

BANDON RIVER (BANDON) DRAINAGE SCHEME

APPROPRIATE ASSESSMENT SCREENING

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1 INTRODUCTION

1.1 GENERAL INTRODUCTION

This report has been completed to examine the potential for the proposed works associated with and prescribed by the Bandon River (Bandon) Drainage Scheme to impact on Natura 2000 sites in the area. An EIS has been carried out in relation to this project and all the information contained in the EIS has been used to inform the AA Screening process.

1.2 SITE LOCATION AND DESIGNATIONS

In the initial stages of the project, the Study Area for the proposed scheme encompassed a larger area in order to allow for the consideration of all potential scheme options and their various impacts on the receiving environment. The Study Area at the constraints study stage was described as 'the channel, floodplain and immediate surrounding areas of the River Bandon extending along the main channel of the river' from just downstream of Baxter's Bridge, east of Bandon Town to just upstream of the village of Ballinadee on the Bandon estuary, measuring approximately 18.08 square kilometres in area. However as the scheme design progressed based on feedback from the constraints study and other relevant assessments, the Study Area was refined to a more specific area, within which impacts may occur. For most studies conducted as part of this EIS, the Study Area was reduced to the channel, floodplain and immediate surrounding areas of the River Bandon extending from Baxter's Bridge to Curranure Townland or Inishannon Village. The works area itself includes the Bandon River and its immediate surrounds from the weir in Bandon Town (E148930 N055030) to O'Driscolls Bridge (E151640 N056950), approximately 3.6 kilometres downstream

The study area and Natura 2000 sites identified are shown in Figure 1.1.

1.3 BRIEF DESCRIPTION OF THE PROPOSED DEVELOPMENT

The design of the proposed Bandon River (Bandon) Drainage Scheme has evolved through an initial screening process of a range of potential engineering measures typically considered for flood alleviation schemes, the development of potential options and finally the development of a preferred scheme design.

The preferred scheme option consists of a combination of flood defences with dredging. The dredged depth will be to 9.5 metres OD downstream of the weir and will extend over a distance of 3.6 kilometres. New flood defences will also be constructed downstream of Bandon Bridge and locally on the left bank upstream of the weir and along the Bridewell River.

The proposed works comprising the Preferred Option for the Bandon River (Bandon) Drainage Scheme are generally as follows;

- Detailed Site Investigation comprising trial pits, dynamic probes, boreholes, rotary cores and archaeological test trenches;
- Deepening of the existing riverbed by 1.8m just downstream of Bandon Weir to 9.5mOD and dredging for 3.6km (to O'Driscoll's Bridge) at a gradient of 1/1000;
- Underpinning of Bandon Bridge;
- The replacement of the existing Pedestrian Bridge with a new Pedestrian Bridge;

- The provision of flood defence walls at various locations on the right and left banks of the Bandon River through Bandon Town;
- The provision of flood defence walls on the left and right banks of the Bridewell River on New Road;
- The provision of flood defence embankments downstream of Bandon Town on the right bank and in localised areas along the left bank in Bandon Town;
- Improvements to the existing flood defences on the Bridewell River in Bandon Town;
- Improvements to the existing flood defences at the Bandon wastewater treatment plant;
- The provision of removable flood barriers in particular areas;
- The upgrading of an existing culvert and the provision of localised flood defences at the Mill Stream;
- The provision of a rock ramp fish pass and fish counter at Bandon weir;
- The provision of fisheries mitigation measures within the dredged channel including the provision of a thalweg which will generally emulate the existing riverbed features, in so far as possible;
- Miscellaneous ancillary works including local drainage and pumping stations behind flood defences.

The proposed flood defences will comprise a combination of earthen embankments and reinforced concrete walls.

It is noted that an existing flood defence embankment located on the right bank of the Bandon River upstream of the existing weir, is currently being improved by the owner. On completion of these improvements, the embankment will become part of the Bandon River (Bandon) Drainage Scheme.

1.4 APPROPRIATE ASSESSMENT PROCESS

The EU Habitats Directive requires an 'Appropriate Assessment' (AA) to be carried out where a plan or project is likely to have a significant impact on a Natura 2000 site. Natura 2000 sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Appropriate Assessment is referred to in Articles 6(3) and 6(4) of the EU Habitats Directive.

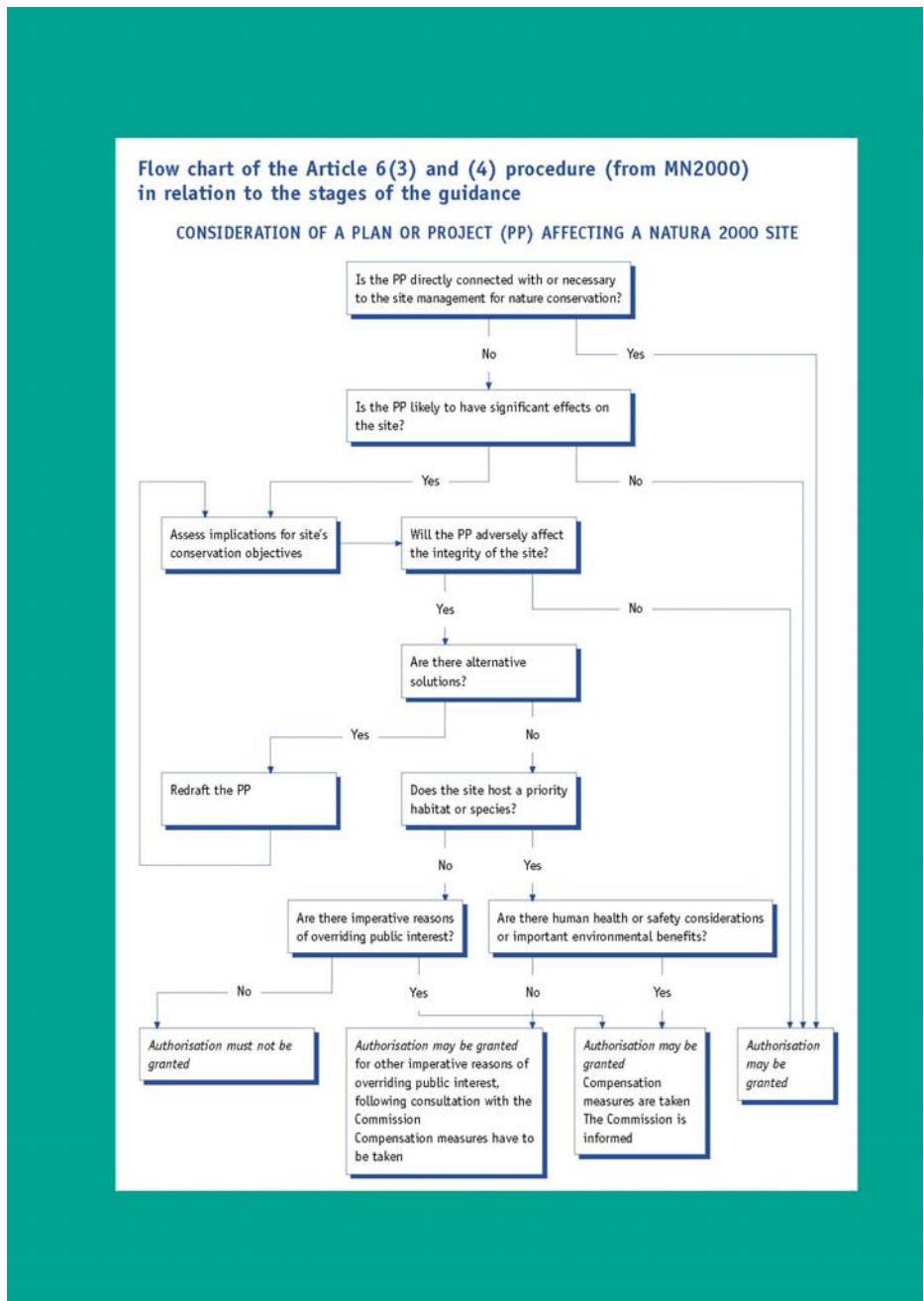
6(3) Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the 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.

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.

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

The EU Commission flowchart outlining the manner in which Appropriate Assessment should be considered is provided below:



1.5 REFERENCE DOCUMENTS

This Appropriate Assessment Screening Exercise has been undertaken in accordance with the following guidelines:

- Managing Natura 2000 Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC
- 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/EE
- Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC - Clarification of the concepts of alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence opinion of the commission.
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DEHLG, 2009)
- Screening of Natura 2000 sites for Impacts of Arterial Drainage Maintenance Operations (OPW)

2 APPROPRIATE ASSESSMENT SCREENING MATRIX

For the purposes of this screening exercise the Natura 2000 sites (cSACs & SPAs) within a 15 kilometre radius of the original study area were identified as were any sites within the Bandon River catchment that may have been outside the 15 kilometre radius. The Natura 2000 sites identified are listed below together with the distance from the study area.

- Courtmacsherry Estuary cSAC/SPA (Site Codes:001230 &004219) 6.5km.
- Clonakilty Bay cSAC/SPA (Site Codes: 004081 &000091) 14km.
- Old Head of Kinsale SPA (Site Code: 004021) 12km.
- Sovereign Islands SPA (Site Code: 004124) 12.5km.
- Seven Heads SPA (Site Code: 004191) 13km.
- Bandon River cSAC (Site Code: 002171) 18.5km or 20km by river (within Bandon River catchment)

A screening exercise to determine whether the proposed flood relief works are likely to have any significant effects on the above Natura 2000 sites was carried out and is detailed below.

This screening report has been prepared in accordance with the European Commission guidance document *Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC* (EC, 2001) and the Department of the Environment's Guidance on the Appropriate Assessment of Plans and Projects in Ireland.

2.1 COURTMACSHERRY ESTUARY CSAC/SPA (SITE CODES: 001230 & 004219)

DESCRIPTION OF PROJECT AND NATURA 2000 SITES
Brief Description of Project or Plan
The preferred scheme consists of a combination of flood defences with dredging. The dredged depth will be to 9.5 metres OD downstream of the weir and will extend over a distance of 3.6 kilometres. New flood defences will also be constructed within and downstream of Bandon Town and along the Bridewell River.
Brief Description of Natura 2000 Site(s)
<p>These designated sites are located approximately 6.5km to the south of the study area, are on the coast and are not located within the Bandon River catchment.</p> <p>The estuary consists of the drowned valley of the Argideen River, which is now filled with sediments, resulting in an extensive mudflat. The site contains a complex of coastal habitats including ten habitats listed on Annex I of the EU Habitats Directive.</p> <p>The Qualifying Interests of the Courtmacsherry Estuary cSAC are listed below:</p> <ul style="list-style-type: none"> • Estuaries • Mudflats and sandflats not covered by seawater at low tide • Annual vegetation of drift lines • Perennial vegetation of stony banks • Salicornia and other annuals colonizing mud and sand • Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)

<ul style="list-style-type: none"> • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) • Embryonic shifting dunes • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) • Fixed coastal dunes with herbaceous vegetation (grey dunes) <p>The site is of ornithological importance for the many waders and wildfowl that feed on the mud and sandflats. The winter flocks of Golden Plover (2,600) and Black-Tailed Godwit (110) constitute nationally important numbers and at least nine other species occur in significant levels for the region.</p> <p>Full Site Synopsis provided in Appendix 1 of this Document.</p>
ASSESSMENT CRITERIA
Describe the Individual Elements of the Project (either alone or in combination with other plans and projects) likely to give rise to impacts on the Natura 2000 Site(s)
None anticipated given that the designated sites are not within the catchment of the Bandon River and are located approximately 6.5 kilometres away with no direct connection to the study area.
Describe any likely direct, indirect or secondary impacts of the project ((either alone or in combination with other plans and projects) by virtue of: size and scale, land-take, distance from the Natura 2000 site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements, duration of construction, operation or decommissioning or other
None anticipated.
Describe any likely changes to the Natura 2000 site(s) as result of: reduction of habitat area, disturbance to key species, habitat or species fragmentation, reduction in species density, changes in key indicators of conservation value (e.g, water quality) and climate change
None anticipated.
Describe any likely impacts on the Natura 2000 site(s) as a whole in terms of: 1) interference with the key relationships that define the structure of the site and 2) interference with the key relationships that define the function of the site
None anticipated.
Provide indicators of significance as a result of the identification of effects set out above in terms of loss, fragmentation, disruption, disturbance and changes to key elements of the site (e.g. water quality)
None anticipated.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known
None anticipated.

Table 2.1 Courtmacsherry Estuary cSAC/SPA AA Screening Matrix

On the basis of the Screening Matrix in Table 2.1 above, it can be concluded that the proposed Bandon River (Bandon) Drainage Scheme is unlikely to significantly impact on the Courtmacsherry Estuary cSAC/SPA when considering the possible nature of the works.

2.2 CLONAKILTY BAY cSAC/SPA (SITE CODES: 000091 & 004081)

DESCRIPTION OF PROJECT AND NATURA 2000 SITES
<p>Brief Description of Project or Plan</p> <p>The preferred scheme consists of a combination of flood defences with dredging. The dredged depth will be to 9.5 metres OD downstream of the weir and will extend over a distance of 3.6 kilometres. New flood defences will also be constructed within and downstream of Bandon Town and along the Bridewell River.</p>
<p>Brief Description of Natura 2000 Site(s)</p> <p>These designated sites are located approximately 14km to the south west of the study area, are on the coast and are not located within the Bandon River catchment.</p> <p>Clonakilty Bay in west Cork is an inter-tidal expanse that stretches from Clonakilty to the open sea, and comprises two small estuaries separated by Inchydoney Island. The site also includes adjacent sand dunes and inland marshes, and therefore is a coastal complex with a good diversity of habitats including several habitats listed on Annex I of the EU Habitats Directive. The Qualifying Interests of the Clonakilty Bay cSAC are listed below:</p> <ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide • Annual vegetation of drift lines • Embryonic shifting dunes • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) • Fixed coastal dunes with herbaceous vegetation (grey dunes) • Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) <p>This site is of high ornithological importance, particularly for its internationally important population of Black-tailed Godwit. The ecology of the population has been studied in detail in recent years. In addition, there are three species with populations of national importance.</p> <p>Full Site Synopsis provided in Appendix 1 of this Document.</p>
ASSESSMENT CRITERIA
<p>Describe the Individual Elements of the Project (either alone or in combination with other plans and projects) likely to give rise to impacts on the Natura 2000 Site(s)</p> <p>None anticipated given that the designated sites are not within the catchment of the Bandon River and are located approximately 14 kilometres away with no direct connection to the study area.</p>
<p>Describe any likely direct, indirect or secondary impacts of the project ((either alone or in combination with other plans and projects) by virtue of: size and scale, land-take, distance from the Natura 2000 site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements, duration of construction, operation or decommissioning or other</p> <p>None anticipated.</p>
<p>Describe any likely changes to the Natura 2000 site(s) as result of: reduction of habitat area, disturbance to key species, habitat or species fragmentation, reduction in species density,</p>

changes in key indicators of conservation value (e.g. water quality) and climate change
None anticipated.
Describe any likely impacts on the Natura 2000 site(s) as a whole in terms of: 1) interference with the key relationships that define the structure of the site and 2) interference with the key relationships that define the function of the site
None anticipated.
Provide indicators of significance as a result of the identification of effects set out above in terms of loss, fragmentation, disruption, disturbance and changes to key elements of the site (e.g. water quality)
None anticipated.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known
None anticipated.

Table 2.2 Clonakilty Bay cSAC/SPA AA Screening Matrix

On the basis of the Screening Matrix in Table 2.2 above, it can be concluded that the proposed Bandon River (Bandon) Drainage Scheme is unlikely to significantly impact on the Clonakilty Bay cSAC/SPA when considering the possible nature of the works.

2.3 OLD HEAD OF KINSALE SPA (SITE CODE: 004021)

DESCRIPTION OF PROJECT AND NATURA 2000 SITES
Brief Description of Project or Plan
The preferred scheme consists of a combination of flood defences with dredging. The dredged depth will be to 9.5 metres OD downstream of the weir and will extend over a distance of 3.6 kilometres. New flood defences will also be constructed within and downstream of Bandon Town and along the Bridewell River.
Brief Description of Natura 2000 Site(s)
This designated site is located approximately 12km to the south east of the study area, is on the coast and is not located within the Bandon River catchment. The Old Head is the largest seabird colony on the south coast between the Bull Rock and the Saltee Islands. It supports nationally important populations of Kittiwake (951 pairs in 2001) and Guillemot (4,313 individuals in 2001), as well as smaller numbers of Fulmar (37 pairs), Shag (26 pairs), Herring Gull (11 pairs) and Razorbill (59 occupied sites). The populations of Kittiwake and Razorbill have declined since the late 1980s for reasons unclear but perhaps due to depleted prey stocks. Chough and Peregrine, which breed elsewhere on the Head, are regularly seen within the site. The seabird populations are well monitored. The site is a designated Refuge for Fauna. Full Site Synopsis provided in Appendix 1 of this Document.

ASSESSMENT CRITERIA
Describe the Individual Elements of the Project (either alone or in combination with other plans and projects) likely to give rise to impacts on the Natura 2000 Site(s)
None anticipated given that the designated site is not within the catchment of the Bandon River and is located approximately 12 kilometres away with no direct connection to the study area.
Describe any likely direct, indirect or secondary impacts of the project ((either alone or in combination with other plans and projects) by virtue of: size and scale, land-take, distance from the Natura 2000 site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements, duration of construction, operation or decommissioning or other
None anticipated.
Describe any likely changes to the Natura 2000 site(s) as result of: reduction of habitat area, disturbance to key species, habitat or species fragmentation, reduction in species density, changes in key indicators of conservation value (e.g, water quality) and climate change
None anticipated.
Describe any likely impacts on the Natura 2000 site(s) as a whole in terms of: 1) interference with the key relationships that define the structure of the site and 2) interference with the key relationships that define the function of the site
None anticipated.
Provide indicators of significance as a result of the identification of effects set out above in terms of loss, fragmentation, disruption, disturbance and changes to key elements of the site (e.g. water quality)
None anticipated.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known
None anticipated.

Table 2.3 Old Head of Kinsale SPA AA Screening Matrix

On the basis of the Screening Matrix in Table 2.3 above, it can be concluded that the proposed Bandon River (Bandon) Drainage Scheme is unlikely to significantly impact on the Old Head of Kinsale SPA when considering the possible nature of the works.

2.4 SOVEREIGN ISLANDS SPA (SITE CODE: 004124)

DESCRIPTION OF PROJECT AND NATURA 2000 SITES
Brief Description of Project or Plan

<p>The preferred scheme consists of a combination of flood defences with dredging. The dredged depth will be to 9.5 metres OD downstream of the weir and will extend over a distance of 3.6 kilometres. New flood defences will also be constructed within and downstream of Bandon Town and along the Bridewell River.</p>
<p>Brief Description of Natura 2000 Site(s)</p>
<p>This designated site is located approximately 12.5km to the south east of the study area, is on the coast and is not located within the Bandon River catchment.</p> <p>The islands are important for breeding seabirds, with most on the eastern stack. A Cormorant colony has been known since the late 1960s and in 1999 156 nests were counted. Herring Gulls and Great Black-backed Gulls also breed, with 10 and 75 pairs respectively in 1999. The only other seabird which has been recorded breeding in recent years is Black Guillemot, with 10 individuals in April 1999.</p> <p>This site is of ornithological importance mainly for the breeding colony of Cormorant, which is the largest in County Cork and is of National Importance. The population of Great Black-backed Gulls is also of National Importance. The site provides a very safe refuge for the nesting birds. Regular monitoring of the seabird populations has been carried out since the 1980s.</p> <p>Full Site Synopsis provided in Appendix 1 of this Document.</p>
<p>ASSESSMENT CRITERIA</p>
<p>Describe the Individual Elements of the Project (either alone or in combination with other plans and projects) likely to give rise to impacts on the Natura 2000 Site(s)</p>
<p>None anticipated given that the designated site is not within the catchment of the Bandon River and is located approximately 12.5 kilometres away with no direct connection to the study area.</p>
<p>Describe any likely direct, indirect or secondary impacts of the project ((either alone or in combination with other plans and projects) by virtue of: size and scale, land-take, distance from the Natura 2000 site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements, duration of construction, operation or decommissioning or other</p>
<p>None anticipated.</p>
<p>Describe any likely changes to the Natura 2000 site(s) as result of: reduction of habitat area, disturbance to key species, habitat or species fragmentation, reduction in species density, changes in key indicators of conservation value (e.g, water quality) and climate change</p>
<p>None anticipated.</p>
<p>Describe any likely impacts on the Natura 2000 site(s) as a whole in terms of: 1) interference with the key relationships that define the structure of the site and 2) interference with the key relationships that define the function of the site</p>
<p>None anticipated.</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in</p>

terms of loss, fragmentation, disruption, disturbance and changes to key elements of the site (e.g. water quality)
None anticipated.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known
None anticipated.

Table 2.4 Sovereign Islands SPA AA Screening Matrix

On the basis of the Screening Matrix in Table 2.4 above, it can be concluded that the proposed Bandon River (Bandon) Drainage Scheme is unlikely to significantly impact on the Sovereign Islands SPA when considering the possible nature of the works.

2.5 SEVEN HEADS SPA (SITE CODE: 004191)

DESCRIPTION OF PROJECT AND NATURA 2000 SITES
Brief Description of Project or Plan
The preferred scheme consists of a combination of flood defences with dredging. The dredged depth will be to 9.5 metres OD downstream of the weir and will extend over a distance of 3.6 kilometres. New flood defences will also be constructed within and downstream of Bandon Town and along the Bridewell River.
Brief Description of Natura 2000 Site(s)
This designated site is located approximately 13km to the south east of the study area, is on the coast and is not located within the Bandon River catchment. The site includes sea cliffs and land adjacent to the cliff edge. The site is of special conservation interest for breeding Chough, a Red Data Book species that is listed on Annex I of the EU Birds Directive. The grazing regime results in a tight vegetation sward which is beneficial to Chough. The site also supports a variety of breeding seabirds including Fulmar, Herring Gull, Great Black-backed Gull and Cormorant. The site also supports a population of Peregrine which is listed on Annex I of the EU Birds Directive. Full Site Synopsis provided in Appendix 1 of this Document.
ASSESSMENT CRITERIA
Describe the Individual Elements of the Project (either alone or in combination with other plans and projects) likely to give rise to impacts on the Natura 2000 Site(s)
None anticipated given that the designated site is not within the catchment of the Bandon River and is located approximately 13 kilometres away with no direct connection to the study area.
Describe any likely direct, indirect or secondary impacts of the project ((either alone or in combination with other plans and projects) by virtue of: size and scale, land-take, distance from

the Natura 2000 site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements, duration of construction, operation or decommissioning or other
None anticipated.
Describe any likely changes to the Natura 2000 site(s) as result of: reduction of habitat area, disturbance to key species, habitat or species fragmentation, reduction in species density, changes in key indicators of conservation value (e.g. water quality) and climate change
None anticipated.
Describe any likely impacts on the Natura 2000 site(s) as a whole in terms of: 1) interference with the key relationships that define the structure of the site and 2) interference with the key relationships that define the function of the site
None anticipated.
Provide indicators of significance as a result of the identification of effects set out above in terms of loss, fragmentation, disruption, disturbance and changes to key elements of the site (e.g. water quality)
None anticipated.
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known
None anticipated.

Table 2.5 Seven Heads SPA AA Screening Matrix

On the basis of the Screening Matrix in Table 2.5 above, it can be concluded that the proposed Bandon River (Bandon) Drainage Scheme is unlikely to significantly impact on the Seven Heads SPA when considering the possible nature of the works.

2.6 BANDON RIVER CSAC (SITE CODE: 002171)

DESCRIPTION OF PROJECT AND NATURA 2000 SITES
Brief Description of Project or Plan
The preferred scheme consists of a combination of flood defences with dredging. The dredged depth will be to 9.5 metres OD downstream of the weir and will extend over a distance of 3.6 kilometres. New flood defences will also be constructed within and downstream of Bandon Town and along the Bridewell River.
Brief Description of Natura 2000 Site(s)
This designated site is located approximately 18.5km to the west of the study area; it is located 20km upstream of the study area within the Bandon River catchment.

The site consists of relatively short adjoining stretches of the Bandon and Caha Rivers. These rivers flow in a southerly direction to the east of Dunmanway, Co. Cork. The site is important for a number of reasons. It contains a small though very important example of the Annex I priority habitat Alluvial Forest as well as good examples of another Annex I habitat - Floating River Vegetation. The Annex II animal species Otter, Salmon (*Salmo salar*), Brook Lamprey (*Lampetra planeri*) and Freshwater Pearl Mussel (*Margaritifera margaritifera*) occur. The populations of the Mussel are thought to be nationally important. The Kingfisher, listed under Annex I of the E.U. Birds Directive, breeds along the river. The Qualifying Interests of this cSAC are listed below:

- Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)
- Brook Lamprey (*Lampetra planeri*)
- Freshwater Pearl Mussel (*Margaritifera margaritifera*)

Full Site Synopsis provided in Appendix 1 of this Document.

ASSESSMENT CRITERIA

Describe the Individual Elements of the Project (either alone or in combination with other plans and projects) likely to give rise to impacts on the Natura 2000 Site(s)

The proposed works will have no direct effect on any areas upstream of the weir in Bandon Town and thus will have no direct effect on the Bandon River SAC. However, the in-stream works associated with the proposed works have the potential to impact on the water quality of the watercourse and could result in temporary negative impacts on fish species migrating upstream towards the cSAC. In addition, fish passage could be blocked as a result of the proposed works. Therefore permanent or temporary works modifying the bed or course of the river have potential to impact indirectly on fish species migrating upstream towards the cSAC.

Describe any likely direct, indirect or secondary impacts of the project ((either alone or in combination with other plans and projects) by virtue of: size and scale, land-take, distance from the Natura 2000 site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements, duration of construction, operation or decommissioning or other

The scheme has been designed to promote the upstream migration of fish (Salmon and Lamprey) and includes robust mitigation and best practice to ensure that this continues throughout the construction period. In addition work methods to be employed follow best practice to avoid water pollution and avoid the sensitive times of year for spawning and migrating Salmonids. Some of the best practice to be employed is described below and ensures that there will be no significant impacts on the Bandon River SAC, which is located over 20km upstream of the proposed works

The weir in Bandon Town has been identified as a block to the upstream passage of River Lamprey and an impediment to the upstream passage of Salmon at present. The proposed works have the potential to exacerbate this by effectively increasing the height of the weir, thereby preventing all upstream migration. This will be mitigated through the construction of a rock ramp. This ramp will be approximately 112 metres in length and five metres in width. It will be sloped at a gradient of 1: 24.5

and will be constructed using large boulders with a constant flow of water of at least approximately 300 mm over them. This gradient and flow will allow the passage of fish over the weir during any flow conditions. There will be an excavated pool at the base of the ramp with a defined thalweg leading up to it so that migrating fish are guided toward the ramp as opposed to the weir. This mitigation has been successfully employed in various locations around Ireland and will ensure that the passage of Lamprey over the weir is not blocked and the passage of Salmon is not impeded. This will improve on the existing situation.

-The proposed works will only take place over approximately 60% of the width of the river at any one time.

-Works will only be undertaken in the period May – September inclusive to avoid the periods of greatest sensitivity for Salmonids.

-Whilst the methodology for carrying out these works has not been finalised at this point, it will include measures to minimise the suspension and transfer of sediment downstream. These measures are likely to include the use of silt barriers downstream of the works areas and removal of any accumulated silt, construction of silt sumps downstream of the works areas, cofferdamming and dewatering of works areas where concrete and other building works are proposed.

-Works will only be undertaken during normal working hours thus allowing the river to run clean for up to 14 hours per day.

-Rock will be broken out in such a manner as to ensure that fish passage up the river is possible at all times. Either the broken rock will be graded to ensure that there is never an insurmountable lip or portable rock ramps or fish ladders will be employed to allow continued fish passage.

-All works undertaken on the banks will be fully consolidated to prevent scour and run off of silt. Consolidation may include use of protective and biodegradable matting (coirmesh) on the banks and also the sowing of grass seed on bare soil.

-All concrete works will be carried out in dry conditions with no in-stream pouring of concrete. In areas where concrete is required within the river channel such as the bridge piers and flood defence walls, a dry working area will be created or pre-cast solutions will be used.

-There will be no refueling of machinery within the river channel. Refueling will take place at designated locations at distances of greater than 30 metres from the watercourse.

-No vehicles will be left unattended when refueling and a spill kit including an oil containment boom and absorbent pads will be on site at all times.

-Any fuel that is stored on the site will be in a double skinned, bunded container that will be located within a designated works compound at a location that is removed from the river. All other construction materials and plant will be stored in this compound. The compound will also house the site offices and portaloos. This compound will either be located on ground that is not prone to flooding or will be surrounded by a protective earth bund to prevent inundation.

-All vehicles will be regularly maintained and checked for fuel and oil leaks.

Describe any likely changes to the Natura 2000 site(s) as result of: reduction of habitat area, disturbance to key species, habitat or species fragmentation, reduction in species density, changes in key indicators of conservation value (e.g, water quality) and climate change

<p>The scheme has been designed to maximise the potential for the upstream migration of Salmonid fish and to minimise of the potential for water pollution. It is unlikely that there will be any adverse impacts on the Bandon River SAC</p>
<p>Describe any likely impacts on the Natura 2000 site(s) as a whole in terms of: 1) interference with the key relationships that define the structure of the site and 2) interference with the key relationships that define the function of the site</p>
<p>The scheme has been designed to maximise the potential for the upstream migration of Salmonid fish and to minimise of the potential for water pollution. It is unlikely that there will be any adverse impacts on the Bandon River cSAC</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in terms of loss, fragmentation, disruption, disturbance and changes to key elements of the site (e.g. water quality)</p>
<p>Changes in water levels, fish stocks, pearl mussel numbers and recruitment, Lamprey numbers and areas with floating river vegetation within the cSAC would indicate changes to the cSAC but any changes are highly unlikely to result from the proposed works as they are located over 20km downstream and the scheme has been designed to maximise the potential for the upstream migration of Salmonid fish and to minimise of the potential for water pollution.</p>
<p>Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known</p>
<p>The proposed development is unlikely to result in any significant impact on the Bandon River SAC provided that the best practice and scheme design is adhered to when carrying out the project.</p>

Table 2.6 Bandon River cSAC AA Screening Matrix

On the basis of the Screening Matrices above, it can be concluded that the proposed Bandon River (Bandon) Drainage Scheme does not have the potential to impact significantly on any Natura 2000 site provided that the best practice and scheme design is adhered to when carrying out the project.

3 SUMMARY AND CONCLUSIONS

The purpose of this exercise is to provide the information to the competent authority (the Office of Public Works) to fulfil their requirements in relation to Article 6(3) of the EU Habitats Directive, in considering the potential for significant effects of the works on Natura 2000 sites.

The screening exercise concludes that there is no potential for significant impact on the following Natura 2000 sites, mainly by virtue of the nature of the sites, the nature of the works proposed and the distance of the sites from the proposed works and the fact that all but one are not located within the Bandon River catchment. The River Bandon cSAC is located 20km upstream on the Bandon catchment and could potentially have been impacted upon by the proposed scheme. However the scheme design and best practice has ensured that the potential for significant impacts on this designated site has been negated.

- Courtmacsherry Estuary cSAC/SPA (Site Codes:001230 &004219) 6.5km.
- Clonakilty Bay cSAC/SPA (Site Codes: 004081 &000091) 14km.
- Old Head of Kinsale SPA (Site Code: 004021) 12km.
- Sovereign Islands SPA (Site Code: 004124) 12.5km.
- Seven Heads SPA (Site Code 004191) 13km.
- Bandon River cSAC (Site Code: 002171) 20 km

Appendix 1
NPWS Site Synopses for Natura 2000 Sites