

Cork County Council

**Proposed Changes to Planning Scheme for Monard Strategic Development Zone
Habitats Directive Screening Statement**

**Prepared by Cork County Council Planning Policy Unit
July 2015**



Table of Contents

1	Introduction.....	3
1.1	Context.....	3
1.2	Legislative Background Habitats Directive Assessment	4
2	Natura 2000 sites Subject to Screening - Proposed Changes Stage.....	6
3	Summary of Proposed Amendments	7
4	Finding of No Significant Impacts, Screening Conclusion Statement.....	11
	Appendix I Natura 2000 Sites Screened For Impacts – Site Data.....	13

1 Introduction

1.1 Context

Cork County Council is in the process of preparing a Planning Scheme for the Monard Strategic Development Zone. The Strategic Development Zone was designated by the Government in May 2010, and provides for the development of four new villages and a new town centre in the townland of Monard, to cater for the projected population increase within the metropolitan area of Cork. The concept of the new town at Monard first emerged during the development of the Cork Area Strategic Plan (CASP 2001-2020) and was restated in an updated version of this plan 2008, in the Cork County Development Plan in 2009 and in the Cork County Development Plan of 2014. Monard was designated a Strategic Development Zone in May 2010 for the creation of a new rail based settlement between Cork City and Blarney. Following designation, a Planning Scheme and was prepared and adopted by Cork County Council in 2012. Following the adoption two appeals were subsequently lodged. An Bord Pleanála refused to approve the Planning Scheme. It was decided following careful consideration of other options to address the reasons for refusal in a revised Draft Planning Scheme. The 2010 government designation of lands in Monard as a Strategic Development Zone remains in place.

The development zone is located north west of Cork City approximately 3km east of Blarney Village and comprises a total of 391 hectares. It is planned to provide for residential development, as well as educational, recreational, community and healthcare facilities within the new settlement. It is intended to provide a maximum of 5,850 new dwellings in the settlement to cater for a population of 13,000. The site for the new development was chosen having regard to the proximity to Cork City and the rail network.

In accordance with requirements under the EU Habitats Directive (43/92/EEC) and EU Birds Directive (79/409/EEC) as transposed into the Planning and Development Act 2010, the impacts of draft Planning Schemes for Strategic Development Zones, on certain sites that are designated for the protection of nature (Natura 2000 sites¹), must be assessed as an integral part of the process of drafting, amending or varying these. This is to determine whether or not the implementation of such schemes could have negative consequences for the habitats or plant and animal species for which these sites are designated, and to avoid such impacts. This assessment process is called a Habitats Directive Assessment (HDA). In accordance with section 177S (b) of the Planning and Development Act 2010, the responsibility for assessing such impacts is the Planning Authorities in whose area the zone is situated, or, on appeal An Bord Pleanála, as the case may be.

The draft planning scheme was published in April 2015 was assessed in accordance with this requirement. The results of that assessment re presented in a Habitats Directive Screening Report. The Draft Planning Scheme and Habitats Screening Report, as well as the Environmental Report (SEA Requirements) was put on public display for the period from 17 April to 2 June 2013 and submissions and observations were invited from members of the public as well as from

¹ Natura 2000 sites include Special Areas of Conservation designated under the Habitats Directive and Special Protection Areas designated under the Birds Directive. Special Areas of Conservation are sites that are protected because they support particular habitats and/or plant and animal species that have been identified to be threatened at EU community level. Special Protection Areas are sites that are protected for the conservation of species of birds that are in danger of extinction, or are rare or vulnerable. Special Protection Areas may also be sites that are particularly important for migratory birds. The designation of these sites is to contribute to ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European Territory.

statutory consultees. A total of 205 submissions were received, and a number of changes are now recommended to be made to the scheme on foot of those submissions. These changes were discussed by Cork County Council Members on 27th July 2015. No further changes were proposed to be made to the scheme at that meeting. The recommended changes have been screened to determine whether they could have implications for one or more Natura 2000 site. The outcome of that screening is presented in this report.

1.2 Legislative Background Habitats Directive Assessment

Habitats Directive Assessment is a process which involves the evaluation of the potential impacts of plans and projects on Natura 2000 sites and the habitats and species that they support and, where necessary, the development of mitigation measures to avoid any such impacts. It is an iterative process which runs parallel to and informs the plan making process, involving analysis and review of draft policies, or amendments/variations, as they emerge during each stage of plan making. Within this process, regard must also be had to the potential for policies or amendments to policies, to contribute to impacts which on their own may be acceptable, but which could be significant when considered in combination with the impacts arising from the implementation of other plans or policies.

Article 6(3) of the Habitats Directive sets out the principle requirements in relation to this process as follows:

Habitats Directive 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 the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

EU and National Guidance sets out two main stages to the assessment process which are as follows:

Stage One: Screening

The process which identifies what might be likely impacts arising from a plan on a Natura 2000 site, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant. No further assessment is required if no significant impacts on Natura 2000 sites are identified during the screening stage. The screening assessment is normally contained in a Habitats Directive Screening Report.

Stage Two: Appropriate Assessment

Where the possibility of significant impacts has not been discounted by the screening process, a more detailed assessment is required. This is called an Appropriate Assessment and involves the compilation of a Natura Impact Report by the Planning Authority which is a report of scientific evidence and data relating to European sites for which significant negative impacts have not

been previously screened out. This is used to identify and classify any implications of the plan for these sites in view of their conservation objectives. The Appropriate Assessment must include a determination as to whether or not the plan or its proposed amendments would adversely affect the integrity of any European site or sites. The plan may be adopted if adverse effects on the integrity of European sites can be ruled out during the appropriate assessment process. The plan may not be adopted on foot of an Appropriate Assessment, if it is found that it will give rise to adverse impacts on one or more European sites, or if uncertainty remains in relation to potential impacts on one or more European sites following appropriate assessment.

The Directive provides for a derogation procedure which can allow a plan or project to proceed in spite of a finding that the plan or project could / would give rise to adverse effects on the overall integrity of one or more Natura 2000 sites. A derogation can only be progressed in very limited circumstances which are set out in Article 6(4) of the Directive.

Habitats Directive 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, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

EU and National Guidance identifies the procedures which must be followed in circumstances where a derogation from the Habitats Directive is sought to allow a project or a plan to proceed, despite a finding that it will give rise to adverse effects on the integrity of one or more Natura 2000 sites. These procedures can only be invoked where it has been shown that there are no alternative ways to implement the plan/project which avoid adverse effects on the integrity of one or more European sites, where it has been demonstrated that there are imperative reasons of overriding public interest for which the plan/project must proceed and where measures have been developed and provided to compensate for any losses to be incurred. These further stages are described below.

Stage Three: Assessment of alternative solutions

In circumstances where the potential for a plan to give rise to adverse effects on the integrity of a European site or sites has not been ruled out during the Appropriate Assessment process, it can only be considered for authorisation where it is demonstrated that there are no alternative solutions and that there are imperative reasons of overriding public interest which can allow the plan or project to proceed. Stage three of a Habitats Directive Assessment involves the assessment of alternative solutions.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain
The fourth stage of the Habitats Directive Assessment process involves demonstrating that imperative reasons of overriding public interest (IROPI) exist for the plan to proceed, and provides for the assessment of the compensatory measures which are proposed to be implemented. In every case in which a local authority envisages approving or proceeding with a plan or project on grounds of IROPI, the Minister for Arts, Heritage and the Gaeltacht must be consulted.

This document represents the second phase of the HDA process for the Monard Strategic Development Zone Planning Scheme, being a screening of the proposed changes to the planning scheme which have arisen out of the public consultation process and from Council members following deliberations on 2.

2 Natura 2000 sites Subject to Screening - Proposed Changes Stage

Natura 2000 sites that could be vulnerable to impacts arising from the development of a new town at Monard, are those with a hydrological linkage to the development site. These sites were identified and described in the screening document for the draft Planning Scheme. The relevant sites are:

- [1058] Great Island Channel Special Area of Conservation
- [0101] The Gearagh Special Area of Conservation
- [4030] Cork Harbour Special Protection Area
- [4109] The Gearagh Special Protection Area

The Natura 2000 sites within Cork Harbour (Great Island Channel SAC and Cork Harbour SPA) were identified for further consideration as part of the screening assessment for this proposal as they occur downstream from Monard and have a direct hydrological linkage to the proposed new town. These sites are designated for the protection of habitats (the SAC) and for birds (the SPA) that are sensitive to changes to water quality. There is a direct hydrological linkage between Monard and these sites (via the Blarney River), and it is proposed that wastewater from the new town will be pumped to the Carrigrennan WWTP (Little Island) for treatment and ultimate discharge to Cork Harbour within 500m of both of these sites. Potential for impacts on these sites was considered during the initial screening assessment for the draft Planning Scheme and some potential for effects was identified as follows.

The screening assessment for the draft Planning Scheme identified some uncertainty in relation to one particular aspect of the scheme, being the proposals for installing the rising main connecting Monard to Carrigrennan under the Glashaboy River using Horizontal Directional Drilling (HDD) techniques. Since the drafting of the initial screening report, additional survey and review of the options for this proposal have been made. It was concluded on the basis of this work that the geology of the area may be suitable to pursue the horizontal directional drilling option, however some further work to confirm this will be required. An alternative option (microtunnelling) was also examined, and the site would be suitable for this option. Microtunnelling will be used to cross the Glashaboy Estuary, if it is found when final investigations are complete, that HDD is not an environmentally safe option in this location. It is considered on the basis of the additional survey work which has been completed that it will be possible to design out, with a high degree of confidence, any risk to Natura 2000 sites which could be associated with the proposed development. The additional survey and assessment work is available for review in the Monard Sewerage Scheme – Addendum Report, June 2015 which is available from the Planning Policy Unit in County Hall and in the Planning Section of www.corkcoco.ie.

Screening of the draft SDZ Plan also raised issues in relation to nutrient discharges in Cork Harbour, as wastewater from Monard will be treated at Carrigrennan and discharged into the

harbour close to Marino Point, just downstream from the North Channel which forms part of both the Great Island Channel SAC and the Cork Harbour SPA. Work completed for the Cork County Development Plan 2014 had previously concluded that that population targets in the harbour catchment (which includes Monard) can be accommodated provided appropriate waste water treatment is provided for, but that upgrades to design at Carrigrennan, Midleton and Carraigtwohill WWTPs will be required to accommodate population increases while ensuring that adverse effects on the Great Island Channel SAC. It is stated in the County Development Plan 2014 that a Wastewater Management Plan is to be prepared for Cork Harbour which will identify any required upgrades in terms of plant design which will be required to accommodate the proposed population increases. It was recommended in the screening report for the draft Planning Scheme that a reference would be made to this plan in the final Planning Scheme, and that it be stated in the plan that any measures which are required to be put in place for the Carrigrennan Plant will be in place prior to or in tandem with the linking of Monard SDZ to Carrigrennan. This is provided for in section 6.1.10 of the final Planning Scheme document.

The Gearagh SAC and the Gearagh SPA are located more than 30km upstream from Monard. These is a wetland site which has multi designations. The site has been designated as a Special Area of Conservation for the protection of woodland and wetland habitats as well as for Otter. It has been designated as a Special Protection Area for the protection of a number of wetland bird species. Developments affecting the hydrology of the Gearagh could affect extent of flooding and thereby the quality and extent of wetland habitats and the extent of birdlife within the site. Water supply for the new town is proposed to be supplied from the Innishcarra Reservoir which is within the catchment of the Gearagh, and the proposed development of this new town will require a significant increase in levels of abstraction from the reservoir. Further consideration was therefore given during the original screening assessment to the question as to whether increased demand on water supply from Innishcarra could have the potential to affect hydrological processes in the upper catchment, and could thereby have the potential to affect habitats or species for which the SAC and the SPA have been designated. No potential for impacts on either of these sites were identified.

This report assesses whether the changes which are proposed to be made to the scheme on foot of the consultation process could have the potential to give rise to negative impacts on these sites. No additional sites have been identified which could potentially be affected by the proposed amendments to the draft planning scheme. Information relating to these sites, including lists of their qualifying features, known conservation condition and relevant conservation objectives is provided in the Screening Report for the draft Planning Scheme and is repeated in **Appendix I** to this report.

3 Summary of Proposed Amendments

A number of changes are proposed to be made to the Planning Scheme. These are summarised in **Table 1** below and are set out in full in Monard Strategic Development Zone – Draft Planning Scheme and Monard SDZ Draft Contributions Scheme, Recommended Changes Arising From Chief Executive’s Reports to Members On Submissions Received 17 July, 2015).

Table 1: Summary of Recommended Changes to Monard Draft Planning Scheme – Public Consultation Process

Chapter	Proposed Changes Arising From Public Consultation Process
Ch 4 4.6 section K	Lower Monard – new section included supports use of undeveloped areas as temporary open space.
Ch 4 4.6 section O	Lower Monard – inserts requirement for noise impact assessments to be completed for new developments in Lower Monard.
Ch 4 4.6 section P	Lower Monard – details for proposed treatment of Boreen Dearg - emphasises desire to retain character of country lane and encourage use by cyclists and pedestrians.
Ch 4 4.9 section D	Kilcronan - summary map amended, layout updated to incorporate existing houses. New subsection D – which describes treatment of Kilcronan Lane – emphasises desire to character of country lane and encourage use by cyclists and pedestrians.
Ch 5 new section 5.6	Includes targets for shifts to sustainable traffic modes.
Ch 5 figure 5.10 and section 5.2.31	Figure 5.10 - amended map highlighting junction on Northern Ring Road and amendments to relevant text re junction at Killendaniel (section 5.2.31).
Ch 6 section 6.1	<p>Changes to wording of paragraphs 6.1.1-6.1.6 clarifying interim proposals for sewage treatment at early stages of development of Monard.</p> <p>New section 6.1.7 relates to the addendum to the waste water preliminary report which was completed in June 2015. This addendum report examines the techniques for micro tunnelling/ directional drilling under the Glashaboy River. The addendum summarises additional work which has been completed which concludes that it will be possible to provide for a design solution to accommodate the rising main under the Glashaboy Estuary without posing a significant risk to the Cork Harbour SPA. The addendum commits to the completion of further survey work to identify the most appropriate method for crossing the Glashaboy which ensures that environmental risks are minimised. This issue was raised during the Habitats Directive screening assessment for the original proposed scheme.</p>
Ch 6 sections 6.6.8-6.6.9	New section on energy efficiency is inserted.
Ch 6 sections 6.10-6.11	New section as recommended arising from Habitats Directive screening assessment of draft Scheme. This section includes a reference to a wastewater management plan for Cork Harbour which is cited in the Cork County Development Plan. It states that additional design measures may be identified to be required at Carrigrennan arising from the preparation of this plan to provide for the protection of the Cork Harbour Natura 2000

Chapter	Proposed Changes Arising From Public Consultation Process
	sites and that these should be in place prior to or in tandem with the linking of Monard SDZ to Carrigrennan.
Ch 7 sections 7.1.5-7.1.8	New sections expand and clarify issues around provision of schools and sites and access for schools.
Ch 8 section 8.2.2	Environmental principles amended to incorporate requirement for integration of SuDS measures in future development proposals, and to require protection of undeveloped 10m buffer zone along banks of the Blarney River.
Ch 8 section 8.2.3	Design and construction principle wording amended in relation to notification of Geological Survey of Ireland of significant ground excavations for infrastructure projects.
Ch 8 section 8.2.4	Reference included which references requirements for compliance with Part L of Building Regs.
Ch 8 section 8.2.5	Include reference to green infrastructure.
Ch 8 Section 8.2.6	Clarifications in relation to archaeological heritage and objectives / requirements relating to protection of archaeological features including townland boundaries.
Ch 8 8.3	8.3 Wording in relation to AA screening updated.
Ch 8 8.4	The amended Strategic Flood Risk Recommendations are listed in this section relates to requirements for provision of SuDS plans for schools, and requirements to put in place measures to ensure maintenance of SuDS infrastructure.
Ch 8 8.5	New summary section of mitigation measures added. Insertion of table 8.1 which includes outline of the measures that have been fully and partially integrated into the scheme.
Ch 9 Table 9.6	Revision made to table 9.6 which relates to development contributions.
Ch 10 10.0.3	New section which provides clarification on the proposed mechanisms of the phasing and system of threshold controls.
Ch 10 10.0.11-10.02.12	New section relating to phasing proposals and Strategic Development Zone Legislation.
Ch 10 10.1	This section has been revised and expanded, it relates to implementation and monitoring including environmental and landuse transport modeling, as well as provides for community engagement. Primary /land use monitoring should be every 5 years to coincide with census.
Appendix 1 1.7-1.10	New section relating to the suitability of SDZ legislation for management of

Chapter	Proposed Changes Arising From Public Consultation Process
	long term schemes such as Monard. Restatement of information relating to proposed approach to contributions. Proposals to provide for bike rental scheme.
Appendix B of Environmental Report	The SFRA has been amended to include further details on the SUDs on site investigations, the secondary school site and up to date mapping following consultation with OPW.

In their submission during the public consultation process, the EPA recommended that specific commitments be included in the Planning Scheme relating to management of construction activities to prevent risk of impact on the Cork Harbour Natura 2000 sites. The Planning Scheme provides for this in section 6.3. It is stated here that the most effective way to ensure that any such requirements are followed through will be through management of the construction process. It is a stated requirement for the SDZ that Construction Management Plans which set out construction methods be submitted with individual planning applications. These plans will identify methods to be employed which will ensure protection of the environment as well as ensuring that negative effects of large scale construction (noise, dust, traffic etc) on residents are kept to a minimum.

The proposed changes to the Draft Scheme were examined to identify whether any additions to the scheme or modifications being made to the text arising from it would be likely to cause significant impacts on any Natura 2000 site listed in Table 1 above, having regard to their qualifying features. In summary, the changes relate to clarifications of text and mapping, proposed treatments for certain sections of the site, approach to contributions and phasing. Some changes are proposed to strengthen environmental protections for the site and minor amendments to layouts of parts of the site are proposed.

Monard is neither within or proximal to any Natura 2000 site and accordingly none of the changes which have been made have the potential to give rise to direct impacts on habitats. Equally potential for impacts relating to the disturbance of species are discounted.

The potential for any change to give rise to indirect damage to the physical quality of the environment by affecting water quality or water levels, within the above listed sites are discounted, as the changes do not propose to increase the scale of the development or the population targets for the site. There are no increased requirements in terms of water supply, and there is no projected increase in wastewater generation beyond those set out in the draft scheme.

Consideration was given to direct and indirect impacts which may arise from activities within or near Natura 2000 sites (eg recreational activities) which could be encouraged by any of the proposed changes. No such activities/impacts have been identified.

Table 3 below summarises the results of the screening of proposed changes to the Monard SDZ.

Table 3 Screening Matrix

Natura 2000 sites	Habitat Loss	Habitat Fragmentation	Disturbance to Key Species	Reduction in Species Richness and Density	Changes in key indicators of conservation value
Gearagh SAC	X	X	X	X	X
Gearagh SPA	X	X	X	X	X
Great Island Channel SAC	X	X	X	X	X
Cork Harbour SPA	X	X	X	X	X

4 Finding of No Significant Impacts, Screening Conclusion Statement

Plan Ref	Monard SDZ Planning Scheme, Proposed Changes
Name and Location of Natura 2000 sites subject to screening for appropriate assessment.	Gearagh SAC, Gearagh SPA, Great Island Channel SAC, Cork Harbour SPA
Description of the proposed changes	See Table 1 above.
Are the proposed changes directly connected with or necessary to the management of the Natura 2000 sites identified above	No.
Are there other projects or plans that together with the amendments being assessed could affect the site (provide details).	No impacts identified, therefore no potential for 'in combination' impacts identified.
Assessment of Significant Effects	
Describe how the proposed amendments (alone or in combination is likely to affect Natura 2000 sites)	No changes have been identified which could give rise to impacts which could be significant.
Explain why these effects are not considered significant	Proposed changes do not direct development within or near any Natura 2000 site. No increase in population is proposed. There are no increased demands on water or wastewater infrastructure, therefore no potential for impacts on any Natura 2000 site have been identified arising from the proposed changes to the scheme.
List of agencies consulted:	The Draft Planning Scheme was referred to the NPWS, EPA and other Statutory Consultees as well as the general public during the public consultation process. The proposed changes set out above arise from that process.
Response to consultation	One submission was made in relation to the AA Screening Report during public consultation which

	recommended that the recommendations from the AA reports would be integrated into the Planning Scheme. All recommendations contained in the AA reports have been incorporated into the Planning Scheme.
Data Collected To Carry Out The Assessment	
Who carried out the assessment	Planning Policy Unit, Cork County Council
Sources of data	National Parks and Wildlife Service Site Synopses and other data relating to Natura 2000 sites.
Level of assessment completed	Screening
Where can the full results of the assessment be accessed and viewed	This report.
Date Assessment Completed	27 th July 2015.

Cork County Council decided by resolution at the meeting on the 27th of July 2015 not to make a formal decision on the Monard Strategic Development Zone Draft Planning Scheme. As the council decided not to make the a formal decision under section 169(4) of the Planning and Development Act 2000, the scheme is deemed to be made on the 11th of August 2015 in accordance with section 169(3). As the council did not make a formal decision on the Draft Scheme, there were no amendments. Subsequently there is no necessity to review or screen amendments with a few to further habitats directive assessment.

Appendix I Natura 2000 Sites Screened For Impacts – Site Data

Great Island Channel Special Area of Conservation (1058)

This site is located approximately 11km downstream from Monard within Cork Harbour. The following description is based on NPWS Site Synopsis. The Great Island Channel SAC comprises the North Channel of Cork Harbour extending from Little Island to Midleton including the estuaries of the Owenacurra and Dungourney. The main habitats of conservation interest for which this site is designated are the sheltered tidal sand and mudflats and Atlantic salt meadows. The intertidal flats are composed mainly of soft muds which support a range of macro-invertebrate species that provide a valuable food source for large numbers of a wide range of wintering bird species. Saltmarshes are scattered through the site and are all of the estuarine type on mud substrate. The Great Island Channel is approximately xkm downstream from Monard...and forms part of the Great Island Channel Special Area of Conservation. The Great Island Channel provides valuable habitat for wintering waterbirds, and forms part of the Cork Harbour Special Protection Area (see below).

Features of Interest identified for this site (www.npws.ie 12/03/2015) are as follows:

- Mudflats and sandflats not covered by seawater at low tide [1140]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]

Detailed **Conservation Objectives** have been published for this SAC (06/06/2014 Version 1). These are as follows:

1. To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in the Great Island Channel SAC.
2. To restore the favourable conservation condition of Atlantic salt meadows (*Glauco Puccinellietalia maritimae*) in Great Island Channel SAC.

The attributes and targets which are associated within these objectives are available at http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001058.pdf

The conservation status of the qualifying habitats for which this SAC has been designated was assessed by BEC Consultants on behalf of Cork County Council (Assessment of the Conservation Status of the Great Island Channel SAC (1058) in 2014).

The conservation status of **Mudflats and Sandflats habitat [1140]** was assessed to be unfavourable-bad. The primary source of impact on this habitat was identified to be pollution from surface waters with sources including both the Carrigtwohill and Midleton treatment plants, nutrient inputs from agricultural sources within the river catchments that discharge to the harbour, and leaks in the existing sewer network giving rise to further nutrient inputs to the system. Other sources of pressure on this habitat include the spread of *Spartina* within the estuary.

The conservation status of **Atlantic Salt Meadows habitat [1330]** was assessed to be unfavourable-inadequate. A number of sources of impact on this habitat were identified on this habitat during field survey for the assessment. These related to development of sea-walls/coastal protection infrastructure which prevents the development of salt marsh habitat,

storm damage, coastal erosion, shading from treelines, water pollution, litter, *Spartina* invasion, rabbit grazing and climate change.

Cork Harbour Special Protection Area (4030)

The Douglas Estuary which forms part of the Cork Harbour SPA is located approximately 8 km to the southeast of Monard. The following description of this site is based on NPWS Site Synopsis and on the Cork Harbour Special Protection Area Conservation Objectives Supporting Document ver 1, 2014.

This is a large sheltered bay system comprising several river estuaries including the estuary of the Owenacurra River at Midleton which is proximal to the Masterplan site. The SPA comprises most of the main intertidal areas of Cork Harbour. Muddy sandflats within the site support a range of macro-invertebrate species which are a valuable foodsource for wetland bird species that winter in the Harbour. The site also includes some areas of salt marsh, shallow bay water, Rostellan Lake which is a small brackish lake that is used by swans in the winter period and some marginal wet grassland which is of importance for feeding and roosting birds.

Cork Harbour is a wetland site which is of international importance as it regularly supports in excess of 20,000 wintering waterfowl. The site supports internationally important populations of Black-tailed Godwit and Redshank, and nationally important of a further 19 species including **Shelduck, Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Bar-tailed Godwit, Curlew, Black-headed Gull, Lesser Black-backed Gull and Common Tern.** Other species using the site include **Mute Swan, Whooper Swan, Pochard, Gadwall, Tufted Duck, Goldeneye, Coot, Ringed Plover, Knot and Turnstone.** It is an important site for a range of gull species including **Mediterranean Gull**, a species which has recently begun to occur in Ireland. It also supports a breeding population of **Little Egret**, another species which was first recorded as breeding in Ireland in the 1990's.

A range of passage waders occurs regularly in the autumn, including **Ruff, Spotted Redshank and Green Sandpiper.** The Harbour also supports a nationally important colony of Common Tern. Several of the species which occur in the Harbour are listed on Annex I of the EU Birds Directive.

The NPWS has recently (March 2015) notified Cork County Council of its intention to extend the Cork Harbour Special Protection Area to include an area of wetland habitat at Ringabella Estuary. This proposed extension to the SPA is currently subject to a public consultation process.

Features of Interest identified for this site (www.NPWS.ie 12/03/2015) are as follows:

- Little Grebe (*Tachybaptus ruficollis*) [A004];
- Great Crested Grebe (*Podiceps cristatus*) [A005];
- Cormorant (*Phalacrocorax carbo*) [A017];
- Grey Heron (*Ardea cinerea*) [A028];
- Shelduck (*Tadorna tadorna*) [A048];
- Wigeon (*Anas penelope*) {A050};

- Teal (*Anas crecca*) [A052];
- Pintail (*Anas acuta*) [A054];
- Shoveler (*Anas clypeata*) [A056];
- Red-breasted Merganser (*Mergus serrator*) [A069];
- Oystercatcher (*Haematopus ostralegus*) [A130];
- Golden Plover (*Pluvialis apricaria*) [A140];
- Grey Plover (*Pluvialis squatarola*) [A141];
- Lapwing (*Vanellus vanellus*) [A142];
- Dunlin (*Calidris alpina*) [A149];
- Black-tiled Godwit (*Limosa limosa*) [A156];
- Bar-tailed Godwit (*Limosa lapponica*) [A157];
- Curlew (*Numenius arquata*) [A160];
- Redshank (*Tringa tetanus*) [A162];
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179];
- Common Gull (*Larus canus*) [A183];
- Lesser Black-backed Gull (*Larus fuscus*) [A183];
- Common Tern (*Sterna hirundo*) [A193];
- Wetland and Waterbirds [A999].

Conservation Objectives for non-breeding waterbird species and wetland habitats have been published in the Cork Harbour SPA Conservation Objectives Supporting Document Version 1 (Nov 2014)) as follows:

1. To maintain the favourable conservation condition of the non-breeding waterbird Special Conservation Interest Species listed for the Cork Harbour SPA.

The objective is defined by the following attributes and targets :

- To be favourable, the long term (site) population trend for each waterbird Special Conservation Interest species should be stable or increasing. Waterbird populations are deemed to be unfavourable when they have declined by 25% or more, as assessed by the most recent population trend analysis.
- To be favourable, there should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation.

2. To maintain the favourable conservation condition of the wetland habitat at Cork Harbour as a resource for the regularly-occurring migratory waterbirds that utilise it.

The objective is defined by the following attributes and targets:

- To be favourable, the permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,587ha, other than that occurring from natural patterns of variation.

The Conservation Objective for Common Tern has been published in the Cork Harbour SPA Conservation Objectives Document (Dec 2014) as follows:

3. To maintain the favourable conservation condition of Common Tern in Cork Harbour SPA.

The conservation condition of the Species of Conservation Interest (other than Common Tern) for which this SPA has been designated have been published in the Cork Harbour SPA Conservation Objectives supporting document (Dec 2014) and are as follows:

Special Conservation Interests	BoCCI Category ^a	Site Population Trend ^b	Site Conservation Condition	Current all-Ireland Trend ^c	Current International Trend ^d
Shelduck	Amber	- 39	Unfavourable	Stable	Increasing
Wigeon	Red	- 27	Unfavourable	Declining	Stable
Teal	Amber	- 1	(Intermediate) Unfavourable	Stable	Increasing
Pintail	Red	- 65	Highly Unfavourable	Increasing	Increasing
Shoveler	Red	- 75	Highly Unfavourable	Increasing	Increasing
Red-breasted Merganser	Green	- 51	Highly Unfavourable	Stable	n/c
Little Grebe	Amber	+ 16	Favourable	Stable	Increasing
Great Crested Grebe	Amber	- 46	Unfavourable	Declining	Declining?
Cormorant	Amber	- 50	Highly Unfavourable	Stable	Increasing
Grey Heron	Green	- 15	(Intermediate) Unfavourable	Stable	Increasing
Oystercatcher	Amber	- 20	(Intermediate) Unfavourable	Stable	Declining
Golden Plover	Red	+ 21	Favourable	Declining	Declining
Grey Plover	Amber	- 68	Highly Unfavourable	Declining	Declining?
Lapwing	Red	- 68	Highly Unfavourable	Declining	Stable
Dunlin	Red	- 49	Unfavourable	Declining	Stable
Black-tailed Godwit	Amber	+ 16	Favourable	Increasing	Increasing
Bar-tailed Godwit	Amber	+ 41	Favourable	Stable	Increasing
Curlew	Red	-44	Unfavourable	Declining	Declining
Redshank	Red	-29	Unfavourable	Stable	Stable/Increasing?
Black-headed Gull	Red	- 53	Highly Unfavourable	n/c	n/c
Common Gull	Amber	- 89	Highly Unfavourable	n/c	n/c
Lesser Black-backed Gull	Amber	- 83	Highly Unfavourable	n/c	n/c

^aAfter Colhoun & Cummins, 2013; ^b Site population trend analysis; see Table 4.3; ^call-Ireland trend - where a species is deemed to be increasing or declining if the annual rate of change is equal to or greater than 1.2% (after Crowe & Holt, 2013); ^d current international trend after Wetlands International (2012).

Table 4.4 also shows the relationship between a species' long-term site trend and the current all-Ireland trend for the period 1999/00 to 2010/11. The colour coding used represents the following cases:-

- **Grey** – un-assessed.
- **Green** – species whose populations are stable or increasing at both site level and all-Ireland level.
- **Beige** – species whose populations are declining at both site level and all-Ireland level. Therefore there is a potential for factors at a larger spatial scale to be influencing the observed trend at site level.
- **Orange** - species whose populations are exhibiting a 1.0 – 24.9% decline at site level but are stable or increasing at all-Ireland level.
- **Pink** - species whose populations are exhibiting a 25.0 – 49.9% decline at site level but are stable or increasing at all-Ireland level.
- **Red** - species whose populations are exhibiting a decline of >50.0% at site level but are stable or increasing at all-Ireland level.

The Gearagh SAC (0108)

This site is located approximately 20km from Monard and within a separate catchment. However, it is anticipated that the water supply for Monard will be sourced from the Inniscarra Lake which is within the catchment of this site. The following description is based on the NPWS Site Synopsis. The Gearagh SAC is located on the River Lee just south of Macroom. It extends along approximately 7km of the river occupying a wide, flat valley on a bed of limestone overlain with sand and gravel. The site supports two woodland habitat types which are listed on Annex I of the EU Habitats Directive, being Residual Alluvial woodland and Old Oak Woodland. It is thought that the area has been continuously wooded since the ice-age. It supports a number of plant species that are relatively scarce in Ireland including the protected Mudwort which is listed in the Red Data Book and on the Flora (Protection) Order, 1999. The site has a well developed epiphytic bryophyte flora associated with the old woodland as well as freshwater and wet grassland habitat types. The site represents the only extensive alluvial woodland in Ireland or Britain, or west of the Rhine in Europe which has retained a high level of naturalness. It is a unique site which has many other nature conservation designations including Ramsar Site, Statutory Nature Reserve and Biogenetic Refuge. The Gearagh supports an important wintering bird population, and is also designated as a Special Protection Area on this basis.

Features of Interest identified for this site (www.NPWS.ie 12/03/2015) are as follows:

- Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation [3260];
- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0];
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae** [91E0];
- *Lutra lutra* (Otter) [1355]

Detailed Conservation Objectives have not been identified for this site to date. The generic Conservation Objective which applies to this site is as follows:

1. 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:
 - Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation [3260];
 - Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0];
 - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae** [91E0];
 - *Lutra lutra* (Otter) [1355]

NPWS (2015) Conservation Objectives for The Gearagh SAC [000108]. Generic Version 4.0 Department of Arts, Heritage and the Gaeltacht.

The Conservation Status of this SAC has not been assessed. However, activities which could interfere with the achievement of the Conservation Objectives for this site include activities which cause direct loss or damage to the quality of woodland habitats [91A0 and 91E0](eg woodland clearance or burning, changes in woodland grazing patterns, spread of invasive species); activities causing a deterioration in water quality which thereby has the potential to

affect the quality of freshwater habitats for which the SAC is designated (habitat [3260]); and activities causing significant disturbance to Otters at their breeding sites or resting areas (eg development of river crossings), or affecting the availability of their prey species (eg impacts on water quality).

The Gearagh Special Protection Area (4109)

This site is located approximately xkm from Monard, but it is possible that the water supply for the SDZ site will be sourced from the Inniscarra Lake which is within the catchment of this site. No description of this site is currently available on the NPWS website, however the Gearagh SAC site synopsis does include some information relating to the wintering bird population as follows:

‘the Gearagh supports part of an important wintering bird populations: the area most utilised by birds extends also east of the site towards Cork City (Carrigadrohid). At the Gearagh, Whooper Swans are regular (40-110, 1990’s), as are Wigeon (640, average max. 1992-1994), Teal (707, average max. 1992-94), Mallard (250 in January 1993) and Tufted Duck (154, average max. 1992-94). Golden Plover utilise the site on occasions (eg 2,000 in January 1994), while there is a regular flock of Dunlin (100-200, 1990s) a species unusual at inland sites. A late summering flock of Mute Swan is regular, with numbers between 120 and 250 from 1992 to 1994. Great Crested Grebe and Tufted Duck breed in small numbers, while there is a feral flock of about 50 Grey lag Geese.’

Features of Interest identified for this site (www.NPWS.ie 12/03/2015) are as follows:

- Wigeon (*Anas penelope*) [A050]
- Teal (*Anas crecca*) [A052]
- Mallard (*Anas platyrhynchos*) [A125]
- Coot (*Fulica atra*) [A125]
- Wetland and Waterbirds [A999]

Detailed Conservation Objectives have not been identified for this site to date. The generic Conservation Objectives which apply to this site are as follows:

1. To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:
 - Wigeon (A050)
 - Teal (A052)
 - Mallard (A053)
 - Coot (A125)
2. To maintain or restore the favourable conservation condition of the wetland habitat at the Gearagh SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

NPWS (2015) Conservation Objectives for The Gearagh SPA [004109]. Generic Version 4.0. Department of Arts, Heritage and the Gaeltacht.

The Conservation Status of this SPA has not been assessed. However activities which could interfere with the achievement of the Conservation Objectives for this site include activities

which could cause significant disturbance to birds at their feeding sites or resting places or activities causing removal of the extent or deterioration of the quality of feeding habitat within the SPA.