

1 INTRODUCTION

1.1 Background

- 1.1.1 Poole operates as a Trust Port and the Commissioners, who are established under the Poole Harbour Acts and Orders 1756 to 2001, have a statutory duty to maintain and improve the Harbour. This duty is today performed within the framework of extensive legislation to avoid damage to critical environmental assets and ensure safety of navigation. Within this Commissioners' operate a policy of seeking to achieve balance between commercial, recreational and conservation interests in the Harbour.
- 1.1.2 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 required to meet the needs of modern ferries, the majority of which now have a minimum draft of over 6.5m. The proposed dredging would allow the Port to retain and, in the future, to potentially increase the existing number of conventional vessels that currently utilise it.
- 1.1.3 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.
- 1.1.4 The remainder of the material arising from the approach channel deepening would be disposed of at the nearby Swanage offshore disposal ground.
- 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), which confirmed that an EIA was required.
- 1.1.6 As a competent authority under the Conservation (Natural Habitats &c.) Regulations 1994, the DfT also confirmed 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.
- 1.1.7 Posford Haskoning was jointly commissioned by the Borough of Poole and PHC to undertake an EIA of the proposed scheme, with BoP being the lead authority with respect to the management of the EIA. Posford Haskoning's Marine and Coastal Environment Division specialises in assessing the implications of development at the water's edge and on the marine environment, having undertaken some 200 assessments of the implications of development on the coastal zone over the last decade. Of particular relevance to the proposed approach channel deepening, Posford Haskoning have undertaken environmental studies in relation to over 35 major port development initiatives in the UK and world-wide.
- 1.1.8 Numerical modelling work to input to the EIA was undertaken by HR Wallingford. HR Wallingford is an independent company that carries out consultancy and research

studies in civil engineering hydraulics and the water environment. HR Wallingford have a long track record of undertaking hydraulic and sedimentological studies in support of EIA for port development both in the UK and world-wide, the most recent being studies for the proposed developments at London Gateway Port (Thames Estuary), Bathside Bay (Harwich) and Felixstowe South. The project director for the present studies was the principal author for the production of guidance relating to the application of predictive modelling techniques for sediment transport and morphology in estuarine waters and for assessing sedimentation in ports and harbours, as well as leading research on the beneficial use of dredged material, the properties of dredged material and the effects of dredging on increasing suspended sediment concentrations in the water column.

1.1.9 HR Wallingford have a long history of studies in Poole Bay and Poole Harbour stretching back to the early 1970's. During the 1980's the company was involved in feasibility studies for both the previous Swash Channel and Middle Ship Channel deepenings and also undertook extensive studies in Poole Bay for the then proposed artificial island. Among the studies undertaken during the 1990's were the coastal protection options of the Sandbanks area, options for the development of Poole Town Quay (1994) and input to the Borough of Poole strategy studies (1995). Most recently a suite of models for Poole Bay and Poole Harbour were established for the Poole Bay and Harbour strategy studies in 2003. These established models were employed in 2004 to study the feasibility and impacts of the proposed second lifting bridge at Poole and for the present channel deepening studies.

1.2 Primary need for the proposed channel deepening

1.2.1 In April 2003, PHC were contacted by Brittany Ferries, the customer responsible for approximately 50% of the Port's revenue, and 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 the near future. The Commissioners were advised that, unless the Port was prepared to progress a channel deepening exercise to allow Brittany Ferries to replace the vessel with another larger ferry, the company would reduce their 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.

1.2.2 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*.

1.3 Need for beach nourishment

1.3.1 In 2003, a coastal strategy was produced 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. This strategy identifies the need for beach nourishment as a means of coastal protection.

1.4 The Environmental Impact Assessment (EIA) process

1.4.1 EIA is a tool for systematically examining and assessing the impact and effects of development on the environment. The resultant Environmental Statement (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) (i.e. this document).

1.4.2 In terms of the process, the following stages were undertaken in the EIA:

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

1.4.3 Consultation with various statutory and non-statutory consultees has been maintained throughout the EIA process.

1.4.4 The EIA Regulations specify the type of information to be contained within an ES which includes a description of the likely significant effects of the development on the natural, human and built environment.

1.5 Definition of the study area

1.5.1 The study area is defined as the area over which the potential direct and indirect impacts of the scheme are predicted to be detectable. 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.

1.5.2 Hydrodynamic conditions in the study area were simulated using 2D (depth-averaged) modelling. Two such models were constructed: a 'regional model', the principal aim of which was to reproduce the tidal water levels and currents over the model domain, in order that boundary confirmation could be extracted for input to a 'local model'.

1.5.3 The regional model was that used in the 2003 Coastal Strategy Study. It covered an area from St Catherine's Point and Calshot in the east to Chesil Beach in the west. The coverage of the regional and local models is shown on Figure 1.1. It can be seen from

the figure that the numerical modelling included complete coverage of Poole Bay and Poole Harbour.

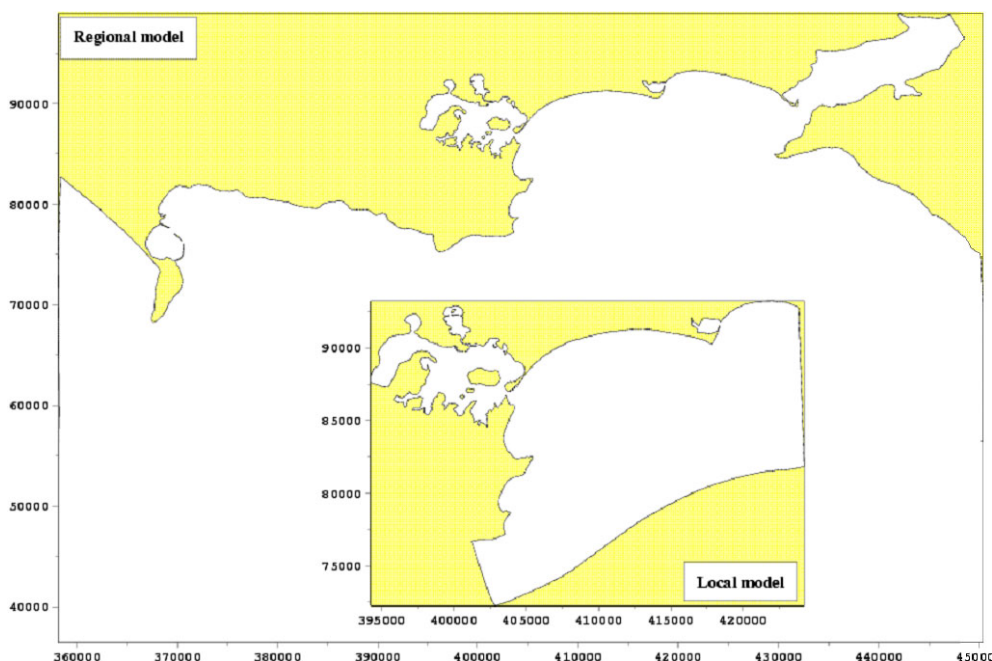


Figure 1.1 Area covered by numerical modelling which defines the extent of the study area for the EIA (source: HR Wallingford)

1.6 Planning policy context

National context

1.6.1 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.

1.6.2 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.

- 1.6.3 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”.
- 1.6.4 *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).
- 1.6.5 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.
- 1.6.6 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”*
- Port developments should be demonstrably commercially viable and “*there is a presumption in favour of making the best use of existing infrastructure where possible.*”
- 1.6.7 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 9).

1.6.8 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.

1.6.9 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 transshipment 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

1.6.10 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 1.1.

1.6.11 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 1.1 Relevant policies from the Poole Local Plan

Policy
<p>E8 Port-related development</p> <p>Within the commercial Port of Poole, as defined on the proposals map, development proposals will be permitted provided that:</p> <ul style="list-style-type: none"> i) they are for a port-related activity; ii) the port's ability to provide a site with deep water frontage for aggregate handling is not prejudiced; iii) they would not undermine the ecological value of the Harbour or its use for recreation; and 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.
<p>E9 Port rail link</p> <p>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).</p>
<p>E10 Deep water frontage</p> <p>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.</p>
<p>T7 Enhancement of rail freight</p> <p>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.</p>

Bournemouth, Poole and Dorset Structure Plan

- 1.6.12 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 1.2.
- 1.6.13 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 1.2 Policies from the Bournemouth, Poole and Dorset Structure Plan of relevance to the channel deepening and beach nourishment

Policy number	Policy
TRANSPORTATION AND TELECOMMUNICATIONS	
TR.R	The port facilities at Poole should be improved subject to safeguarding the ecological value of the Harbour and its use for recreation.
ENVIRONMENT	
EN.L	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