



AUSTEN ASSOCIATES

One Salt House
South Quay
Wicklow
Tel: 0404 66827
www.austenassociates.ie

October 2016

N81 Landscape corridor

Appropriate Assessment Screening Report

Control Sheet

Job Title: N81 Landscape Corridor

Job Ref.: 031016_N81

Filename: Appropriate Assessment Screening Report

Issue No.	Issue Status	Date	Prepared by	Checked by
1	Final	01/11/2016	Barry O'Brien	Tim Austen

Table of Contents

Control Sheet..... 2

1 Introduction..... 4

1.1 General 4

1.2 The SDCC County Development Plan 2016 – 2022..... 5

2 Stages of the Appropriate Assessment 7

3 Description of the Project..... 9

4 Identification of Nature 2000 Sites Potentially Affected..... 11

5 Identification and Description of Individual and Cumulative Impacts Likely to Result 19

5.1 Individual Impacts..... 19

5.2 Cumulative Impacts 20

6 Assessment of the Significance of the Impacts Identified on Site Integrity 20

7 Exclusion of Sites where it can be Objectively Concluded that there will be no Significant Effects..... 20

8 Conclusion 20

1 Introduction

1.1 General

Austen Associates (AA) have been appointed by South Dublin County Council (SDCC) as Consulting Landscape Architects for the preparation of documentation for public display for the N81 landscape corridor. in accordance with the Planning and Development Act 2000 and Part 8 of the Planning and Development Regulations 2001.

Under Article 6(3) of the EU Habitats Directive, an “appropriate assessment” is required where any plan or project, either alone or ‘in combination’ with other plans or projects, could have an adverse effect on the integrity of a Natura 2000 site, i.e. a Special Area of Conservation (SAC) or a Special Protection Area for Birds (SPA), or on the conservation objectives of such a site. This requirement is implemented in Ireland through Regulation 15 of the European Union (Natural Habitats) Regulations, SI 94/1997, as amended and Circular letters SEA 1/08 and NPWS 1/083.

A zone of influence of 15km is currently recommended in the case of plans or projects, and derives from UK guidance (Scott Wilson et al., 2006). Situated within 15km of the proposed scheme are several Natura 2000 sites designated under the EU Habitats Directive. Other Natura 2000 sites are located in Dublin Bay, which are outside the limit of the recommended 15km zone of influence. However, as the River Dodder ultimately discharges into Dublin Bay, these Dublin Bay Natura 2000 sites are included in this Screening Report. The locations of the Natura 2000 sites are shown on Figure 2.

Article 6(3) of the EU Habitats Directive states:

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

Article 6(4) of the EU Habitats Directive states:

'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 economic or social nature, the Member State shall take all compensatory

measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

This report comprises information in support of screening for Habitats Directive Assessment in line with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC).

1.2 The SDCC County Development Plan 2016 – 2022

The proposed scheme will involve the delivery of a sequence of landscape improvement works along the N81. This will enhance the visual amenity of the N81 corridor from City west road at the Blessington end to Old Bridge Road/Cypress Grove road at Templeogue.

The SDCC County Development Plan (CDP) contains a number of policies and objectives that relate to the protection of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The objectives are defined in Section 9 of the CDP.

It is the policy of the Council to support the conservation and improvement of Natura 2000 Sites and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site.

HCL12 Objective 1:

To prevent development that would adversely affect the integrity of any Natura 2000 site located within and immediately adjacent to the County and promote favourable conservation status of habitats and protected species including those listed under the Birds Directive, the Wildlife Acts and the Habitats Directive.

HCL12 Objective 2:

To ensure that projects that give rise to significant direct, indirect or secondary impacts on Natura 2000 sites, either individually or in combination with other plans or projects, will not be permitted unless the following is robustly demonstrated in accordance with Article 6(4) of the Habitats Directive and S.177AA of

the Planning and Development Act (2000 – 2010) or any superseding legislation:

- 1. There are no less damaging alternative solutions available; and*
- 2. There are imperative reasons of overriding public interest (as defined in the Habitats Directive) requiring the project to proceed; and*
- 3. Adequate compensatory measures have been identified that can be put in place.*

In addition to SDCC policy objectives with specific relation to Natura 2000 sites, SDCC has also detailed a number of green infrastructure (GI) policies and objectives, these are laid in Section 8 of the CDP.

It is the policy of the Council to protect, enhance and further develop a multifunctional Green Infrastructure network by building an interconnected network of parks, open spaces, hedgerows, grasslands, protected areas, and rivers and streams that provide a shared space for amenity and recreation, biodiversity protection, flood management and adaptation to climate change.

G1 Objective 1:

To establish a coherent, integrated and evolving Green Infrastructure network across South Dublin County with parks, open spaces, hedgerows, grasslands, protected areas, and rivers and streams forming the strategic links and to integrate the objectives of the Green Infrastructure Strategy throughout all relevant Council plans, such as Local Area Plans and other approved plans.

It is the policy of the Council to promote and develop a coherent, integrated and evolving Green Infrastructure network in South Dublin County that can connect to the regional network, secure and enhance biodiversity, provide readily accessible parks, open spaces and recreational facilities.

G2 Objective 2:

To protect and enhance the biodiversity value and ecological function of the Green Infrastructure network.

Adherence to all of the above policies in the design and implementation of the proposed Scheme, ensures that that impacts upon Natura 2000 sites are avoided. Additionally the range of native tree planting and high quality public realm development helps SDCC to achieve its stated GI objectives.

2 Stages of the Appropriate Assessment

This screening assessment has been prepared in accordance with the European Commission Environment DG 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, referred to as the “EC Article 6 Guidance Document”. The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive, and are viewed as an interpretation of the EU Commission document Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC, referred to as “MN2000”.

There are four main stages in the process associated with the Habitats Directive, which are:

1) **Stage One: Screening**

The process which identifies what the likely impacts arising from a plan or project 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.

2) **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 consideration of the impact of the project or plan on the integrity of the Natura 2000 site, either alone or in combination with other projects or plans, having regard to the site’s structure and function and its conservation objectives. Additionally, where there are adverse impacts, it involves an assessment of the potential mitigation of those impacts.

3) **Stage Three: Assessment of alternative solutions**

Should the conclusion of the appropriate assessment be that there are likely to be impacts which will affect the overall integrity of the Natura 2000 site, then it is required to examine alternative ways of achieving the objectives of the project or plan that avoids adverse such adverse impacts. Stage three of a Habitats Directive Assessment involves the assessment of alternative solutions.

4) **Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain.**

Should it be found there are no viable alternative solutions to avoid adverse impacts on the Natura 2000 site, and should it be agreed that the project/plan can proceed despite such impacts (which can only be for overriding reasons of public interest), then compensatory measures must

be put in place in advance of the implementation of the plan/project. The fourth stage of the Habitats Directive assessment process involves the assessment of the proposed compensatory measures.

This document presents the result of the Stage One Screening Process. In complying with the obligations under Article 6(3) and following the EC2000 and MN2000 Guidelines, this screening document has been structured as a stage by stage approach as follows:

- Identification of Natura 2000 sites potentially affected;
- Identification and description of individual and cumulative impacts likely to result;
- Assessment of the significance of the impacts identified on site integrity; and
- Exclusion of sites where it can be objectively concluded that there will be no significant effects.

3 Description of the Project

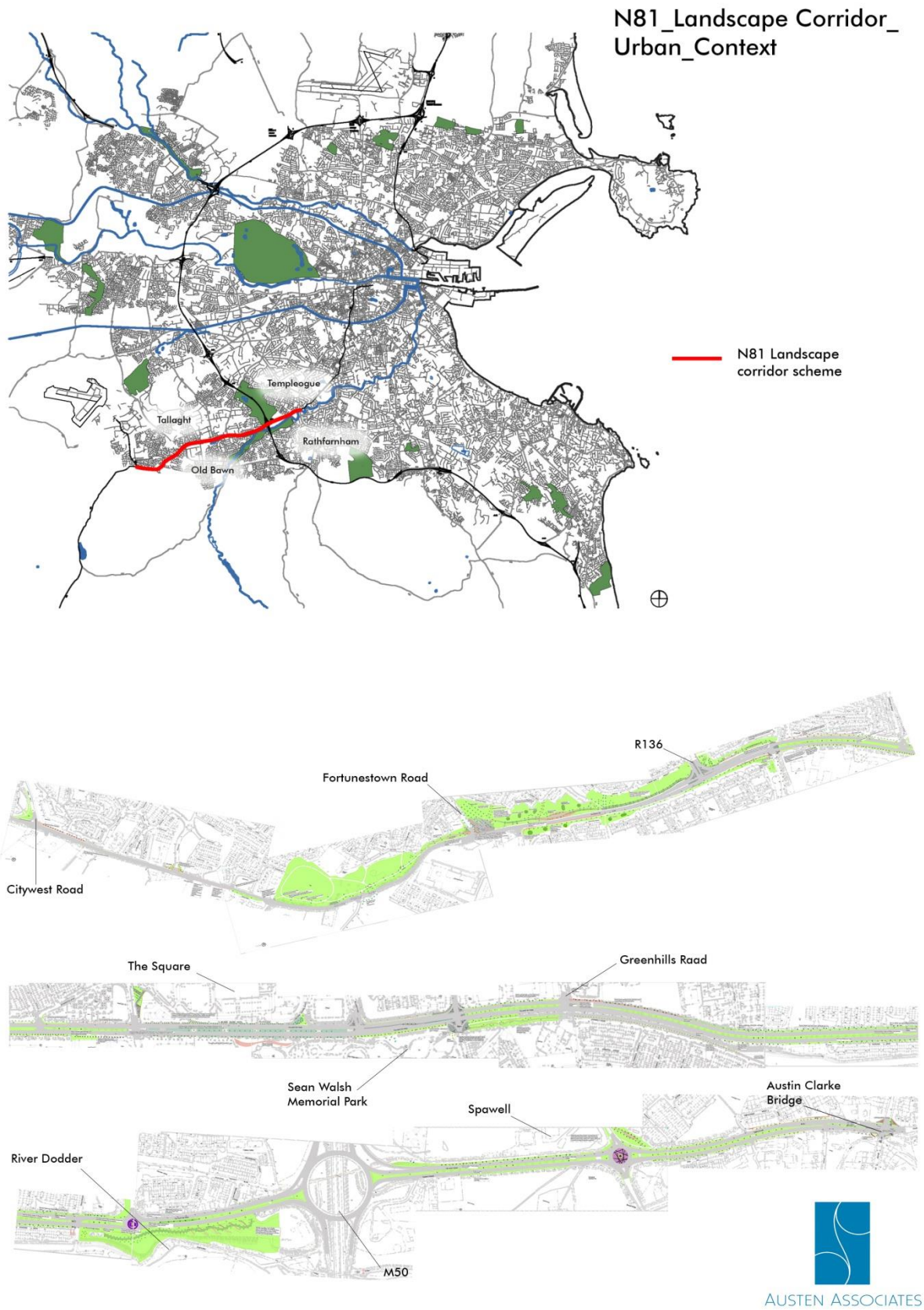


Figure 1 – Urban and Local context of N81 landscape corridor scheme

The Project comprises a scheme of proposed landscape improvement works which have been prepared to enhance the visual amenity of the N81 corridor from City west road at the Blessington end to Old Bridge Road/Cypress Grove road at Templeogue.

The full length of the scheme is 8km extending through a variety of landscape types, more rural towards the western end, built up in the central portion and then mixed landscape at its eastern end. Some 6km of the road is dual carriageway indicating the scale of the road in this part of Dublin.

The landscape improvement works have been designed to include the following:

- a) Make the most of the existing situation: exploit the views to the mountains build on the existing diverse fabric of public open space and ecological areas.
- b) Enhance the existing composition of tree planting providing trees all the way along the road. Approximately 500 native oak trees are proposed with approximately 850 trees proposed in total, this will sequester c. 18 tonnes on CO₂ per year and will generate 100 tonnes of oxygen per year enough oxygen to support 2000 human beings. Dust, fumes, noise and other pollution will be reduced along the road through the addition of more planting.
- c) Provide a unified treatment for road crossings with upgraded areas of paving, street furniture and planting. The removal of extraneous clutter to achieve a community village feel.
- d) Using green technologies and/or recycled materials with a low carbon footprint (preferably Irish produced) to provide the materials and finishes needed.
- e) Provide opportunities to engage with local artists to create landmark sculptural elements along the scheme.
- f) Use universal design principles to ensure that the design is inclusive, safe walkways are provided for the pedestrian and cycle ways are upgraded - giving pedestrians and cyclists opportunities to travel off the main carriageway with a buffer of vegetation.

4 Identification of Nature 2000 Sites Potentially Affected

The proposed scheme is not directly connected with or necessary to the management of Natura 2000 sites in South Dublin County or elsewhere. As mentioned in Chapter 1, best practice recommends assessing Natura 2000 sites located within 15km of a proposed plan or project (see Figure 2).

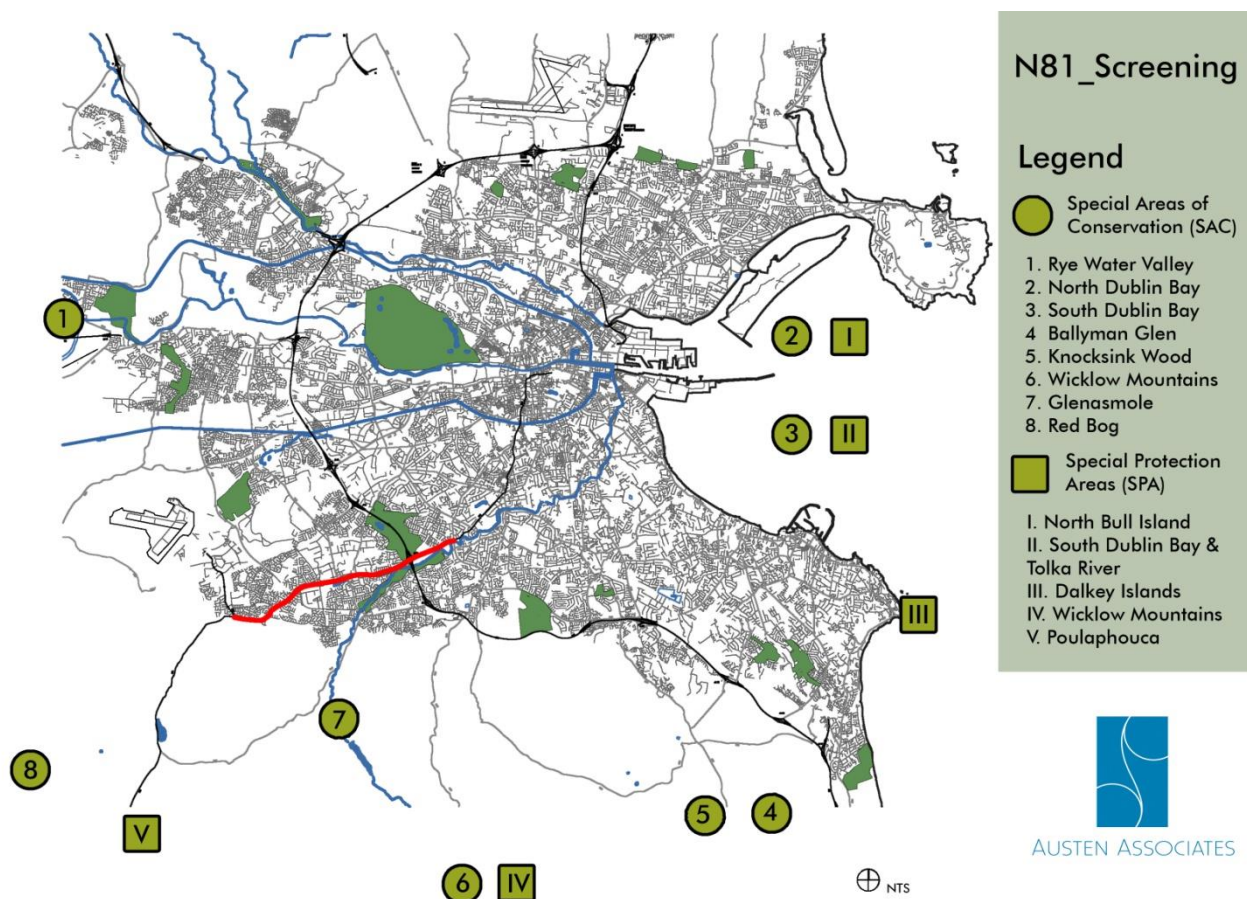


Figure 2 – SAC's & SPA's / Site Locations

Eight SAC's and five SPA's are located within 15km of the proposed scheme. These sites are:

SAC's

- 1) Rye Water Valley cSAC, Code 001398.
- 2) North Dublin Bay cSAC Code 000206.
- 3) South Dublin Bay cSAC, Code000210.
- 4) Ballyman Glen cSAC, Code 000713.
- 5) Knocksink Wood cSAC, Code 000725.
- 6) Wicklow Mountains cSAC, Code 002122.
- 7) Glenasmole Valley cSAC, 001209.
- 8) Red Bog cSAC, Code 000397.

SPA's

- I) North Bull Island SPA, Code 004006 Poulaphouca Reservoir SPA, Code IE0004063
- II) South Dublin Bay & Tolka River SPA, Code 004024
- III) Dalkey Islands SPA, Code 004172.
- IV) Wicklow National Park (Wicklow Mountains) SPA, Code 004040.
- V) Poulaphouca Reservoir SPA, Code 004063.

The proposed scheme lies within the River Dodder catchment. Surface water disposal from the scheme will be discharged to the River Dodder, which joins the River Liffey 12km east at Ringsend. The water from the River Dodder enters the River Liffey and thereafter the Liffey channel into Dublin Bay.

A summary of the main elements of interest for each of these sites is as follows:

SAC's

1) Rye Valley Water cSAC

This site is located between Leixlip and Maynooth in Co. Kildare. It extends along the Rye Water, a tributary of the River Liffey. The woodlands at Carton Demesne are the site of a rare fungus, *Diderma deplanatum* and also support birds such as Blackcap, Woodcock, and Long-eared Owls. On or about the lake, birds such as Little Grebe, Coot, Moorhen, Tufted Duck, Teal, and Kingfisher have been recorded. Kingfishers are listed in Annex 1 of the EU Birds Directive. The mineral spring occurring on the site is also listed as an Annex 1 habitat of the EU Habitats Directive. The Rye Water is a spawning ground for Trout and Salmon while White-clawed crayfish *Austropotomobius pallipes* has been recorded at Leixlip. Rare snail species and dragonflies also occur in the marsh vegetation near to Louisa Bridge. The main importance of the site lies in the presence of several rare and threatened plant and animal species and of a rare habitat – thermal, mineral, petrifying spring.

2) North Dublin Bay cSAC

North Dublin Bay SAC covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. This SAC site is an excellent example of a coastal site with all the main habitats represented. It holds good examples of ten habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with priority status. Several wintering bird species have populations of international importance, while some invertebrates on the site are of national importance. The site also contains a numbers of rare and scarce plants including some, which are legally protected.

Draft Conservation Objectives:

- (a) To maintain the Annex 1 habitats for which the cSAC has been selected at favourable conservation status:– Mudflats and sandflats not covered by seawater at low tide; Annual vegetation of drift lines; Salicornia and other annuals colonising mud and sand; Atlantic salt meadows (*Glauco Puccinellietalia maritimae*); Petalophyllun ralfsii; Mediterranean salt meadows (*Juncetalia maritimi*); Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes); Humid dune slacks
- (b) To maintain the extent, species richness and biodiversity of the entire site.
- (c) To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

3) South Dublin Bay SAC

South Dublin Bay SAC lies south of the River Liffey and extends from the South Wall to the west pier at Dun Laoghaire. It is a fine example of a coastal system with extensive sand and mudflats. South Dublin Bay is also an internationally important bird site.

Draft Conservation Objectives:

- (a) To maintain the Annex 1 habitats for which the cSAC has been selected at favourable conservation status: - Mudflats and sandflats not covered by seawater at low tide.
- (b) To maintain the extent, species richness and biodiversity of the entire site.
- (c) To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

4) Ballyman Glen cSac

Ballyman Glen is situated approximately 3 km north of Enniskerry and straddles the County boundary between Dublin and Wicklow. It is orientated in an east-west direction with a stream running through the centre. The glen is bounded mostly by steeply sloping pasture with Gorse (*Ulex europaeus*) and areas of wood and scrub.

Draft Conservation Objectives:

- (a) 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: Petrifying springs with tufa formation (*Cratoneurion*), Alkaline fens

5) Knocksink Wood cSAC

Knocksink Wood is situated in the valley of the Glencullen River northwest of Enniskerry. The fast-flowing Glencullen River winds its way over granite boulders along the valley floor. The steep sides of the valley are mostly covered with calcareous drift. Sessile Oak dominates some of the slopes with a sparse shrub layer of Holly and Hazel, while on the ground there is a carpet of Great Wood-rush. Other areas are characterised by mixed woodland, with Oak, Ash, Beech, Sycamore and the occasional conifer occurring. The ground flora includes Ivy and Brambles, and often-luxuriant ferns, such as Hart's Tongue, Soft Shield-fern, and mosses. Lichens occur abundantly on some trees.

Main Conservation Objectives:

- (a) To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Petrifying springs with tufa formation (Cratoneurion); Alluvial Forest.
- (b) To maintain the extent, species richness and biodiversity of the entire site
- (c) To establish effective liaison and cooperation with landowners, legal users and relevant authorities.

6) Wicklow Mountains cSAC

Wicklow Mountains SAC is an important complex, extensive, upland site covering much of the Wicklow Mountains and a portion of the Dublin Mountain range. Within the boundaries of South Dublin County, the SAC encompasses the mountains of Ballymorefinn, Corrig, Kilakee, and Cruagh, stretching south to the summit of Kippure Mountain at the border with County Wicklow. While the entire SAC lists ten habitats listed in Annex I of the EU Habitats Directive, the vegetation within the South Dublin County portion of the site mainly provides good examples of the typical upland habitats of heath, blanket bog and upland grassland. Several rare, protected plant and animal species also occur in this SAC.

Draft Conservation Objectives:

To maintain the Annex 1 habitats for which the cSAC has been selected at favourable conservation status:– Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto- Nanojuncetea; Natural dystrophic lakes and ponds; Northern Atlantic wet heaths with Erica tetralix; European dry heaths; Alpine and Boreal heaths; Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe); Blanket bog; Siliceous scree of the montane to snow levels; (Androsacetalia alpinae and Galeopsietalia ladani); Calcareous rocky slopes with chasmophytic vegetation; Siliceous rocky slopes with chasmophytic vegetation; Old sessile oak woods with Ilex and Blechnum in British Isles.

- (a) To maintain the Annex 2 species for which the cSAC has been selected at favourable conservation status: - *Lutra lutra*
- (b) To maintain the extent, species richness and biodiversity of the entire site.
- (c) To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

7) Glenasmole Valley cSAC

Glenasmole Valley SAC contains a high diversity of habitats and plant communities and lists three habitats listed on Annex I of the EU Habitats Directive: petrifying springs with tufa formation, semi-natural dry grassland and scrubland facies on calcareous substrate (*Festuco-Brometalia*) (important orchid sites), and *Molinia* meadows on calcareous, peaty, or clayey-silt-laden soils (*Molinion caeruleae*). Both petrifying springs and orchid-rich calcareous grasslands also qualify as Priority Habitats under the Habitats Directive. The presence of four Red Data Book plant species further enhances the value of the site as does the presence of populations of several mammal and bird species of conservation interest. The River Dodder flows through the valley and has been impounded here to form two reservoirs which supply water to south Dublin.

Draft Conservation Objectives:

- (a) To maintain the Annex 1 habitats for which the cSAC has been selected at favourable conservation status – *Petrifying springs with tufa formation, Semi-natural dry grassland and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites), *Molinia* meadows on calcareous, peaty or clayey-siltladen soils (*Molinion caeruleae*)
- (b) To maintain the extent, species richness and biodiversity of the entire site.
- (c) To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

8) Red Bog cSAC

Red Bog, Co. Kildare, is located 3km north of the village of Blessington in east Co. Kildare. It comprises a wetland complex of Lake, fen and bog, situated in a hollow between ridges of glacially-deposited material and it is underlain by rocks of Ordovician age. The site is of particular conservation significance as it supports transition mire, a habitat listed in Annex 1 of the Habitats Directive.

Draft Conservation Objectives:

- (a) To maintain the Annex 1 habitats for which the cSAC has been selected at favourable conservation status – Transition mires and quaking bogs.
- (b) To maintain the extent, species richness and biodiversity of the entire site.
- (c) To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

SPA's

I) North Bull Island SPA

North Bull Island SPA site is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Lightbellied Brent Goose, Blacktailed Godwit and Bar-tailed Godwit that use it. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive, notably Golden Plover and Bar-tailed Godwit, but also Ruff and Short-eared Owl.

Main conservation objective:

To maintain the special conservation interests for this SPA at favourable conservation status: Light-bellied Brent Goose, Shelduck, Pintail, Shoveler, Oystercatcher, Grey Plover, Knot, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Redshank, Turnstone, 20,000 wintering waterbirds, Teal, Ringed Plover, Golden Plover, Sanderling, Curlew, Black-headed Gull, Wetland & Waterbirds.

II) South Dublin Bay/Tolka Estuary SPA

South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included. The site is an important site for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex. It is of international importance for Light-bellied Brent Goose and of national importance for nine other waterfowl species. As an autumn tern roost, it is also of international importance. Furthermore, the site supports a nationally important colony of Common Tern. All of the tern species using the site are listed on Annex I of the E.U. Birds Directive, as are Bartailed Godwit and Mediterranean Gull.

Main Conservation Objective:

To maintain the special conservation interests for the SPA at favourable conservation status – Light-bellied

Brent Goose, Oystercatcher, Ringed Plover, Golden Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern, Arctic Tern, and Wetland and Waterbirds.

III) Dalkey Islands SPA

The site comprises Dalkey Island, Lamb Island and Maiden Rock, the intervening rocks and reefs, and the surrounding sea to a distance of 200 m. Dalkey Island, which is the largest in the group, lies c. 400 m off Sorrento Point on the Co. Dublin mainland from which it is separated by a deep channel. The island is low-lying, the highest point of which (c. 15 m) is marked by a Martello Tower. Soil cover consists mainly of a thin peaty layer, though in a few places there are boulder clay deposits. Vegetation cover is low-growing and consists mainly of grasses. Dense patches of Bracken (*Pteridium aquilinum*) and Hogweed (*Heracleum sphondylium*) occur in places. Lamb Island lies to the north of Dalkey Island, and at low tide is connected by a line of rocks. It has a thin soil cover and some vegetation, mainly of grasses, Nettles (*Urtica dioica*) and Hogweed. Further north lies Maiden Rock, a bare angular granite rock up to 5 m high that is devoid of higher plant vegetation.

Main conservation Objective:

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: Roseate tern, Common tern and the Arctic tern

IV) Wicklow National Park (Wicklow Mountains) SPA

Wicklow Mountains SPA is an extensive upland site, comprising a substantial part of the Wicklow Mountains. The site, which is within the Wicklow Mountains National Park, is fragmented into about twenty separate parcels of land. Much of the site is State-owned and managed for nature conservation based on traditional landuses for the uplands. The site is of high ornithological importance as it supports very good examples of upland and woodland bird communities, several of which are very rare at a national level. Two species, Ring Ouzel and Red Grouse, are Red-listed and their status is of high conservation concern.

Main Conservation Objective:

To maintain the special conservation interests for the SPA at favourable conservation status – Merlin, Peregrine.

V) Poulaphouca Reservoir SPA,

Poulaphouca Reservoir SPA (Site Code 4063) is located in the western foothills of the Wicklow Mountains.

The principal interest of the site is the Greylag Goose population, which is of international importance. The site provides the main roost for the birds, with feeding occurring mostly on improved grassland outside of the site. A range of other wildfowl species also occurs, including Whooper Swan, a species that is listed on Annex I of the E.U. Birds Directive. The site is also notable as a winter roost for gulls, especially Lesser Black-backed Gull.

Main Conservation Objective:

To maintain the special conservation interests for the SPA at favourable conservation status – Greylag Goose, Lesser Black-backed Gull, Wetland and Waterbirds.

5 Identification and Description of Individual and Cumulative Impacts Likely to Result

5.1 Individual Impacts

Impacts on the Natura 2000 sites identified within this screening process can arise from two primary sources/pathways. Firstly hydrological, this relates to the occurrence, circulation, distribution and the properties of water. Secondly ecological, this relates to the interactions between assemblages of plants and animals. These assemblages, called ecosystems, are studied as patches and connecting corridors within the landscape.

Ecological pathways are generally limited to a specific geographic area within reasonable proximity to the site of proposed works. Whilst hydrological pathways, given the nature of water, can cause resultant impacts some significant distance from the site of proposed works.

A potential hydrological link is identified as being the primary source-pathway receptor between the site of the proposed scheme and the thirteen Natura 2000 sites. Ecological links have been identified for specific sites and these are detailed below.

SAC's numbered 1,4,5,6,8 and SPA's numbered III, IV and V have no direct ecological or hydrological link to the site of the proposed scheme. Negative impacts on these sites are therefore highly unlikely by virtue of distance of the scheme from each site and the absence of source-pathway-receptors.

SAC numbered 7 has direct ecological link and hydrological link to the site of the proposed scheme via the Dodder River. This SAC is located upstream of the proposed Scheme so any potential for sediment or pollutants carried downstream will therefore not affect it.

SAC's numbered 2,3 and SPA's numbered I,II have no direct ecological link to the site of the proposed scheme. These sites however do have a hydrological link to the site of the proposed scheme via the River Dodder system as they potentially provide a vehicle for the transfer of negative impacts to these sites downstream, which rely on water quality for the maintenance of their conservation objectives. During the construction of the proposed landscape corridor it is possible that sediment or pollutants could be carried to Dublin Bay via the River Dodder. However a number of factors make this extremely unlikely, namely:

- (a) No substances from the scheme have sufficient toxicity to impact on the mud-dwelling organisms in Dublin Bay or that can be bio-accumulated by them.

(b) Even in the very unlikely event of an accident occurring, the dilution of the River Dodder waters when they mix with the flows in Dublin Bay is almost infinite and there is no likely synergy with other compounds in the waters of the Bay which could be detrimental.

In summary negative impacts on these sites are therefore highly unlikely by virtue of distance of the scheme from each site and the factors mentioned above.

5.2 Cumulative Impacts

This screening assessment for the proposed scheme indicates there will be no significant impacts arising from the proposed scheme. In relation to potential cumulative impacts from the proposed scheme with other plans and projects, it is a requirement that each of these will be subject to screening for appropriate assessment to ensure there will be no significant negative impact on Natura 2000 sites. Taken together, adherence to this required approach will ensure that no cumulative impacts will arise from the proposed road improvement scheme.

6 Assessment of the Significance of the Impacts Identified on Site Integrity

No impacts on Natura 2000 sites have been identified in relation to the proposed N81 landscape corridor scheme.

7 Exclusion of Sites where it can be Objectively Concluded that there will be no Significant Effects

No impacts on Natura 2000 sites have been identified in relation to the proposed N81 landscape corridor scheme and therefore all identified sites can be excluded from further stages of the Appropriate Assessment process.

8 Conclusion

This screening report has evaluated the proposed N81 landscape corridor scheme to determine whether or not significant negative impacts on Natura 2000 sites are likely to arise by virtue of the schemes implementation. The report finds that the proposed scheme, either individually or in combination with other plans and projects, shall not give rise to significant effects on the integrity of any Natura 2000 site.

It should be noted, that the proposed scheme, with a range of native plant species inherent to the design, will have a positive impact on the ecological pathways within the immediate geographic location. The

scheme aids the development of new ecosystems by enhancing bio-diversity; it increases amenity value for local residents through the provision of quality green space within the public realm.