1 INTRODUCTION

1.1 BACKGROUND

1.1.1 In order to improve access for vessels, the Poole Harbour Commissioners (PHC) are proposing to deepen the approach channel to the Port of Poole by 1.5m, to a declared depth of 7.5m below Chart Datum (CD). The deepening is necessary for several reasons. Primarily, a deeper approach channel is required to meet the needs of modern ferries, the majority of which now have a minimum draft of over 6.5 metres. In addition, the proposed dredging would also allow the Port to retain and possibly increase the existing number of conventional vessels that currently utilise it. Such vessels are continuing to increase in size as older vessels are scrapped because goods can be transported more economically through the use of larger vessels. Another potential benefit of the proposed dredging is that it would provide opportunity for a greater proportion of cruise ships to access the Port. In summary, therefore, approach channel dredging is proposed to accommodate the general trend towards larger vessels and in order to secure the long term viability of the Port in a safe manner. Further details on the need for the proposed approach channel deepening are provided in Section 1.2.

1.1.2 It is proposed that all suitable material arising from deepening the approach channel would be used beneficially for beach nourishment (i.e. coastal protection) at Poole, Bournemouth and Swanage. The coast protection authorities for these areas are Borough of Poole (BoP), Bournemouth Borough Council (BBC) and Purbeck District Council (PDC), respectively, and these authorities are the promoters of beach nourishment works within their jurisdiction.

1.1.3 The remainder of the material arising from the approach channel deepening (i.e. that portion unsuitable for beach nourishment works) would be disposed of at a nearby offshore disposal ground. The proposed disposal ground is located at a depth of approximately 20m off Swanage (termed the Swanage disposal ground); PHC have utilised this site for the disposal of dredged material from Poole Harbour for more than 50 years. The site is now largely used for the disposal of silty material that is dredged from Poole Harbour during routine maintenance works (typically, sandy material from within the Harbour and approach channel is now used for beach nourishment). However, historically, this disposal ground has, been used for the disposal of material arising from capital dredging works that have been undertaken within Poole Harbour and its approaches, as well as for the disposal of material arising from dredging in Weymouth.

1.1.4 In summary, the scheme comprises three components; approach channel deepening, beneficial use of dredged material in the form of beach nourishment and the offshore disposal of dredged material. Details of the construction and operational phases of each of these aspects are provided in Section 2.

1.1.5 In order to undertake the proposed works, consents are required under the Coast Protection Act 1949 and the Food and Environment Protection Act 1985. With respect to the requirement for an Environmental Impact Assessment (EIA) to accompany the content applications, PHC formally requested a screening opinion from the Department for Transport (Ports Division) (DfT), who confirmed that it was their opinion that EIA was required (further details are provided in Section 1.3).
1.1.6 Given the interdependency of the channel deepening and the beach nourishment aspects of the proposed scheme, Posford Haskoning was jointly commissioned by BoP and PHC to undertake an EIA of the proposed scheme, with BoP being the lead authority with respect to the management of the EIA.

1.1.7 This Environmental Statement (ES) describes the process followed in the EIA and presents the findings of the process.

1.2 STATEMENT OF NEED

Introduction

1.2.1 The Port of Poole is a trust port set up by parliamentary statute in 1895. PHC act as the statutory authority for the Harbour and the role of the Commissioners is to manage the Harbour in line with the Government’s broad policy aims in relation to ports. As defined in Modernising Trust Ports – A Guide to Good Governance, these include:

- Promotion of UK and regional competitiveness by encouraging reliable and efficient distribution and access to markets; and,
- Enhancement of environmental and operational performance by encouraging the provision of multi modal access to markets.

1.2.2 The Commissioners work to conserve, regulate and improve the Harbour for the benefit of their stakeholders.

1.2.3 Poole is recognised as a strategically important south coast port and is one of the ten largest trust ports in the UK, both by volume of cargo (1.78 million tonnes per annum) and by revenue (£10.5 million per annum). The port has been designated as an EU TENS (Trans European Network) Port, thereby highlighting its strategic importance. The South West Regional Development Agency (SWRDA) also recognises its importance as one of the key ports in the south-west. Furthermore, the port plays a major role as a main council member of British Ports Association (BPA) and is also represented on the Ferry Ports, HM and Environmental Groups of this organisation. The Port is closely involved with European Sea Ports Organisation (ESPO).

1.2.4 The Port of Poole is one of the few south coast United Kingdom ports to be rail connected and this link will increase in importance as the Government encourages more and more freight traffic to be moved by rail rather than by the increasingly congested road system.

1.2.5 The port has been operating as a Ro-Ro ferry port since 1973 and presently moves in the region of 70-75,000 freight units, 212,000 cars and approximately 700,000 passengers per annum. The Ro-Ro freight traffic principally moves between Poole and Cherbourg whilst the cars and passengers are split between the French and Channel Islands markets.

1.2.6 The Ro-Ro port is the largest exporter of live shellfish in the UK, with daily deliveries of shellfish to Poole from both local fishermen as well as from traders as far away as Northern Scotland. The live crabs and lobsters are then transported in lorry tanks by ferry to the French, Spanish and Portuguese markets.

1.2.7 In the conventional cargo sector, the port annually moves about 720,000 tonnes of conventional cargo, including petroleum products for Texaco. The port also operates a
transport and logistics division which is responsible for transporting 160,000 tonnes of goods annually between Poole and all parts of the United Kingdom.

1.2.8 The port generates revenue of approximately £10.5 million per annum and, as a Trust Port, any surplus is re-invested back into the organisation for the benefit of its stakeholders. As a Trust Port, PHC does not have any shareholders.

1.2.9 The port is recognised as a busy Ro-Ro and conventional port which is presently restricted not by space, a problem encountered by some of its major south coast competitors, but by Dorset’s road infrastructure and the existing draft (channel depth) within Poole Harbour.

1.2.10 The existing Lifting Bridge presently restricts traffic flow in and out of the Port. However this problem will be eased by a wider, second harbour crossing which is due to commence construction in 2006. Consultants employed by the Borough of Poole are presently studying an enhanced link from Poole to the A31, which would greatly assist the flow of traffic in and out of the port. There are also longer term plans to improve the road structure northbound with a number of schemes for the A350, which would strengthen the port’s road links to the M4 and the Midlands. These three projects will help to improve the flow of traffic to and from the Port and will enhance the Port’s potential as a strategically important logistics centre.

1.2.11 The working depth of the Harbour is presently 6m below CD, having been deepened in 1989/90 to enable larger ferries to access the port. That decision resulted in the continued growth of the port, enabling PHC to maximise revenues which, in turn, assist in enabling the organisation to meet its navigational and environmental obligations.

1.2.12 The port works closely with the unitary authority of Poole and the Dorset County Council and is represented on a number of organisations such as the Poole Partnership, Bournemouth, Dorset and Poole Economic Partnership, Poole Harbour Steering Group, Poole Town Centre Management Committee and Poole Tourism Forum.

1.2.13 The port directly employs approximately 180 individuals and there are a further 450 people employed on the port estate. Indirectly, the port is responsible for many thousands of additional jobs within Poole, Dorset and the south-west, as well as providing an essential link to industrial markets in other regions of the United Kingdom, such as the automotive industry along the M4 corridor and the manufacturing sector in the West Midlands.

1.2.14 UK ports play a critical role in the economy of the United Kingdom. Over 95% of all goods are exported and imported through the port network. In 2000, goods worth approximately £400 billion moved through UK ports, which compares to a total Gross Domestic Product of £800 billion within that period. The structure of the UK economy is heavily influenced by its lack of communal borders with mainland Europe and, therefore, the importance of ports cannot be overemphasised. The dependence of the economy of the UK on both manufactured and semi-manufactured goods is clear, and ports will become increasingly important in meeting the demands of British trade and industry over the coming years.

1.2.15 Increasing levels of global containerisation will ensure that there will be a growing demand for multi-modal short sea ports capable of handling container feeder traffic, particularly ports which are rail connected (as Poole is) and which can distribute goods and containers
through transport channels other than the already congested road network. Transshipment or feeder traffic is recognised as an increasingly important component of the container market and this sector is set for significant expansion over the coming years.

1.2.16 The growth of short sea shipping trade between European ports, often involving smaller regional hubs, is now becoming increasingly recognised as an environmentally sound means of transporting goods. Rather than moving an increasing volume of goods through larger and more congested ports which then require increased utilisation of the UK road network, the concept of ‘motorways of the seas’ is recognised as a more acceptable mode of transport from an environmental standpoint.

1.2.17 Poole is a port which is recognised as one of the oldest known ports in northern Europe having been used as trading centre for two thousand years. Since that time Poole has been a thriving port, which has grown and undergone many changes. As with all ports, its ability to adapt and react to new circumstances is critical to its continued success.

The catalyst for change

1.2.18 In April 2003, PHC were contacted by Brittany Ferries, the customer responsible for approximately 50% of the port’s revenue. At that meeting the Commissioners were advised that it was the intention of Brittany Ferries to withdraw the Ro-Ro ferry M/V (Motor Vessel) Coutances from the Poole-Cherbourg service in 2004. The Commissioners were advised that, unless the port was prepared to go ahead with a channel deepening exercise to allow Brittany Ferries to replace the vessel with another larger ferry, the company would reduce the service down to just one vessel (M/V Barfleur). This would dramatically reduce the volume of traffic moving through the Ro-Ro port and would initially bring about a reduction in revenue of £1million per annum. The medium and long term effects of such a decision would be more damaging, as hauliers and passengers would be faced with dependence on a single vessel, and this restricted service would inevitably lead to a further major reduction in port traffic.

1.2.19 The financial consequences to Poole arising from a decision to remove the Coutances would be significant and would lead to a need for further restructuring of the work force and a major redundancy programme. Indeed, the future of Poole as a ferry port and the financial viability of PHC would be greatly threatened by the removal and non-replacement of the M/V Coutances.

1.2.20 It is also important to examine the impact of other shipping sectors which have a bearing on the future viability of the Port of Poole. Conventional dry cargo vessels and tankers are becoming larger year by year as ship owners and commodity traders seek increased economies of scale. The smaller commercial cargo ships are no longer being built and the irreversible trend is for ship owners to order larger and larger vessels from shipyards. This trend has been in existence for many years and Poole’s existing customer base is already moving in this direction.

1.2.21 With a deeper channel, allowing for a deeper draft, the port would also be able to attract new business. Poole would become more accessible to sectors such as cruise shipping and the burgeoning container feeder market. A number of companies involved in these sectors have already expressed strong interest in starting up operations in Poole should the Harbour’s draft be increased.
The ‘need’ for the approach channel deepening

The Ro-Ro ferry sector: Brittany Ferries and the present situation

1.2.22 There are presently two ferry companies that operate from Poole: Brittany Ferries and Condor. Brittany Ferries operates two vessels on a year round service to Cherbourg (M/V Barfleur and M/V Coutances). M/V Barfleur is a vessel specifically built for the route in 1992. She is 158m long with 23.3m beam and normal draft of 5.6m. She is designed to carry a mixture of both freight and passengers, which is the traditional design of vessel used in cross channel operations.

1.2.23 M/V Coutances is a pure freight ferry with no tourist passenger carrying capacity, one of the few such vessels presently operating on the south coast. She is 125m long with a 17.5m beam and 4.2m draft. In January 2003, Brittany Ferries disposed of M/V Purbeck, the sister vessel of the Coutances which also operated as a back-up for the Coutances on the Poole-Cherbourg route. That vessel was sold to another ship owning company and now operates in New Zealand.

1.2.24 In recent years Brittany Ferries has built a number of new ferries to maintain and advance its presence in the Western Channel market. These include M/V Pont Aven and M/V Mont St Michel, both of which are 173m long with a draft of 6.2m and beams of 31m and 28.5m respectively.

1.2.25 The board of Brittany Ferries has explained to PHC that it remains firmly convinced that larger vessels, incorporating both passenger and freight carrying capacity, should constitute the future design for its ferry operations. The company sees no future for freight only vessels and believes that vessels must be of a certain minimum size in order to be cost effective in the market places of today and the foreseeable future. This is the reasoning behind their decision to withdraw the Coutances, which is now over 25 years old (see Appendix 1). The combination of increased maintenance costs and its lack of passenger carrying capacity renders the vessel unprofitable in today’s commercial environment. The size of the company’s new ferries and those of its competitors have now increased beyond the capacity of M/V Barfleur.

1.2.26 In the light of PHC’s commitment to investigate channel deepening (as evidenced by this ES), Brittany Ferries has at present agreed to retain the M/V Coutances until it can be replaced by a larger vessel. There are two potential avenues open to Brittany Ferries:

1. Commission the building of a new larger ferry; or,
2. Replace M/V Coutances with a larger vessel, either from its present fleet or from the open market.

1.2.27 Brittany Ferries are presently investigating both options, however, the company has explicitly stated that if the channel deepening does not proceed, then M/V Coutances will be withdrawn and will not be replaced. The vessels from Brittany Ferries’ existing fleet that could be re-scheduled to Poole include:

- M/V Bretagne (151m x 23.3m x 6.2m); or,
- M/V Normandie (161m x 26m x 6.0m).
1.2.28 None of the existing vessels in the Brittany Ferries’ fleet other than *Coutances* and *Barfleur* could operate from Poole without a capital dredging programme.

1.2.29 Whilst Condor’s high speed vessels do not need the deeper water, their operation on the Poole – Cherbourg route (in partnership with Brittany Ferries) could be put at risk by a reduction in Brittany Ferries’ service.

**The ‘do nothing’ scenario**

1.2.30 The withdrawal of the *M/V Coutances* would immediately result in the loss of at least 35,000 freight units and £1,000,000 revenue (£700,000 freight and £300,000 boomage) for the port.

1.2.31 This reduction would be swiftly compounded by further losses. A number of road hauliers and transportation companies have stated that they would not be prepared to continue using Poole if the service was reduced to only one ship.

1.2.32 A single ship service would severely limit their logistics options and would leave them exposed to the prospect of having to wait for another 24 hours should they miss a sailing. Inevitably, the freight industry would move to other ports which, although not so convenient and perhaps further away, would provide them with a regular guaranteed service. The additional travelling costs and potential environmental damage would, in the eyes of the freight industry, be preferable to using a ferry port with only one sailing per day.

1.2.33 It is highly likely that Poole would not survive as a ferry port were the service to be reduced. This could lead to an additional loss of £4 million in revenue per annum to the port and would, in all likelihood, lead to wholesale redundancies both in the PHC workforce and in the workforces of Brittany Ferries and other Poole and Dorset companies reliant on the ferry trade.

1.2.34 The loss of the ferry business would bring about a severe downturn in the financial health of PHC and would inevitably mean that future capital investment in the port and harbour would be severely impaired.

**The proposed approach channel deepening**

1.2.35 The proposed approach channel deepening is required to strengthen the basis of the ferry operation at Poole, by enabling the extension of the existing 15 year contract with Brittany Ferries, which expires in 2007. The replacement vessel (whether new build or existing tonnage) will help to ensure that Brittany Ferry operations continue in Poole over the next decade.

1.2.36 The proposed deepening would ensure existing services would be better safeguarded and the continued viability of the port would be maintained.

**Other Ro-Ro vessels**

1.2.37 The Port of Poole remains alert to the possibility of bringing additional Ro-Ro vessels to Poole; however, other ferry companies have also expressed concerns about the shallow draft of the Harbour and it is unreasonable to think that other ferry companies would be
attracted to Poole without dredging the approach channel. In general, the available depth at Poole is too shallow to accommodate typical modern ferries built for north European waters.

**Conventional vessels**

1.2.38 Conventional vessels continue to increase in size, and the number of smaller coasters that used to trade in and out of Poole is reducing quickly; they are either being scrapped or sold outside of the European Union. Shipyards are not building this size of vessel any more, as ship owners and traders demand larger capacity vessels, able to transport goods more profitably based on economies of scale.

1.2.39 A number of existing customers in this sector have advised that they wish to increase cargo size in order to remain competitive. By increasing the channel depth in the Harbour, Poole will be able to retain these customers and, in certain cases, increase volumes. Without the proposed channel deepening, as conventional vessels continue to increase in size, Poole will increasingly find itself bypassed and will lose revenue.

**Additional benefits associated with the deepening**

1.2.40 The proposed deepening of the channel would also provide the opportunity for PHC to realise new business opportunities within the container and cruise ship markets in the future. These benefits are considered below. However, although the proposed approach channel deepening would enable the realisation of these opportunities, by providing access to the Port for vessels with a deeper draft, additional berthing facilities would also need to be provided. The development of such facilities does not form part of the current application. Therefore, although the additional benefits that could derive from the deepening are discussed below, the development of the additional infrastructure required to enhance the short sea shipping and cruise ship capacity of the Port would be subject to a separate consent application(s) and relevant associated environmental assessment in due course.

**Container feeder ships**

1.2.41 In recent years containerisation has grown globally at a faster rate than increase of cargo tonnage and this trend is expected to continue to increase annually as more deep and short-sea vessels are built to satisfy the shippers’ demands. Technical advances have enabled the container lines to develop a cost-effective alternative for shippers who had historically shipped goods by road trailer or as break bulk cargo. This growth has resulted in a number of key changes within the shipping and ports industry as the shipping lines continue to strive for improved vessel and landside efficiencies. The primary change has been within the shipping sector, where a considerable number of larger deep-sea vessels in the 8,000 to 12,000 TEU (Twenty-foot Equivalent Units) range have been built. However, the European deep-sea port capacity has not grown at the same rate and this has resulted in limited suitable handling capacity. An additional factor within the UK has been the limited availability of road transport and its high cost. The combination of these elements has resulted in a strategic change within the container shipping industry, this being the growth of the ‘hub and feeder port’ concept.

1.2.42 The hub and feeder concept has enabled the deep-sea shipping lines to utilise vessels in a more cost-effective manner, as they are able to minimise port calls between continents.
The containers discharged at the hub port are then redistributed to smaller feeder ports by vessels with an average capacity of 400 to 600 TEU. The primary advantage of this system is that it offers the shipper greater point of entry flexibility, especially when shipping to the UK. Further advantages associated with the hub and feeder method of shipment are the cost and environmental savings derived from the reduced inland haulage to the final delivery destination. This concept has resulted in a considerable change within the UK ports sector, as more terminals have been developed to accommodate the growth in feeder business, especially on the north-east coast.

1.2.43 Road congestion and the environment have also been factors that have influenced this growth and a number of EU initiatives have been implemented, such as the ‘Marco Polo scheme’, which are designed to reduce road truck miles by promoting developments within the short-sea shipping sector.

1.2.44 The UK currently has two primary deep-sea container ports, one of which is located on the south coast. Due to peak capacity and UK road haulage problems, an increasing amount of trade has been diverted to continental hub ports for feeding to the UK’s east coast. However, the limited number of port facilities capable of handling container feeder vessels on the south coast has limited the growth of the hub and feeder concept in this region. Due to its geographical positioning and rail connection, Poole is ideally situated to satisfy the growing demand for feeder size ports capable of handling container traffic. The port is currently unable to offer this service to the short-sea vessel operators due to the limited depth of water in the Harbour. The provision of a channel dredged to 7.5m below CD and the associated development of berthing facilities would enable Poole to accept the vast majority of vessels that are currently being utilised to feed containers to the UK from the deep-sea continental hub ports.

1.2.45 If the Commissioners are to ensure the long-term viability of the Port of Poole, the needs of the industry, shipping lines and their customers must recognised and responded to. Feeder port development is not only important to the Port of Poole, it will also be vital to the UK economy as global container volumes increase and the EU-backed initiatives to develop and promote short-sea solutions are recognised by the shipping industry.

Cruise ships

1.2.46 Poole has been a destination for cruise ships, on a small scale, in the past. This sector is currently experiencing tremendous growth, both within the UK and the south-west. Again, the limiting factor that has restricted growth at Poole has been the draft of Poole Harbour (and absence of associated quayside facilities), which has excluded all but the smallest cruise ships from the port.

1.2.47 Poole is potentially a good destination for cruising, being close to the East Devon and Dorset and Stonehenge World Heritage Sites and the New Forest, together with many other quality tourist attractions. Poole sees itself as particularly attractive to the specialist cruise market, catering for smaller groups on smaller luxury vessels.

1.2.48 An increase of Poole Harbour’s published depth would open up the potential for access to 56% of the cruise ship fleet and lead to the potential of 25 to 30 visits per year.

1.2.49 The following companies have all recently shown interest in Poole both as a day call and a ‘turnaround’ port:
The World of Residensee;
Silver Seas Cruises;
Radisson Seven Seas;
Prinsendam – Holland America Cruise Line;
Delphin Renaissance;
P&O Princess Cruises; and,
Saga Cruises.

1.2.50 In 2003, Destination Southwest commissioned a report to examine passenger and crew spend from cruise ships calling in the south-west, which concluded that passengers and crew coming ashore averaged approximately $95 per call per person. The UK Cruise sector is increasing by approximately 14% per annum.

1.2.51 The south-west cruise sector provided an annual economic stimulus of $82 million in 2003, accounting for 484 full time jobs. Many ports in the south-west do, however, lack the space for ‘alongside’ berths. It is predicted that if the channel deepening were to go ahead, Poole could become a favoured cruise port within the region, and could rival ports such as Falmouth, which attracted 49 cruise ships last year.

1.2.52 Twenty new cruise ships are presently on order, all with a minimum draft of over 6.5 metres (Berlitz ‘Ocean Cruising’). A survey of the world-wide cruise ship fleet (total 235 vessels) shows that only 37 can access Poole with its present published depth of 6m. Many of these do not operate in northern European waters, however, it is reasonable to suggest that the depth restrictions at Poole mean that 84% of the potential market cannot access Poole.

1.2.53 By deepening the channel, it is predicted that PHC would benefit from increased cruise ship calls. At present, Poole receives up to 3 calls per annum. It is anticipated that Poole could reasonably expect around 25 calls per annum if the channel deepening project, in conjunction with the development of suitable quayside facilities, was to proceed. Should this initiative receive consent, it could generate approximately £250,000 revenue for the port and the indirect economic benefits for businesses in Poole due to visitor and passenger expenditure could be substantially greater.

The ‘need’ for the beach nourishment in Poole Bay

1.2.54 In 2003, a coastal strategy was produced by Halcrow Ltd on behalf of the Poole Coastal Group which defines methods by which coastal defences between Hengistbury Head in the east and Durlston Head in the west (including Poole Harbour) should be managed over the next 50 years. The strategy builds on the work of the Poole and Christchurch Bays Shoreline Management Plan (SMP) (Halcrow, 1999). The need for beach nourishment and the environmental objectives of the nourishment are presented in the strategy and, therefore, are not described in detail here. For further information on these aspects, the reader is referred to Halcrow (2003).

Conclusion

1.2.55 The Government’s economic policy objective for transport is that development should contribute to an efficient economy and support sustainable economic growth. Ports have a vital role in supporting and enhancing the competitiveness of the national and regional economies. The efficient handling of the UK’s international and domestic seaborne trade
and passenger traffic is recognised as an important consideration in the case for port developments. The following summarises those benefits that would arise from the approach channel deepening and, hence, the need for the proposed deepening.

1.2.56 PHC would benefit greatly from the channel deepening project through:

- Retention of Brittany Ferries and growth in volumes of both freight and passengers, arising from the increased capacity of ferries; and,
- Use of larger conventional vessels, enabling PHC to retain current port customers and to expand the new customer base.

1.2.57 Ferry companies would benefit from:

- Continued presence in Poole;
- Less congestion in other ferry ports; and,
- Opportunity to develop other ferry routes to France and the Iberian Peninsula, arising from the utilisation of larger ferries.

1.2.58 Passengers would benefit from:

- Continued service from Poole - many Brittany Ferries customers are based in Dorset and would not be prepared to travel on day trips if the Poole service was discontinued;
- Less travelling costs to other UK ferry ports; and,
- More choice.

1.2.59 Cargo owners would benefit from:

- More competitive freight rates and port costs arising from increased cargo sizes and economies of scale.

1.2.60 Ship operators would benefit from:

- Potentially cheaper port costs arising from the utilisation of larger vessels; and,
- Greater choice in port options.

1.2.61 Port workers would benefit from:

- Retention of present jobs and jobs for the future.

1.2.62 Government would benefit from:

- The maintenance of a sustainable port and improved port facilities;
- Employment both for workers directly employed by the port and also for many thousands of workers who indirectly rely on the port for their employment; and,
- Taxation revenue.

1.2.63 Particular industries would benefit from:
1.2.64 In addition, should the development of the Port to accommodate container feeder ships and cruise ships proceed in the future, benefits would also arise through increased cruise ship volumes; development of feeder traffic; enhanced use of the rail facility; potentially cheaper haulage costs; job creation and local expenditure generated by an increase in the cruise ship sector; and additional economic activity and increased trade between the Continent and the UK.

1.2.65 Appendix 1 contains various letter of support for the proposed channel deepening.

1.3 REQUIREMENT FOR EIA AND APPROPRIATE ASSESSMENT

Coast Protection Act 1949

1.3.1 Under Section 34 of the Coast Protection Act 1949, the consent of the Department for Environment, Food and Rural Affairs (DEFRA) is required for any works which may obstruct or result in danger to navigation. This includes the removal of any object or materials from any part of the seashore lying below the level of mean high water if the operation is likely to result in obstruction or danger to navigation. However, under Section 35 of the above Act, certain operations are excluded from the need to obtain DEFRA consent. These include dredging operations (including the deposit of dredged materials) authorised by any local Act. In this instance, Section 22 of the Poole Harbour Act 1914 allows PHC to undertake dredging to maintain and improve navigation and, therefore, in this respect PHC are ‘self consenting’ with respect to the proposed dredge, given the powers conferred by the 1914 Act.

1.3.2 However, the proposed offshore disposal of dredged material is also subject to consent under Section 34 of the Coast Protection Act 1949 and, given that the proposed disposal ground is outside of the area of jurisdiction of the PHC, consent is required under the 1949 Act for this component of the scheme. Given the above, the PHC requested a screening opinion with respect to the requirement for EIA from the DfT on 25 May 2004 (see Appendix 2). At the same time, an environmental scoping report was submitted to the DfT with a formal request for a scoping opinion, should the screening opinion determine that an EIA should be undertaken; this was accompanied by existing correspondence with various statutory and non-statutory consultees.

1.3.3 On 21st July 2004, the DfT responded to the PHC and stated that the proposed works constitute a project falling within Annex II to Council Directive 85/337/EC (as amended by Directive 97/11/EC) on the assessment of the effects of certain public and private projects on the environment (the ‘EIA Directive’) (see Appendix 2). After consideration of the discretionary criteria applying to projects falling within Annex II, the DfT concluded

1 At the time of requesting the screening opinion, the DfT was the department responsible for approval of consents under the Coast Protection Act 1949. As of 1st October 2004, this responsibility transferred to DEFRA. The DfT has confirmed that this change does not affect the application process followed by PHC in any way.
that the works would be likely to have a significant effect on the environment and, therefore, the Secretary of State determined that an Environmental Statement (ES) outlining specific details of the project would be required in accordance with Article 6(11) of the Harbour Works (Environmental Impact Assessment) Regulations 1999. The DfT further stated that the environmental scoping report and accompanying correspondence set out all of the issues required to be considered in the ES.

1.3.4 In addition to the above, the beach nourishment components of the scheme also require consent under the Coast Protection Act 1949. The relevant coast protection authorities (BoP, BBC and PDC) will therefore each submit applications under the 1949 Act for such works within their areas of jurisdiction.

**Appropriate assessment**

1.3.5 As a competent authority under the Conservation (Natural Habitats &c.) Regulations 1994, the DfT also confirmed in their letter of 21st July 2004 that an ‘appropriate assessment’ of the project would be required. The purpose of the appropriate assessment is to allow for a full consideration of the implications of the proposal in respect of the conservation objectives of the various European sites within and adjacent to Poole Harbour.

**Food and Environment Protection Act 1985**

1.3.6 The offshore disposal of dredged material requires consent under the Food and Environment Protection Act 1985 (i.e. for the placement of materials on the seabed) and this ES supports the PHC’s application under the 1985 Act.

1.3.7 In addition, the beneficial use of dredged material (as beach nourishment) also requires consent under the 1985 Act and the relevant coast protection authorities (BoP, BBC and PDC) will make the applications with respect to their proposals under the 1985 Act.

1.4 **THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS**

**Overview**

1.4.1 EIA is a tool for systematically examining and assessing the impact and effects of development on the environment. The resultant ES typically contains a description of the following information:

- The proposed scheme and alternative options considered by the proponent;
- The existing (baseline) environment that the proposed scheme has the potential to affect;
- Prediction of potential impacts on the existing environment and assessment of their significance;
- A description of any mitigation measures that would avoid or reduce potential impacts; and,
- A non-technical summary (NTS).

1.4.2 In terms of the process, the following main stages are typically included in EIA:

- Screening (i.e. determining whether the proposed scheme requires an EIA to be undertaken);
• Scoping (i.e. determining the issues that the EIA should address);
• Preparing the ES itself (i.e. establishing baseline data, evaluating impacts, etc.); and,
• Submitting the ES and formally consulting the public and affected parties for their views.

Screening and scoping

1.4.3 As described in Section 1.3.2, a formal screening opinion was requested from the DfT with respect to the proposed scheme. This request was accompanied by an environmental scoping report. Scoping is the first main stage of the EIA process and is undertaken to identify the potential environmental issues associated with the proposed scheme and to determine the scope of work required for the subsequent stages of the EIA process. The environmental scoping study consisted of the following tasks:

• Site visit;
• Collation of existing environmental information;
• Identification of potentially significant environmental impacts;
• Consultation with relevant organisations and individuals; and,
• Preparation of the environmental scoping report.

1.4.4 The environmental scoping report was circulated to a number of interested parties (in addition to the DfT) in order to provide the opportunity for comment and this feedback was taken into account in the subsequent stages of the EIA. At the same time as the environmental scoping report was circulated, the proposed scheme was advertised in the local press and details were provided as to where a copy of the report could be obtained in order to allow the general public to have the opportunity to comment on the proposals. The environmental scoping report was also made available via the PHC website.

Consultation

1.4.5 Consultation with various statutory and non-statutory consultees has been maintained throughout the EIA process. The consultation exercise was initiated during the environmental scoping stage, during which a series of meetings was held with various consultees. The aim of these initial meetings was to present the scheme and to receive initial feedback on potential issues of relevance to the various parties that should be addressed through the EIA process.

1.4.6 The environmental scoping report was circulated to consultees on its completion and responses to the scoping report were invited. A summary of the responses that were received is included in Table 1.1 and the issues raised were subsequently taken into account in the EIA process.

1.4.7 Throughout the EIA process, consultation was maintained through meetings, letters, email and telephone calls. A further series of meetings was held in September 2004 in order to present the initial findings of the EIA process and to receive further feedback from consultees.
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Contact name</th>
<th>Summary of comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arnewood Estates Limited (Haven Hotel)</td>
<td>Mrs S Hyder Group Financial Controller</td>
<td>Concerned about possible effects on the Haven Hotel’s sea defences.</td>
</tr>
<tr>
<td>Bournemouth-Swanage Motor Road and Ferry Company</td>
<td>Neil McCheyne General Manager</td>
<td>The increased depth and width of the channel may result in the company’s Harbour chains being left suspended to some extent. The company is unable to slacken them. Further study required to assess the effects of the dredging on the line of the chains to ensure it will be safe to allow vessels of deeper proportions to cross.</td>
</tr>
<tr>
<td>CEFAS</td>
<td>Marie Pendle</td>
<td>EIA should consider alternatives to the existing Swanage Bay disposal ground. Disposal grounds at the Needles and Hurst Fort should not be considered suitable. The disposal ground should be considered as an alternative.</td>
</tr>
<tr>
<td>Countryside Agency</td>
<td>Andrew Burns</td>
<td>Recommend the following should be considered: • The potential impact on landscape character and visual and recreational amenity – refer to the Landscape Character Assessment for the Dorset Area of Natural Beauty and their Management Plan. • A Quality of Life Assessment. Specific, archaeological surveys should be carried out in targeted sensitive areas (identified in the desk study) with a view to informing the EIA rather than at a later stage in the scheme. In the past, deposition of dredged material has resulted in fine clays and silts being deposited over a wide area around the Bournemouth, Poole and Swanage Bay areas, with deleterious effects on the fauna and flora. The area has then taken a long time to return to its normal condition.</td>
</tr>
<tr>
<td>Dorset County Council</td>
<td>Claire Pinder Senior Archaeologist</td>
<td>Specific, archaeological surveys should be carried out in targeted sensitive areas (identified in the desk study) with a view to informing the EIA rather than at a later stage in the scheme.</td>
</tr>
<tr>
<td>Dorset Diving Services</td>
<td>David W Kingsebeer</td>
<td>In the past, deposition of dredged material has resulted in fine clays and silts being deposited over a wide area around the Bournemouth, Poole and Swanage Bay areas, with deleterious effects on the fauna and flora. The area has then taken a long time to return to its normal condition.</td>
</tr>
<tr>
<td>Dorset Wildlife Trust</td>
<td>Peter Tinsley</td>
<td>Concerns were raised regarding the use of the Swanage disposal ground for such large volumes of material in light of new knowledge of the seabed in the vicinity of Poole Bay. Particularly relating to the Handfast Point Maerl Beds. Subsidence, wash and Ampelisca mats’ are seen to be a problem. Relocation of the Swanage dumping ground is advised and DWT question if the CEFAS is considered as an alternative.</td>
</tr>
</tbody>
</table>

Table 1.1 Summary of consultation responses received in response to the environmental scoping report
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Contact name</th>
<th>Summary of comments</th>
<th>Relevant section of the EIA</th>
</tr>
</thead>
</table>
| English Nature       | Rachel Waldock Maritime       | • Potential for works to affect Dorset Heaths and Studland Dunes cSAC. This should be assessed.  
• Future requirements for maintenance dredging should be assessed.  
• Potential changes to the tidal prism should be assessed.  
• Quality of dredged material should be assessed, especially in previously undredged areas.  
• Any potential remobilisation of sediment should be assessed and the consequent effects on water quality.  
• Potential effects to eelgrass beds need to be assessed.  
• Assess disposal options for material unsuitable for beach recharge, including beneficial use. The opportunity to use silty material beneficially should be addressed.  
• The proposed site is next to Maerl, Sabellaria and Zostera beds. The Sabellaria reef close to the Swanage disposal ground is presently under consideration for possible SAC designation.  
• Assess increased erosion from larger vessels using the channel, including effects on existing sea defences at Brownsea Island and Blue Lagoon.  
• An appropriate assessment for the European sites must be undertaken. Compensatory measures will be appropriate if adverse impacts are identified.  
• Note that there is currently a CPA application by Bournemouth Borough Council for beach replenishment.  
• Post dredge monitoring needs to be addressed in agreement with English Nature and the RSPB.                                                                                                                                                                                                                      | 22; 3.7; 3.8; 4; 5; 6.2; 6.3; 2.3; 22; 24 |
| Environmental Agency | Katherine Burt                | Additional mid-depth sediment samples where dredge depth 1.5m or more. HCH and Drin analysis should be included in organo-chlorine study. Would be helpful if the EIA showed the depth of sediment to be removed over the dredge area, together with nature of material being moved. Fisheries study to include:  
• Impacts of noise, pollution, vibration, increased levels of light at night, and synergistic impacts;  
• Potential behavioural responses in migrating species;  
• Disturbance deterrence and delay;  
• Heritage value of salmon stocks.                                                                                                                                                                                                                     | 4; 2.1; 9                   |
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Contact name</th>
<th>Summary of comments</th>
<th>Relevant section of the EIA</th>
</tr>
</thead>
</table>
| National Trust                                   | David Jenkins                  | National Trust property is inalienable under the National Trust Acts and requires specific assessment alongside the SPA/SAC/SAM type designations. National Trust interests lie on Brownsea, in Poole Bay and at Studland as well as on the A350 in North Dorset (traffic implications). The National Trust requested a focus on certain subjects highlighted in the scoping report and also highlighted the need for:  
  • A full assessment into impacts of the proposals on bathing water quality;  
  • Reference to sea mammals;  
  • Traffic impacts at a regional scale;  
  • Consideration of the water main at Brownsea as well as the electricity cable; and  
  • Coverage of oil and gas industry and road improvement schemes as part of the ‘in-combination assessment’. | 5; 6; 17; 18; 21 |
| Poole and District Sea Angling Association       | Mr C T Holloway Chairman       | Concerned about effects on sea angling, such as the annual flounder competition.                                                                                                                                          | 10 |
| Poole Harbour Heritage project / Poole Maritime Trust | Mr B S Dyer                   | Members of the PHHP would like to be consulted on the results from sampled and dredged sediments. They wish to be involved in recovering and identifying artefacts discovered during any sampling or dredging activities/surveys.                                                        | 12 |
| Poole Yachting Association                       | Capt PJ Clark Chairman         | Request facts and explanations for the introduction of larger ships into the Harbour. Other concerns:  
  • Loss of moorings due to channel straightening and siltation.  
  • Increased speed of tides creating safety hazards, strain on the chain ferry and difficulty for recreational users of the North and Wych channels.  
  • TELEMAC model needs evaluating – evidence of power and accuracy over last 15-20 years. Is the model 3-D? The model should also take into account any ‘vertical digging’ during dredging operations. | 1.2; 3; 11 |
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Contact name</th>
<th>Summary of comments</th>
<th>Relevant section of the EIA</th>
</tr>
</thead>
</table>
| RSPB                               | Richard Archer   | - More restrictions will be imposed upon recreational users due to increased shipping traffic.  
- Data should be provided on any increase in tidal flow and silt following previous major dredging operations.                                      | 7; 14; 22; 24; 2.3          |
| Sandbanks Association              | Trudy Levine     | - They are concerned that channel deepening will cause the following:                                                                                                                                            | 3.7; 17; 11                |
|                                    |                  | 1. Scouring of the shoreline, especially around the peninsula;                                                                                                                                                    |                            |
|                                    |                  | 2. Increased speed of tides;                                                                                                                                                                                        |                            |
|                                    |                  | 3. Silting up of smaller channels in the Harbour;                                                                                                                                                                  |                            |
|                                    |                  | 4. More dragging of water as large vessels enter and leave the Harbour; and                                                                                                                                          |                            |
|                                    |                  | 5. Loss of boat moorings.                                                                                                                                                                                           |                            |
| Swanage Town Council               | Alan Leeson      | Swanage Town Council wish for further consultation / assessment within Swanage considering the following issues:                                                                                               | 19                         |
|                                    |                  | 1. Possible effects on tourism considering the town's dependency on this;                                                                                                                                              |                            |
|                                    |                  | 2. The beach and its dynamics, being the single most important asset;                                                                                                                                               |                            |
|                                    |                  | 3. The complicated tidal movements within the bay;                                                                                                                                                                 |                            |
|                                    |                  | 4. The small fishing fleet;                                                                                                                                                                                          |                            |
|                                    |                  | 5. Charter vessels operating from the stone quay; and                                                                                                                                                               |                            |
|                                    |                  | 6. The areas Shoreline Management Plan, for which there is ongoing research and consultation.                                                                                                                        |                            |
| The Dorset Belles                  | Peter Lamb       | Would like re-assurance that the project will not increase silting of ‘certain’ navigable channels and have a deleterious effect on oxygen levels.                                                                | 4; 5; 11                  |
Assessment of potential impacts

1.4.8 For each potential impact identified, an assessment has been made of the impact significance. There are a number of criteria that are incorporated into the determination of the significance of potential impacts, comprising:

- Magnitude (local/strategic);
- Spatial extent (small/large scale);
- Duration (short term, intermediate or long term);
- Reversibility;
- Probability of occurrence;
- Confidence in the impact prediction; and
- The margins by which set values are exceeded (e.g. air or water quality standards).

1.4.9 In addition, in order to classify the significance of predicted impacts, and in an effort to provide a consistent framework for considering and evaluating impacts on different environmental parameters, the terminology presented in Table 1.2 has been adopted.

Table 1.2  Terminology for classifying and defining environmental impacts

<table>
<thead>
<tr>
<th>Impact</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negligible</td>
<td>The impact is not of concern</td>
</tr>
<tr>
<td>Minor adverse</td>
<td>The impact is undesirable but of limited concern</td>
</tr>
<tr>
<td>Moderate adverse</td>
<td>The impact gives rise to some concern but it is likely to be tolerable (depending on its scale and duration)</td>
</tr>
<tr>
<td>Major adverse</td>
<td>The impact gives rise to serious concern; it should be considered as unacceptable</td>
</tr>
<tr>
<td>Minor beneficial</td>
<td>The impact is of minor significance but has some environmental benefit</td>
</tr>
<tr>
<td>Moderate beneficial</td>
<td>The impact provides some gain to the environment</td>
</tr>
<tr>
<td>Major beneficial</td>
<td>The impact provides a significant positive gain</td>
</tr>
</tbody>
</table>

1.4.10 Where potentially significant adverse impacts have been identified, mitigating measures have been examined and recommended in order to reduce residual impacts, as far as possible, to environmentally acceptable levels.

The project team

1.4.11 The EIA was undertaken and managed by Posford Haskoning. Work to assess the implications of the proposed scheme on the hydrodynamic and sedimentary regime of Poole Harbour and Poole Bay was undertaken by HR Wallingford Ltd; details of the work undertaken are provided in Section 3.

1.4.12 In addition to the above, work to inform the EIA process was undertaken by Wessex Archaeology (marine and coastal archaeology) and MARICO Marine (navigation risk assessment). Survey work was undertaken by the Institute of Estuarine and Coastal Studies (IECS) (University of Hull) to inform a description of the benthic marine communities in the vicinity of the proposed dredged channel.
1.4.13 BoP also commissioned a site investigation which comprised taking a series of vibrocores along the length of the approach channel in order to determine the total volume of different sediment types that would arise from dredging the approach channel. This site investigation was undertaken by Lankelma Seacore Ltd and the calculation of dredge volumes was undertaken by SEtech (Geotechnical Engineers) Ltd on their behalf. As part of this site investigation, samples were taken for analysis of sediment chemistry and microbiology. WRc-NSF were commissioned to undertake analysis of samples for sediment chemistry and Harwell Scientifics Ltd analysed samples for microbiological parameters.

1.4.14 All impact assessment work was undertaken by Posford Haskoning.

1.5 PLANNING POLICY CONTEXT

**National context**

1.5.1 In *A New Deal for Transport* (1998) the Government sets four aims for policy on ports: These are to:

- Promote UK and regional competitiveness by encouraging reliable, efficient distribution to markets;
- Enhance environmental and operational performance by encouraging the provision of access to markets by different forms of transport;
- Make the best use of existing infrastructure in preference to expansion, wherever practicable; and,
- Promote best environmental standards in port design and operation, including where new development is justified.

1.5.2 Within the Government’s strategy for sustainable development, PPG13 ‘Transport’ takes forward the Government’s agenda for an integrated transport strategy (as originally set out in its 1998 White Paper). It places an increased emphasis on sustainable development and the need for integration of different modes, including the transfer of freight transport to shipping where possible.

1.5.3 Ports are recognised as being important to sustainable distribution. In PPG13, local authorities are encouraged to promote the role of ports by encouraging access to them by rail and road and to avoid “developments which are incompatible with any nearby port operations”.

1.5.4 *Sustainable Distribution* (March 1999) and *British Shipping* (November 2000), further daughter papers to the Transport White Paper, set out a lucid analysis of the importance to the nation of an efficient and sustainable distribution system and recognise that “better utilisation of railways, ports and shipping services has a vital role to play in building a sustainable distribution system” (Sustainable Distribution paragraph 5.19) and “shipping is an important and integral part of Britain’s industry and trade…Policies for it fall not only within the broader transport policy, but also, as within other industrial sectors of the economy, under the umbrella of the Government’s wider economic and industrial aims…These have many components, within a central objective of achieving high and stable level of growth and employment.” (British Shipping, paragraph 956).
1.5.5 National Policy on Ports is encapsulated within the Government’s ports policy *Modern Ports: A UK Policy* (November 2000). This daughter paper to the Transport White Paper highlights the economic role of ports and the contribution that shipping makes to sustainable transport. The overriding theme is that operators themselves should be responsible for the location and scale of port development within the statutory guidelines of the planning process and this should be reflected within the strategic planning policy.

1.5.6 A key objective of port policy is to maintain a balanced policy on port development which aims to make best use of existing and former operational land, secures high environmental standards, but supports sustainable projects for which there is a clear need:

“The UK economy depends upon international trade...Ports serve the national interest supporting the competitiveness of national and regional economies...The UK’s economy needs a thriving ports industry...It is in the national interest that our ports remain able to handle current UK trade and its development efficiently and sustainability. They must succeed not only to meet the immediate demands of their customers, but also to invest in new facilities, in safety and to safeguard communities and the environment”.

“If the port industry fails to meet demand or is prevented from doing so, shipping lanes may divert primary service to overseas ports”

“Some ports may need to increase capacity to meet future demand. Where there is clear need, we would support sustainable port projects, but each case must be looked at on its merits”

“There is a presumption in favour of making the best use of existing infrastructure where possible.”

1.5.7 In April 2003, the DfT published *A Project Appraisal Framework for Ports*, fulfilling the commitment to develop an appraisal framework for ports given in *Modern Ports: A UK Policy* (November 2000). Five headline objectives are identified by the Government and which are to be used in assessing all transport investment that requires some form of official approval (paragraph 3.1). These are: safety; economy; environment; accessibility; integration; and further considerations (see Section 1.6).

1.5.8 In the context of the Government’s key objective of making the best use of transport infrastructure, it is suggested that promoters should consider alternatives at sites they control that increase the productivity of existing quays, natural or dredged channels, and operational land and buildings and landside links (paragraph 3.15). Assessments should investigate the trade off between increased uses of existing infrastructure and other factors in the appraisal framework, including the environment and safety.

1.5.9 The Government’s economic policy objective for transport is that development should contribute to an efficient economy and support sustainable economic growth in appropriate locations:

“Ports have a vital role in supporting and enhancing the competitiveness of the national and regional economies. The efficient handling of the UK’s international and domestic sea borne trade and passenger is an important consideration the
case for port developments. Efficient ports may also attract transhipment traffic, which enhances value added and local employment prospects income and employment for the local area. Efficiency in this context does not just have to mean lowest costs, but the best mix of cost and quality for service to serve the need of the customer." 

**Strategic and regional planning guidance**

**Poole Local Plan**

1.5.10 Poole Local Plan First Alteration was adopted in March 2004 and sets out detailed policies and specific proposals for the development and use of land within Poole. These are used to guide most day to day planning decisions. The most relevant policies from the local plan are presented in Table 1.3.

1.5.11 The Local Plan contains policies for the Port of Poole in it’s employment section. The employment aims of the Local Plan include proposals to secure the promotion of the Port. Specifically, Port expansion is allowed for, subject to highway capacity and the need to safeguard the urban environment and the ecological value of the Harbour. Port activity is almost entirely highway based, but the Plan protects the potential for rail based activity and promotes the increased use of the railway for the handling of freight.

**Table 1.3 Relevant policies from the Poole Local Plan**

<table>
<thead>
<tr>
<th>Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E8 Port-related development</strong></td>
</tr>
<tr>
<td>Within the commercial Port of Poole, as defined on the proposals map, development proposals will be permitted provided that:</td>
</tr>
<tr>
<td>i) they are for a port-related activity;</td>
</tr>
<tr>
<td>ii) the port’s ability to provide a site with deep water frontage for aggregate handling is not prejudiced;</td>
</tr>
<tr>
<td>iii) they would not undermine the ecological value of the Harbour or its use for recreation; and</td>
</tr>
<tr>
<td>iv) the capacity and safety of the highway network, both before and after completion of the proposed Poole Harbour crossing, would not be compromised as a result of such proposals.</td>
</tr>
<tr>
<td><strong>E9 Port rail link</strong></td>
</tr>
<tr>
<td>Planning permission will not be granted for development in the port area which would prevent or hinder the use of the railway and the associated area identified for rail freight use (see policy T7).</td>
</tr>
<tr>
<td><strong>E10 Deep water frontage</strong></td>
</tr>
<tr>
<td>Sites on the lower Hamworthy peninsula which are annotated on the proposals map as having a deep water frontage will be reserved for appropriate port/harbour-related uses whose operations require direct access to such a frontage. In cases involving other sites which have a deep water frontage, the local planning authority will permit development proposals which retain such frontage for uses which require it where this can be achieved in accordance with other relevant policies in the plan.</td>
</tr>
<tr>
<td><strong>T7 Enhancement of rail freight</strong></td>
</tr>
<tr>
<td>Land adjacent to both Hamworthy junction and the port rail link, as shown on the proposals map, will be reserved for a rail freight facility and related uses. Proposals which prejudice rail freight use will not be permitted.</td>
</tr>
</tbody>
</table>
Bournemouth, Poole and Dorset Structure Plan

1.5.12 The current Bournemouth, Dorset and Poole Structure Plan (formerly known as the Dorset County Structure Plan) and the Replacement Bournemouth, Dorset and Poole Structure Plan, which is currently undergoing consultation, establish the broad context for new development and the conservation of the environment in the area. The Plans underpin many of the strategic planning authorities’ other strategies, and are used by other bodies to inform their own planning, investment and management decisions. The relevant policies of the current structure plan are presented in Table 1.4.

1.5.13 Both the current and the replacement Structure Plan recognise the significance of the Port of Poole in strategic and regional terms. As part of its transport policies the current plan specifically promotes the improvement of port facilities, subject to safeguarding the ecological and recreation value of the Harbour.

Table 1.4 Policies from the Bournemouth, Poole and Dorset Structure Plan of relevance to the channel deepening and beach nourishment

<table>
<thead>
<tr>
<th>Policy number</th>
<th>Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSPORTATION AND TELECOMMUNICATIONS</td>
<td></td>
</tr>
<tr>
<td>TR.R</td>
<td>The port facilities at Poole should be improved subject to safeguarding the ecological value of the Harbour and its use for recreation.</td>
</tr>
<tr>
<td>ENVIRONMENT</td>
<td></td>
</tr>
<tr>
<td>EN.L</td>
<td>Development which is essential for coastal protection and sea defence should take account of: (i) the environmental significance of the location in which it is proposed; and (ii) its effect on natural processes</td>
</tr>
</tbody>
</table>

1.6 PROJECT APPRAISAL FRAMEWORK FOR PORTS

Introduction

1.6.1 In April 2003 the DfT issued A Project Appraisal Framework for Ports; this built on the policy framework developed in Modern Ports: A UK Policy. The framework describes a new appraisal method for port projects which port owners and operators are recommended to use when putting forward development proposals for authorisation. The framework has the status of non-statutory advice in the context of an applicable consent. It should be noted that there is no formal requirement for a full project appraisal if the only consents required are under the Coast Protection Act 1949 and Food and Environment Protection Act 1985, as is the case for the proposed channel deepening.

1.6.2 The framework sets out a way of organising information and analysis consistent with the Governments’ overall objectives for transport and specific policy objectives for ports. It does not replace statutory requirements under UK legislation or EU Directives and its aim is to avoid placing significant new burdens on promoters of port developments. Rather, the framework is intended to bring together material on a wide variety of topics relevant to the Governments’ objectives for transport and the formal procedures for dealing with applications for consent to, or approval of, port development. The information for the framework is often required to meet a legal requirement in the
consenting process and, in this case, the information presented in this ES is sufficient for input into the appraisal framework.

Appraisal objectives

1.6.3 The framework for appraisal is derived from that established for other modes of transport, in particular the Guidance on the Methodology for Multi-Modal Studies (GOMMMS) which develops the Governments’ objectives for transport, as set out in the Transport White Paper. That is:

- **Environment** – to protect the built and natural environment;
- **Safety** – to improve safety;
- **Economy** – to support sustainable economic activity and get good value for money;
- **Accessibility** – to improve access to facilities for those without a car and to reduce severance; and,
- **Integration** – to ensure that all decisions are taken in the context of the Governments’ integrated transport policy.

1.6.4 All of the objectives, and many of the sub-objectives, listed in GOMMMS are relevant to port developments. In the appraisal framework it is necessary to demonstrate how the scheme being put forward (and its alternatives) measure against the objectives. A number of different quantitative and qualitative indicators may be used to demonstrate the performance of each alternative.

Alternatives

1.6.5 The appraisal requires that developers provide detailed information about alternatives that are within their control, such as different sites within the area of the port, different scales of development and different methods and designs for meeting the requirements of the project. The appraisal should explain how alternatives within the control of the developer (including ‘do minimum’) have been identified and the basis of any preliminary “sift”, if this has ruled out potentially feasible alternatives.

Appraisal Summary Table (AST)

1.6.6 The appraisal framework requires that the results of the appraisal are summarised in an Appraisal Summary Table (AST) and a recommended structure for an AST is provided in A Project Appraisal Framework for Ports. The AST is intended to set out all of the significant consequences of an option concisely, in order to provide decision makers with a transparent and consistent basis for their decisions.

1.6.7 Section 23 of this ES considers the proposed channel deepening in light of the objectives and sub-objectives as set out in A Project Appraisal Framework for Ports.

1.7 DEFINITION OF THE STUDY AREA

1.7.1 The study area is defined as the area over which the potential direct and indirect impacts of the scheme are predicted to be detected. Direct impacts are defined as physical effects arising within the footprint of the capital dredging, beach nourishment
and offshore disposal of dredged material. Indirect impacts may arise as a consequence of the effect of the scheme on the hydrodynamic and sedimentary regime, for example erosion and accretion of intertidal sediments.

1.7.2 Given the above, at its broadest level, the study area is illustrated in Figure 1.1 and is based primarily on the area over which the hydrodynamic effects of the scheme, and the consequent implications of such effects for sediment transport pathways, are predicted to arise. This encompasses the area over which the direct impacts of the scheme may be detected. Figures 1.2 and 1.3 show various locations within the study area that are referred to throughout this ES.

1.7.3 The scheme also has the potential to result in indirect impacts on air quality during the construction phase due to the dispersion of emissions from the dredger and therefore the area over which such potential impacts are predicted to occur are also determined. An assessment is also made of the likely scale of socio-economic impacts resulting form the proposed channel deepening and the extent of potential impact on traffic.

![Figure 1.1 Area covered by the local and regional hydrodynamic modelling and which comprises the study area at its broadest level](image)

1.8 REPORT STRUCTURE

1.8.1 Section 1 provides an introduction to the ES and describes the background to and need for the proposed channel deepening and beach nourishment schemes. It also describes the study area, legislative requirement for the ES and the policy context. The overall methodology adopted for the EIA is also described.
Figure 1.2

Key:

Source: ARCS Charts under license from the UK Hydrographic Office
Title: Locations within Poole Harbour referred to in the text
Project: Poole Harbour Approach Channel Deepening and Beneficial Use Schemes
Client: BOP and PHC
Date: October 2004
Approx scale: 1cm = 600m

Locations within Poole Harbour referred to in the text:

- Lytchett Bay
- Wareham Channel
- Middlebeare Lake
- Giggers Island
- Anne Bay
- South Deep
- Blood Alley Lake
- Brownsea Island
- Wych Channel
- South Haven Point
- North Haven Point
- Whitley Lake
- Stone Island Lake
- Route of chain ferry
- Little Channel
- Middle Mud
- North Channel
- Parkstone Bay
- Location of Second Opening Bridge
- Holes Bay
- Turning Basin
- South Deep
- North Channel
Figure 1.3

Title: Locations within Poole Bay referred to in the text

Project: Poole Harbour Approach Channel Deepening and Beneficial Use Schemes

Client: BoP and PHC

Source: ARCS Charts under license from the UK Hydrographic Office

Date: October 2004

Approx scale: 1cm = 600m

Key:
- Poole Bay
- Poole Rocks
- Middle Poole Patch
- Inner Poole Patch
- Outer Poole Patch
- Poole Harbour
- Sandbanks
- Haven Hotel
- East Looe Channel
- Training Bank
- Studland Bay
- Handfast Point
- Ballard Point
- Swanage disposal ground
- Swanage Bay
- Ballard Point
- Studland Bay
- Poole Rocks
- Middle Poole Patch
- Inner Poole Patch
- Outer Poole Patch
- Poole Harbour
- Sandbanks
- Haven Hotel
- East Looe Channel
- Training Bank
- Studland Bay
- Handfast Point
- Ballard Point
- Swanage disposal ground
- Swanage Bay
- Ballard Point
- Sandbanks
- Haven Hotel
- East Looe Channel
- Training Bank
- Studland Bay
- Handfast Point
- Ballard Point
- Swanage disposal ground
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- Haven Hotel
- East Looe Channel
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1.8.2 **Section 2** describes in detail the proposed channel deepening, the beach nourishment proposals and the proposals for the offshore disposal of the remaining dredged material. It also describes the alternatives considered with respect to each of the scheme components.

1.8.3 **Section 3** describes the existing environment with respect to the hydrodynamic and sedimentary regime of Poole Harbour and Poole Bay. Results from hydrodynamic and sediment transport modelling are also provided in the section and the latter half of the section comprises a description of the predicted effects of the proposed development on tidal currents, sediment transport, tidal range, waves and siltation (and, consequently, maintenance dredging) within the study area. Full details of the hydraulic studies are provided in Appendix 3.

1.8.4 **Sections 4 to 19** identify and assess the potential environmental impacts of the scheme on a variety of parameters relating to the natural, human and built environment comprising:

- Sediment quality (Section 4);
- Water quality (Section 5);
- Marine and coastal ecology (Section 6);
- Marine and coastal ornithology (Section 7);
- Coastal and terrestrial ecology (Section 8);
- Fish and shellfish resource (Section 9);
- Fishing activity (Section 10);
- Commercial and recreational navigation (Section 11);
- Archaeology and heritage (Section 12);
- Recreation and leisure (Section 13);
- Noise and vibration (Section 14);
- Air quality (Section 15);
- Geology, landscape and visual setting (Section 16);
- Infrastructure, land drainage and coastal protection (Section 17);
- Traffic and transportation (Section 18); and
- Socio-economics (Section 19).

1.8.5 For each of these parameters, a description of the existing environment is given, followed by a description of the predicted impacts. For clarity of presentation, the impacts have been divided into those predicted to occur as a result of approach channel deepening, those due to the offshore disposal of dredged material and those as a result of beach nourishment. For each of the impacts identified, mitigation measures are recommended (where appropriate) and the residual impact (i.e. the potential impact remaining following the implementation of mitigation measures) is stated.

1.8.6 A summary of the significance of the various impacts, mitigation measures and residual impacts associated with the construction and operational phases of the scheme is provided in **Section 20**.

1.8.7 Cumulative effects are considered in **Section 21** and the implications of the scheme for the designated status of European sites in the vicinity of Poole Harbour is considered in **Section 22**. The implications of the proposed channel deepening in light of **A Project**
Appraisal Framework for Ports is discussed in Section 23. Finally, proposals for monitoring are outlined in Section 24.

1.8.8 A Non-Technical Summary accompanies this ES as a separate document, which summarises its contents.