areas, the areas of shifting dunes are linked at least to some extend to recent disturbance (e.g. erosion, storm breaches, etc.).

Fixed dune grassland is found behind Yellow Strand, and the main species are Sand Sedge (Carex arenaria) and Smooth Meadow-grass (Poa pratensis), with associated species including Lady's Bedstraw (Galium verum), Mouse-ear Hawkweed (Hieracium pilosella), Common Milkwort (Polygala vulgaris), Common Dog-violet (Viola riviniana), Mountain Everlasting (Antennaria dioica), Common Spottedorchid (Dactylorhiza fuchsii), Early Marsh-orchid (D. incarnata), Frog Orchid (Coeloglossum viride) and Autumn Lady's-tresses (Spiranthes spiralis). Some areas of fixed dune at the site are suffering from under-grazing (e.g. north of Strandhill), and have a rank vegetation dominated by Marram, with species such as Red Fescue (Festuca rubra), Creeping Willow (Salix repens), Daisy (Bellis perennis) and Wild Thyme (Thymus praecox) also occurring. A relatively species-poor example of the habitat is found at Rosses Point, but typical species like Marram, Red Fescue, Lady's Bedstraw, Harebell (Campanula rotundifolia), Kidney Vetch (Anthyllis vulneraria) and Common Mouse-ear (Cerastium fontamun) do occur here.

An area with Juniper (Juniperus communis) scrub is found on a gravel hill with species-rich fixed dune vegetation. Other species present in this area include Marram, Autumn Gentian (Gentianella amarella), Red Fescue, Lady's Bedstraw, Common Bird's-foot-trefoil, Harebell, Yellow-wort (Blackstonia perfoliata), Thyme-leaved Sandwort (Arenaria serpyllifolia), Common Whitlowgrass (Erophila verna), Hoary Whitlowgrass (Draba incana), Devil'sbit Scabious (Succisa pratensis) and Early Hair-grass (Aira praecox).

Wetlands on the site include Doonweelin Lake, a freshwater lake on the Rosses Point peninsula, which supports interesting vegetation communities that reflect the juxtaposition of the underlying acidic and basic rocks. Ardtermon Fen, a small, floristically-rich area of freshwater marsh, swamp, wet grassland and fen is situated at the back of the Yellow Strand sand

The site includes small areas of Hazel (Corylus avellana) and Ash (Fraxinus excelsior) woodland on limestone (e.g. Cummeen Wood), and several other stands of mixed woodland and wet willow (Salix spp.) woodland (as at Ardtermon Fen). Cliff-top grassland is common in the north-western part of the site. This is typically dominated by Red Fescue and White Clover (Trifolium repens), with associated species including Daisy, Common Bird's-foot-trefoil (Lotus corniculatus), plantains (Plantago coronopus, P. lanceolata and P. maritima), Bulbous Buttercup (Ranunculus bulbosus), Common Scurvygrass (Cochlearia officinalis), Field Wood-rush (Luzula campestris) and Spring Sedge (Carex caryophyllea).

The site has a good example of petrifying springs with tufa formations, with several species of bryophyte typical of the Cratoneurion. The springs occur along seepage zones in clay sea cliffs on the northern side of Sligo Harbour.

The site has a very rich and diverse flora, on account of the wide variety of habitats found, and the presence of both basic and acidic substrates. Several rare, Red Data Book species have been recorded from the site, including Rough Poppy (Papaver hybridum), which is also listed under the Flora (Protection) Order, 1999, Hoary Whitlowgrass and Yellow Saxifrage (Saxifraga aizoides).

Both Drumcliff Bay and Cummeen Strand are important for the large numbers of waterfowl which use them in autumn/winter, including Ringed Plover, Redshank, Lapwing, Knot, Bar-tailed Godwit, Oystercatcher, Curlew, Golden Plover, Dunlin, Turnstone, Brent Goose, Grey Heron, Teal, Wigeon, Mallard, Shelduck and Red-breasted Merganser. The fields at Lissadell and Ballintemple support one of the largest populations of Barnacle Goose in the country (c. 2,000 in winters of 1995/96 and 1996/97). Both Drumcliff Bay and Cummeen Strand have been designated as Special Protection Areas under the E.U. Birds Directive. The important feeding site for Barnacle Goose at Lissadell is a Statutory Nature Reserve.

The islands in the north-western section of the site hold important seabird colonies. A Cormorant colony of national importance occurs on Ardboline and Horse Islands, with a total of 261 pairs in 1998. Herring Gull and Great Black-backed Gull also breed on both islands. Common Tern formerly bred on both islands.

The islands are also used by Barnacle Goose from the adjacent mainland, which roost or seek refuge here. The low sea cliffs on the adjacent mainland at Ballyconnell and Roskeeragh Points also support small numbers of seabirds, and both Black Guillemot and Fulmar nest there. Choughs feed in the sandy/ grassy areas of the site and one pair is known to nest. Several of the bird species that use the site are listed on Annex I of the E.U. Birds Directive, i.e. Barnacle Goose, Chough, Golden Plover and Bar-tailed Godwit.

At least five species listed on Annex II of the E.U. Habitats Directive are found within this site. Drumcliff Bay is important for the presence of a breeding population of Common Seal. Ardboline and Horse Islands on the western side of the site are also important as haul-out areas for this species. A minimum population of 12-15 individuals was estimated from counts made in various month in 2007 and 2008. Sea Lamprey and River Lamprey have been recorded in the Garavogue River, and River Lamprey are also known from further upstream in the tributaries of Lough Gill. The Marsh Fritillary butterfly is found at Rosses Point, while the rare snail Vertigo angustior has recently been recorded from sand dunes at Killaspugbrone.

Cummeen Strand/Drumcliff Bay (Sligo Bay) is an important site of high conservation significance, which includes a wide variety of habitat types, including several listed on Annex I of the E.U. Habitats Directive, several species listed on Annex II of this Directive, large and important populations of waterfowl and seabirds, and several rare plant species.

Site Name: Lough Gill

SAC Site Code: 001976

Version date: 27.11.2013 001976_Rev13.Doc

This site includes Lough Gill, Doon Lough to the north-east, the Bonet River (as far as, but not including, Glenade Lough), and a stretch of the Owenmore River near Manorhamilton in Co. Leitrim. Lough Gill itself, 2km east of Sligo town, lies at a geological junction of ancient metamorphic rocks which produce acid groundwater, and limestone which dissolves in the groundwater. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I/II of the E.U. Habitats Directive (*= priority; numbers in brackets are Natura 2000 codes):

- [3150] Natural Eutrophic Lakes
- [91A0] Old Oak Woodlands
- [91E0] Alluvial Forests*
- [1092] White-clawed Crayfish (Austropotamobius pallipes)
- [1095] Sea Lamprey (Petromyzon marinus)
- [1096] Brook Lamprey (Lampetra planeri)
- [1099] River Lamprey (Lampetra fluviatilis)
- [1106] Atlantic Salmon (Salmo salar)
- [1355] Otter (Lutra lutra)

Lough Gill is a large lake, being 8 km long, and has steep limestone shores and underwater cliffs. It is over 20 m deep in places. The lake appears to be naturally eutrophic. The aquatic macrophyte flora is very limited, probably due to the rapid increase in depth around most of the margin. Species such as pondweeds (Potamogeton spp.) are present, as well as Shoreweed (Littorella uniflora). Where the lake shore has a shallow gradient, some swamp vegetation occurs, mainly dominated by Common Reed (Phragmites australis), with Common Club-rush (Scirpus lacustris) and sedges (Carex spp.).

The Old Oak Woodlands within this site are dominated by oak (Quercus spp.), Rowan (Sorbus aucuparia) and willows (Salix spp.). A number of interesting tree species occur. Strawberry Tree (Arbutus unedo) is found in its most northerly site in the world. Yew (Taxus baccata) occurs in abundance. Bird Cherry (Prunus padus), a Red Data Book species, is also found, as is the nationally scarce Rock Whitebeam (Sorbus rupicola). Some areas of conifer plantation occur in association with these woodlands.

There is a fringe of deciduous woodland along most of the length of the Garavogue River. In parts it is dense and impenetrable, with a very wet marshy underlayer. Some areas are dominated by Rusty Willow (Salix cinerea subsp. oleifolia), with Alder (Alnus glutinosa) also occurring commonly. Other tree species present include Goat Willow (Salix caprea), Hazel (Corylus avellana), Rhododendron (Rhododendron ponticum) and Cherry Laurel (Prunus laurocerasus). Both of the latter species are invasive aliens. In the understorey, species such as Guelder-rose (Viburnum opulus), Gipsywort (Lycopus europaeus) and Skullcap (Scutellariagalericulata) are found. Reedswamp is also common along the river. Another area of alluvial wet woodland is found at the mouth of the Bonet River. Here there is dense willow (Salix sp.) scrub, along with Reed Canary-grass (Phalaris arundinacea), and also areas where Alder and Goat Willow are dominant.

Areas of unimproved wet and dry grassland also occur within the site, the former particularly by the lake and the latter well developed in the north-east of the site and in the vicinity of O'Rourke's Table. Heath - covered hillsides above the woods are dominated by Heather (Calluna vulgaris).

The site supports several rare plant species, including Yellow Bird's-nest (Monotropa hypopitys), the lady's - mantle species Alchemilla glaucescens, Ivy Broomrape (Orobanche hederae), Black Bryony (Tamus communis), Intermediate Wintergreen (Pyrola media) and Bird's-nest Orchid (Neottia nidus-avis). There is also an unconfirmed record for Melancholy Thistle (Cirsium helenioides) from the eastern side of the site. Both the woods and the mountains are used by a large herd of Fallow Deer.

The site is of considerable importance for the presence of four Red Data Book fish species that are listed on Annex II of the E.U. Habitats Directive - Brook Lamprey (Lampetra planeri), River Lamprey (Lampetra fluviatilis), Sea Lamprey (Petromyzon marinus) and Atlantic Salmon (Salmo salar). The Lough Gill system gets a very early run of spring salmon, while the Bonet holds stocks of salmon from spring right through to the end of the season. White-clawed Crayfish (Austropotamobius pallipes), Otter and Pine Marten are well established on this site, the first two are both Annex II species. The woodlands have a fauna which includes several rare snail species.

Lough Gill supports low numbers of wintering waterfowl, mostly Mallard (<150), Tufted Duck (20-30) and Goldeneye (<20). A small colony of Common Tern breed on the islands (20 pairs in 1993), while Kingfisher are found on the lake and rivers. Both of these species are listed on Annex I of the E.U. Birds Directive. A colony of Black-headed Gulls (63 pairs in 1992) occurs with the terns. The woods support a good diversity of bird species including Jay, Woodcock and Blackcap.

The site is of importance for three habitats listed on Annex I of the E.U. Habitats Directive, including one with priority status. It is also noted for the high number of rare or scarce animal and plant species.

Site Synopsis

Site Name: Cummeen Strand SPA

Site Code: 004035

Cummeen Strand is a large shallow bay stretching from Sligo town westwards to Coney Island. It is one of three estuarine bays within Sligo Bay, with Drumcliff Bay to the north and Ballysadare Bay to the south. The Garavogue River flows into the bay and forms a permanent channel.

At low tide, extensive sand and mud flats are exposed. These support a diverse macroinvertebrate fauna which provide the main food supply for the wintering waterfowl. Invertebrate species such as lugworm (Arenicola marina), ragworm (Hediste diversicolor), cockles (Cerastoderma edule), sand mason (Lanice conchilega), Baltic tellin (Macoma balthica), spire shell (Hydrobia ulvae) and mussels (Mytilus edulis) are frequent. Of particular note is the presence of eelgrass (Zostera noltii and Z. angustifolia) beds, which provide a valuable food stock for herbivorous wildfowl. The estuarine and intertidal flat habitats are of conservation significance and are listed on Annex I of the EU Habitats Directive. Areas of salt marsh fringe the bay in places and provide roosting sites for birds during the high tide periods. There are sand dunes at Killaspug Point and Coney Island, with a shingle spit at Standalone Point near Sligo town.

Cummeen Strand is of ornithological importance as it supports important concentrations of wintering waterfowl. The site supports an Internationally Important flock of Brent Geese (peak of 232 individuals in the winter of 1999/00, with the mean of peak monthly counts in the period 1996/99 (except 1998) being 228, peaking at 309) and Nationally Important populations of a further two species -Oystercatcher 891 and Redshank 501 (all figures are average peaks for the period). Other species which occurred in significant numbers included Shelduck 80, Wigeon 178, Teal 70, Mallard 170, Red-breasted Merganser 17, Golden Plover 567, Lapwing 734, Knot 18, Sanderling 18, Dunlin 601, Bar-tailed Godwit 57, Curlew 546, Greenshank 18 and Turnstone 80. Whooper Swans also occurred (9), though they are not regular visitors. The presence of Golden Plover, Bar-tailed Godwit and Whooper Swan is of particular note as these species are listed on Annex I of the EU Birds Directive.

This site is of high ornithological importance, with one species having a population of International Importance and two having populations of National Importance. In addition, there are three species that are listed on Annex I of the Birds Directive. The site is also important as a component of the much larger Sligo Bay complex.

28.02.2002

as required under Article 6(3) of the Habitats Directive (Council Directive 92/43/EEC)

Sligo East City, Cranmore and Environs Regeneration Masterplan **June 2016**

Prepared by:

Moore Group - Environmental Services

On behalf of The Masterplan Regeneration Team and Sligo County Council

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1 Introduction

1.1 General Introduction

This Appropriate Assessment Screening Report contains the information required for the competent authority, in this case Sligo County Council, to undertake screening for AA for the proposed Sligo East City, Cranmore and Environs Regeneration Masterplan 2016.

Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

- 1. Whether a plan or project is directly connected to or necessary for the management of the sites,
- 2. Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). Screening should be undertaken without the inclusion of mitigation, unless potential impacts clearly can be avoided through the modification or redesign of the plan or project, in which case the screening process is repeated on the altered plan.

The key to deciding if an AA of a plan would be required is determined by an assessment of whether the plan and its policies and objectives are likely to have a significant effect on a Natura 2000 site. The decision should not be determined by the size of the plan area alone. It will also be influenced by the nature and extent of the development likely to be proposed in the plan, and the plan area's in situ, ex situ and in combination relationship to adjoining Natura 2000 sites and the wider Natura 2000 network.

When screening the plan and its policies and objectives there are two possible outcomes:

- 1. The plan poses no risk of a significant effect and as such requires no further assessment
- 2. The plan has potential to have a significant effect (or this is uncertain) and AA of the plan is necessary

Screening can be used to establish which policies and objectives have potential to have significant effects, and therefore the ones that require further attention at the AA stage.

The masterplan is inspired by a vision for Cranmore and the East City area that encompasses an integrated social, economic and physical approach to the transformation of Sligo East City, Cranmore and Environs, it aims to achieve the following goals:

- Make the East City area and Cranmore a more attractive place to live with better, more convenient connections to existing and new facilities, locally and in the rest of Sligo
- Enable individuals and communities of the area to avail of opportunities, with good access to employment, education, health and family support services
- See the East City area become the location of choice for future generations to live, work and visit

1 Introduction

The Regeneration Masterplan Area is located adjacent to the Garavogue River. The Garavogue River forms part of the Lough Gill SAC (Site Code 001976) and the Natura 2000 network of sites of highest biodiversity importance for rare and threatened habitats and species across the EU.

The report has been prepared by Moore Group -Environmental Services for Sligo County Council in accordance with Articles 6(3) and 6(4) of the Habitats Directive. The report was compiled by Ger O'Donohoe (B.Sc. Applied Aquatic Sciences (GMIT, 1993) and M.Sc. Environmental Sciences (TCD, 1999)) who has over 20 years' experience in environmental impact assessment and has completed numerous Appropriate Assessment Screening Reports and Natura Impact Statements in terrestrial and aquatic habitats.

The report assesses the potential for the masterplan to impact on sites of European-scale ecological importance. It is necessary that the Plan has regard to Article 6 of the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (referred to as the Habitats Directive). This is transposed into Irish Law most recently by the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (referred to as the Habitats Regulations).

1.2 Legislative Background -The Habitats and Birds **Directives**

The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity in the EU. Under the Directive, Member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in a European Union context.

The Birds Directive (Council Directive 79/409/ EEC as codified by Directive 2009/147/EC) on the conservation of wild birds), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention.

Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs.

1 Introduction

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites.

Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required:

Article 6(3): "Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

Article 6(4): "If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to the beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

This Report provides the information required to assist the competent authority to carry out the Appropriate Assessment screening of the Plan.

2 Methodology

2.1 Appropriate Assessment

The Commission's methodological guidance (EC, 2002) promotes a four-stage process to undertake the Appropriate Assessment (AA), and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

Stages 1-2 deal with the main requirements for assessment under Article 6(3). While Stages 3-4 are the main promises under Article 6(4).

Stage 1 Screening:

This stage examines the likely effects of a plan or project either alone or in combination with other plans or projects upon a Natura 2000 site and considers whether it can be objectively concluded whether significant effects are likely or not.

Stage 2 Appropriate Assessment:

In this stage, the impact of the project is considered on the integrity of the Natura 2000 site with respect to the conservation objectives of the site and to its structure and function. Mitigation measures may be included at this stage.

Stage 3 Assessment of Alternative Solutions:

This stage examines alternative ways of implementing the project that, where possible, avoid any adverse impacts on the integrity of the Natura 2000 site.

Stage 4 Assessment where no alternative solutions exist and where adverse impacts remain:

Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the sites will be necessary.

2.2 Guidance

This report for AA Screening has been compiled in accordance with guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 rev.)
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 and PSSP 2/10
- 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 (European Commission Environment Directorate-General. 2001); hereafter referred to as the EC 2000
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereafter referred to as MN2000

2 Methodology

2.3 Data Sources

Sources of information that were used to collect data on the Natura 2000 network of sites are listed below:

- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie, Google Earth and Bing aerial photography (June 2016)
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie (June 2016) including; the Natura 2000 network Data Form; Site Synopsis; Generic Conservation Objective data
- Online database of rare, threatened and protected species
- Publicly accessible biodiversity datasets
- Status of EU Protected Habitats in Ireland. (National Parks & and Wildlife Service, 2013)

- Other Information on Habitats, Water Quality, Aquatic Ecology, and Hydrology in the area was obtained from all available studies and surveys including:
 - Sligo and Environs Development Plan 2010-16
 - Habitat Mapping for Sligo and Environs Development plan 2007
 - Review of Sligo Habitat Mapping 2008
 - County Wetlands Reports 2008-2011
 - Japanese Knotweed Survey/Mapping for Borough Area (Heritage office Report 2012)
 - Final River Basin Management Plan for the Western River Basin District in Ireland (2009-2015) December 2009
 - Eastern Garavogue Bridge and Approach Roads - Environmental Impact Statement, Nov. 2007
 - Doorly Park Maisonettes Demolition Natura Impact Statement (2012)
 - Pearse Road Surface Water Sewer Natura Impact Statement (2012), North Leitrim Rural Water Supply Scheme Part VIII Application with

2 Methodology

2.4 Consultation

At the earliest stage of preparation for the masterplan a multidisciplinary workshop was held at Cranmore and preliminary discussions were held with Ms. Siobhán Ryan, the Sligo Heritage Officer. The sources of information presented above were discussed along with other possible anecdotal sources.

2.5 Screening Steps

In complying with the obligations under Article 6(3) and following the EC2000 and MN2000 Guidance, this report has been structured as a stage by stage approach as follows:

- Screening stage
- Description of the Plan
- Brief description of the Natura 2000 site(s) potentially affected
- Conservation objectives of the Natura 2000 site(s)
- Assessment criteria
- Determination of whether the Plan is necessary to the management of the site
- Likely impacts on Natura 2000 site(s)
- Cumulative and in combination impacts
- Likely changes to Natura 2000 site(s)
- Elements of the Plan where the impacts are likely to be significant
- Identification and description of individual and cumulative impacts likely to result
- Assessment of the significance of the impacts identified above on site(s) integrity
- Exclusion of site(s) where it can be objectively concluded that there will be no significant effects
- Screening conclusion and statement

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

3 Description of the Plan

3.1 General Description

Building on an extensive collaborative process, the Regeneration Masterplan described here gathers together all the strands of projects under three key disciplines: social, economic and physical actions, and shows how collaboratively these streams of endeavour can respond to needs to achieve a transformative impact for Cranmore and the East City area. The masterplan is inspired by a vision for Cranmore and the East City area that encompasses an integrated social, economic and physical approach to the transformation of Sligo East City, Cranmore and Environs, it aims to achieve the following goals:

- Make the East City area and Cranmore a more attractive place to live with better, more convenient connections to existing and new facilities, locally and in the rest of Sligo
- Enable individuals and communities of the area to avail of opportunities, with good access to employment, education, health and family support services
- See the East City area become the location of choice for future generations to live, work and visit

3.2 Masterplan Themes and **Projects**

The measures for the physical regeneration of the East City area, coordinated with the social elements and the economic elements, are derived from eight urban design themes. The Masterplan Themes and Projects are set out as follows and a description of each theme is provided below:

- C. Provide Quality Spaces for Community Facilities
- D. Improve Access to Quality Amenities and Open Spaces
- E. Improve Housing Quality and Opportunity in the
- F. Improve Quality of Roads, Streets and Urban Spaces
- G. Improve Access and Links
- H. Get the Most out of the Vacant and Potential Sites in the Area
- I. Develop and Promote Historical Assets in the
- J. Explore Options for Sustainable Energy

Under each of the Masterplan Themes, a series of projects are proposed are set out in Figure 2, these are described in more detail as follows:

3 Description of the Plan

A: Provide Quality Spaces for **Community Facilities**

A1 Provide quality spaces for delivery of services and community activities: sports, meeting spaces etc.

The brief for space needs are to be developed in consultation with existing community resources such as the Abbeyquarter Centre and the Co-Op to determine exact needs and business case.

A2 Space for Medical Services provision

The brief for space for medical services provision will be developed in consultation with agencies to determine exact needs and business case. Project will be subject to detailed feasibility and design studies, for further consultation, during the process for planning permission.

A3 Doorly Park Lodge restoration to be

Refurbishment of existing building provides opportunity to create a new public/community space close to the river, adjoining park and recreation areas. A brief will be developed as part of a business plan, funding needs to be sourced.

B: Improve Access to Quality Amenities and Open Spaces

B1 Play Areas: Cranmore

Play areas to be provided as part of the overall design of central block site (to include play area for toddlers and multi-use games area) Detail design to be developed and consulted upon.

B2 Improve Access to Regional Sports Centre and Cleveragh Regional Park

Gated access to new path to Sports Centre and Regional Park: a safe and more direct pedestrian and cycle access to Sports Centre and pitches in Regional Park. A detailed design needs to be agreed with Racecourse Committee and Sports Centre with funding to be sourced.

B3 Create Quality Open Spaces within Cranmore Area

Detailed designs for reduction of mounds to be developed and consulted upon.

B4 Extend Exercise Trail through Brown's Field and Racecourse new pedestrian and cycle routes as opportunities present

Locations and type of equipment to be identified at detail design: funding needs to be sourced.

B5 Support the development of water based recreational opportunities and associated facilities at Doorly Park

Support for Doorly Park Pontoon proposed to be developed at the Garavogue near Doorly Gate Lodge.

Support for water sports Pavillion proposal, having regard to the environmentally sensitive location and informed by taking account of the status of the area as a Special Area of Conservation and the requirements of the Habitats Directive

B6 New Park at Doorly Park: junction of Martin Savage Terrace and Cranmore Road/Brown's Fields site

The layout and potential of existing lawned open space as a more useful and attractive community resource to be reviewed in consultation with the local community.

3 Description of the Plan

C: Improve Housing Quality and Opportunity in the Area

C1 Housing Improvements: focus on energy efficiency for Cranmore Estate

Dwellings will be assessed to determine the nature of works needed to achieve an agreed level of energy efficiency. Measures will be undertaken on a phased basis in clusters of dwellings on a case by case basis.

C2 Housing Environmental Improvements: focusing on Cranmore Estate

Building on the series of environmental improvement projects undertaken in recent years, this project will focus on issues raised by residents such as unused backland areas and alleys and areas which are vulnerable to anti-social behaviour and dumping etc. Street by street consultations will prioritise local concerns to be addressed and detailed designs.

C3 Collery Drive/John Fallon Drive Link

This project will address security and safety issues as part of environmental improvements by improving passive surveillance, and addressing security concerns of vulnerable residents on pedestrian lane connecting Collery Drive with John Fallon Drive.

C4 Housing: Centre Block Site

Site identified with potential to meet specific housing needs for elderly and people with special needs. The project will be subject to detailed feasibility and design studies to clarify height, mix, tenure and car-parking considerations. Further consultations will be undertaken on detailed design in addition to planning process.

C5 Housing: Geldof Drive

Bungalow site with potential to meet needs for the elderly and people with special needs. Feasibility options will be developed to determine the best use of site and mix of units. Further consultations will be undertaken on detailed design in addition to planning process.

D: Improve Quality of Roads, Streets and Urban Spaces

D1 Cranmore Road Enhancements

Improvements include enhancement of urban/ street boundaries and pavement improvements to include replacing the Ray McSharry Park boundary wall with wall and railings and widen pavement, ESB frontage enhanced and new planting and pavement treatments. Detailed design proposals to be reviewed with disability groups and others.

D2 Devins Drive Improvements

Improvements include traffic calming measures, road crossings, junction treatments and landscaping to improve character and safety of street. Detailed design proposals to be developed for review with disability groups and others.

D3 St. Anne's Place Urban Landscape

Urban design proposals to be developed to improve character and attractiveness of St. Anne's open space/parking layout. Detailed design proposals to be developed for consultation with disability groups and others.

3 Description of the Plan

E: Improve Access and Links

E1 Explore Mercy School Pedestrian Access from Geldof Drive

A new side gated access to Mercy School for pupils to allow for pedestrian and cycle access only. Subject to agreement with Mercy School Management and Abbeyquarter Centre. Detailed design proposals to be developed for consultation with Mercy School Management and Abbeyquarter Centre.

E2 Joe McDonnell Pedestrian/Bicycle Link to Chapel Hill

This project requires acquisition and demolition of 4 houses, and includes redevelopment of the area to provide 4 new houses overlooking pedestrian cycle link to connect Joe McDonnell Drive with Chapel Hill. Negotiations and agreement required with households affected, detailed design proposals to be developed for further consultation.

E3 Brown's Field Pedestrian/Bicycle Link to Cranmore

This project involves a long term aspiration to improve urban links and connectivity through the area. It involves a new pedestrian cycle route through Brown's Field lands connecting Racecourse View with access road adjacent to Lidl. This new link is to be provided as part of the redevelopment of Brown's Field lands. This will be subject to detail design and consultation as part of the planning process.

E4 New Centre Block Avenue (pedestrian/bicycle)

New pedestrian cycle route through centre block site connecting Langan Drive/Racecourse View with Devins Drive as part of redevelopment and relandscaping of Centre Block lands.

E5 Sligo Gaol to Cranmore Road Link

This project involves a long term aspiration to improve urban links and connectivity. It involves a new route through lands adjacent to Aldi Store, a potential long term initiative to be explored as part of any redevelopment of the area. This will be subject to detailed design and consultation as part of planning process.

E6 Garavogue Villas Access -Traffic Management Plan

A traffic management plan to be developed and measures introduced to remove risk of heavy vehicles using Garavogue Villas as a short cut, plan will involve a review of the presentation of the Neolithic stone circle, as part of proposals. Detailed design proposals to be developed for consultation with residents, disability groups and others.

F: Get the Most out of the Vacant and Potential Sites in the Area

F1 Geldof Drive Bungalow Site

Bungalow site with potential to meet needs for the elderly and people with special needs. Feasibility options will be developed to determine the best use of site and mix of units. Further consultations will be undertaken on detailed design in addition to planning process.

F2 Cranmore Road Cleared Site: New Residential (apartments)

Proposed as private sector development project. The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning permission.

3 Description of the Plan

F3 Brown's Field: Mixed Use site for Development

Proposed as private sector development project.

The project will be subject to detailed feasibility and design studies that will clarify site layout, mix of use and other design considerations during the process for planning permission.

F4 Doorly Park Former Maisonettes Site Residential Development Use

Proposed as private sector development project. The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning permission.

F5 Centre Block Site: community, amenity and residential Development

Site identified with potential to meet community and specific housing needs for elderly and people with special needs.

The project is subject to detailed feasibility and design studies that will clarify site layout, open spaces, height, mix, tenure and car parking considerations before further consultation during the process for planning permission.

F6 Cleveragh Drive re-zoning: Residential

It is proposed that the next Development Plan for Sligo and Environs rezones these sites to R2 low/ medium density residential use because of the adjacent open space amenities at the Racecourse, Doorly Park and Cleveragh Regional Park.

G: Develop and Promote Historical Assets in the Area

G1 Carnsfoot House: Remains of walled garden

This project involves the protection and conservation of the remains of Carnsfoot House walled garden as an attractive historical asset with learning and tourism potential. The woodland at Carnsfoot is of moderate quality but is an old woodland site with potential for woodland restoration. It contains some semi-natural woodland features of local importance-higher value, and could be considered a Local Biodiversity Area as described in the Sligo Habitats Mapping Project.

Many have memories of Carnsfoot House and recognise its importance. Complementary use as an informal play space or garden space to be explored. Design needs to be developed in consultation and funding sourced to realise measures.

G2 Sligo Gaol

This project proposes to develop and promote the remains of Sligo Gaol as a significant historical asset with learning, tourism and employment/enterprise potential. The strategy needs to be explored and developed further in consultation with local community, interest groups, Friends of Sligo Gaol Group and others. Funding needs to be sourced to realise measures.

H: Explore Options for Sustainable Energy

H1 Racecourse - Central Site: Explore Geothermal Potential

Uses of public land for sustainable energy generation are to be explored, such as the possibility of geothermal heat pump within the Sligo County Council Racecourse lands. Funding needs to be sourced to realise measures.

3 Description of the Plan

3.3 Guiding Principles

The Sligo East City, Cranmore and Environs Regeneration Masterplan will have regard to the objectives and policies of the Sligo and Environs Development Plan 2010-2016 (SEDP) and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management.

The Sligo and Environs Development Plan 2010-2016 contains numerous measures, which will directly and/or indirectly contribute to the conservation of Natura 2000 sites and the protection of locally important ecological sites. These will assist in the implementation of the requirements of the Habitats Directive and will ensure that the masterplan will not have a significant impact on local ecology or on the integrity of Natura 2000 sites:

- **SP-Z-5** Protect designated nature conservation sites, landscape, archaeology, valuable natural amenity areas, water and natural resources, while allowing for the possible further expansion of the city in the long-term
- P-NH-3 Consult with the relevant prescribed bodies and appropriate agencies when considering undertaking, approving or authorising developments which are likely to affect designated natural heritage sites or those proposed to be designated
- O-NH-1 Require an appropriate environmental assessment in respect of any proposed development likely to have an impact on a designated natural heritage site or those sites proposed to be designated
- O-NH-2 Ensure that environmental assessments in relation to designated natural heritage sites (or those sites proposed to be designated) are carried out by appropriate professionals

- O-NH-4 Any plan or project not directly connected with or necessary to the management of a Natura 2000 site, but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to an appropriate assessment in accordance with Art. 6 of Directive 92/43/EEC, of its implications for the Natura 2000 site in view of the site's conservation objectives
- P-NH-6 Ensure that development does not have a significant adverse impact, incapable of satisfactory mitigation, on plant, animal or bird species protected by law
- P-NH-7 Consult with the National Parks and Wildlife Service, and take account of any licensing requirements, when undertaking, approving and authorising development which is likely to affect plant, animal or bird species protected by law.

If the Policies and Objectives of the governing Development Plan are employed in the implementation of the Sligo East City, Cranmore and Environs Regeneration Masterplan, then the plan will not have a significant impact on habitats or species of local, regional or international importance.

3.4 Is the Masterplan Necessary to the Management of European sites?

The masterplan is not directly connected with or necessary to the management of the European sites in the area. However, it does include, inter alia, measures to protect, conserve and manage the area's natural heritage in a prudent and sustainable manner, including European sites, and to seek its enhancement where appropriate and feasible.



Figure 1. Showing the study area of the Sligo East City, Cranmore and Environs Regeneration Masterplan.

Physical PlanPhysical Themes and Projects

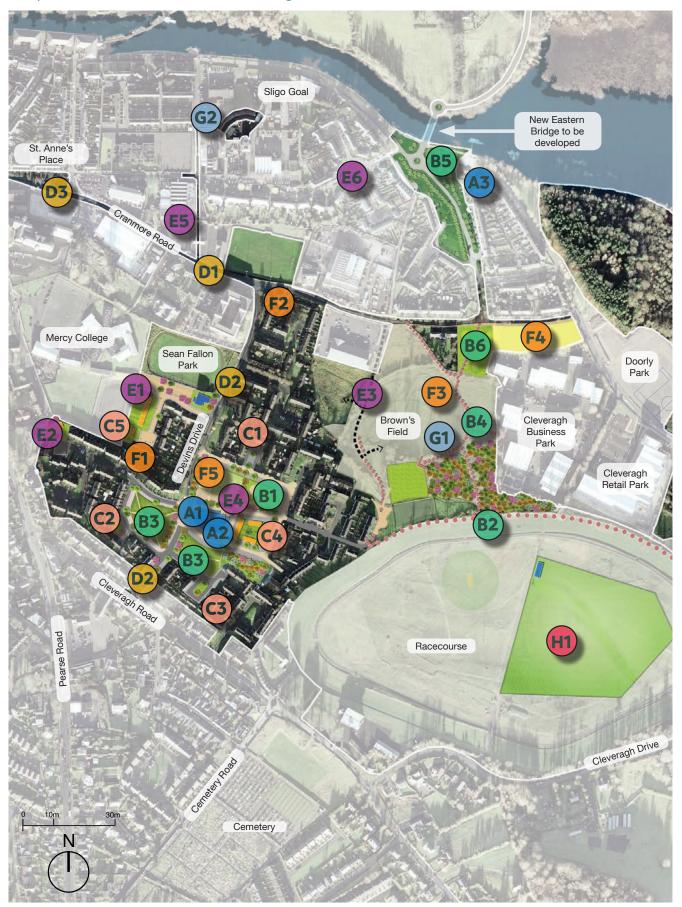


Figure 2. Showing the Main Themes and Projects of the Masterplan



Provide Quality Spaces for Community Facilities

- A1 Provide quality spaces for delivery of services and community
- A2 Space for medical services provision
- A3 Doorly Park Lodge restoration to be explored

Improve Access to Quality Amenities and Open Spaces

- B1 Play areas: Cranmore
- B2 Improve access to Regional Sports Centre and Cleveragh Regional Park
- B3 Create quality open air spaces within Cranmore area
- B4 Extend exercise trail through Brown's Field and Racecourse
- B5 Support development of water-based recreational opportunities and associated facilities at Doorly Park
- B6 New park at Doorly Park: junction of Martin Savage Terrace and Cranmore Road/Brown's Field site

Improve Housing Quality and Opportunity in the Area

- C1 Housing improvements: focus on energy efficiency for Cranmore Estate
- C2 Housing environmental improvements: Focus on Cranmore Estate building
- C3 Collery Drive/John Fallon Drive link
- C4 Housing: Centre Block site (sites also considered under F)
- C5 Housing: Geldof Drive (sites also considered under F)

Improve Quality of the Roads, Streets and Urban Spaces

- D1 Cranmore Road enhancements
- D2 Devins Drive improvements
- D3 St Anne's Place urban landscape

Improve Access and Links

- E1 Explore Mercy College pedestrian access from Geldof Drive
- E2 Joe Mc Donnell pedestrian/bicycle link to Chapel Hill
- E3 Brown's Field pedestrian/bicycle link to Cranmore
- E4 New centre block avenue (pedestrian/bicycle)
- E5 Explore Sligo Gaol to Cranmore Road link
- E6 Garavogue Villas access: traffic management plan

Get the Most out of the Vacant and **Potential Sites in the Area**

- F1 Redeveloping Geldof Drive bungalow site
- F2 Cranmore Road cleared site: new residential (apartments)
- F3 Brown's Field: mixed-use site for development
- F4 Doorly Park former maisonettes site: residential development use
- F5 Centre block site: community amenity and residential development
- F6 Cleveragh Drive rezoning: residential

Develop and Promote Historical Assets in the Area

- G1 Carnsfoot House remains of walled garden
- G2 Sligo Gaol

Explore Options for Sustainable Energy

H1 Racecourse - central site: explore geothermal potential

4 Identification of European Sites

4.1 Description of European Sites **Potentially Affected**

Considering the Natura 2000 sites present in the region, their Qualifying Interests (QIs) and conservation objectives, and any potential impact pathways that could link those sites to the proposed development area, a distance of 15km was considered appropriate to encompass all Natura 2000 sites potentially within the Zone of Influence (ZoI) of the proposed development. The Zone of Influence can be defined as the distance within which the plan/project which could potentially

affect the conservation condition of QI habitats/ species. This is in line with Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, produced by the Department of the Environment, Heritage and Local Government.

Spatial boundary data on the Natura 2000 network was extracted from the National Parks and Wildlife (NPWS) website on 26th May 2016. There are six Special Areas of Conservation (SACs) and five Special Protection Areas (SPAs) located within 15km of the plan area, see Tables 1 and 2 below. Distances are approximate to the nearest boundary of the European site from the Regeneration Masterplan Area.

Table 1 Listing the SACs located within 15km of the Regeneration Masterplan Area

Site Code	Distance from	Biological Connectivity
	Plan Area	
000622	5.5km	There is no relevant connectivity with the Regeneration Masterplan Area
000623	8.6km	There is no relevant connectivity with the Regeneration Masterplan Area
000627	1km downstream	Hydrologically connected
000638	6.1km	There is no relevant connectivity with the Regeneration Masterplan Area
001898	6.6km	There is no relevant connectivity with the Regeneration Masterplan Area
001976	Adjacent	Hydrologically connected
	000622 000623 000627 000638	Plan Area 000622 5.5km 000623 8.6km 000627 1km downstream 000638 6.1km 001898 6.6km

4 Identification of European Sites

Table 2
Listing the SPAs located within 15km of the Regeneration Masterplan Area

Special Protection Area	Site Code	Distance from Regeneration Masterplan Area	Biological Connectivity
Drumcliff Bay SPA	004013	6km	There is no relevant connectivity with the Regeneration Masterplan Area
Cummeen Strand SPA	004035	1.2km downstream	Hydrologically connected
Ballysadare Bay SPA	004129	5.5km	There is no relevant connectivity with the Regeneration Masterplan Area
Sligo/Leitrim Uplands SPA	004187	5.8km	There is no relevant connectivity with the Regeneration Masterplan Area
Ballintemple and Ballygilgan SPA	004234	13.5km	There is no relevant connectivity with the Regeneration Masterplan Area

Most of the sites listed above either have limited hydrological connectivity or no relevant biological connectivity to the Regeneration Masterplan Area. These sites are not considered to be of relevance as they are not located within the zone of influence of the proposed plan due to their distance and/or lack of connectivity/pathway. Furthermore, the site of the plan is not of ecological interest for any of the transient QI species of these Natura 2000 sites and they can be screened out at this stage of the report.

There are two designated Natural Heritage Areas within 15km of the Regeneration Masterplan Area:

- Slieveward Bog (001902) at c. 7.7km to the southwest
- Crockauns/Keelogyboy Bogs (002435) c. 5.8km to the northeas

As per above, these sites have limited relevant biological connectivity with the Regeneration Masterplan Area and are not considered further in this report as they will not be impacted upon.

The six SACs listed in Table 1 above are also designated as proposed Natural Heritage Areas (pNHAs). There are four other pNHAs within 15km of the Regeneration Masterplan Area:

- Colgagh Lough (001658) at c. 3.5km to the east
- Knocknarea Mountain and Glen (001670) c. 7km to the west
- Lough Dargan (001906) at c. 7.6km to the southeast
- Ballygawley Lough (001909) c. 6km to the south

With the exception of the dual conservation designation sites, these pNHAs have limited relevant biological connectivity with the Regeneration Masterplan Area and are not considered further in this report as they will not be impacted upon.

4 Identification of European Sites

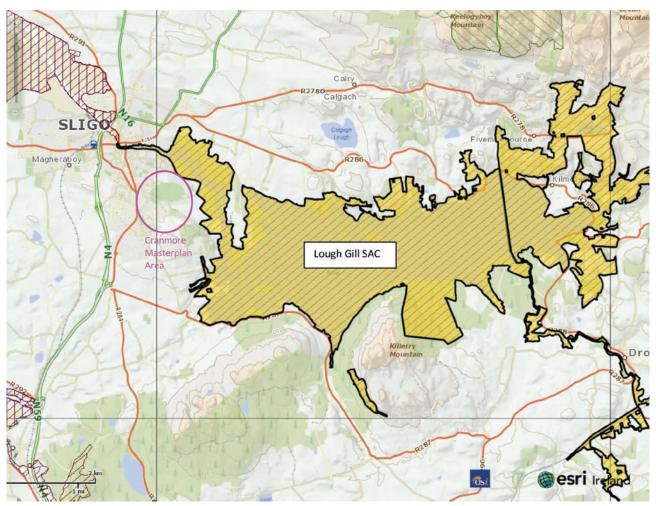


Figure 3. Map showing the Lough Gill SAC in relation to the Regeneration Masterplan Area

Of the sites listed above, three European sites are considered relevant to the masterplan:

- Lough Gill SAC 001976
- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC 000627
- Cummeen Strand SPA 004035

An indication of the proximity of the Regeneration Masterplan Area and these sites is presented in Figures 3, 4 and 5 below. The boundary of Lough Gill SAC extends from as far inland as Co. Leitrim to Hyde Bridge over the Garavogue River in Sligo City.

The predominantly marine sites associated with Cummeen Strand extend from Sligo Bay into the City with the SAC area extending upstream to Hyde Bridge whereas the SPA area boundary is downstream at Hughes Bridge. An aerial photograph showing the location of the Natura 2000 sites and their proximity to the Masterplan Area is presented in Figure 6.

The qualifying habitats and interests of these sites are listed in Table 3 below and the most up to date Site Synopses are available from the NPWS metadata website.

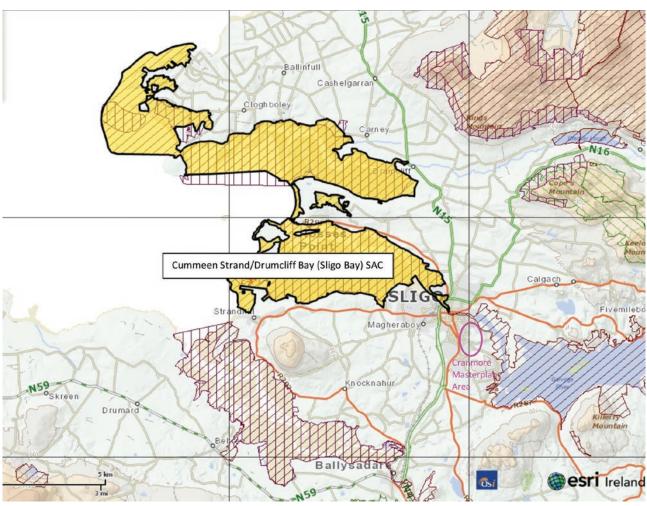


Figure 4. Map showing the location of the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC in relation to the Regeneration Materplan Area

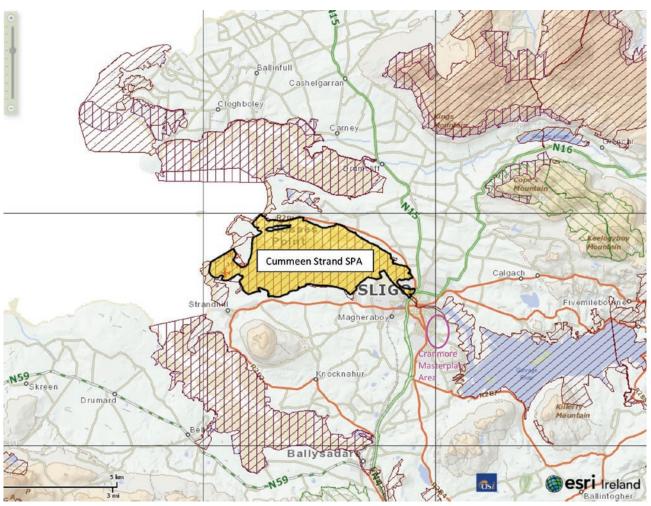


Figure 5. Map showing the location of the Cummeen Strand SPA in relation to the Regeneration Materplan Area

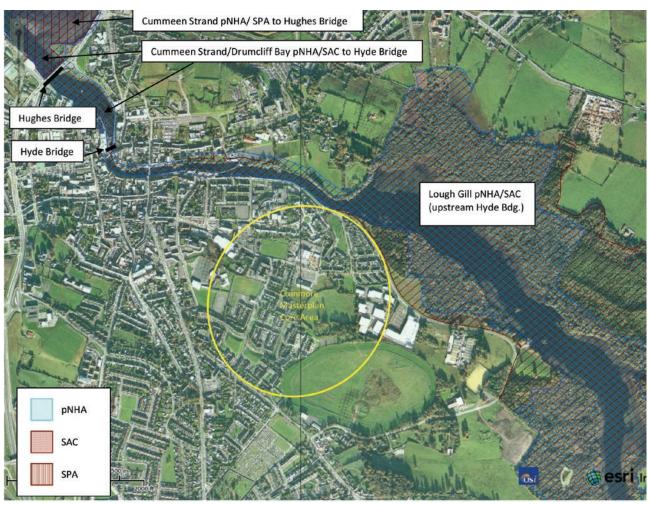


Figure 6. An aerial photograph showing the location of the Natura 2000 sites and their proximity to the Regeneration Masterplan Area

Table 3
European sites located adjacent to the Regeneration Masterplan Area
(*indicates priority habitat)

Site code	Site Name	Qualifying Habitats	Qualifying Species
000627	Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC	Estuaries Mudflats and sandflats not covered by seawater at low tide Embryonic shifting dunes Shifting dunes along the shoreline with Ammophila arenaria (white dunes) *Fixed coastal dunes with herbaceous vegetation (grey dunes) Juniperus communis formations on heaths or calcareous grasslands Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*Important Orchid Sites) [6210] *Petrifying springs with tufa formation (Cratoneurion)	Narrow-mouth whorl Snail (Vertigo angustior) Sea lamprey (Petromyzon marinus) River lamprey (Lampetra fluviatilis) Harbour seal (Phoca vitulina)
001976	Lough Gill SAC	Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*Important Orchid Sites) [6210] 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)	White-clawed Crayfish (Austropotamobius pallipes) Sea lamprey (Petromyzon marinus) Brook lamprey (Lampetra planeri) River lamprey (Lampetra fluviatilis) Salmon (Salmo salar) (only in freshwater) Otter (Lutra lutra)
004035	Cummeen Strand SPA	Wetland and Waterbirds [A999]	Light-bellied Brent Goose (Branta bernicla hrota) Oystercatcher (Haematopus ostralegus) Redshank (Tringa totanus)

4 Identification of European Sites

4.2 Conservation Objectives of **European Sites Considered**

The following Conservation Objectives, are set out for the European sites considered. Specific attributes, measures and targets are available in the Conservation Objectives documents listed in Section 7, References of this report.

Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC [000627]. Version 1. 18th September 2013

1130 Estuaries

To maintain the favourable conservation condition of Estuaries in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1140 Mudflats and sandflats not covered by seawater at low tide

To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

2110 Embryonic shifting dunes

To maintain the favourable conservation condition of Embryonic shifting dunes in Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC.

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

To restore the favourable conservation condition of Shifting dunes along the shoreline with Ammophila arenaria ('white dunes') in Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC.

2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)

To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

5130 Juniperus communis formations on heaths or calcareous grasslands

To restore the favourable conservation condition of Juniperus communis formations on heaths or calcareous grasslands in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

7220 Petrifying springs with tufa formation (Cratoneurion)

To maintain the favourable conservation condition of Petrifying springs with tufa formation (Cratoneurion) in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1014 Narrow-mouthed Whorl Snail

To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1095 Sea Lamprey Petromyzon marinus

To restore the favourable conservation condition of Sea Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1099 River Lamprey Lampetra fluviatilis

To maintain the favourable conservation condition of River Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

1365 Harbour Seal Phoca vitulina

To maintain the favourable conservation condition of Harbour Seal in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

Lough Gill SAC [001976]. Version 4. 13th February 2015

Objective:

To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected (see Table 3).

4 Identification of European Sites

Cummeen Strand SPA [004035]. Version 1. 10th September 2013

Objective:

To maintain the favourable conservation condition of [the bird species listed] in Cummeen Strand SPA, which is defined by the following list of attributes and targets:

- Population trend
- Percentage change
- Long-term population trend stable or increasing.
- Distribution
- Range, timing and intensity of use of areas

No significant decrease in the range, timing and intensity of use of areas by [the birds listed], other than that occurring from natural patterns of variation.

A999 Wetlands

To maintain the favourable conservation condition of wetland habitat in Cummeen Strand SPA as a resource for the regularly occurring migratory waterbirds that utilise it. This is defined by the following attribute and target:

Habitat area Hectares:

The permanent area occupied by the wetland habitat should be stable and not significantly less than 1732 hectares, other than that occurring from natural patterns of variation.

4.3 Ecological Network Supporting **European Sites**

An analysis of the proposed Natural Heritage Areas and designated Natural Heritage Areas in terms of their role in supporting the species using Natura 2000 sites was undertaken. It was assumed that these supporting roles mainly related to mobile fauna such as mammals and birds which may use pNHAs and NHAs as "stepping stones" between Natura 2000 sites.

Article 10 of the Habitats Directive and the Habitats Regulations 2011 place a high degree of importance on such non-Natura 2000 areas as features that connect the Natura 2000 network. Features such as ponds, woodlands and important hedgerows were taken into account during the AA process.

There are two Natural Heritage Areas within 15km of the Regeneration Masterplan Area:

- 1. Slieveward Bog (001902) at c. 7.7km to the southwest
- 2. Crockauns/Keelogyboy Bogs (002435) c. 5.8km to the northeast

As previously mentioned, these sites have limited relevant biological connectivity with the Regeneration Masterplan Area and are not considered futher as they will not be impacted upon.

Lough Gill and the Garavogue River are also a proposed Natural Heritage Area and as such are addressed as per the conservation objectives of the SAC.

5 Identification of Potential Impacts and Assessment of Significance

5.1 Examples of Direct, Indirect or Secondary Impacts

In general, any development that may result from implementation of the proposed Plan, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity and telecommunications infrastructure could lead to a number of impacts depending on where development is sited, the scale of development and types and quantities of emissions.

In practice and as outlined in the EU document 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, and the national guidance document Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities, impacts that could potentially occur through the implementation of the proposed Masterplan can be categorised under a number of headings:

- Habitat loss within Natura 2000 site
- Direct species mortality
- Disturbance of species during construction
- Disturbance of species due to active/passive recreation
- Disturbance due to lighting
- Surface water runoff during construction
- Surface water runoff from increased hard standing areas
- Disturbance of watercourses due to diversions culverting
- Water supply
- Wastewater treatment plant capacity

In order to identify those sites that could be potentially affected, it is necessary to describe the Natura 2000 sites in the context of why they have been designated i.e. in terms of their qualifying interests and the environmental and ecological conditions that maintain the condition of these features. Table 4 below provides the qualifying interests conservation objectives and threats to site integrity for the three Natura 2000 site screened in the report.

5 Identification of Potential Impacts and Assessment of Significance

Table 4 Qualifying i	Table 4 Qualifying interests and key environmental conditions supporting site integrity			
Site Name (Site Code)	Qualifying Interests (QIs) (Habitats and Species)	Conservation Objectives	Current threats to qualifying interests	
Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC (000627)	Annex I Habitats 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes) 7220 Petrifying springs with tufa formation (Cratoneurion) 5130 Juniperus communis formations on heaths or calcareous grasslands Annex II Species Vertigo angustior Harbour Seal	To maintain Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation status; To maintain the extent of species richness and biodiversity of the entire site; and To establish effective liaison and co-operation with landowners, legal users and relevant authorities.	Decrease in water quality/Increased pollution Development of marinas and ports Disturbance to marine mammals Dumping at sea Direct loss of habitat to development Recreational/amenity use Agricultural improvements/ Reclamation Drainage/Changes in local hydrology including water abstraction Erosion (natural and anthropogenic) Agricultural abandonment Overgrazing/undergrazing Bracken and scrub encroachment Tourism related development Introduction of alien invasive species Illegal Dumping Burning Quarrying/removal of sand Aquaculture	

5 Identification of Potential Impacts and Assessment of Significance

Site Name	nterests and key environm Qualifying Interests (QIs)	Conservation	Current threats to
(Site Code)	(Habitats and Species)	Objectives	qualifying interests
Lough Gill SAC (001976)	Annex I Habitats 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharitiontype vegetation 91e0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) 91a0 Old sessile oak woods with Ilex and Blechnum in British Isles Annex II Species Sea Lamprey River Lamprey Brook Lamprey White -clawed Crayfish Atlantic Salmon Otter	To maintain Annex I habitats and Annex II species for which the cSAC has been selected at favourable conservation status; To maintain the extent of species richness and biodiversity of the entire site; and To establish effective liaison and co-operation with landowners, legal users and relevant authorities.	Decrease in water quality/Increased pollution Changes in water flow rates Arterial drainage/water abstraction/ lowering of the regional water table Siltation Loss of fringe vegetation Changes in seasonal water levels/ fluctuations Direct loss of habitat to development Loading from effluents(WWTP) Recreation/amenity use Developments – marinas Introduction of alien invasive species Illegal Dumping Crayfish Fishing
Cummeen Strand SPA (004035)	Site is selected for: Light-bellied Brent Goose Additional Special Conservation Interests: Oystercatcher Redshank Wetland & Waterbirds	To maintain the special conservation interests for this SPA at favourable conservation status: Light-bellied Brent Goose, Oystercatcher, Redshank, Wetland & Waterbirds.	Direct and indirect impacts to the habitats of the bird species of conservation interests (loss of habitat) Direct loss of habitat to development Water quality/pollution Disturbance including recreation/amenity use Introduction of alien invasive species Illegal Dumping Disturbance from Recreational/amenity use Inappropriate land management

5 Identification of Potential Impacts and Assessment of Significance

5.2 Assessment of Potential **Cumulative Effects**

Cumulative impacts or effects are changes in the environment that result from numerous humaninduced, small-scale alterations. Cumulative impacts can be thought of as occurring through two main pathways:

- 1. First, through persistent additions or losses of the same materials or resource
- 2. And second, through the compounding effects as a result of the coming together of two or more effects

As part of this Screening for an Appropriate Assessment, other relevant projects and plans in the region were considered. This step aims to identify at an early stage any possible significant in-combination or cumulative effects/impacts of the Plan with other plans and projects on the relevant Natura 2000 sites and their conservation interests.

Other plans and projects specific to the area which potentially could give rise to in-combination effects on the relevant Natura 2000 sites are the following:

- Border Regional Planning Guidelines 2010-2022
- Sligo County Development Plan 2011-2017
- Sligo County Heritage Plan 2007-2011
- County Sligo Biodiversity Plan 2010

A review of the Sligo County Council Planning webpage revealed that there have been a small number of applications for the entry "Cranmore" for the last three years to date. Applications finalised relate to the retention of an ESB pole, a porch and a change of use of office space. None of these projects are likely to have in-combination effects with the proposed masterplan.

Doorly Park Pontoon proposed to be developed near Doorly Gate Lodge by Sligo Tourist Development Association in partnership with SCC

This project underwent an Appropriate Assessment and a Natura Impact Statement was submitted as part of the planning process (planning permission granted August 2015). Given the successful employment of mitigation measures it was determined that there would be no significant impact on Natura 2000 sites within the zone of influence of the project. Thus there will be no incombination impacts with the Masterplan.

5 Identification of Potential Impacts and Assessment of Significance

Proposed Distillery and Museum: Hazelwood Demesne

This project underwent an Appropriate Assessment - a Natura Impact Statement was submitted as part of the planning process. Given the successful employment of mitigation measures it was determined that there would be no significant impact on Natura 2000 sites within the zone of influence of the project. Thus there will be no incombination impacts with the Masterplan.

Any new applications for the Masterplan Area will be assessed on a case-by-case basis by Sligo County Council, which will determine the requirement for AA Screening as per the requirements of Article 6(3) of the Habitats Directive.

5.3 Likely Significant Impacts on **European Sites**

This section uses the information collected on the sensitivity of each European site (Table 4) and describes any likely significant effects of implementation of the Masterplan. The likely significant effects of the Themes and Projects proposed in the Masterplan are presented as a screening matrix in Table 5 below, both in isolation and potentially in combination with other plans and projects.

5 Identification of Potential Impacts and Assessment of Significance

Table 5 Appropriate Assessment Screening Matrix				
Theme/ Project	Description of Theme/Project	Potential impacts of Theme/Project on European Sites	Predicted Impact and Determination	
A1 Provide quality spaces for delivery of services and community activities, sports, meeting spaces etc.	The brief for space needs are to be developed in consultation with existing community resources such as the Abbeyquarter Centre and the Co-Op to determine exact needs and business case. Sports, meeting spaces etc.	The development of additional public services buildings outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate treatment of wastewater.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required	
A2 Space for Medical Services provision	The brief for space for medical services provision will be developed in consultation with agencies to determine exact needs and business case. Project subject to detailed feasibility and design studies for further consultation during the process for planning permission.	The development of additional public services buildings outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate treatment of wastewater.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required	
A3 Doorly Park Lodge restoration to be explored	Refurbishment of existing building provides opportunity to create a new public/community space close to the river, adjoining park and recreation areas. A brief to be developed as part of a business plan, funding needs to be sourced.	The development of Doorly Park Lodge located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate treatment of wastewater.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use	

management.

Theme/	Description of	Potential impacts of	Predicted Impact and
Project	Theme/Project	Theme/Project on	Determination
		European Sites	
B1 Play Areas: Cranmore	Play areas to be provided as part of the overall design of central block site (to include play area for toddlers and multi-use games area). Detail design to be developed and consulted upon.	The development of recreational areas located outside designated conservation areas is unlikely to have a significant impact on European sites. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for the Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
B2 Improve access to Regional Sports Centre and Cleveragh Regional Park	Gated access to new path to Sports Centre and Regional Park: a safe and more direct pedestrian and cycle access to Sports Centre and pitches in Regional Park. A detailed design needs to be agreed with Racecourse Committee and Sports Centre with funding to be sourced.	The development of access routes located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
B3 Create quality open spaces within Cranmore area	Detailed designs for the reduction of the mounds to be developed and consulted upon.	The development of open spaces located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for the requirement for Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
B4 Extend Exercise Trail through Brown's Field and Racecourse new pedestrian and cycle routes as opportunities present	Locations and type of equipment to be identified at detail design: funding needs to be sourced.	The development of recreational areas located outside designated conservation areas is unlikely to have a significant impact on European sites.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use

in relation to planning and land use

management.

Appropriate Assessment Screening Matrix

Theme/ **Project**

B5 Support the development of water based

recreational

facilities at

Doorly Park

opportunities

and associated

Description of Theme/Project

Support for Doorly Park Pontoon proposed to be developed at the Garavogue near Doorly Gate Lodge. Support for water sports Pavillion proposal, having regard to the environmentally sensitive location and informed by taking account of the status of the area as a Special Area of Conservation and the requirements of the Habitats Directive.

Potential impacts of Theme/Project on **European Sites**

The development of recreational facilities located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River.

Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for the requirement for Appropriate Assessment.

Doorly Park Pontoon proposed to be developed near Doorly Gate Lodge by Sligo Tourist Development Association in partnership with SCC - this project underwent an Appropriate Assessment: a Natura Impact Statement was submitted as part of the planning process (planning permission granted August 2015.

Predicted Impact and **Determination**

The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management.

Stage 2 AA not required

B6 New park: at Doorly Park junction of Martin Savage Terrace and Cranmore Road/Brown's Field site

The layout and potential of existing lawned open space as a more useful and attractive community resource to be reviewed in consultation with the local community.

The development of roads located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River.

Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for the requirement for Appropriate Assessment.

The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management.

Stage 2 AA not required

C1 Housing Improvements: focus on energy efficiency for Cranmore Estate

Dwellings will be assessed to determine the nature of works needed to achieve an agreed level of energy efficiency. Measures will be undertaken on a phased basis in clusters of dwellings on a case by case basis.

The provision of energy efficient measures to housing located outside designated conservation areas is unlikely to have a significant impact on European

The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management.

Appropriate Assessment Screening Matrix

Theme/ Project	Description of Theme/Project	Potential impacts of Theme/Project on European Sites	Predicted Impact and Determination
C2 Housing environmental improvements: focussing on Cranmore Estate building	Building on the series of environmental improvement projects undertaken in recent years, this project will focus on issues raised by residents such as unused backland areas and alleys and areas which are vulnerable to anti-social behaviour and dumping etc. Street by street consultations will prioritise local concerns to be addressed in detailed designs.	The provision of environmental improvements to housing located outside designated conservation areas is unlikely to have a significant impact on European sites.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
C3 Collery Drive/John Fallon Drive link	This project will address security and safety issues as part of environmental improvements by improving passive surveillance, and addressing security concerns of vulnerable residents on pedestrian lane connecting Collery Drive with John Fallon Drive	Measures to address antisocial behaviour are unlikely to have a significant impact on European sites.	Stage 2 AA not required
C4 Housing: Centre Block Site	Site identified with potential to meet specific housing needs for elderly and people with special needs. The project will be subject to detailed feasibility and design studies to clarify height, mix, tenure and car-parking considerations. Further consultations will be undertaken on detailed design in addition to planning process.	The development of housing located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate treatment of wastewater. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
C5 Housing: Geldof Drive	Bungalow site with potential to meet needs for the elderly and people with special needs. Feasibility options will be developed to determine the best use of site and mix of units. Further consultations will be undertaken on detailed design in addition to planning process.	The development of derelict housing located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate treatment of wastewater.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required

Appropriate Assessment Screening Matrix

Theme/	Description of	Potential impacts of	Predicted Impact and	
Project	Theme/Project	Theme/Project on	Determination	
		European Sites		
D1 Cranmore Road enhancements	Improvements include enhancement of urban/ street boundaries and pavement improvements to include replacing the Ray McSharry Park boundary wall with wall and railings and widen pavement, ESB frontage enhanced and new planting and pavement treatments. Detailed design proposals to be reviewed with disability groups and others.	The development of roads located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for Appropriate Assessment	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required	
D2 Devins Drive mprovements	Improvements include traffic calming measures, road crossings, junction treatments and landscaping to improve character and safety of street. Detailed design proposals to be developed for review with disability groups and others.	The development of roads located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required	
D3 St. Anne's Place urban andscape	Urban design proposals to be developed to improve character and attractiveness of St. Anne's open space/parking layout. Detailed design proposals to be developed for consultation with disability groups and others.	New landscaping located outside designated conservation areas is unlikely to have a significant impact on European sites.	Stage 2 AA not required	
E1 Explore Mercy School pedestrian access from Geldof Drive	A new side gated access to Mercy School for pupils to allow for pedestrian and cycle access only. Subject to agreement with Mercy School Management and Abbeyquarter Centre. Detailed design proposals to be developed for consultation with Mercy School Management and Abbeyquarter Centre.	The development of access routes located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management	

to be screened on a project level

for Appropriate Assessment.

Appropriate Assessment Screening Matrix

Theme/ Project	Description of Theme/Project	Potential impacts of Theme/Project on European Sites	Predicted Impact and Determination
E2 Joe McDonnell pedestrian/ bicycle link to Chapel Hill	This project requires acquisition and demolition of 4 houses, and includes redevelopment of the area to provide 4 new houses overlooking pedestrian cycle link to connect Joe McDonnell Drive with Chapel Hill. Negotiations and agreement required with households affected, detailed design proposals to be developed for further consultation.	The development of access routes located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
E3 Brown's Field pedestrian/ bicycle link to Cranmore	This project involves a long term aspiration to improve urban links and connectivity through the area. It involves a new pedestrian cycle route through Brown's Field lands connecting Racecourse View with access road adjacent to Lidl. This new link is to be provided as part of the redevelopment of Brown's Field lands. This will be subject to detail design and consultation as part of the planning process.	The development of access routes located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for the requirement for Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
E4 New centre block avenue (pedestrian/ bicycle)	New pedestrian cycle route through centre block site connecting Langan Drive/Racecourse View with Devins Drive as part of redevelopment and relandscaping of Centre Block lands.	The development of access routes located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant

River.

Any projects having potential

hydrological connectivity to the

Garavogue River will be required to be screened on a project level

for Appropriate Assessment .

legislation and guidelines and abiding

by the principles of best practice

management.

Stage 2 AA not required

in relation to planning and land use

Appropriate Assessment Screening Matrix

Theme/
Project

Description of Theme/Project

Potential impacts of Theme/Project on **European Sites**

Predicted Impact and **Determination**

E5 Sligo Gaol to Cranmore Road

This project involves a long term aspiration to improve urban links and connectivity. It involves a new route through lands adjacent to Aldi Store, a potential long term initiative to be explored as part of any redevelopment of the area. This will be subject to detailed design and consultation as part of the planning process.

The development of access routes located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue

Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for the requirement for Appropriate Assessment.

The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management.

Stage 2 AA not required

E6 Garavogue Villas access: traffic management plan

A traffic management plan to be developed and measures introduced to remove risk of heavy vehicles using Garavogue Villas as a short cut, plan will involve a review of the presentation of the Neolithic stone circle, as part of proposals. Detailed design proposals to be developed for consultation with residents, disability groups and others. SCC internal funds and others to be sourced to deliver project.

The development of a Traffic Management Plan is unlikely to have a significant impact on European sites.

Stage 2 AA not required

F1 Geldof Drive Bungalow Site

Bungalow site with potential to meet needs for the elderly and people with special needs. Feasibility options will be developed to determine the best use of site and mix of units. Further consultations will be undertaken on detailed design in addition to planning process.

The development of housing located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate treatment of wastewater.

The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management.

Appropriate Assessment Screening Matrix

Proposed as private sector development project. The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning	Theme/Project on European Sites The development of new residential (apartments) outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate treatment of wastewater.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016
development project. The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning	The development of new residential (apartments) outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate treatment of	Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs
development project. The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning	residential (apartments) outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate treatment of	Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs
permission.		and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
Despessed as a single sector	The development of arrived ways	
Proposed as private sector development project. The project will be subject to detailed feasibility and design studies that will clarify site layout, mix of use and other design considerations during the process for planning permission.	The development of mixed uses at Brown's Field, located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management.
	Any projects having potential hydrological connectivity to the Garavogue River will be required	
	to be screened on a project level for Appropriate Assessment.	Stage 2 AA not required
Proposed as private sector development project. The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning permission.	The development of residential limits located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River. Any projects having potential hydrological connectivity to the	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use
t	and design studies that will clarify height, mix, senure and car parking considerations during the process for planning	on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River. Any projects having potential

to be screened on a project level for the requirement for Appropriate Assessment.

Appropriate Assessment Screening Matrix

Park.

Theme/ Project	Description of Theme/Project	Potential impacts of Theme/Project on European Sites	Predicted Impact and Determination
F5 Centre Block Site: community, amenity and residential Development	Site identified with potential to meet community and specific housing needs for elderly and people with special needs. The project is subject to detailed feasibility and design studies that will clarify site layout, open spaces, height, mix, tenure and car parking considerations before further consultation during the process for planning permission.	The development of a Centre Block Site located outside designated conservation areas is unlikely to have a significant impact on European sites given the appropriate employment of best practice construction methods to prevent surface water runoff in the vicinity of the Garavogue River. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
F6 Cleveragh Drive re-zoning: residential	It is proposed that the next Development Plan for Sligo and Environs rezones these sites to R2 low/medium density residential use because of the adjacent open space amenities at the Racecourse, Doorly Park and Cleveragh Regional	The rezoning of lands located outside designated conservation areas is unlikely to have a significant impact on European sites. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant logislation and quiddlings and abidion

for Appropriate Assessment.

legislation and guidelines and abiding

by the principles of best practice in relation to planning and land use

management.

Table 5 Appropriate Assessment Screening Matrix

Theme/ Project	Description of Theme/Project	Potential impacts of Theme/Project on European Sites	Predicted Impact and Determination
G1 Carnsfoot House remains of walled garden	This project involves the protection and conservation of the remains of Carnsfoot House walled garden as an attractive historical asset with learning and tourism potential.	The conservation of the remains of Carnsfoot House and walled garden are unlikely to have a significant impact on European sites.	Stage 2 AA not required
	The woodland at Carnsfoot is of moderate quality but is an old woodland site with potential for woodland restoration. It contains some semi-natural woodland features of local importance-higher value, and could be considered a Local Biodiversity Area as described in the Sligo Habitats Mapping Project. Many have memories of Carnsfoot House and recognise its importance. Complementary use as an informal play space or garden space to be explored. Design needs to be developed in consultation and funding sourced to realise measures.		
G2 Sligo Gaol	This project proposes to develop and promote the remains of Sligo Gaol as a significant historical asset with learning, tourism and employment/enterprise potential. The strategy needs to be explored and developed further in consultation with local community, interest groups, Friends of Sligo Gaol Group and others. Funding needs to be sourced to realise measures.	The development of Sligo Gaol outside designated conservation areas is unlikely to have a significant impact on European sites. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management. Stage 2 AA not required
H1 Racecourse - central site: explore geothermal potential	Uses of public land for sustainable energy generation are to be explored, such as the possibility of geothermal heat pump within the Sligo County Council Racecourse lands. Funding needs to be sourced to realise measures.	The development of sustainable energy generation (geothermal) at Sligo Racecourse located outside designated conservation areas is unlikely to have a significant impact on European sites. Any projects having potential hydrological connectivity to the Garavogue River will be required to be screened on a project level for Appropriate Assessment.	The Sligo East City, Cranmore and Environs Regeneration Masterplan will abide by the objectives and policies of the Sligo and Environs Development Plan 2010-2016 and subsequent plans, which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use

management.

6 Screening Statement

The conclusion of this Appropriate Assessment Screening Report is that there is limited biological and hydrological connectivity to the European Sites considered in this report and that it is unlikely that there would be significant impacts on the Qualifying Interests or Conservation Objectives of the European sites considered if the Sligo East City, Cranmore and Environs Regeneration Masterplan is adopted.

The Sligo and Environs Development Plan 2010-2016 contains numerous measures which will directly and/or indirectly contribute to the conservation of Natura 2000 sites and the protection of locally important ecological sites. These will assist in the implementation of the requirements of the Habitats Directive and will ensure that the masterplan will not have a significant impact on ecology.

If the Policies and Objectives of the governing Development Plan are employed in the implementation of the Sligo East City, Cranmore and Environs Regeneration Masterplan, then the Plan will not have a significant impact on habitats or species of local, regional or international importance.

Based on the information provided above, and by applying the precautionary principle, it was determined by Moore Group that it was possible to rule out likely significant impacts on any European Sites. It is the opinion of Moore Group that it is not necessary to undertake any further stage of the Appropriate Assessment process on the Masterplan.

A finding of no significant effects report is presented in Appendix A in accordance with the EU Commission's methodological guidance (European Commission, 2001).

7 References

- Department of the Environment, Heritage and Local Government (2010) Guidance on Appropriate Assessment of Plans and Projects in Ireland (as amended February 2010).
- European Commission (2000) Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.
- European Commission Environment DG (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological quidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43EEC. European Commission, Brussels.
- European Commission (2007) Guidance document on Article 6(4) of the 'Habitats Directive '92/43/ EEC: Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interests, compensatory measures, overall coherence and opinion of the Commission. European Commission, Brussels.
- NPWS (2002) Site Synopsis for Cummeen Strand SPA 004035. Version date: 28.02.2002. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) The Status of EU Protected Habitats and Species in Ireland. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.
- NPWS (2013) Site Synopsis for Lough Gill SAC [001976]. Version date: 27.11.2013 001976_Rev13. Doc. Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Conservation Objectives: Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC 000627. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Conservation Objectives: Cummeen Strand SPA 004035. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

- NPWS (2013) Site Synopsis for Cummeen Strand/ Drumcliff Bay (Sligo Bay) SAC 000627. Version date: 4.09.2013 000627_Rev13.Doc. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2015) Conservation objectives for Lough Gill SAC [001976]. Generic Version 4.0. Department of Arts, Heritage and the Gaeltacht.

Finding of no significant effects report

Name of project or plan

Sligo East City, Cranmore and Environs Regeneration Masterplan.

Name and location of the Natura 2000 site(s)

Three European sites are considered relevant to the Masterplan:

- Lough Gill SAC 001976
- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC 000627
- Cummeen Strand SPA 004035

Description of the project or plan

The masterplan is inspired by a vision for Cranmore and the East City area that encompasses an integrated social, economic and physical approach to the transformation of Sligo East City, Cranmore and Environs, it aims to achieve the following goals:

- Make the East City area and Cranmore a more attractive place to live with better, more convenient connections to existing and new facilities, locally and in the rest of Sligo
- Enable individuals and communities of the area to avail of opportunities, with good access to employment, education, health and family support services
- See the East City area become the location of choice for future generations to live, work and visit

Masterplan Themes and Projects

The measures for the physical regeneration of the East City area, coordinated with the social elements and the economic elements, are derived from eight urban design themes.

The Masterplan Themes and Projects are set out as follows and a description of each theme is provided below:

- A. Provide Quality Spaces for Community Facilities
- B. Improve Access to Quality Amenities and Open Spaces
- C. Improve Housing Quality and Opportunity in the
- D. Improve Quality of Roads, Streets and Urban Spaces
- E. Improve Access and Links
- F. Get the Most out of the Vacant and Potential Sites in the Area
- G. Develop and Promote Historical Assets in the area
- H. Explore Options for Sustainable Energy

Under each of the Masterplan Themes, a series of projects are proposed, these described in more detail as follows:

Finding of no significant effects report

A: Provide Quality Spaces for **Community Facilities**

A1 Provide quality spaces for delivery of services and community activities: sports, meeting spaces etc.

The brief for space needs are to be developed in consultation with existing community resources such as the Abbeyquarter Centre and the Co-Op to determine exact needs and business case.

A2 Space for Medical Services provision

The brief for space for medical services provision will be developed in consultation with agencies to determine exact needs and business case. Project will be subject to detailed feasibility and design studies, for further consultation, during the process for planning permission.

A3 Doorly Park Lodge restoration to be

Refurbishment of existing building provides opportunity to create a new public/community space close to the river, adjoining park and recreation areas. A brief will be developed as part of a business plan, funding needs to be sourced.

B: Improve Access to Quality Amenities and Open Spaces

B1 Play Areas: Cranmore

Play areas to be provided as part of the overall design of central block site (to include play area for toddlers and multi-use games area). Detail design to be developed and consulted upon.

B2 Improve Access to Regional Sports Centre and Cleveragh Regional Park

Gated access to new path to Sports Centre and Regional Park: a safe and more direct pedestrian and cycle access to Sports Centre and pitches in Regional Park. A detailed design needs to be agreed with Racecourse Committee and Sports Centre with funding to be sourced.

B3 Create Quality Open Spaces within Cranmore Area

Detailed designs for reduction of mounds to be developed and consulted upon.

B4 Extend Exercise Trail through Brown's Field and Racecourse new pedestrian and cycle routes as opportunities present

Locations and type of equipment to be identified at detail design: funding needs to be sourced.

B5 Support the development of water based recreational opportunities and associated facilities at Doorly Park.

Support for Doorly Park Pontoon proposed to be developed at the Garavogue near Doorly Gate Lodge.

Support for water sports Pavillion proposal, having regard to the environmentally sensitive location and informed by taking account of the status of the area as a Special Area of Conservation and the requirements of the Habitats Directive

B6 New Park at Doorly Park: junction of Martin Savage Terrace and Cranmore Road/Brown's Field site

The layout and potential of existing lawned open space as a more useful and attractive community resource to be reviewed in consultation with the local community.

Finding of no significant effects report

C: Improve Housing Quality and Opportunity in the Area

C1 Housing Improvements: focus on energy efficiency for Cranmore Estate

Dwellings will be assessed to determine the nature of works needed to achieve an agreed level of energy efficiency. Measures will be undertaken on a phased basis in clusters of dwellings on a case by case basis.

C2 Housing Environmental Improvements: focusing on Cranmore Estate

Building on the series of environmental improvement projects undertaken in recent years, this project will focus on issues raised by residents such as unused backland areas and alleys and areas which are vulnerable to anti-social behaviour and dumping etc. Street by street consultations will prioritise local concerns to be addressed in detailed

C3 Collery Drive/John Fallon Drive Link

This project will address security and safety issues as part of environmental improvements by improving passive surveillance, and addressing security concerns of vulnerable residents on pedestrian lane connecting Collery Drive with John Fallon Drive.

C4 Housing: Centre Block Site

Site identified with potential to meet specific housing needs for elderly and people with special needs. The project will be subject to detailed feasibility and design studies to clarify height, mix, tenure and car-parking considerations. Further consultations will be undertaken on detailed design in addition to planning process.

C5 Housing: Geldof Drive

Bungalow site with potential to meet needs for the elderly and people with special needs. Feasibility options will be developed to determine the best use of site and mix of units. Further consultations will be undertaken on detailed design in addition to planning process.

D: Improve Quality of Roads, Streets and Urban Spaces

D1 Cranmore Road Enhancements

Improvements include enhancement of urban/ street boundaries and pavement improvements to include replacing the Ray McSharry Park boundary wall with wall and railings and widen pavement, ESB frontage enhanced and new planting and pavement treatments. Detailed design proposals to be reviewed with disability groups and others.

D2 Devins Drive Improvements

Improvements include traffic calming measures, road crossings, junction treatments and landscaping to improve character and safety of street. Detailed design proposals to be developed for review with disability groups and others.

D3 St. Anne's Place Urban Landscape

Urban design proposals to be developed to improve character and attractiveness of St. Anne's open space/parking layout. Detail design proposals to be developed for consultation with disability groups and others.

Finding of no significant effects report

E: Improve Access and Links

E1 Explore Mercy School Pedestrian Access from Geldof Drive

A new side gated access to Mercy School for pupils to allow for pedestrian and cycle access only.

Subject to agreement with Mercy School Management and Abbeyquarter Centre. Detailed design proposals to be developed for consultation with Mercy School Management and Abbeyquarter Centre

E2 Joe McDonnell Pedestrian/Bicycle Link to Chapel Hill

This project requires acquisition and demolition of 4 houses, and includes redevelopment of the area to provide 4 new houses overlooking pedestrian cycle link to connect Joe McDonnell Drive with Chapel Hill. Negotiations and agreement required with households affected, detailed design proposals to be developed for further consultation.

E3 Brown's Field Pedestrian/Bicycle Link to Cranmore

This project involves a long term aspiration to improve urban links and connectivity through the area. It involves a new pedestrian cycle route through Brown's Field lands connecting Racecourse View with access road adjacent to Lidl. This new link is to be provided as part of the redevelopment of Brown's Field lands. This will be subject to detail design and consultation as part of the planning process.

E4 New Centre Block Avenue (pedestrian/ bicycle)

New pedestrian cycle route through centre block site connecting Langan Drive/Racecourse View with Devins Drive as part of redevelopment and relandscaping of Centre Block lands.

E5 Sligo Gaol to Cranmore Road Link

This project involves a long term aspiration to improve urban links and connectivity.

It involves a new route through lands adjacent to Aldi Store, a potential long term initiative to be explored as part of any redevelopment of the area. This will be subject to detailed design and consultation as part of the planning process

E6 Garavogue Villas Access – Traffic Management Plan

A traffic management plan to be developed and measures introduced to remove risk of heavy vehicles using Garavogue Villas as a short cut, plan will involve a review of the presentation of historic Neolithic stone circle, as part of proposals. Detailed design proposals to be developed for consultation with residents, disability groups and others.

F: Get the Most out of the Vacant and Potential Sites in the Area

F1 Geldof Drive Bungalow Site

Bungalow site with potential to meet needs for the elderly and people with special needs. Feasibility options will be developed to determine the best use of site and mix of units. Further consultations will be undertaken on detailed design in addition to planning process.

F2 Cranmore Road Cleared Site: New Residential (apartments)

Proposed as private sector development project. The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning permission.

Finding of no significant effects report

F3 Brown's Field: Mixed Use site for Development

Proposed as private sector development project.

The project will be subject to detailed feasibility and design studies that will clarify site layout, mix of use and other design considerations during the process for planning permission.

F4 Doorly Park Former Maisonettes Site Residential Development Use

Proposed as private sector development project.

The project is subject to detailed feasibility and design studies that will clarify height, mix, tenure and car parking considerations during the process for planning permission.

F5 Centre Block Site: community, amenity and residential Development

Site identified with potential to meet community and specific housing needs for elderly and people with special needs.

The project is subject to detailed feasibility and design studies that will clarify site layout, open spaces, height, mix, tenure and car parking considerations before further consultation during the process for planning permission.

F6 Cleveragh Drive re-zoning: Residential

It is proposed that the next Development Plan for Sligo and Environs rezones these sites to R2 low/ medium density residential use because of the adjacent open space amenities at the Racecourse, Doorly Park and Cleveragh Regional Park.

G: Develop and Promote Historical **Assets in the Area**

G1 Carnsfoot House: Remains of walled garden

This project involves the protection and conservation of the remains of Carnsfoot House walled garden as an attractive historical asset with learning and tourism potential.

The woodland at Carnsfoot is of moderate quality but is an old woodland site with potential for woodland restoration. It contains some semi-natural woodland features of local importance-higher value, and could be considered a Local Biodiversity Area as described in the Sligo Habitats Mapping Project.

Many have memories of Carnsfoot House and recognise its importance. Complementary use as an informal play space or garden space to be explored. Design needs to be developed in consultation and funding sourced to realise measures.

G2 Sligo Gaol

This project proposes to develop and promote the remains of Sligo Gaol as a significant historical asset with learning, tourism and employment/enterprise potential. The strategy needs to be explored and developed further in consultation with local community, interest groups, Friends of Sligo Gaol Group and others. Funding needs to be sourced to realise measures

H: Explore Options for Sustainable Energy

H1 Racecourse - Central Site: Explore Geothermal Potential

Uses of public land for sustainable energy generation are to be explored, such as the possibility of geothermal heat pump within the Sligo County Council Racecourse lands.

Funding needs to be sourced to realise measures.

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

No

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

Other plans and projects specific to the area, which potentially could give rise to in-combination effects on the relevant Natura 2000 sites are the following:

- Border Regional Planning Guidelines 2010-2022
- Sligo County Development Plan 2011-2017
- Sligo County Heritage Plan 2007-2011
- County Sligo Biodiversity Plan 2010

A review of the Sligo County Council Planning webpage revealed that there have been a small number of applications for the entry "Cranmore" for the last three years to date. Applications finalised relate to the retention of an ESB pole, a porch and a change of use of office space. None of these projects are likely to have in-combination effects with the proposed masterplan.

Doorly Park Pontoon proposed to be developed near Doorly Gate Lodge by Sligo Tourist Development Association in partnership with SCC – this project underwent an Appropriate **Assessment:** a Natura Impact Statement was submitted as part of the planning process (planning permission granted August 2015). Given the successful employment of mitigation measures it was determined that there would be no significant impact on Natura 2000 sites within the zone of influence of the project. Thus there will be no in- combination impacts with the Masterplan.

Proposed Distillery and Museum: Hazelwood Demesne – this project underwent an Appropriate Assessment: a Natura Impact Statement was submitted as part of the planning process. Given the successful employment of mitigation measures it was determined that there would be no significant impact on Natura 2000 sites within the zone of influence of the project. Thus there will be no in-combination impacts with the Masterplan.

Any new applications for the Masterplan area will be assessed on a case by case basis by Sligo County Council which will determine the requirement for AA Screening as per the requirements of Article 6(3) of the Habitats Directive.

The assessment of significance of effects

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

There will be no direct impact on or fragmentation of the nearby Natura 2000 sites. Having established no direct impacts or habitat fragmentation, the assessment concentrates on potential indirect impacts.

Explain why these effects are not considered significant

Each of the Themes and Projects of the masterplan were examined and the potential for significant effects was assessed. In each case the proposed Theme/Project is unlikely to have a significant effect on the European sites considered in the assessment.

The Sligo East City, Cranmore and Environs Regeneration Masterplan will have regard to the objectives and policies of the Sligo and Environs Development Plan 2010-2016 which are intended to avoid potential negative impacts on European sites through compliance with all relevant legislation and guidelines and abiding by the principles of best practice in relation to planning and land use management.

The Sligo and Environs Development Plan 2010-2016 contains numerous measures which will directly and/or indirectly contribute to the conservation of Natura 2000 sites and the protection of locally important ecological sites. These will assist in the implementation of the requirements of the Habitats Directive and will ensure that the masterplan will not have a significant impact on local ecology or on the integrity of Natura 2000 sites:

- **SP-Z-5** Protect designated nature conservation sites, landscape, archaeology, valuable natural amenity areas, water and natural resources, while allowing for the possible further expansion of the city in the long-term
- P-NH-3 Consult with the relevant prescribed bodies and appropriate agencies when considering undertaking, approving or authorising developments, which are likely to affect designated natural heritage sites or those proposed to be designated
- O-NH-1 Require an appropriate environmental assessment in respect of any proposed development likely to have an impact on a designated natural heritage site or those sites proposed to be designated

- O-NH-2 Ensure that environmental assessments in relation to designated natural heritage sites (or those sites proposed to be designated) are carried out by appropriate professionals
- O-NH-4 Any project not directly connected with or necessary to the management of a Natura 2000 site, but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to an appropriate assessment in accordance with Art. 6 of Directive 92/43/EEC, of its implications for the Natura 2000 site in view of the site's conservation objectives
- P-NH-6 Ensure that development does not have a significant adverse impact, incapable of satisfactory mitigation, on plant, animal or bird species protected by law
- P-NH-7 Consult with the National Parks and Wildlife Service, and take account of any licensing requirements, when undertaking, approving and authorising development which is likely to affect plant, animal or bird species protected by law

If the Policies and Objectives of the governing Development Plan are employed in the implementation of the Sligo East City, Cranmore and Environs Regeneration Masterplan, then the plan will not have a significant impact on habitats or species of local, regional or international importance.

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

Sligo County Council Heritage Officer Siobhán Ryan.

Response to consultation

The need for Appropriate Assessment Screening was identified in consultation with Sligo County Council.

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

Moore Group Environmental Services.

Sources of data

- NPWS database of designated sites at www.npws.ie
- National Biodiversity Data Centre database http://maps.biodiversityireland.ie Sligo and Environs Development Plan 2010-16,
- Habitat Mapping for Sligo and Environs Development plan 2007, Review of Sligo Habitat Mapping 2008,
- County Wetlands Reports 2008-2011,
- Japanese Knotweed Survey/Mapping for Borough Area (Heritage office Report 2012),
- Final River Basin Management Plan for the Western River Basin District in Ireland (2009-2015) December 2009
- Eastern Garavogue Bridge and Approach Roads -Environmental Impact Statement Nov. 2007,
- Doorly Park Maisonettes Demolition Natura Impact Statement (2012),
- Pearse Road Surface Water Sewer Natura Impact Statement (2012),
- Floating Pontoon Doorly Park Natura Impact Statement (2015).
- Distillery & and Museum Hazelwood Demesne Natura Impact Statement (2015).

Level of assessment completed

Desktop Assessment

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

Cranmore Regeneration Office

Overall Conclusions

The conclusion of this Screening Report is that there is limited biological and hydrological connectivity to the European Sites considered in this report and that it is unlikely that there would be significant impacts on the Qualifying interests or Conservation Objectives of the European sites considered if the Sligo East City, Cranmore and Environs Regeneration Masterplan is implemented.

The Sligo and Environs Development Plan 2010–2016 contains numerous measures which will directly and/or indirectly contribute to the conservation of Natura 2000 sites and the protection of locally important ecological sites. These will assist in the implementation of the requirements of the Habitats Directive and will ensure that the masterplan will not have a significant impact on ecology.

If the Policies and Objectives of the governing Development Plan are employed in the implementation of the Sligo East City, Cranmore and Environs Regeneration Masterplan, then the plan will not have a significant impact on habitats or species of local, regional or international importance.

Based on the information provide above, and by applying the precautionary principle, it was determined by Moore Group that it was possible to rule out likely significant impacts on any European Sites. It is the opinion of Moore Group that it is not necessary to undertake any further stage of the Appropriate Assessment process.

Cranmore Regeneration Project

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