

10 FISHING ACTIVITY

10.1 EXISTING ENVIRONMENT

Assessment methodology

- 10.1.1 Information on fishing activity has been obtained from a range of sources and organisations, summarised in Table 10.1. The description of the existing environment has been undertaken through analysis of these data and consultation with the relevant regulatory authorities, including Defra, Southern Sea Fisheries District Committee and the fishing industry.

Table 10.1 Data sources used for characterising fishing activity

Data	Description
English, Welsh and Northern Irish Fishing Vessel List (Defra)	List of all registered vessels (<10m and >10m) as of 30 th June 2001 for ports in England, Wales and Northern Ireland.
Fish Landings into Ports in England, Wales and Northern Ireland by port (Defra)	Fisheries Statistics Unit of the Sea Fisheries Inspectorate is able to provide yearly estimates of fish landings by live and frozen wet weight (tonnes) and value (£). Data was obtained for 1999-2004.
Southern Sea Fisheries District Committee (SSFDC) data	Data on fishing activity obtained from consultation with SSFDC and Quarterly Reports 2003-2004.
Poole and District Fishermens Association	Questionnaires were issued to fishermen requesting information relating to fishing activity and species targeted. PDFa also provided feedback at consultation meetings on fishing activity, stocks and distribution.
Data from individual fishing organisations	There are a number of fishing organisations within the study area that have supplied information relating to fishing activity (including the Poole and District Fishermens Association; see above) that has been used to inform the existing environment of the study area

Overview of fishing activity

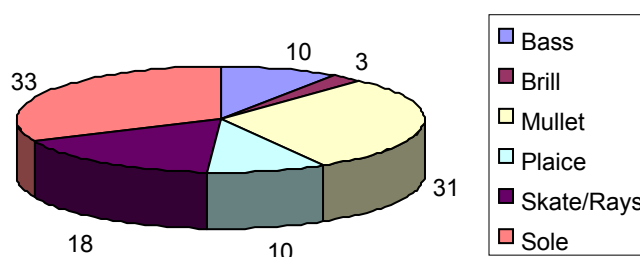
- 10.1.2 Poole Harbour has an exceptionally diverse range of fisheries. There are currently 94 boats registered and licensed to the Port of Poole, making it the largest port in terms of licences in the SSFDC area, the second largest being Weymouth with 60 boats as recorded 29th February 2004. The Southern Sea Fisheries District Committee (SSFDC) will only issue commercial permits if fishermen hold the Defra fishing license and are registered with the Registry of Shipping and Seamen at Cardiff. There are many other boats using Poole as their home port that do not hold permits (and, therefore, do not sell their catch) either as charter boats running angling trips or through personal choice.
- 10.1.3 The SSFDC is primarily responsible for managing and policing fisheries within the 6 nautical mile zone in coastal waters from Hayling Island to Lyme Regis including the Isle of Wight. Salmon, sea trout and eels (which all migrate between the sea and freshwater) are dealt with separately to other species and are the responsibility of the Environment Agency, who have powers to the 6 mile limit.
- 10.1.4 Certain fisheries management aspects are covered under National and European (Common Fisheries Policy) legislation, for instance, minimum landing sizes for crab and

lobster and the statutory bass nursery area are designated by the Department of Environment Food and Rural Affairs (Defra).

- 10.1.5 The SSFDC administers the Poole Fishery Order which combines a regulated and Several Fishery, and has been in force since 1915. The regulatory order allows control over wild mollusc fisheries through licensing and closed seasons and covers most of Poole Harbour but does not extend out into Poole Bay. The licence and lease fees from this order provide income to support the policing of the fisheries. Alongside the local Defra Sea Fisheries Inspectorate, the SSFDC spends much of its resources imposing and policing such regulations. Oysters, clams and mussels are all managed under the regulated fishery, while shellfish aquaculture is facilitated through leased beds under the Several Fishery Order. There are 31 licensed clam fishing vessels this year (2003-2004 season).
- 10.1.6 Eighty three percent of the boats fishing in the district operate full time (SSFDC, 2004). Over 90% of the fleet at Poole is under 10m. There is no statutory obligation for such vessels to keep records of their catch. Consequently, Defra landings statistics for the fisheries do not give an accurate picture of the fishery and being inshore there is not the effort data available as there might be for the bigger offshore fisheries. Generally there is no audit trail on these fisheries.
- 10.1.7 The majority of shellfish caught within the study area loaded directly from the boats and on to lorries, most of which come from some distance away from the area. Up to 40 lorries exporting shellfish leave Poole each week, although the majority of these shellfish are not harvested from within the study area; lorries transport shellfish harvested from (mainly) Ireland and Scotland to the continent (Poole is the UK's largest fish exporting port). The shellfish fetch better prices elsewhere, whereas the finfish tend to supply more local markets.
- 10.1.8 There has been a decline in the number of boats licensed within the SSFDC area, with about half as many boats operating compared to 10 years ago (in 1994, 800 boats operated in the SSFDC area; this had dropped to 469 by mid 2001). This change corresponds to the general reduction in the national fishing fleet rather than reflecting any particular local problem.
- 10.1.9 Fishing gear deployed within the study area includes:
- Beam trawl;
 - Otter trawl;
 - Pump scoop dredge (a dredge used for clam and cockle fishing with an attachment which pumps water to clear sediment from the dredge);
 - Hand held dredge (for cockles);
 - Set, ring and Eel (fyke) nets;
 - Gill nets;
 - Pots;
 - Rod and line (for bass);
 - Oyster dredge; and,
 - Mussel dredge.
- 10.1.10 The commercial fish catch is dominated by shellfish in terms of tonnage and value, as is demonstrated in Figure 10.1. Defra landings statistics for 2001 were comprehensive

(other years have not recorded certain species) and used below to demonstrate the distribution of catch, although these figures obviously fluctuate considerably from year to year. At Poole species such as conger eel, mackerel, and whiting have been omitted due to their smaller landing value. Cod, bream and turbot fetch a higher price but were caught in low numbers in 2001.

Finfish



Shellfish

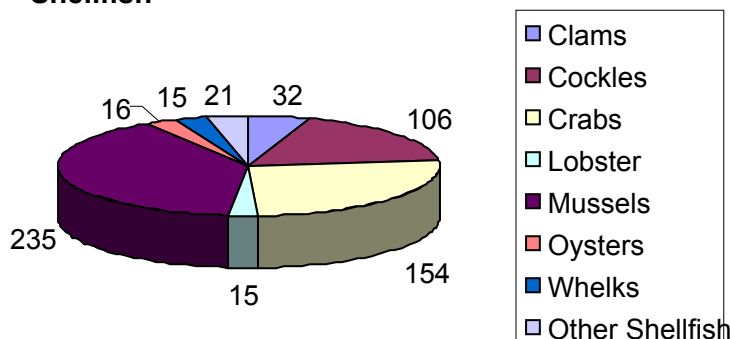


Figure 10.1 Distribution of catch by weight (tonnes) during 2001, landed at the Port of Poole (Defra landing Statistics, 2004)

10.1.11 There is also an important charter fishing and recreational angling activity centred around Poole Harbour, with local and national angling clubs using the Harbour throughout the year and one of the largest charter fleets in the country.

10.1.12 Important byelaws within the study area relate to, *inter alia*, gear, landing size and vessel restrictions, include the following:

1. Prohibition of fishing with trawl nets by powered craft between 1st May and 31st August

2. Prohibition of prawn fishing between 1st January and 31st July
3. Prohibition of cockle fishing between 1st February and 30th April. There are some other gear restrictions (e.g. size and type of dredge).
4. Prohibition of oyster fishing from 1st March to 31st October (with exception to several fishery).
5. Fishing for oyster, clams and mussels may only be by certain types of dredge or by handpicking, and within daylight hours (8.00 am – 4.00pm).

Finfish fisheries

Overview and spatial and temporal distribution of activity within the study area

10.1.13 There is a variety of fisheries in the study area, with over 30 species targeted commercially. The most important target species include bass, cod, brill and flat fish such as plaice, flounder and sole. The main catch methods used are trawls and set nets. A wide range of other finfish are caught in smaller quantities, these include skates and rays, grey mullet, sandeel, pout, bream and smoothhounds. Table 10.2 summarises seasonal fishing pattern for certain commercial species.

Table 10.2 Seasonal fishing patterns within the study area for finfish

Target species	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Bass												
Mullet												
Plaice												
Sole												
Sandeel												
Cod												
Thornback Ray												
Flounder												

10.1.14 Bass are targeted from March to October (mostly outside the Harbour) with the height of the season being from May to July. The Harbour is closed to bass fishing from 1st May to the 31st October of each year. The fishermen take bass using rod and line and nets, and charter boat fishermen use rod and line. It is an important fishery to the local commercial and angling fleet. Fishing within the bay and around the Swash Channel becomes more important from May once the sandeel start to emerge and the bass begin feeding on them in these areas. The bass fishery attracts a high degree of effort involving both rod and line and nets throughout the region, and in most localities this fishery provides income for many part-timers between May and October.

10.1.15 Netting for grey mullet is undertaken, with the use of a traditional Poole canoe and a ring net laid in a decreasing circular pattern. The net is hand hauled over the transom of the canoe and the fish taken out as the net is recovered. This type of netting takes place from March through to November with approximately five commercial fishermen and five hobby fishermen.

- 10.1.16 Sandeel netting takes place on Soldier Bank to the south of the Middle Ship Channel and on Hook Sands. This type of fishing activity is carried out during the spring and summer months and is important to the fishery as it provides bait for bass fishing for the commercial fishery and anglers. The sandeel is fished using a trawl net with a small mesh size. There is no permitted by-catch with this type of netting, with any by-catch being returned to the sea.
- 10.1.17 Trawling in the Harbour has taken place for many generations with small trawls fitted on boats under 10m length. The main target species is the flounder. Trawling for plaice and sole also takes place within the Swash Channel between September and November. Trawling also takes place throughout Poole Bay, including beam trawling for demersal fish, such as cod and plaice.

Financial value of finfish fisheries within the study area

- 10.1.18 Defra statistics of fish landings for England, Wales and Northern Ireland by port are published annually. In addition to these data providing information on the quantity landed at ports they also indicate the value of fresh and frozen fish realised at first hand sale at these ports. The figures relate to the landings of UK registered vessels only and exclude landings by foreign vessels.
- 10.1.19 There is no statutory requirement for owners of vessels less than 10 metres length to declare their catches. Information from this sector is collected with the co-operation of the industry. It comprises log sheets and landing declarations voluntarily supplied by fishermen and assessments of landings derived from market sources and by correspondents located in the ports.
- 10.1.20 These data are useful as they allow a high level overview of the proportion of value landed of certain key species at particular ports in comparison to other areas e.g. South coast ports, total English ports, total English and Welsh ports.
- 10.1.21 Figure 10.2 provides an indication of the financial value of landings for finfish within the study area over the last five years. Overall, finfish make up a relatively small fraction of the total value of landings, with most of the value being due to shellfish landings.

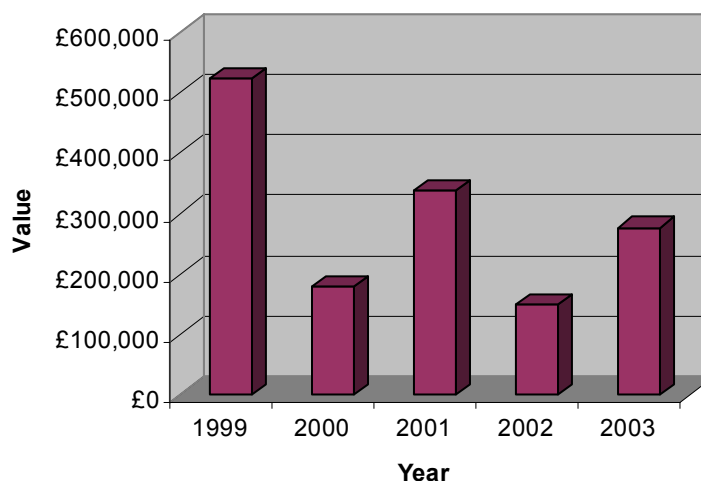


Figure 10.2 Financial value of finfish landings at the Port of Poole 1999-2003 (Defra landing statistics)

Migratory fisheries

- 10.1.22 The rivers Frome and Piddle are well known for salmon, migratory trout and brown trout fisheries. There are also several fishermen in the Harbour using fyke nets to catch eels. Licenses are required to take salmon and sea-trout from the sea within this limit, as well as to take eels (except by rod and line). Aside from licensed fishing for salmon and trout by rod and line, there is only one salmon and trout fishing operation licensed in Poole Harbour out of a total of seven licensed across Dorset. The salmon fishery has always been of a relatively low level (Environment Agency, 2004).
- 10.1.23 The salmon rod fishing season runs from 1st March to 31st August, and is further restricted by gear type within this season. The majority of the catch is taken from the tidal reaches of the rivers where adult salmon accumulate during summer and early autumn.
- 10.1.24 Licensed netting for salmon and migratory trout takes place in Poole Harbour. A new regulatory order introduced in January 2004, which applies for three years to Poole Harbour only, would restrict the fishery to one license. This single seine netsman operates in the Wareham Channel and entrances to the Frome and Piddle rivers. The netting season runs from 1 June to 31 July under new national byelaws introduced in 1999.

Shellfisheries

Overview and spatial and temporal distribution of activity

- 10.1.25 Poole Harbour is an extremely important area for its shellfish aquaculture, as regulated under the Several Fishery Order, and its wild cockle and clam fishery. Increasing numbers of fishermen are exploiting the molluscan fishery, due its diverse range of species and its productivity. Poole is characterised by a versatile fleet that are generally

equipped to take many different species and so move from one fishery to another as stock and regulations vary through the year.

10.1.26 Shellfish caught in Poole Harbour and Bay include the following:

- European oyster *Ostrea edulis*;
- Pacific oyster *Crassostrea gigas*;
- Manila clam *Tapes philippinarum*;
- American hard-shell clam *Mercenaria mercenaria*;
- Clam *Tapes decussate*;
- Mussels *Mytilus edulis*;
- Cockles *Cerastoderma edule*;
- Edible crabs *Cancer pagarus*;
- Spider crabs *Maia squinado*;
- Lobsters *Homarus gammarus*;
- Prawns *Crangon sp.*; and,
- Whelks *Buccinum undatum*.

10.1.27 In 2003, the fisheries for whelk, lobster and brown crab were plentiful and certainly more productive than offshore fisheries (SSFDC, January 2004). Stocks of cockles and clams have also proved healthy within the Harbour. The value and amount of shellfish in Poole Harbour has meant that there has been a significant shift of effort to the shellfish fishery from the traditional mullet, sole and bass fisheries. Figure 10.1 shows the balance of catch by weight; it clearly demonstrates that shellfish make up over three-quarters of the fish caught within Poole Harbour and Bay.

10.1.28 Approximately 10 to 15 fishermen target cockles on a part time basis outside of the clam season. Cockles can fetch up to £700 to £1000 a tonne and catches can (unusually) reach up to 1 tonne a day but catches are more typically significantly lower than this. Cockles are found and fished throughout the Harbour. The cockle fishermen now use a trailed pump scoop dredge, which, because of its high efficiency, is partly responsible for the growth in this fishery over the last 2 to 3 years. The cockle fishery is not licensed but is subject to several byelaw restrictions, including a closed season from 1st February to 30th April, a minimum landing size of 23.8mm and certain gear restrictions. Areas that are targeted for cockles are shown in Figure 10.3.

10.1.29 The clam fishery is open from October to January, the exact timing of which varies according to scientific advice. The clam fishery, which is the most valuable of the mollusc fisheries, is managed under the Poole Regulatory Order which includes the Manila clam *Tapes philippinarum*, the American hard shell clam *Mercenaria mercenaria* and native clams such as the blunt gaper *Mya arenaria* and *Tapes decussata*. Trough shells *Spisula sp.* are also taken within the Bay.

10.1.30 Clams are removed from the seabed using a pump scoop dredge which is towed along the seabed by small (under 10m) fishing vessels. Bylaws are in place to govern the size and mesh on the dredge. The SSFDC has estimated that at least 600 tonnes has been fished during the 2003-2004 season by both licence holders and poachers (100 tonnes), this has risen from 300-400 tonnes the previous year and 250-300 in 2001-2002 (Ian Carrier, SSFDC, *pers. comm.*). Some local fishermen believe that these figures could be a significant underestimation. Clams can fetch between £1500 and £3500 per tonne. Areas targeted for clams are shown in Figure 10.4.

Key:

- Low intensity cockle fishing area
- High intensity cockle fishing area
- Cockles taken during clam season

Source: ARCS Charts under license from the UK Hydrographic Office

Data from SSFD

Title: Locations of main cockle fishing areas (2002/03)

Project: Poole Harbour Approach Channel Deepening and Beneficial Use Schemes

Client: BoP and PHC

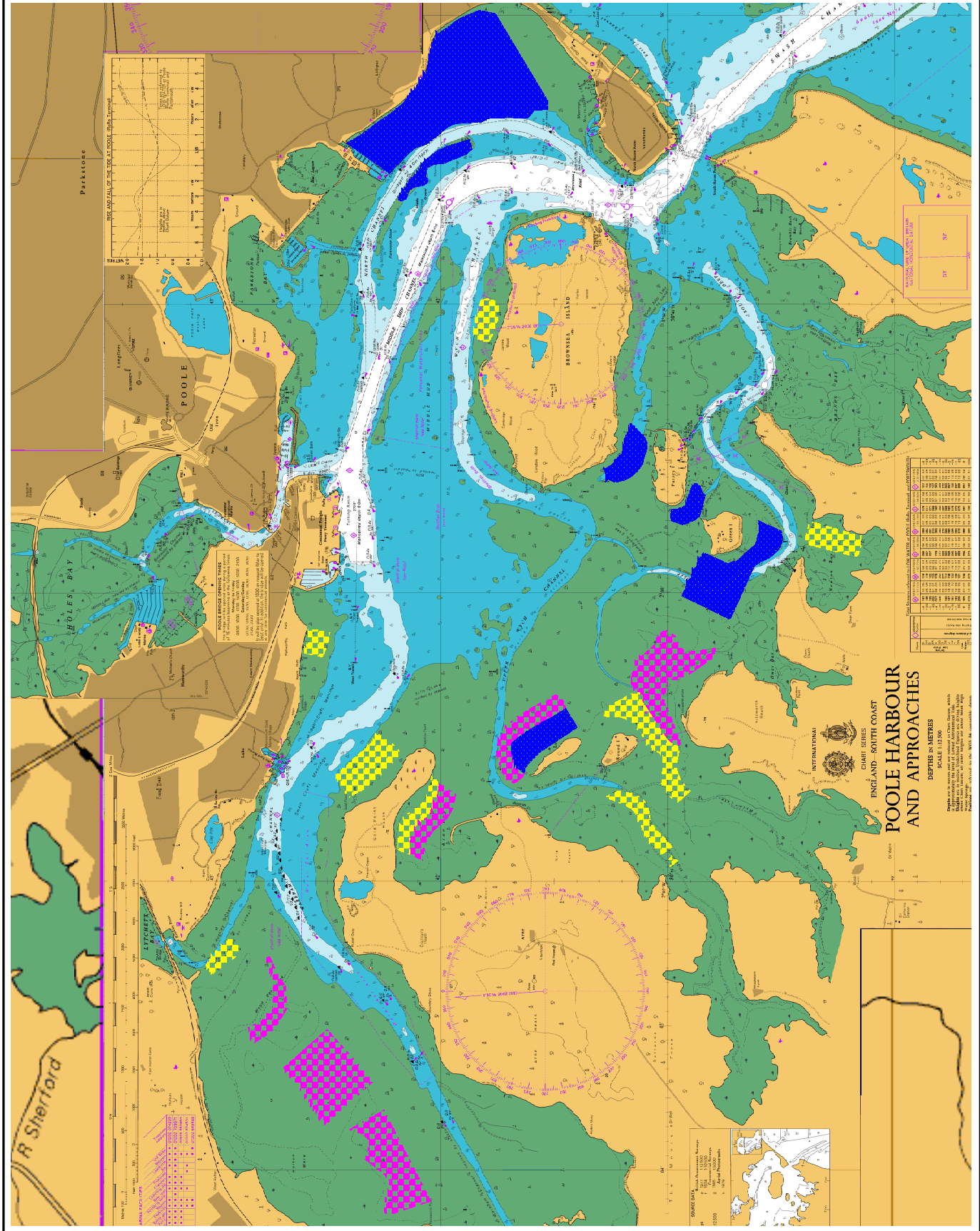
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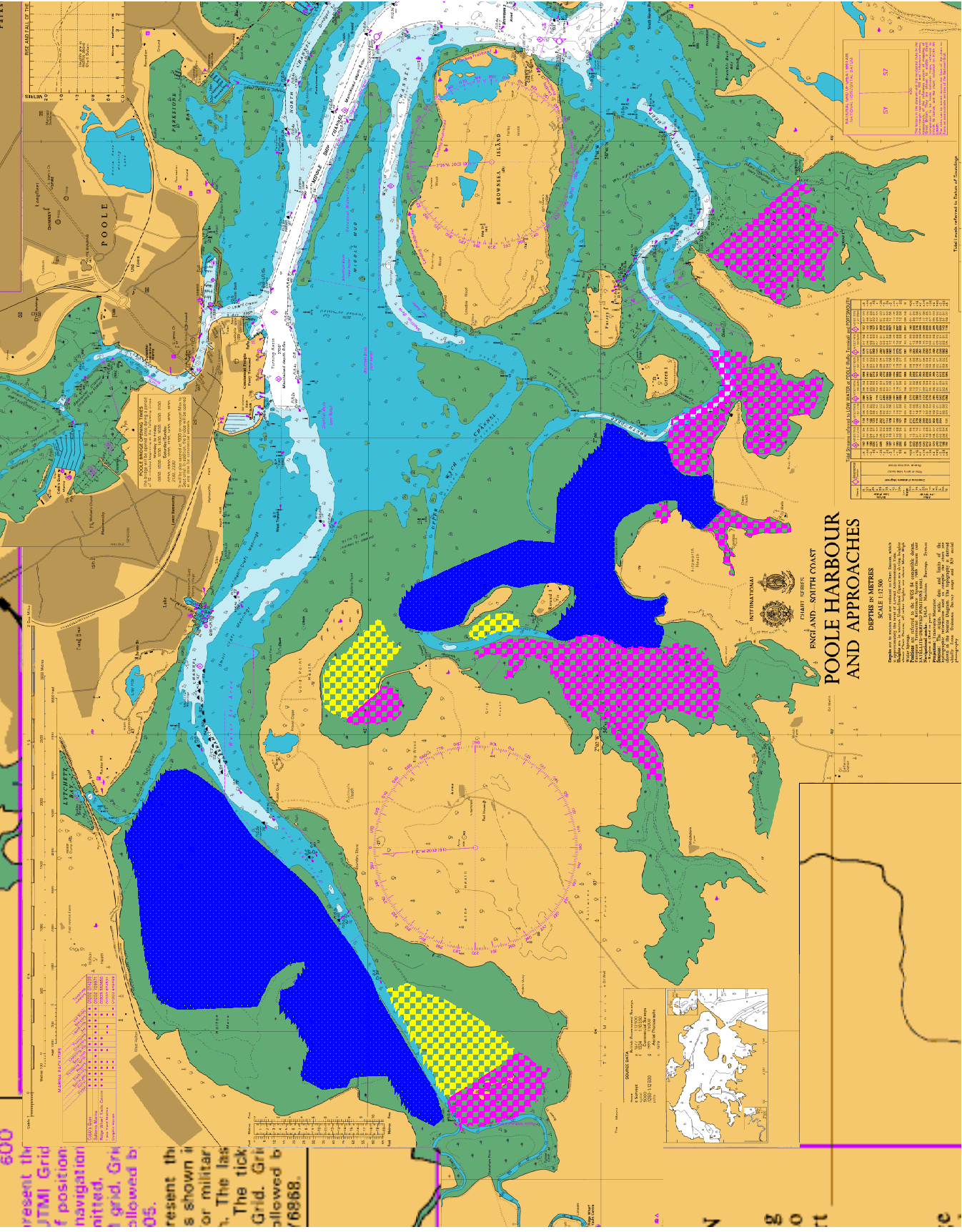
Approx scale: 1cm = 500m

Figure 10.3



POSFORD HASKONING





Key:

-  No clam fishing (2002/03)
-  Low intensity clam fishing area
-  High intensity clam fishing area

Source: ARCS Charts under license from the UK Hydrographic Office
Data from SSFD

Title: Areas of main clam fishery (2002/03)
Project: Poole Harbour Approach Channel Deepening and Beneficial Use Schemes
Client: BoP and PHC

Date: Oct 2004
Approx scale: 1cm = 360m

Figure 10.4



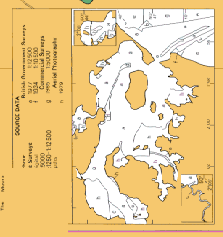
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ENGLAND - SOUTH COAST
**POOLE HARBOUR
AND APPROACHES**

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DEPTHS IN METRES
SCALE 1:500

Table with 2 columns: METRES and FATHOMS. It lists depth values in both units, ranging from 0 to 20 meters (0 to 11 fathoms).



Total Levels referred to Datum of Soundings

- 10.1.31 Oyster and whelks generally share the same habitat, which complicates management of their fisheries. Since the early 1980's, when the wild oysters in the Harbour were overfished, the wild oyster fishery has been closed to allow natural recovery of the beds. Therefore, there have not been any applications for licences to fish for wild oysters since this time. In addition to overfishing, the parasite *Bonamia* had an effect on the wild oyster and it is believed that TBT also affected the population.
- 10.1.32 Whilst fishing for bivalve molluscs is concentrated within the Harbour, outside of the Harbour the shellfish fishery is dominated by potting for crustaceans such as crabs and lobster, with many pots on rocky areas. The crab and lobster fishery is generally considered to be fully exploited (Ian Carrier, SSFDC, *pers. comm.*). As can be seen in Table 10.5, these fisheries continue throughout the year. Gaps in activity are the result of bye-laws enforcing closed seasons. Catches of cuttlefish and squid in otter trawls and traps have also provided a much welcomed addition to the spring fishery in recent years, but they are subject to wide fluctuations (Pawson, Pickett and Walker, 2002). Wild oysters are targeted in Poole Bay but there is a limited fishery for this species. On flatter ground in Poole Bay, whelk pots are also laid.
- 10.1.33 Most shellfish within Poole Harbour and Poole Bay are targeted throughout the year (Table 10.5).

Table 10.5 Seasonal fishing patterns within the study area for shellfish

Target species	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Pacific oyster – several fishery												
Wild native Clams outside the Regulated fishery												
Manila clam -several												
Regulated shellfishery (clams)												
Whelks*												
Mussels - several												
Cockles												
Cockles - several												
Lobster*												
Crabs*												

* Targeted within Poole Bay

Several/leased fishery

- 10.1.34 Under the Poole Harbour Fishery Order which has been in place since 1915, certain areas of the seabed within the Poole Harbour are leased to fishermen for the cultivation of a variety of shellfish species. The area under lease is approximately 182 hectares and oysters, cockles, mussels and clams are farmed on the seabed. The principal sites are located to the west and south of Brownsea Island (Figure 10.5). The amount of shellfish laid down on these plots is recorded as well as the amounts of shellfish harvested.

Key:



Leased beds

Source: ARCS Charts under license from the UK Hydrographic Office

Data from SSFD

Title:

Leased shellfish beds

Project: Poole Harbour Approach Channel Deepening and Beneficial Use Schemes

Client: BoP and PHC

Date: Oct 2004

Approx scale: 1cm = 350m

Figure 10.5



ROYAL HASKONING
POSFORD HASKONING



10.1.35 Approximately 100 tonnes of seed cockle *Cerastoderma edule* are laid on the several grounds each year. In the region of 2 million individual Manila clams *Tapes philippinarum* and 2 million individual Pacific oysters *Crassostrea gigas* are also laid each year within the several grounds. Up to 1500 tonne of seed mussel *Mytilus edulis* are grown on the several fisheries at any one time (Jensen, Carrier and Richardson, 2003). The mussel fishery has grown considerably since the late-1980s due to the increased demand. Juvenile mussels are taken from areas such as Portland and from other fisheries and re-laid in the Harbour (Pawson, Pickett and Walker, 2002). The mussel fishery has not grown in the last couple of years as the clam and cockle fishery has (Tim Page (SFI), *pers. comm.*).

Financial value of shellfisheries within the study area

10.1.36 The financial value of the shellfish fishery within the study area over the period 1999 to 2002 is show in Figure 10.6. In 2002 the shellfishery, at around £1.85m made up around 38.5% of the total shellfish landings for SSFDC ports, valued at around £4.8m.

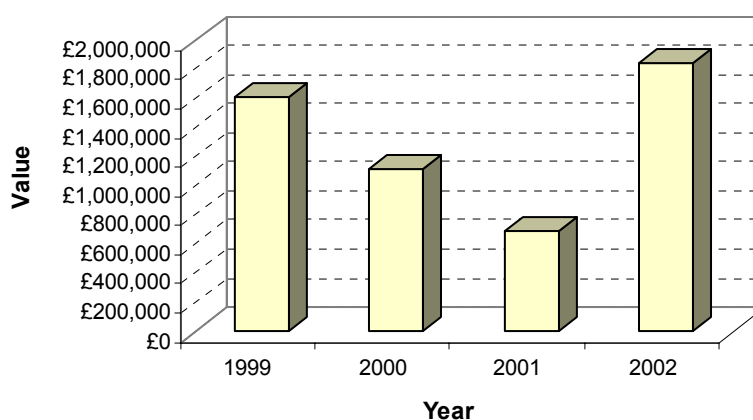


Figure 10.6 Financial value of shellfish landings at the Port of Poole 1999-2002 (Defra landing statistics)

10.1.37 The crab and lobster fishery has remained fairly stable in market value (both valued at between £2-300,000 each year) and landings over the last 5 years compared to the cockle, clam and mussel fishery.

Registered fishing vessels within the study area

10.1.38 There are 94 under-10m vessels with Poole registered as their home port; these are the vessels that will represent the inshore fishery in the immediate study area. However, many other boats from local ports also fish in the study area, but there is no information available on the effort from other ports within Poole Bay and the Harbour. Local

fishermen have stated that boats travel to the study area daily from other ports, and there are some that travel considerable distances and stay over several days.

- 10.1.39 With respect to over 10m vessels, only 6 had Poole registered as their home port based on the 2003 Fishing Vessel List. It is clear that Poole supports a largely inshore fishery and is becoming increasingly important over the offshore fishery.
- 10.1.40 Most boats under 8m operating within the Harbour are canoes and dories, harvesting clams and cockles and using gill or trammel nets to catch mullet, some also pot for prawns.
- 10.1.41 As set out above, there is a reasonable amount of information available, which establishes the commercial fisheries of the study area. It is recognised, however, that these data do not necessarily provide the complete picture in relation to the nature of commercial fishing activity and actual landings/values. The provision of landings data for under 10m vessels is voluntary and not all local fishermen will provide these data, thus potentially under representing the true value of commercial fisheries in any one area. There is also a concern that when compiling data on the existing environment, consultation is only carried out with these regulatory authorities and representatives of local fishing organisations. This situation can result in “data gaps” in site-specific knowledge of a study area.
- 10.1.42 Around 50 questionnaires were issued to the Poole and District Fishermen’s Association for distribution to their members. These questionnaires contained a range of questions designed to gather further information relating to commercial fishing activity in the area; however, only five questionnaires were returned and the responses did not add information to that already gained through direct consultation with local fishermen.

Recreational fishing

- 10.1.43 The charter fleet in Poole brings a significant amount of tourist revenue to the local economy. The fleet has doubled in size from only 16 boats in 2000, demonstrating the current growing market. The fleet mainly travels into the Bay and beyond into the English Channel, but uses the Harbour in bad weather. The popularity of the Harbour comes from the wide variety species that can be caught within the Harbour, with around 35 species catchable by rod and line. Cod and bass are caught in the Harbour entrance. During the period April through to October, the charter boats often fish for sandeel on the Soldier Bank (south of Middle Ship Channel) and at Hook Sand.
- 10.1.44 The flounder fishery is one of the largest attractions to anglers around Britain. This fishery attracts anglers from October to January. As the year progresses the anglers follow the movement of flounder from the upper reaches of the Harbour to the lower, with places such as Sandbanks over the Haven being popular spots during the New Year period (Poole and District Sea Angling Association, pers comm.). The main channels also provide a good place for plaice fishing through the year. Cod and bass are regularly targeted within the Harbour entrance. Angling competitions are important during the winter months and provide important sources of income to local retailers outside of the holiday season. Competitions occur along the shore of Poole Bay from Sandbanks to Hengistbury Head all year round. Boat competitions also take place between May and January, with one of the most important being the annual species hunt usually held in June. Winter boat fishing by recreational anglers is greatest around

the Lower South Deep and in the shallow waters to the northeast of the Middle Ship Channel (Poole and District Sea Angling Association, *pers comm.*).

Shore-based and small boat angling clubs and associations

- 10.1.45 Large numbers of anglers fish along the shoreline of Poole Harbour. There are approximately eight clubs in the Poole area alone and other local clubs from neighbouring towns and villages also use the shoreline to carry out sport fishing.
- 10.1.46 The flounder fishery is one of the largest attractions to anglers in the area, it is said it is one of the biggest flounder fisheries in the UK. Lytchett Bay, Rockley Point, Lake Pier and Hamworthy are popular locations for the fishing of early season flounders. As winter progresses, flounder fishing moves to the middle reaches of the Harbour, with Holes Bay, Baiter Park and Parkstone Bay and Blue Lagoon being favoured locations. It then moves towards the bottom of the harbour before the flounder move out to deeper water to spawn.
- 10.1.47 In summer months shore angling is restricted to evenings only due to the presence of holiday makers on the beaches.

10.2 POTENTIAL IMPACTS ASSOCIATED WITH APPROACH CHANNEL DEEPENING

Construction phase

Potential for loss of revenue due to the restriction of access to fishing grounds

Finfish fisheries

- 10.2.1 The capital dredging would result in some level of exclusion of fishing vessels from the immediate area around the dredging operations for health and safety reasons; it should be noted, however, that there are existing safety requirements with regard to activity in the main navigational channels at present. During winter, fishing within the navigation channel is mainly for finfish such as cod, rays, plaice, sole and flounder, with the latter being the main target.
- 10.2.2 Fishing would not be prevented in all areas of the channel for the whole duration of the capital dredging, but fishing would not be possible in the immediate vicinity of the dredger. All vessels would be subject to Harbour Control, as is currently the case for navigation in the Harbour.
- 10.2.3 The effect of dredging on access to potential fishing areas would, therefore, be localised to the area where the dredger would be operating. As a consequence, any impact would be short term and would not affect a significant area of seabed. The overall impact on fishing activity is therefore considered to be of **negligible significance**.

Shellfish and several fishery

- 10.2.4 The bivalve shellfisheries of Poole Harbour are concentrated along subtidal banks, the intertidal mudflats and the channels of the southern Harbour; no shellfisheries are located within the dredged channels. In Poole Bay, potting for crustaceans often occurs near the Swash Channel, but also occurs over wide areas of Poole Bay, with rocky areas being common sites for placement of gear.

- 10.2.5 Given that potting occurs throughout Poole Bay, the capital dredging would not, therefore, directly affect this activity. In terms of potential effect on access for fishing, the impact is considered to be of **negligible significance**.

Mitigation and residual impact

PHC would issue a Notice to Mariners to inform users of the Harbour about the location and duration of the dredging works. Sufficient warning should also be given to potters regarding the timing of the proposed dredging operations within the Swash Channel in order that any gear can be moved away from the proposed dredge zone to avoid possible damage.

No other mitigation measures are possible and the residual impact would be of **negligible significance**.

Potential for loss or damage to fishing gear

- 10.2.6 There is the potential for the capital dredging to damage and entrain static gear when operating outside of the Harbour entrance in Poole Bay. In particular, pots and nets are most at risk; however, it should be noted that there are no pots or nets laid within the channels. The greatest risk is from potential damage to buoy-lines between the gear and the dhan buoy at the surface. If this is cut then the gear will be lost. This has a considerable financial and logistical effect on fishermen who must replace the gear.
- 10.2.7 As stated above, potting is undertaken near the Swash Channel and this form of fixed gear is also placed across Poole Bay, especially around rocky areas. The area is also used heavily by general shipping, which also poses a threat to fixed gear placed in the channel. Given that all dredging would be within the existing dredged channels, **no impact** on fishing gear is predicted as a result of dredging.

Mitigation and residual impact

PHC would issue a Notice to Mariners to inform users of the Harbour about the location and duration of the dredging works. Sufficient warning should also be given to potters regarding the timing of the proposed dredging operations within the Swash Channel in order that any gear can be moved to areas outside of the proposed dredge zone to avoid damage.

No other mitigation measures are possible and there would be **no residual impact**.

Operational phase

Financial impact arising as a result of loss of fishery resource

- 10.2.8 The ultimate potential impact of the proposed dredging is an economic one which could arise should the construction and/or operational impacts of the capital dredging give rise to

a significant impact on the finfish and/or shellfish resource of Poole Harbour and Poole Bay. At the local level, a reduction in economic success in the fishing industry could have significant implications through reductions in income and potential job losses and. Many inshore fisheries are also a valuable community feature to which a financial value cannot be ascribed.

- 10.2.9 The potential impacts of the proposed scheme on finfish and shellfish resources during the construction and operational phases are described in Section 9.2. Although it is predicted that there would be a number of potential impacts arising as a result of the proposed dredging, the impacts can all be described as being either localised to the footprint of the dredging activity or of low significance. Importantly, although it is predicted that there would be short term construction impacts, there are no impacts predicted that would have a significant impact on targeted commercial species of either finfish or shellfish in either the long or short term. As such, it is not envisaged that the financial value of the fisheries within Poole would be affected and, therefore, **no impact** is predicted in this respect.

Mitigation and residual impact

No mitigation measures are required and there would be **no residual impact**.

Potential conflict between fishing vessels and commercial shipping activity resulting from the capital dredging

- 10.2.10 Immediately following the capital dredging, the usage of the Harbour by commercial shipping would be very similar to the existing situation. The main aim of the dredge is to allow access for larger ferries. Over time, it is envisaged that the deeper approach channel would allow larger vessels to access the Port, and the Port would be accessible for a greater number vessels given the creation of a deeper access channel. It is, however, envisaged that the total number of shipping movements within the Harbour would not be significantly increased due to the fact that the limiting factor is berthing facilities at the Port. Any proposals that may be put forward in the future to enhance berthing facilities would be require further consents and would be subject to additional relevant environmental assessment.

- 10.2.11 The existing navigational procedures that apply within the Harbour in order to safely control shipping and other uses of the Harbour would continue to be in place following the dredging. As such, the level of risk to which users of the Harbour are exposed would be the same as at present and, therefore, the impact is considered to be of **negligible significance**.

Mitigation and residual impact

Other than maintaining the current navigational control procedures, no further mitigation measures are required. The residual impact would be of **negligible significance**.

10.3 POTENTIAL IMPACT ASSOCIATED WITH THE OFFSHORE DISPOSAL OF DREDGED MATERIAL

Construction phase

Potential for loss or damage to fishing gear

- 10.3.1 The offshore disposal of dredged material has the potential to result in the loss or damage to fishing gear on the disposal ground as a plume of dredged material descends to the seabed prior to dispersing on the tidal currents. The area of seabed that could be affected in this way is relatively small given that the disposal of dredged material would be within the south-east quadrant of the offshore disposal ground.
- 10.3.2 Prior to the disposal of dredged material, PHC would issue a Notice to Mariners to inform fishermen of the location and timing of the disposal operations and, therefore, fishermen would have sufficient opportunity to relocate any gear within the potentially impacted area to other areas of the seabed. It should be noted, however, that PHC would not accept responsibility for the loss of any fishing gear present within a disposal ground that is approved for the disposal of dredged material.
- 10.3.3 As a result of the above, the disposal operations would have **no impact** on fishing gear.

Mitigation and residual impact

Other than issuing a Notice to Mariners, no other mitigation measures are required and there would be **no residual impact**.

Operational phase

Potential impact on fishing activity due to the disposal of maintenance dredgings

- 10.3.4 The proposed regime for maintenance dredging (and associated disposal) is described in Section 3.10. In short, the volume of material disposed of at the offshore disposal ground would be reduced given the proposals for agitation dredging in the Turning Basin which would retain fine material within the Harbour.
- 10.3.5 As such, the effect of the disposal of maintenance dredgings would be less than that which currently occurs and, therefore, **no additional impact** is predicted.

Mitigation and residual impact

No mitigation measures are required and there would be **no additional residual impact**.

10.4 POTENTIAL IMPACT ASSOCIATED WITH BEACH NOURISHMENT

Construction phase

Restriction of access to potential fishing grounds during the beach nourishment works

- 10.4.1 During the placement of dredged material on the beaches as part of the nourishment schemes, a dredger would be positioned approximately 0.5km from the shoreline. This has the potential to interfere with fishing operations using the area due to the presence of the dredger and the pipeline between the dredger and the shoreline. Access to potential fishing grounds between the dredge and the shoreline would be restricted for the period when the works are being undertaken. This would also apply to recreational beach fishing. However, given the temporary nature of the works and the relatively small area of that would be restricted the impact on fishing activities would be of **negligible significance**.

Mitigation measures and residual impact

The relevant Authorities would inform other users of Poole Bay about the location and duration of the beach nourishment works. The residual impact would be of **negligible significance**.

Operational phase

Potential impacts associated with beach renourishment

- 10.4.2 During the operational phase, it is recognised that there is the potential for using appropriate material that arises from the maintenance dredging of the approach channel in a beneficial manner for beach renourishment within Poole Bay. The potential environmental impacts of such renourishment are dependant on the location where it is considered that nourishment is required, the volume of material that is placed on the beach and the nature of the material.
- 10.4.3 Given that there is no scheme for renourishment at present, this is outside the scope of this EIA which focuses on the potential impacts of the initial nourishment scheme. The potential environmental impacts associated with any renourishment scheme that may be required would need to be taken into account during the application for the Food and Environment Protection Act and Coast Protection Act consents that would be required.