

GREYSTONES HARBOUR DEVELOPMENT

PLANNING REVISIONS

APPROPRIATE ASSESSMENT

SCREENING REPORT

DECEMBER 2018

Prepared for

MacCabe Durney Barnes

by

Biosphere Environmental Services

29 La Touche Park, Greystones, Co. Wicklow

Tel: 01-2875249 E-mail: maddenb@eircom.net



TABLE OF CONTENTS

1.	Introduction	4
1.1	Background.....	4
1.2	Regulatory Context.....	4
1.3	Stages of the Appropriate Assessment (AA).....	5
2.	Screening FOR APPROPRIATE ASSESSMENT	7
2.1	Description of the Project.....	7
2.2	European Sites Identification	8
2.2.1	Bray Head SAC	9
2.3	Identification and Assessment of Potential Impacts.....	10
2.3.1	Bray Head SAC	10
2.4	Analysis of “In-combination” Effects	11
2.5	Screening Conclusion and Statement.....	11
2.6	References	12

APPENDIX 1 : Site Synopses

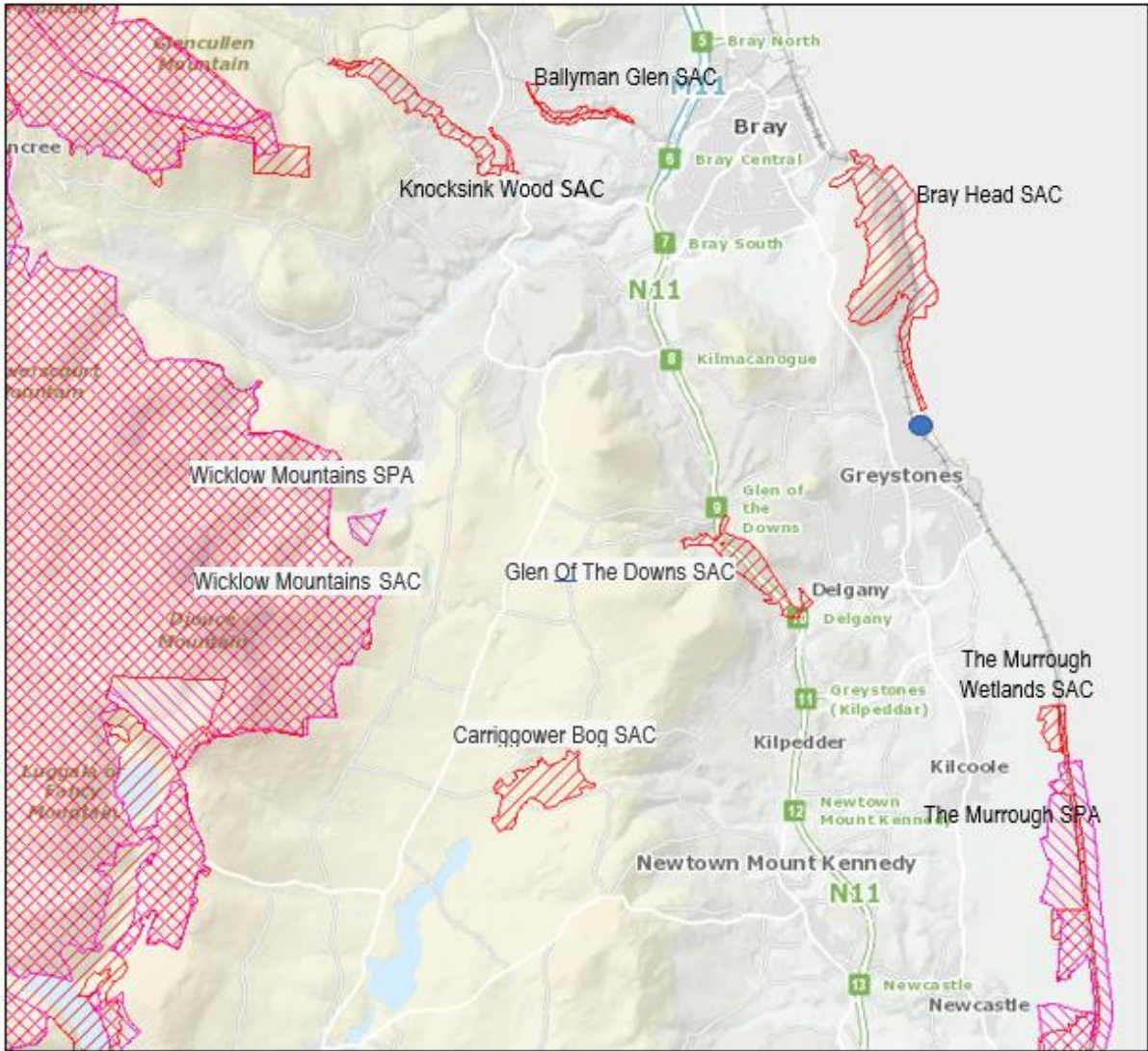


Figure 1. European sites within a 10 km radius of development site

1. INTRODUCTION

1.1 Background

This report has been prepared by Dr. Brian Madden of BioSphere Environmental Services, in association with MacCabe Durney Barnes Town Planners, to determine potential impacts (if any) on sites with European conservation designations (i.e. Natura 2000 sites) by proposed planning revisions to the Greystones Harbour development. The purpose of this assessment is to determine the appropriateness, or otherwise, of the proposed project in the context of the conservation objectives of such sites.

An Bord Pleanála approved the Greystones Harbour development under Section 226 of the Planning and Development Act 2000 in 2007 (parent approval - **ABP Ref. 27 EF2016**) for the following.

“An integrated harbour/marina mixed development linked to a linear coastal public park, the development will provide leisure, recreational, open space and marine facilities and mixed form residential, commercial, civic and social amenities centred around the harbour and marina at Rathdown Upper and Rathdown”.

It was a requirement that development of the harbour should be completed before work commenced on the landside elements. Development commenced on the harbour and public works but the recession stalled the remainder of development. An EIS accompanied the application.

Permission was approved by An Bord Pleanála in 2012 (**ABP Ref. 27.JA0029**) for substantial revisions to ABP Ref. 27 EF2016 (parent permission). As the economy has improved, WCC in partnership has now been able to carry out the development. Part of the development has been completed, mostly the housing on the eastern side. Owing to the time that has lapsed and the changes that have occurred in the market, it has been necessary to review the approved plans and to seek to make modifications (by way of Part 8 application), which are described below and are the subject of this report on screening for Appropriate Assessment.

The site which is the subject of the present Part 8 application is c 6.1 ha in area and consists of the following:

- Terrace 12, which is part of the approved overall development site at the Greystones Marina development at north western end and western part of the development site
- the approved park which will be a public park at the northern end of the site.

1.2 Regulatory Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna better known as “The Habitats Directive” provides the framework for

legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC) (better known as “The Birds Directive”).

Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment:

“Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected 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 implication 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”

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First the project should aim to avoid any negative impacts on European sites by identifying possible impacts early in the planning stage, and designing the project in order to avoid such impacts. Second, mitigation measures should be applied, if necessary, during the AA process to the point, where no adverse impacts on the site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, then it is rejected. If no alternative solutions are identified and the project is required for imperative reasons of overriding public interest (IROPI test) under Article 6 (4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

1.3 Stages of the Appropriate Assessment (AA)

This Appropriate Assessment Screening Report has been prepared in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland*. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, 2009.
- *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 DG, 2002.

-
- *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*. European Commission, 2000.

There are up to four successive stages involved in the Appropriate Assessment process (European Commission 2002). The outcome at each stage determines whether the next stage in the process is required. The following describes each of the four stages:

Stage 1 – Screening

This is the first stage in the process and is carried out to determine the necessity for a more detailed Stage 2 Appropriate Assessment where potential impacts on European sites are deemed to be of significance. The following steps are involved in the Stage 1 Screening:

- Description of the project and site characteristics (existing environment)
- Identification and description of Natura sites that could potentially be affected
- Identification and description of potential impacts
- Assessment of potential impacts
- Exclusion of sites where no significant effects are foreseen

Stage 2 – Appropriate Assessment

This stage involves the consideration of the impact on the integrity of the European site of the project, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts. If adequate mitigation is proposed to ensure no significant adverse impacts on European sites, then the process may end at this stage. However, if the likelihood of significant impacts remains, then the process must proceed to Stage 3.

Stage 3 – Assessment of Alternatives

The process which examines alternative ways of achieving the objectives of the plan or project that may avoid adverse impacts on the integrity of the European site.

Stage 4 – Assessment where no Alternative Solutions Exist and where Adverse Impacts Remain

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First, the project should aim to avoid any impacts on European sites by identifying possible impacts early in the process and writing the plan in order to avoid such impacts. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If the plan is still likely to result in impacts on European sites, and no further practicable mitigation is possible, then it must be rejected. If no alternative solutions are identified and the plan is required for imperative reasons of overriding public interest (IROPI test) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

2. SCREENING FOR APPROPRIATE ASSESSMENT

Screening determines whether appropriate assessment is necessary by examining:

1. Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of a Natura 2000 site.
2. Whether the project will have a potentially significant effect on a Natura 2000 site, either alone or in combination with other projects or plans, in view of the site's conservation objectives.

Screening involves the following:

- i. Description of plan or project
- ii. Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives
- iii. Assessment of likely effects – direct, indirect and cumulative – undertaken on the basis of available information as a desk study or field survey or primary research as necessary
- iv. Screening Statement with conclusions

2.1 Description of the Project

Outline of proposed development

The proposed development involves for amendments to the approved development. These may be summarised as follows;

1. A reduction in the number of houses permitted along Terrace 13 from 29 to 26 houses and a revision of the house types and design. Approval had been granted for 29 houses., It is proposed to now construct 26 houses, 12 detached houses and 12 semi-detached houses.The row of houses remain in the same location as permitted. The 2011 approved levels of these houses and their associated rear gardens would necessitate the construction of significant retaining structures adjacent to the base of the rail embankment along the site boundary. The levels of the houses and these gardens were revised to greatly reduce and, in most cases, remove the need for any retaining structures along the boundary. The levels of the roads, drainage and parks were modified to tie in with these level changes.
2. A redesign of the public park. The new design is considered a more modern design to that permitted and incorporates a dog park that was sought by the Councillors of the Greystones Municipal District. The rationale for the reassessment of the design

proposals for the Coastal Linear Park adjacent to North Beach was to provide a modern yet naturalistic undulating park incorporating passive surveillance, the requested dog park and to incorporate a safety barrier that was not included in the previous design. The access path has been realigned to follow the desired line. The public plaza and play area are positioned in an area of the park that is over looked by houses and apartments. The park is intended to create new wildlife corridors linking with the landscape along the Bray Head walk.

Technical Description of Coastal Linear Park

The design intention of the park is to create an undulating landscape reflective of a coastal location.

To achieve this substantial earth mounding and sculpting will be required. It is anticipated that the material which will be excavated from the apartment section of the Marina Village development will provide a large quantity of large round stones. This material will be used to create the centre of the mounds. Mounds that are being planted with coastal wildflower seed mix will be capped with subsoil to achieve a sustainable meadow.

Some cut and fill will take place but the area of the old landfill and the area of archaeological interest shall not be cut under any circumstance. The plan is to increase the levels in this area.

Areas of open play and recreation will have a minimum of 150mm of topsoil to ensure that a high quality grass sward is achieved.

The path ways through the park shall be created using a Wicklow gravel; Ballylusk 6mm down to dust. This path shall be rolled to ensure that it is bedded correctly.

The plaza area will require a sub-base of 150mm and shall be surfaced with a 50mm thick paving slab.

All areas of hard standing shall be graded to ensure that no ponding occurs.

Large concrete 'boxes' shall be cast off site and placed with suitable machinery.

Proposed stone seating and 'Oculus' stones shall be positioned and dressed as necessary on site.

The proposed fencing shall require regular concrete footings.

Planting shall take place in the spring after winter storms have past.

2.2 European Sites Identification

In accordance with the European Commission Methodological Guidance (EC2001), consideration is given to European sites that potentially could be affected by the proposed project. As the project is within a previously approved development site and involves relatively low scale works, it is considered that the possibility for impacts is confined to the **Bray Head Special Area for Conservation** (code 0714), which is located just north of the public park boundary (see Figure 1).

For completeness, note is made of other European sites within a distance of approximately 10 km from Greystones, though it is considered inconceivable that the proposed project could have any effects on these site (as there are no direct or indirect linkages – i.e. no pathway between source and receptor). Such sites are as follows (and see Figure 1):

- **Ballyman Glen Special Area for Conservation** (code 0713)
Located approximately 7 km northwest of the proposed Greystones development.
- **Knocksink Wood Special Area for Conservation** (code 0725)
Located approximately 8 km northwest of the proposed Greystones development.
- **Glen of the Downs Special Area for Conservation** (code 0719)
Located approximately 3.5 km west of the proposed Greystones development.
- **Carriggower Bog Special Area for Conservation** (code 0716)
Located approximately 8 km southwest of the proposed Greystones development.
- **The Murrough Wetlands Special Area for Conservation** (code 02249)
Located approximately 5 km south of the proposed Greystones development.
- **The Murrough Special Protection Area** (code 04186)
Located approximately 6 km south of the proposed Greystones development.
- **Wicklow Mountains Special Area for Conservation** (code 02122)
Located approximately 9 km west of the proposed Greystones development.
- **Wicklow Mountains Special Protection Area** (code 04040)
Located approximately 9 km west of the proposed Greystones development.
- **Rockabill to Dalkey Island Special Area for Conservation** (code 03000)
Located >10 km north of the proposed Greystones development site.

2.2.1 Bray Head SAC

This coastal site is situated between the towns of Bray and Greystones. The bedrock geology is Cambrian quartzites and shales. Bray Head consists of a plateau of high ground, with five prominent quartzite knolls and has a maximum height of 241 m. The more exposed higher ground has a covering of shallow acidic soils, with protruding bedrock and scree. Elsewhere, deeper soils are formed by drift deposits and are calcareous in character. On the Greystones side, the site extends southwards to the St. Crispen's ruins to include a strip of clay cliffs and beach. The site supports a range of coastal habitat as well as breeding seabird colonies. A full site description is given in Appendix 1.

SAC Qualifying Interests

The SAC has been selected for the following Annex I habitats:

[1230] Vegetated Sea Cliffs

[4030] Dry Heath

SAC Conservation Objectives

The conservation objectives for the site are detailed in: **NPWS (2017) Conservation Objectives: Bray Head SAC 000714, Version 1**. NPWS, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (dated 11 April 2017). The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. (see www.npws.ie/protected-sites).

2.3 Identification and Assessment of Potential Impacts

Potential impacts, if any, by the proposed project on European sites identified in the vicinity of the site are discussed below.

Impacts are considered in the context of the **Source-Pathway-Receptor (S-P-R)** conceptual model for environmental management risk assessment. This provides a systematic means of determining and evaluating the nature, effect and extent of exposure a vulnerable receptor may experience in relation to a particular hazard. For a risk to exist there must be a source (or hazard or pressure), a pathway, and a receptor (or target) (Daly, 2004). An environmental hazard is an event, or continuing process, which if realised will lead to circumstances having the potential to degrade, directly or indirectly, the quality of the environment (Royal Society, 1992). A pathway is a route by which a particle of water, substance or contaminant moves through the environment and comes into contact with, or otherwise, affects a receptor (Environment Agency, 2001).

2.3.1 Bray Head SAC

The proposed development includes some modifications to approved housing and the creation of a public park. The Bray Head SAC extends to the clay cliffs and beach to the northeast of the proposed public park development. The separation distance is less than 100 m, with a small stream and some waste land (rank grass and scrub) in between.

Direct impacts by the development on the SAC can be definitively ruled out (i.e. no pathway from source to result in direct impact on receptor).

The modifications to the houses could not in any indirect way affect the interests of the SAC.

The public park will be constructed on existing land and will not involve any infilling of, or disturbance to, the beach to the east (which is just south of the SAC). As the works for the park are separated from the clay cliffs within the SAC by a stream and some unmanaged land, there could be no effects by construction works on the stability of the cliffs or on the flora and fauna associated with the cliffs.

Usage of the public park is not expected to have any impacts on the interests of the SAC site. There is an existing and long established cliff walk from Greystones to

Bray along the seaward side of the SAC and the presence of the public park would not be expected to increase significantly recreational pressure on the interests of the SAC.

From this assessment, it is concluded with full scientific certainty that the proposed project could not have any impacts on the qualifying interests (namely dry heath and vegetated sea cliffs), and hence the conservation objectives, of the Bray Head SAC.

2.4 Analysis of “In-combination” Effects

The Habitats Directive requires competent authorities to make an appropriate assessment of any plan or project which is likely to have a significant effect alone or in-combination with other plans and projects.

The present report has considered the possibility for impacts by the proposed Greystones development on the Bray Head SAC (the only European site which conceivably could be affected).

The proposed development is a modification to a similar development within a larger ‘parent’ project which had already received full planning permission (and much of which is already constructed). Screening for Appropriate Assessment had been carried out on the entire parent development application by the competent authority and the conclusion was that there would be no significant impacts on any European site.

The present Part 8 application would not contribute to any in-combination effect by the entire Greystones Harbour development on the Bray Head SAC or any other European site.

2.5 Screening Conclusion and Statement

An Appropriate Assessment screening report has been prepared for a Part 8 application involving amendments to some housing within the approved Greystones Marina development and to the approved public park at the northern end of the site.

The potential effects that may arise from construction and operation of the project on the Natura 2000 network have been examined by considering the potential for significant effects, alone or in-combination with other projects, on the Bray Head SAC (the only designated European site which conceivably could be affected by the project).

On the basis of the findings of this screening report, it is concluded that the project:

- (i) is not directly connected with or necessary to the management of a Natura 2000 site, and

(ii) significant impacts on the Natura 2000 network are not foreseen.

Therefore, in accordance with Article 6(3) of the Habitats Directive, it is considered that a Stage 2 Appropriate Assessment is not required.

2.6 References

Daly, D. (2004), Groundwater at Risk in Ireland - Putting Geoscientific Information and Maps at the Core of Land Use and Environmental Decision-making, John Jackson Memorial Lecture, Royal Dublin Society, November 2004

Department of Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities.

European Commission (2002). *Interpretation Manual of European Union Habitats*. Version Eur 15. European Commission, DG XI.

Environment Agency (2001), Guide to Good Practice for the Development of Conceptual Models and the Selection and Application of Mathematical Models of Contaminant Transport Processes in the Subsurface. Environment Agency National Groundwater and Contaminated Land Centre Report, Solihull, UK.

Royal Society (1992) Risk: Analysis, Perception and Management. The Royal Society, London (ISBN 0-85403-467-6).

APPENDIX 1

SITE SYNOPSES

Site Name: Bray Head SAC

Site Code: 000714

This coastal site is situated in the north-east of Co. Wicklow between the towns of Bray and Greystones. The bedrock geology is Cambrian quartzites and shales (with mudstones and greywackes). Bray Head consists of a plateau of high ground, with five prominent quartzite knolls and has a maximum height of 241 m. The more exposed higher ground has a covering of shallow acidic soils, with protruding bedrock and scree. Elsewhere, deeper soils are formed by drift deposits and are calcareous in character. 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):

[1230] Vegetated Sea Cliffs

[4030] Dry Heath

Dry heath is the principal habitat over much of Bray Head. The vegetation of the upper plateau area is dominated by dwarf shrubs, mainly Heather (*Calluna vulgaris*), Bell Heather (*Erica cinerea*) and gorse (*Ulex europaeus* and *U. gallii*). Broom (*Cytisus scoparius*) also occurs, and associated with the gorse and broom is the Red Data Book species Greater Broomrape (*Orobanche rapum-genistae*). In the areas where the shrubs are less dense Tormentil (*Potentilla erecta*), Common Milkwort (*Polygala vulgaris*), Heath Bedstraw (*Galium saxatile*) and a variety of grasses (e.g. *Aira praecox*, *Agrostis tenuis*, *Deschampsia flexuosa*) are present. Where rock outcrops occur species such as English Stonecrop (*Sedum anglicum*) and Sheep's-bit (*Jasione montana*) are found. Bracken (*Pteridium aquilinum*) is dominant in some areas. The heath communities which occur on the dry slopes above the sea cliffs, especially those south-facing, are more open in character and dominated by grasses rather than dwarf shrubs. The annual plant communities which develop here are typical of those found only on sites in south-eastern Ireland. Common species include Wood Sage (*Teucrium scorodonia*), clovers (*Trifolium dubium* and *T. campestre*), Scarlet Pimpernel (*Anagallis arvensis*) and Field Madder (*Sherardia arvensis*). An uncommon annual species which can appear abundantly in the heath after a fire event is Yellow Fumitory (*Corydalis claviculata*). Some rare plants are found in this habitat, notably Bird's-foot (*Ornithopus perpusillus*) and Spring Vetch (*Vicia lathyroides*), both Red Data Book species.

Calcareous dry grassland, typically species-rich, occurs on deposits of glacial till. The primary grass species are Quaking-grass (*Briza media*), Smooth Meadow-grass (*Poa pratensis*) and Red Fescue (*Festuca rubra*). Typical calcicole herbs include Pale Flax (*Linum bienne*), Salad Burnet (*Sanguisorba minor*), Burnet-saxifrage (*Pimpinella saxifraga*), Carline Thistle (*Carlina vulgaris*) and Kidney Vetch (*Anthyllis vulneraria*). Orchids are a feature of this habitat, with five species known from the area - Pyramidal Orchid (*Anacamptis pyramidalis*), Common Spotted-orchid (*Dactylorhiza fuchsii*), Common Twayblade (*Listera ovata*), Fragrant Orchid (*Gymnadenia conopsea*) and Bee Orchid (*Ophrys apifera*). Bloody Crane's-bill (*Geranium sanguineum*) was refound recently in this community at Bray Head - this is a typical species of the Burren and associated areas, and is very rare in eastern Ireland.

Rocky sea cliffs, another Annex I habitat, form most of the seaward boundary at this site and extend for approximately 2 km. Steep clay cliffs extend southwards for a further 1 km, with a small area of clay cliff also at the northernmost part of site. The rocky cliffs are divided by a railway track built in the 1800s. The lower cliffs are fairly steep in places but above the track they are less steep, and often support heath or dry grassland vegetation. In parts the cliffs are up to 60 m in height. Typical species of the more exposed rock areas are Common Scurvygrass (*Cochlearia officinalis*), Rock Sea-spurrey (*Spergularia rupicola*), Thrift (*Armeria maritima*), Sea Campion (*Silene vulgaris* subsp. *maritima*), and Sea Samphire (*Crithmum maritimum*). On some sections of the cliff face, the locally scarce Tree Mallow (*Lavatera*

arborea) is found. Species of the upper cliff flora include Kidney Vetch and Red Fescue. A widespread species found from the mid to upper zones of the cliff face is Ivy (*Hedera helix*), and associated with this is the scarce Wild Madder (*Rubia peregrina*).

The clay cliffs in the southern part of the site are steep and unstable and have little vegetation. A stand of mostly native woodland occurs in the northern part of the site. This is a fairly pure Sessile Oak (*Quercus petraea*) dominated woodland, with some Ash (*Fraxinus excelsior*) and Downy Birch (*Betula pubescens*). Understorey trees include Holly (*Ilex aquifolium*) and Hawthorn (*Crataegus monogyna*). The wood is on shallow drift and the ground flora often has species more associated with heath than woodland. Other habitats which are found at this site include bedrock shore, a sandy/shingle beach and an area of shallow marine water. Bray Head has an important seabird colony. A census in 1999 gave the following populations: Fulmar (55 pairs), Shag (8 pairs), Kittiwake (781+ pairs), Guillemots (286 individuals), Razorbills (191 individuals) and Black Guillemots (123 individuals). A few pairs of gulls also breed. Both the Kittiwake and Black Guillemot populations are of national importance. Peregrine Falcon, an Annex I species of the E.U. Birds Directive, breeds at the site, as do Raven and Kestrel. Characteristic bird species of the heath areas include Stonechat, Whitethroat, Linnet and Skylark.

The heath and grassland habitats at this site are threatened by reclamation for agriculture and also by frequent burning. The site is a popular recreational area and is especially used by walkers. Bray Head is of high conservation importance as it has good examples of two habitats (sea cliffs and dry heath) listed on Annex I of the E.U. Habitats Directive. It also supports a number of rare plant species and has ornithological importance.

Version date: 23.09.2013 3 of 3 000714_Rev13.Doc