

## 22 IMPLICATIONS FOR DESIGNATED STATUS OF THE EUROPEAN SITES

### 22.1 INTRODUCTION

22.1.1 English Nature has advised that the proposed scheme, either alone or in combination with other plans or projects, is likely to have a significant effect on the Poole Harbour SPA. English Nature also specifically stated that the proposed works has the potential to affect the Dorset Heaths (Purbeck and Wareham) and Studland Dunes cSAC. Therefore, in accordance with Regulation 48(1) of the Conservation (Natural Habitats &c.) Regulations 1994, appropriate assessment of the effects of the scheme in light of the designated interests of these sites is required.

22.1.2 This section assesses the implications of the proposed approach channel deepening, offshore disposal of dredged material and beach nourishment (both alone and in combination with other plans or projects) for the sites that are designated for nature conservation interest within and around of Poole Harbour and Poole Bay. The assessment considers the potential effects on the following designated sites:

- Poole Harbour SPA;
- Dorset Heathlands Ramsar site;
- Dorset Heathlands SPA;
- Dorset Heaths cSAC;
- Dorset Heaths (Purbeck and Wareham) and Studland Dunes cSAC; and,
- Isle of Portland to Studland Cliffs cSAC.

22.1.3 The above sites are designated under international and European legislation. Details of these sites are provided in Sections 7.1 and 8.1 of this ES and are summarised below. In this section, the conservation objectives for the Poole Harbour European marine site are set out and the implications of the proposed development are assessed in light of these objectives.

22.1.4 The boundaries of the various designated sites in the vicinity of Poole Harbour are shown in Figures 7.1 and 8.1 to 8.3 in Section 7.1 and 8.1.

### 22.2 CONSERVATION OBJECTIVES FOR POOLE HARBOUR EUROPEAN MARINE SITE

22.2.1 As described in detail in Section 7.1, Poole Harbour qualifies as an SPA under Article 4.1 of the EU Birds Directive by supporting:

- Internationally important populations of regularly occurring Annex I species.

22.2.2 Poole Harbour further qualifies under Article 4.2 of the Directive in that it supports:

- Internationally important populations of regularly occurring migratory species; and,
- An internationally important assemblage of waterfowl.

22.2.3 The SPA includes both marine areas (defined as areas covered continuously or intermittently by tidal waters) and land which is not subject to tidal influence. The marine part of the SPA is a European marine site, the landward boundary of which is the upper

boundary of the SPA or, where that extends above land covered continuously or intermittently by tidal waters, it is at the limit of the marine habitats.

22.2.4 Under Regulation 33(2)(a) of the Conservation (Natural Habitats &c.) Regulations 1994, English Nature has the duty to advise relevant authorities as to the conservation objectives for the European site. English Nature's advice for the Poole Harbour European marine site under Regulation 33, detailing the conservation objectives and information on how to recognise 'favourable condition' (as defined through the conservation objectives), was published in November 2000.

22.2.5 The conservation objectives for the internationally important populations of the regularly occurring Annex I bird species are as follows:

- Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring Annex I bird species, under the Birds Directive, in particular:
  - Shallow inshore waters
  - Intertidal sediment communities
  - Saltmarsh.

22.2.6 The conservation objectives for the internationally important populations of the regularly occurring migratory bird species are as follows:

- Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring migratory bird species, under the Birds Directive, in particular:
  - Shallow inshore waters
  - Intertidal sediment communities
  - Saltmarsh
  - Reedbed.

22.2.7 The conservation objectives for the internationally important assemblage of waterfowl are as described above for migratory bird species (Section 22.2.6).

## **22.3 DESIGNATED INTEREST OF OTHER SITES**

22.3.1 Other than the Poole Harbour SPA, the other sites in the vicinity of Poole Harbour and Poole Bay listed in paragraph 22.1.2 above are designated for their coastal and terrestrial ecological interest. Full details of the reasons for the designation of these sites are provided in Section 8.1.

## **22.4 RELEVANT PREDICTED IMPACTS ARISING AS A RESULT OF THE PROPOSED DEVELOPMENT**

22.4.1 The implications of the proposed development on a range of environmental parameters have been assessed throughout this ES. An overview of the potential effects on each of the relevant sites designated under international legislation is provided below.

## Poole Harbour SPA

### *Effects on favourable condition of the site*

22.4.2 The proposed scheme has the potential to impact on the intertidal habitats within the Poole Harbour SPA and on the waterbird populations for which the SPA is designated. Tables 22.1 and 22.2 summarise the predicted effects of the scheme during its construction and operational phases and assesses their potential to effect the various targets established by English Nature for the attributes and sub-features of the SPA. Tables 22.1 and 22.2 are adapted from the favourable condition table published in English Nature's Regulation 33 advice; the targets within the table are intended to define the desired condition of an attribute, taking into account fluctuations due to natural change. Through assessing the predicted effects of the scheme in relation to these targets, it is possible to determine its potential effect on favourable condition and hence on the designated status of the Poole Harbour SPA.

22.4.3 Tables 22.1 and 22.2 summarise the potential effects of the scheme on the targets for each attribute (e.g. extent and distribution of habitat, disturbance in feeding and roosting areas, etc). Preventative measures are then described (i.e. those measures that are incorporated into the design of the scheme or the proposed methodology for the construction phase). Where practicable and necessary, proposed mitigation measures are also described in order to minimise potential adverse impacts as far as possible. The significance of the residual impact (i.e. the impact remaining following mitigation) is then stated followed by an assessment of the implication of the predicted impact on the relevant favourable condition target.

### *Summary of potential effects*

22.4.4 It is clear from Tables 22.1 and 22.2 that the proposed scheme has the potential to affect the designated habitats within the Poole Harbour SPA in a number of ways. However, all of the effects are indirect in that they arise due to the effect of the channel deepening on the hydrodynamic and sedimentary regime (i.e. effect on current flows, waves and sediment budget of the system) or through the dispersion and deposition of fine sediment that would be resuspended during capital dredging. The channel deepening, offshore disposal and beach nourishment would not have any direct effects on designated habitats since all proposed works would take place outside of the boundaries of the designated site.

22.4.5 The effects of the scheme on designated habitats can be described as either 'one-off' effects that arise during the construction phase or effects that are predicted to occur throughout the operational phase. These are summarised below:

22.4.6 During the construction phase, the following indirect effects on the Poole Harbour European marine site are predicted:

- A gain of between 2.9ha and 11.7ha of intertidal area (with a corresponding decrease in the area of shallow subtidal) due to a decrease in the level of low water on spring tides; and,

- A gain of between 0.4ha to 2.6ha in intertidal area due to the accumulation of sediment on intertidal areas.

22.4.7 During the operational phase, including mitigation measures, the following indirect impact on the Poole Harbour European marine site is predicted:

- An increase in intertidal erosion rate (saltmarsh) of between 0.1ha and 0.35ha per year due to an enhancement of the export of fine material from the estuary system.

22.4.8 Overall, it can be seen that the proposed scheme would result in small gains and losses to intertidal habitats within the Poole Harbour SPA. These changes are summarised below in Table 22.3 and, to put the predicted changes into context, are expressed as a percentage of the total area of the Poole Harbour SPA (2271.99ha) and the Poole Harbour European marine site (1983.32ha).

**Table 22.3 Summary of predicted changes to intertidal area in relation to the designated area of the Poole Harbour SPA and European marine site**

Predicted effect	Predicted magnitude (ha)	Percentage of Poole Harbour SPA (2271.99ha)	Percentage of Poole Harbour European marine site (1983.32ha)
Increase in intertidal area due to effect on tidal propagation	+2.9 to +11.7	+0.13% to +0.51%	+0.15% to +0.59%
Deposition of sediment in intertidal areas	+0.4 to +2.6	+0.018% to +0.11%	+0.02% to +0.13%
Increase in intertidal erosion (saltmarsh)	-0.1 to -0.35 (per year)	-0.0066% to -0.03%	-0.0076% to -0.03%

22.4.9 With the proposed change to agitation dredging of silty material in the Turning Basin the year-on-year net increase in erosion of intertidal area is about 2% of the one-off gains in intertidal area. The increase in net erosion being about 5-7% of the present rate. In this case, simplistically, fifty years after completion of the capital dredging the increases in intertidal area associated with the one-off effects would have been balanced by the increase in underlying erosion rate.

22.4.10 It is concluded that the predicted gains and losses of intertidal habitats within the Poole Harbour SPA and European marine site are of very minor magnitude on balance. Given this, the effects of the scheme are not likely to prevent the site from making the same contribution to favourable conservation status for the internationally important populations of Annex I and migratory waterbirds, or the internationally important assemblage of waterbirds, as it did at the time of its designation.

**Table 22.1 Favourable condition table for the Poole Harbour SPA showing the potential impacts associated with the construction phase, proposed preventative and mitigation measures, the significance of potential residual impacts and the implications for each favourable condition target (adapted from English Nature, 2000)**

Sub - feature	Attribute	Target	Potential effect during the construction phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
<b>FEATURE: Internationally important populations of regularly occurring Annex I bird species (e.g. avocet, Mediterranean gull and common tern)</b>							
All sub - features	Disturbance in feeding, nesting and roosting areas	No significant reduction in numbers or displacement of wintering and breeding birds attributable to disturbance from an established baseline, subject to natural change	Potential for short term disturbance to feeding and roosting waterbirds due to noise from dredging	Use of a trailing suction hopper dredger (the least noisy option which is capable of undertaking the dredge)	None required	No impact	There would be no effect on this target
	Absence of obstructions to view lines	No increase in obstructions to existing bird view lines	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target
Shallow inshore waters	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	The conversion of shallow subtidal habitat to lower intertidal habitat (between 2.9ha and 11.7ha) due to the effect on tidal propagation	None possible	None possible	Minor adverse	The proposed scheme would result in a decrease in extent of shallow subtidal habitat, with a consequent gain in area of intertidal habitat
	Food availability	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change	No impacts are predicted in food availability in shallow inshore waters	Not applicable	Not applicable	No impact	No adverse effect is predicted on this target

Sub - feature	Attribute	Target	Potential effect during the construction phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
Intertidal sediment communities	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	It is predicted that there would be gains in intertidal area due to the effect on tidal propagation (between 2.9ha and 11.7ha) and due to the intertidal deposition of sediment (0.4ha to 2.6ha)	None possible	None required	Minor beneficial (due to tidal propagation effect); minor beneficial (sediment deposition)	No adverse effect on this target; it is predicted that the area of intertidal habitat within the system would be increased
	Food availability	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change	The deposition of fine sediment in intertidal areas, predicted to be of low magnitude (generally 0.5mm to 5mm, locally up to 10mm).	None possible	None required	Negligible (intertidal infaunal communities); no impact on subtidal communities	No adverse effect is predicted on this target
Saltmarsh	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target
	Food availability	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target
	Vegetation characteristics	Vegetation height throughout areas used for roosting should not deviate significantly from an established baseline, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target

Sub - feature	Attribute	Target	Potential effect during the construction phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
<b>FEATURE: Internationally important assemblage including internationally important populations of migratory species</b>							
All sub-features	Disturbance in feeding and roosting areas	No significant reduction in numbers or displacement of wintering birds from an established baseline, subject to natural change	Potential for short term disturbance to feeding and roosting waterbirds due to noise from dredging	Use of a trailing suction hopper dredger (the least noisy option which is capable of undertaking the dredge)	None required	No impact	There would be no effect on this target
Shallow inshore waters inc. lagoons	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	The conversion of shallow subtidal habitat to lower intertidal habitat (between 2.9ha to 11.7ha) due to the effect on tidal propagation. There would be no impact on the Brownsea Island lagoon	None possible	None possible	Minor adverse	The proposed scheme would result in a decrease in extent of shallow subtidal habitat, with a consequent gain in area of intertidal habitat
	Food availability	Presence and abundance of food species should not deviate significantly from an established baseline, subject to natural change	No impacts are predicted in food availability in shallow inshore waters	Not applicable	Not applicable	Negligible (intertidal infaunal communities); no impact on subtidal communities	No adverse effect is predicted on this target

Sub - feature	Attribute	Target	Potential effect during the construction phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
Intertidal sediment communities	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	It is predicted that there would be gains in intertidal area due to the effect on tidal propagation (between 2.9ha and 11.7ha) and due to the intertidal deposition of sediment (0.4ha to 2.6ha)	None possible	None required	Minor beneficial (due to tidal propagation effect); minor beneficial (sediment deposition)	No adverse effect on this target; it is predicted that the area of intertidal habitat within the system would be increased
	Food availability	Presence and abundance of prey species should not deviate significantly from an established baseline., subject to natural change	The deposition of fine sediment in intertidal areas, predicted to be of low magnitude (generally 0.5mm to 5mm, locally up to 10mm).	None possible	None required	Negligible (intertidal infaunal communities); no impact on subtidal communities	No adverse effect is predicted on this target
Saltmarsh	Absence of obstructions to viewlines	No increase in obstructions to existing viewlines	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target
	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target
Saltmarsh	Food availability (crustaceans, annelids, fish and molluscs)	Presence and abundance of food species should not deviate significantly from an established base, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target
	Food availability (soft leaved and	Presence and abundance of food species should not deviate	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target

Sub - feature	Attribute	Target	Potential effect during the construction phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
	seed bearing plants)	significantly from an established baseline, subject to natural change					
	Vegetation Characteristics	Vegetation height throughout areas used for roosting should not deviate significantly from an established baseline, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target
	Absence of obstructions to viewlines	No increase in bird obstructions to existing viewlines	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target
Reedbed	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target
	Food availability	Frequency and abundance of food species during the winter period should not deviate significantly from an established baseline, subject to natural change	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target

**Table 22.2 Favourable condition table for the Poole Harbour SPA showing the potential impacts associated with the operational phase, proposed preventative and mitigation measures, the significance of potential residual impacts and the implications for each favourable condition target (adapted from English Nature, 2000)**

Sub - feature	Attribute	Target	Potential effect during the operational phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
<b>FEATURE: Internationally important populations of regularly occurring Annex I bird species (e.g. avocet, Mediterranean gull and common tern)</b>							
All sub - features	Disturbance in feeding, nesting and roosting areas	No significant reduction in numbers or displacement of wintering and breeding birds attributable to disturbance from an established baseline, subject to natural change	There would be no change to the existing level of disturbance due to maintenance dredging and a reduction in shipwash disturbance due to the enlarged channel	Use of a trailing suction hopper dredger (the least noisy option for dredging areas other than the Turning Basin)	None required	No impact (maintenance dredging); minor beneficial (shipwash)	There would be no adverse effect on this target
	Absence of obstructions to view lines	No increase in obstructions to existing bird view lines	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target
	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target
Shallow inshore waters	Food availability	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target

Sub - feature	Attribute	Target	Potential effect during the operational phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
Intertidal sediment communities	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	Although it is predicted that there would be an increase in intertidal erosion rate, this loss would be of saltmarsh (i.e. intertidal erosion would be by the same mechanism as at present)	None possible	Agitation dredging is proposed in the Turning Basin to reduce the removal of silts from the Harbour by offshore disposal. The effect on intertidal erosion rate (saltmarsh) is described below	There would be no effect on the area of intertidal mudflat; the increase in erosion rate would affect saltmarsh (see below)	There would be no effect on this target
	Food availability	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change	The predicted erosion of intertidal area is not expected to affect food availability	None possible	None required	Negligible	No adverse effect is predicted on this target
Saltmarsh	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	It is predicted that there would a net export of sediment from the system which would result in erosion of between 0.15ha and 0.6ha per year	None possible	Agitation dredging in the Turning Basin to reduce the removal of silts from the Harbour by offshore disposal. This would reduce the net year on year increase in the rate of erosion of intertidal area to about 0.1ha to 0.35ha per year	Minor adverse	Although the scheme would lead to a small increase in the erosion rate of intertidal areas, when the gains in intertidal area are taken into account, the overall effect is neutral over a period of about 50 years

Sub - feature	Attribute	Target	Potential effect during the operational phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
	Food availability	Presence and abundance of prey species should not deviate significantly from an established baseline, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target
	Vegetation characteristics	Vegetation height throughout areas used for roosting should not deviate significantly from an established baseline, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target
<b>FEATURE: Internationally important assemblage including internationally important populations of migratory species</b>							
All sub-features	Disturbance in feeding and roosting areas	No significant reduction in numbers or displacement of wintering birds from an established baseline, subject to natural change	There would be no change to the existing level of disturbance due to maintenance dredging and a reduction in shipwash disturbance due to the enlarged channel	Use of a trailing suction hopper dredger (the least noisy option for dredging areas other than the Turning Basin)	None required	No impact (maintenance dredging); minor beneficial (shipwash)	There would be no adverse effect on this target
Shallow inshore waters inc. lagoons	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target
	Food availability	Presence and abundance of food species should not deviate significantly from an established baseline, subject to natural change	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target

Sub - feature	Attribute	Target	Potential effect during the operational phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
Intertidal sediment communities	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	Although it is predicted that there would be an increase in intertidal erosion rate, this loss would be of saltmarsh (i.e. intertidal erosion would be by the same mechanism as at present)	None possible	Agitation dredging is proposed in the Turning Basin to reduce the removal of silts from the Harbour by offshore disposal. The effect on intertidal erosion rate (saltmarsh) is described below	There would be no effect on the area of intertidal mudflat; the increase in erosion rate would affect saltmarsh (see below)	There would be no effect on this target
	Food availability	Presence and abundance of prey species should not deviate significantly from an established baseline., subject to natural change	The predicted erosion of intertidal area is not expected to affect food availability	None possible	None required	Negligible	No adverse effect is predicted on this target
	Absence of obstructions to viewlines	No increase in obstructions to existing viewlines	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target

Sub - feature	Attribute	Target	Potential effect during the operational phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
Saltmarsh	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	It is predicted that there would a net export of sediment from the system which would result in erosion of between 0.15ha and 0.6ha per year	None possible	Agitation dredging in the Turning Basin to reduce the removal of silts from the Harbour by offshore disposal. This would reduce the net year on year increase in the rate of erosion of intertidal area to about 0.1ha to 0.35ha per year	Minor adverse	Although the scheme would lead to a small increase in the erosion rate of intertidal areas, when the gains in intertidal area are taken into account, the overall effect is neutral over a period of about 50 years
	Food availability (crustaceans, annelids, fish and molluscs)	Presence and abundance of food species should not deviate significantly from an established base, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target

Sub - feature	Attribute	Target	Potential effect during the operational phase	Preventative measures	Mitigation	Significance of residual impact	Implications for favourable condition target
Saltmarsh	Food availability (soft leaved and seed bearing plants)	Presence and abundance of food species should not deviate significantly from an established baseline, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target
	Vegetation Characteristics	Vegetation height throughout areas used for roosting should not deviate significantly from an established baseline, subject to natural change	No direct or indirect effects are predicted	Not applicable	Not applicable	No impact	There would be no effect on this target
	Absence of obstructions to viewlines	No increase in bird obstructions to existing viewlines	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target
Reedbed	Extent and distribution of habitat	No decrease in extent from an established baseline, subject to natural change	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target
	Food availability	Frequency and abundance of food species during the winter period should not deviate significantly from an established baseline, subject to natural change	No effects are predicted	Not applicable	Not applicable	Not applicable	There would be no effect on this target

**Potential effects on the Dorset Heaths cSAC, Dorset Heathlands Ramsar site and SPA, Dorset Heaths (Purbeck and Wareham) and Studland Dunes cSAC and Isle of Portland to Studland Cliffs cSAC**

- 22.4.11 As summarised in Section 8.1, these sites are designated for their coastal and terrestrial ecological interest rather than their marine interest, although the boundary of the Dorset Heaths (Purbeck and Wareham) and Studland Dunes cSAC extends across the intertidal area on the open coast. The proposed scheme has the potential to impact on these sites indirectly, through changes to coastal processes, which could result in erosion of the shoreline and, therefore, longer term impacts on these designated sites.
- 22.4.12 The potential for the proposed scheme to affect sediment transport processes in Poole Harbour and Poole Bay is described in Sections 3.7. On the basis of this assessment it is concluded that the scheme could increase the tendency for the northwards movement of material in the centre of Studland Bay, with accumulation of material in the north. However, the effect is predicted to be of low magnitude and is not expected to have any consequences for the designated status of the Dorset Heaths (Purbeck and Wareham) and Studland Dunes cSAC.
- 22.4.13 The proposed scheme has no potential to directly affect the designated status of either the Dorset Heaths cSAC, Dorset Heathlands Ramsar/SPA or Isle of Portland to Studland Cliffs cSAC. The scheme makes a minor contribution to an existing problem of erosion in the south-eastern area of Brownsea Island. However, the scheme in itself does not give rise to a threat to the integrity of the existing coastal protection structures. In the long term, the integrity of the coastal protection structures could be affected in light of the existing erosion, with possible adverse effects on the Dorset Heathlands SPA and Ramsar site and the Dorset Heaths cSAC on Brownsea Island.
- 22.4.14 It is concluded that a future management strategy for this area would need to take account of the nature conservation, heritage and coastal protection interests in light of the erosive nature of the area. For example, there are sites designated for terrestrial/coastal interest on Brownsea Island and sites designated for marine interest within Poole Harbour.

**22.5 IN-COMBINATION EFFECTS**

**Introduction**

- 22.5.1 As required under Regulation 48(1) of the Conservation (Natural Habitats &c.) Regulations 1994, an appropriate assessment must consider the implications of a plan or project both alone and in combination with other plans or projects for the conservation objectives of a European site.
- 22.5.2 Guidance was sought from English Nature regarding the scope of the in combination assessment. It was considered that the assessment should include the following plans or projects:
- Second opening bridge, Poole; and,
  - Other ongoing maintenance dredging activities throughout Poole Harbour.

### **Second opening bridge**

- 22.5.3 An ES (currently in draft form) has been prepared for the second opening bridge by Gifford Consulting (2004). The implications of this proposed scheme on the hydrodynamic and sedimentary regime of Poole Harbour during the construction and operational phase are summarised in Section 21.
- 22.5.4 Overall, it is predicted that the construction and operational phases of the proposed scheme would have a number of effects on the hydrodynamic and sedimentary regime and marine ecology, all of which are relatively minor and localised. Although the draft ES (Gifford Consulting, 2004) does not specifically draw a conclusion as to the potential for effect on the integrity of the Poole Harbour SPA, the findings of the draft ES indicate that the implications of the scheme for habitats and species the designated site are of low significance.

### **Other maintenance dredging activities**

- 22.5.5 Within Poole Harbour, PHC and other operators carry out maintenance dredging. The dredged material from Poole Harbour has normally been disposed of offshore at the Swanage disposal site. It is proposed that the removal of silts by PHC from the Turning Basin would, following the proposed deepening, be undertaken by agitation methods thus retaining the fine material within the Harbour.
- 22.5.6 The ongoing removal of silty material from the various marinas and boatyards in the Harbour represents a depletion of fine sediment from the Harbour. In the short term the amounts are small and the implications for the habitats and species within Poole Harbour are likely to be insignificant. In the longer term, the continued removal and disposal offshore of silts from the Harbour can be seen as an additional pressure on the intertidal habitats of the Harbour. The management of future maintenance dredging at non-PHC locations within the Harbour will be reviewed as a result of the requirements of the Habitats Regulations and options to retain the material within the Harbour will be examined.

### **Conclusion**

- 22.5.7 Overall, it is concluded that the above plans or projects have minimal potential for an adverse impact on the Poole Harbour SPA given the low magnitude of impact on designated habitats and species. Consequently, there is limited potential for significant in-combination to arise as a result of the proposed scheme and other plans or projects.

