HARBOURS ACT 1964 (AS AMENDED)
THE POOLE HARBOUR REVISION
(WORKS) ORDER 2014
ENVIRONMENTAL STATEMENT
VOLUME 1: ENVIRONMENTAL
STATEMENT NON-TECHNICAL SUMMARY
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1. **INTRODUCTION**

1.1. **Background to the Proposals**

1.1.1. Poole Harbour Commissioners (PHC) prepared a Master Plan for the sustainable management, conservation and development of the Port over the next 25 to 30 years. This was adopted in 2013 following extensive consultation.

1.1.2. The Master Plan is a strategic document which considers a number of wide ranging options for the future development of the Port. These options are freestanding.

1.1.3. PHC have decided to seek development consent for all of the elements identified in the Master Plan process that relate to the modernisation of the commercial Port infrastructure. This will require a Harbour Revision Order (HRO) under the Harbours Act 1964.

1.1.4. This application is supported by a number of documents including an Environmental Statement (ES), which reports the results of a study (the Environmental Impact Assessment (EIA)) into the likely significant impacts of the proposed developments on the environment.

1.1.5. This Non-Technical Summary is Volume 1 of the ES and provides a summary of the assessment undertaken in non-technical language.

1.2. **The Port Of Poole**

1.2.1. The Port of Poole is located in Dorset on the south coast of England. The Port lies within the strategically important Poole Harbour, a large shallow water body with a narrow access to the main shipping lanes along the south coast. The Port is located on the north shore of the Harbour. The Site Location Plan is shown in Figure 1. The existing site layout is shown in Figure 2.

1.2.2. The Port of Poole is a Trust Port, one of 100 located in the UK. It was established by Parliamentary statute in 1895 and is managed by PHC. As a Trust Port, it is an independent statutory body, which is governed by its own, unique, local legislation and controlled by an independent board (PHC). Trust Ports have no "owners", their main stakeholders being users of the Port, employees and the local community.

1.2.3. The Harbour is an environmentally sensitive area, containing ecological sites which are important at European and national level, many sites of archaeological interest, conservation zones and sensitive landscapes.

1.2.4. The Port of Poole has been, and continues to be, a key supplier of employment and commercial opportunity in the Poole area. However, changes in market conditions have led to significant reductions in cargo and passenger traffic at the Port over the past 10 years. This trend will continue as market forces continue to affect the shipping industry. An analysis undertaken by PHC has shown that the use of the Port will be compromised unless new, deeper, facilities are provided.

1.2.5. The proposed developments are designed to:

- Improve the Port’s capacity and capability to deal with a range of shipping and marine activities;
- Provide additional and deeper quays, to improve operational flexibility and facilitate expansion and diversification;
- Reduce the risk of exclusion from some markets and/or over-reliance on individual trade sectors;
- Replace ageing infrastructure that is approaching the end of its design life with modern facilities better able to meet the needs of future markets;
- Facilitate the expansion of traditional links between the Port and other elements of the local and sub-regional economy; and
- Continue to generate the necessary resources to conserve and protect the Harbour.
Figure 1: Site Location Plan
Figure 2: Existing Site Layout
1.3. **The EIA Process**

1.3.1. An EIA is required for certain projects under European law by European Directive 85/387/EEC as amended by Directive 97/11/EC and Directive 2003/35/EC. In England and Wales, this is given legal effect through a variety of legislation, including the Harbours Act 1964 (hereafter referred to as “HA64”). This ES complies with the requirements of HA64.

1.3.2. The ES identifies, describes and assesses the likely environmental impacts of the proposed developments and outlines any mitigation measures required to avoid, reduce, and, if possible, remedy the significant adverse impacts. It also provides relevant information regarding the design of the proposed developments, and the main alternatives considered, to enable the Marine Management Organisation (MMO) to decide whether or not to approve the proposed developments.

1.3.3. In parallel to the EIA process, and in accordance with the Conservation of Natural Habitats and Species Regulations 2010, a Habitats Regulations Assessment has also been carried out on the possible impacts associated with the proposed developments on European Designated Sites within the Harbour. This has concluded that the proposed developments would have no significant impact on these sites.

2. **DESCRIPTION OF THE PROPOSED DEVELOPMENTS**

2.1. **Proposed Developments**

2.1.1. The proposed developments are shown in Figure 3 and comprise the following elements:

- **Phase 1 (called Works 1 and 2 in the HRO)**: The creation of South Quay, a new 180m long deep water south-facing quay dredged to 9.0m Below Chart Datum (BCD). This development would require approximately 8,000m² of reclamation and allow for the Port of Poole Marina to continue to operate;

- **Phase 2 (called Works 3 and 4 in the HRO)**: Increase the width of South Quay by a further 20m and develop 120m of east-facing berth (East Quay) dredged to 7.5m BCD. This development would produce a further 7,000m² of reclamation, reducing the capacity of Port of Poole Marina;

- **Phase 3 (called Works 5 and 6 in the HRO)**: Deepening of existing conventional quays including Ballast Quay, Bulwark Quay, New Quay and New Quay extension to 7.5m BCD (referred to in the adopted Master Plan as ’Proposal C’), with minor modifications to the line of the existing quays including raising the coping to address flood defence considerations and creating 2,600m² of reclaimed land;

- **Phase 4 (called Works 7 and 8 in the HRO)**: Completion of East Quay, extending northwards to join New Quay extension, eliminating the Port of Poole Marina and creating a further 22,000m² of operating land. (This scheme is referred to as ‘Proposal B’ in the adopted Master Plan);

- **Phase 5 (called Works 9 and 10 in the HRO)**: Reconstruction of the existing Ro-Ro berths to facilitate deeper drafted vessels. This would involve a berthing face of 350m dredged to 9.0m BCD. The footprint of reclamation for this development would be 5,000m².

Figure 3: Proposed Developments
2.2. **Operation**

2.2.1. Phases 1 and 2 would allow the Port to be used by a wider variety of craft such as cruise ships, small container feeder ships, bulk cargo vessels, and possibly wind park construction vessels. These vessels could potentially be up to 180m in length.

2.2.2. Phase 3 would allow larger and deeper vessels to access the Port, and would increase efficiencies of scale at the Port.

2.2.3. Phase 4 would enable use of the Port for the operation and maintenance base of Navitus Bay Wind Park (should Poole be selected as the preferred base) and would also offer the potential for the Port Estate to expand for its own purposes, for example, for storage and handling of cargoes.

2.2.4. Phase 5 would enable larger vessels to use the Ro-Ro berths should this be considered necessary in the future. However, the existing berths would continue to operate as they are until it is considered that larger facilities are required.

3. **CONSIDERATION OF ALTERNATIVES**

3.1. **Options**

3.1.1. There is a clear need to develop the Port to maintain and enhance current and future trade opportunities. Leaving the Port as it is would result in a gradual reduction in trade as customers seek longer and deeper quays to realise the economies of scale, and relocate to other ports along the South Coast. It is also important to remember that PHC plays an important conservation role within the Harbour, managing it to provide environmental protection whilst allowing controlled leisure and commercial activities. Reductions in trade at the Port would inevitably affect PHC’s ability to continue to manage the environment in the Harbour.

3.1.2. Given the environmental sensitivity of the land around the Harbour, and the lack of suitable development land in the Harbour, expansion outside the Port for the type of facilities proposed is not possible. Therefore, PHC has concentrated on options for development of the existing Port land and facilities.

3.1.3. As part of the Master Plan process, a number of development options, and combinations of options within the Port Estate were considered, and their performance measured against sustainability objectives. A total of three options for the development of existing facilities on the Port were considered. Following assessment, two of these options were selected to form the basis of the finalised Master Plan. These two options form the basis of the designs included in this HRO application.

4. **SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS**

4.1. **Introduction**

4.1.1. The potential impacts of the proposed developments on the environment, both beneficial and adverse, have been considered by a team of specialists. The results of the assessments are presented below.

4.2. **Coastal Processes**

4.2.1. Poole Harbour has a relatively small tidal range with the largest tidal range at the Poole Harbour entrance being only 2.6m. At Poole Quay the tidal range is even smaller.
4.2.2. The development site is sheltered from offshore waves by the small size of the Harbour entrance and by Brownsea Island. This means that waves at the Port are small and only generated by wind passing over the water in the Harbour. The most frequent and strongest winds come from the south to south west.

4.2.3. The seabed in the area of the proposed developments is made up of sandy silt and silty sand. Modelling undertaken as part of the EIA shows that erosion and deposition of seabed sediments currently occurs across the site, and that changes occurring as a result of the proposed developments will be small. Natural movement of sediment into the newly dredged areas will require occasional dredging to maintain depth, but the impacts are considered to be negligible.

4.2.4. The proposed developments are likely to result in small localised changes to the flow regime in the Harbour, with little change noticeable at a distance greater than 200m. Modelling has shown that the tidal flow rate would slightly increase to the east of the proposed developments in the Little Channel and to the south of the development site during all states of the tide. Elsewhere, speeds would decrease in response to the proposed developments and the dredging.

4.2.5. Following construction, any changes to the wave conditions caused by the proposed developments would be small and restricted to the areas around the development site.

4.2.6. It is considered that, overall, there would be little impact on coastal processes as a result of the proposed developments.

4.3. Water, Land and Sediment Quality

4.3.1. Poole Harbour is a deeply indented estuary with freshwater input from four main rivers and a number of minor streams. The water in the Harbour is of varying salinity, however the overall quality of water within the estuary is good. However, it suffers from increased levels of nitrates which mainly come from local agriculture with a much smaller amount coming from the local sewage treatment works. Bathing waters within the estuary meet the higher set of standards set out in the Bathing Water Directive and shellfish beds meet European standards.

4.3.2. The quality of sediment within the vicinity of the proposed developments is good with some occurrences of metals and organic compounds, but which fall well within levels found in similar estuarine environments. The Harbour suffers from a net loss of sediment, which is a potential risk to the quality of the ecological habitats designated at European level within the Harbour. As part of the work, dredged material will either be used in the development, or disposed of at designated disposal sites, with those in the Harbour being used where possible.

4.3.3. During construction, potential impacts to the water environment could include a temporary increase in water turbidity during dredging, or by accidental releases from construction activities. However, the use of a Construction Environmental Management Plan (CEMP), construction mitigation measures, good construction management, and the dredging protocol, which is already in place in the Harbour, will mean that impacts will not be significant.

4.3.4. During operation, impacts on the water environment could occur from operations at the Port itself. However, the Port already employs a range of management measures which minimise the potential for impacts to occur on the water environment. These measures will continue to be used, and will be equally effective. This means the operational impact from Port activities is considered to be negligible.

4.3.5. Overall, following the introduction of mitigation measures, it is unlikely that there will be any significant adverse impacts to water, land and sediment quality as a result of the proposed developments.

4.4. Marine and Terrestrial Ecology

4.4.1. There are sites designated for their international ecological importance that could potentially be affected by the proposed developments. The location of these European Sites is shown on Figure 4. The closest to the development site is the Poole Harbour Special Protection Area (SPA) and Ramsar Site. The SPA covers an area of 2271.99 hectares (ha) and is protected because of
the number of wild birds it supports in the breeding season, on passage and over winter. This SPA regularly supports at least 20,000 waterfowl and covers an extensive network of intertidal mudflats around the Harbour.

4.4.2. Poole Harbour is also designated as a Ramsar site because as well as the bird populations, it supports two species of nationally rare plant and one nationally rare species of algae. In addition there are at least three scarce or threatened invertebrate species. A nationally rare sponge is also present. The Ramsar site covers 2439.1 ha.

4.4.3. In addition, there are 16 identified nationally designated sites within 5km of the development site. Five are Sites of Special Scientific Interest (SSSI) and there are two SSSI and National Nature Reserve (NNR) shared sites, and two shared SSSI and Local Nature Reserve (LNR) sites. The nearest SSSI site is Poole Harbour SSSI which is in close proximity to the proposed developments. There are two Marine Conservation Zones (MCZ) (with one additional site that was recommended as an MCZ but not chosen) and four LNRs in the study area. There is one Site of Nature Conservation Interest (SNCI) in the vicinity of the proposed developments.

4.4.4. There are important habitats in Poole Harbour and the surrounding areas. These include saltmarshes, reedbeds, intertidal and subtidal mudflats, shallow inshore waters, and lagoon habitats at Brownsea Island and at Parkstone Lake approximately 1.8km to the east of the proposed developments (undesignated but surrounded by the Poole Harbour SPA/SSSI). Areas of lowland heathland, reedbeds, coastal sand dune and coastal and floodplain grazing marsh habitat are also present.

4.4.5. The Harbour supports beds of Eelgrass, which is an important habitat for a range of species, including the Spiny Seahorse and Short Snouted Seahorse. The habitat is recognised as a UK Priority Habitat. The Harbour also supports a diverse and abundant fish population, due to the productive estuarine conditions; the sheltered environment provides an important nursery area (e.g. for bass) and migratory route for a number of ecologically and commercially important fish species such as salmon, sea trout, European eel and lamprey species.

4.4.6. On land, there are records from areas outside the Port of species such as Stag Beetle, slow worm, grass snake and common lizard. The Port itself is largely hard-standing with modern buildings associated with the operation of the Port. The land-based habitats in the Port are not of particular conservation concern, being widespread and well represented locally.

4.4.7. Studies of the possible impacts of the proposed developments on local ecology have been undertaken as part of the EIA. The studies have focussed on impacts on the marine environment due to the relative importance of the habitats and designated sites of the Harbour compared to the poorer quality habitats on the development site itself. The studies have shown that all construction undertaken would occur outside the protected sites. Measures would be taken to minimise disturbance to wintering birds and the release of sediments and contaminants. These measures would be controlled by a CEMP which would be agreed with relevant authorities and would be monitored to ensure that it was effective during construction.

4.4.8. Overall, it is unlikely that there will be any significant adverse impacts on the ecology of the site or surrounding areas or to sites of ecological importance and designated sites as a result of the proposed developments once mitigation measures have been implemented.
Figure 4: Poole Harbour European Designated Sites
4.5. **Historic Environment**

4.5.1. There are no protected sites or buildings within the development site.

4.5.2. Within the local area, there are three Scheduled Monuments, all of which relate to the medieval port town of Poole. These are a section of town wall, Scaplen’s Court (a 15th to 16th century merchant’s house), and the Town Cellar (part of a 15th century wool house). Both Scaplen’s Court and the Town Cellar are also Grade II listed buildings. There are 197 listed buildings near the development site, as well as one Grade II Registered Park and Garden – Poole Park, which is also a Conservation Area and a Local Heritage Asset.

4.5.3. There are four Conservation Areas in the vicinity of the proposed developments which are Poole Town Centre; Poole Park; Heckford Park; and Ashley Cross, Parkstone. In addition there are 183 Local Heritage Assets.

4.5.4. Surveys carried out have shown that the seabed contains areas of peat and marine sediments, which are of historical interest as they contain information on the area before and after the development of the Harbour. The deposits are also of value in a wider context as Poole Harbour is recognised as a key location for the study of sea level change in Southern England.

4.5.5. In addition, the Port of Poole Marina east breakwater was partially constructed with four sunken ships, which remain in place to this day.

4.5.6. The assessment identified only three potential impacts which required mitigation. These are the loss of the peat deposits through dredging works, the destruction of the historic ships assemblage and the potential for loss of marine archaeological material during ground works.

4.5.7. Mitigation measures to be put in place would mitigate any significant impact that the proposed developments might have. Mitigation would include archaeological assessment and recording of the historic ship assemblage, and the implementation of a reporting process for any finds of marine archaeological material.

4.5.8. Overall, it is unlikely that there will be any significant adverse impacts on heritage as a result of the proposed developments once mitigation measures have been implemented.

4.6. **Landscape and Visual Amenity**

4.6.1. The Port is part of the Hamworthy (East) townscape, a low-lying, flat hard-standing area of operational Port facing onto Poole Harbour. As an area of reclaimed land with few significant fixed landscape features the development site is considered to be of low sensitivity to the proposed change. It also has a history of constant change and general Port activity. The site is fully lit during the hours of darkness.

4.6.2. Beyond the development site, the study area is a landscape of two halves, the urban townscape of the northern shoreline of the Harbour and the southern rural landscape of the Isle of Purbeck Area of Natural Beauty (AONB). The AONB is a nationally significant landscape protected for its natural beauty, whilst much of Poole’s character and importance is derived from the economically important Port and related Harbour-side industries.

4.6.3. The site is located in the Hamworthy East Landscape Character Area (LCA) and next to Town Quay in the Poole Old Town LCA. The extent and location of the LCAs are shown on Figure 5.

4.6.4. The development site is reclaimed land and has been surfaced to create a flat featureless area of hard standing with associated structures and buildings. Beyond the development site the land is dominated by low lying, gently undulating land, rising from sea level to approximately 50m above ordnance datum (AOD). To the south the topography is more varied with the low undulating Studland Peninsula flanked by the chalk ridge of Purbeck that rises to 180m AOD.

4.6.5. The vegetation of the area is mainly woodland which is widely distributed through the southern part of the study area, and across most of the heathland. Only the highest chalk ridge landscapes have little or no woodland cover. The overlapping belts of woodland are dense and reduce views of Poole Harbour from the south and west.
4.6.6. The visual influence of the existing Port extends beyond the development site and over the open water of Poole Harbour and beyond. Views of the development site are however limited in extent due to a combination of topography, vegetation and buildings which screen potential views.

4.6.7. In terms of views, the most sensitive viewpoints are the distant panoramic views from within the AONB; however from these locations the Port is seen as a small part of a mosaic of landscapes and townscapes that create the visually rich setting of Poole Harbour.

4.6.8. During construction, impacts are to do with small scale changes and demolition on the Port, reclamation of open water, indirect impacts on the surrounding area from increased activities in and around the Port, and increased construction traffic on both land and sea.

4.6.9. The main landscape impacts identified for the operational phase are impacts on Poole Harbour through the reclamation of water areas for the extended quayside, limited impacts on the northern shore of Poole Harbour, and landscape impacts to the south (including the AONB) from increased Port activity due to increases in capacity, increased lighting, and industrial activities. These impacts are considered likely to diminish with distance from the proposed developments.

4.6.10. Anticipated visual impacts during the operational phase will be subtle changes in views of the area from changes to the structure of the Port, an increase in the lighting of the Port area, views of an increase in ship movements and associated activities (can be considered a positive impact for people with an interest in shipping) and some minor impacts on northern shore viewpoints. There may also be some moderate impacts to the south of the development site (including in the AONB). The largest anticipated impact is from the night lighting rather than daytime activities. All of the impacts will diminish with distance from the proposed developments.

4.6.11. Generally speaking, the landscape and visual impacts during both the operational phase and the construction phase have been found to be on a small scale and represent incremental changes to the situation as it is now, rather than fundamental changes.

4.6.12. Overall, there will be some locally significant adverse impacts on both the landscape and visual receptors close to the development site. However, it should be noted that many people will view the changes (increased Port activity and shipping) as a beneficial impact of the proposed developments. Elsewhere the wider visual impacts would be small scale, incremental and not significant.
Figure 5: Landscape Character Areas
4.7. **Transport**

4.7.1. New Quay Road is the only direct access road to the development site. Traffic data for this link shows that lorries avoid the peak periods on the road network and Heavy Goods Vehicles (HGVs) numbers on the local road network are highest at 07:00 hours and 22:00 hours, due to operations at the Port.

4.7.2. PHC data in relation to Ro-Ro operations shows that there has been a decline in the passenger and freight volumes handled by the Port of Poole. Data collected suggests there are currently approximately 327 two-way HGV movements per day associated with activities within the Port.

4.7.3. Pedestrian and cycle facilities around the development site are of reasonably good quality for those undertaking walking and cycling trips in the local area of the development site. In addition the Port Estate is well served by public transport with bus stops located on the B3068 Blandford Road providing frequent bus services to Poole town centre, Hamworthy, and Poole Bus and Coach Station. Poole Railway Station is approximately 1km from the development site.

4.7.4. In terms of road safety, no specific accident black spots have been identified in the vicinity of the development site.

4.7.5. The potential impacts on transport during the construction phase of the proposed developments have been considered and it has been shown that daily construction related traffic would only form a small proportion (up to about 26%) of the operational traffic flows and would only occur over a relatively small number of days throughout the construction period. Road traffic during construction would be managed by a series of management plans and the majority of plant and materials would arrive by sea.

4.7.6. It is estimated that the maximum anticipated daily additional traffic volumes would include up to 245 HGV trips and 261 car and light vehicle based trips associated with the full operation of the proposed developments during a busy Friday in August. This includes 225 vehicles associated with a cruise ship using the Port as a turnaround port, which would only occur up to 15 times a year. The majority of HGV traffic would also remain spread over the day and not coincide with highway peak periods.

4.7.7. The assessment of the junctions on the local highway network has established that the local junctions should all remain within capacity and the impact of the proposed developments at all junctions is likely to be slight and not significant. The traffic from the proposed developments would disperse rapidly away from the Port Estate and the impacts would not be material in the context of the baseline traffic flows. Any impact of development traffic at the New Quay Road/Bridge Approach/Blandford Road Junction is considered likely only to happen on rare occasions during the year.

4.7.8. The impact of the proposed developments on the Strategic Road Network is not expected to be significant.

4.7.9. Regardless of the above, the Port is committed to further minimising any potential transport impact of its operations on the local networks in future through the implementation of a Travel Plan that will be monitored and reviewed in consultation with the relevant authorities.

4.7.10. Overall, it is considered unlikely that there will be any significant adverse transport impacts as a result of the proposed developments once mitigation measures have been implemented.

4.8. **Noise and Vibration**

4.8.1. The noise levels measured during the environmental noise surveys at the development site showed that a variety of noise sources currently impact on the existing noise climate. Noise sources observed during the attended survey included operations of the nearby Cemex facility, calling gulls and other sea birds, road traffic, boat movements, distant plant emissions,
movement of large steel shipping containers within the Port, lapping waves, and plant noise from buildings on The Quay.

4.8.2. For the proposed developments, the people most likely to be impacted by noise and vibration are those living in the residential properties located close to the development site and the local road network. Noise and vibration from the construction works and construction traffic, as well as noise emanating from the operation of the cruise berths and wind park, and additional road traffic and vessel movements during the operational phase are the main potential sources of noise and vibration impacts that were identified.

4.8.3. Aside from construction noise, all of the other identified impacts in relation to noise and vibration were not considered significant and therefore do not require any mitigation measures.

4.8.4. Construction noise is considered to be a significant impact before mitigation and so Best Practice Construction methods would be followed including measures such as specifying working hours, using silenced and well maintained plant, minimising the drop height of materials where possible, briefing of site-based personnel to raise awareness of noise and vibration issues, and the carrying out of regular noise inspections.

4.8.5. Overall, it is not likely that there will be any significant adverse impacts as a result of the proposed developments once mitigation measures have been implemented.
Figure 6: Noise Monitoring Location Plan (not to scale)
4.9. **Air Quality**

4.9.1. The air quality within Poole is generally good and well within UK air quality objectives with the exception of two small areas, both of which are not located near to the development site.

4.9.2. Air quality monitoring data shows an improvement between 2011 and 2012, and baseline modelling show that pollutant levels at sensitive receptors for 2012 are predicted to be within UK air quality objectives.

4.9.3. The sensitive coastal saltmarsh and coastal grazing marsh are currently within the critical load / level for nitrogen deposition and nitrogen oxides from all sources, including airborne.

4.9.4. In terms of air quality, the potential construction phase impacts arise from construction dust and emissions from construction vehicles. Residential properties within 350m of the construction site could be affected by dust from demolition, construction activities and transfer of mud on to the road (trackout). Residential properties within 200m of the main construction HGV routes could be impacted upon by the increase of construction vehicle emissions. However, both construction dust and construction vehicle emissions impacts are temporary in nature and are not considered to be significant.

4.9.5. The use of a CEMP and following best practice construction methods will minimise the dust nuisance at nearby residential properties. Construction vehicle emissions will be minimised by timing deliveries to be outside of peak traffic hours as far as possible and through careful selection of the routes they take to the site.

4.9.6. During the operational phase of the proposed developments, the air quality impacts come from the predicted increased traffic flow resulting from the upgraded Port facilities. However, the modelling undertaken has shown there are no residual significant impacts due to the proposed developments.

4.9.7. Nitrogen dioxide and particulate matter concentrations at sensitive receptors are predicted to be within the long term and short term UK objectives for human health. Predictions of nitrogen oxides on the Poole Harbour SSSI/SPA areas close to Twin Sails Bridge and The Quay are within the Critical Level. Predictions of nitrogen oxides on the Poole Harbour SSSI/SPA area close to Holes Bay Road are exceeding the Critical Level both with and without the proposed developments. Predictions of nitrogen deposition on the Poole Harbour SSSI/SPA areas close to Twin Sails Bridge, The Quay and Holes Bay Road are within the Critical Load.

4.9.8. Overall, it is considered that there will not be any significant adverse impacts on air quality or designated areas as a result of the proposed developments once mitigation measures have been implemented.

4.10. **Navigation**

4.10.1. Poole Harbour combines recreational activity with a commercial Port and ferry terminal. PHC’s Annual Marine Safety Report 2012 details total reported incidents for the period April 2011 to March 2012. For the stated period there were a total of 114 reported incidents, the majority relating to speed infringements or due to vessels proceeding beyond the red light at Poole Bridge. Other incidents included 8 collisions, 5 groundings and 10 close misses. This shows an increase in reported incidents from the previous year, which is attributed to improvements in the reporting procedures.

4.10.2. The potential impacts from a navigational perspective fall under three main categories:

- **Collision** – Increased size and frequency of commercial vessels, reduced passing room and construction barges.
- **Contact** – Contact with new structures during manoeuvring, contact with temporary structures.
- **Grounding** – Increased size of vessels would reduce under keel clearance and increase suction effect, grounding on underwater obstructions during construction, size of vessel exceeding tug/towing capability.
4.10.3. The types of risks identified for both the construction and operational phase of the proposed developments are similar in nature, except that during the construction phase some of the risks outlined above would apply to construction barges and partially completed structures in addition to the vessels already using the Port, whereas the operational phase risks would apply to fully completed structures and vessels using the new and existing structures.

4.10.4. A variety of mitigation measures are recommended and they are broadly applicable to both the construction and operational phases of the proposed developments. The mitigation measures are as follows:

- Use of Harbour Control and Vessel Traffic Service;
- Notice to Mariners;
- Improvement of radar coverage;
- Pilotage of vessels;
- Change of pilot boarding positions;
- Use of exclusion zones during construction;
- Regulatory speed limits;
- Enforcement patrols;
- Review of passing positions and manoeuvring procedures for large vessels;
- Fendering and illumination;
- Port information and pilot support;
- Enforcement of Under Keel Clearance policy;
- Review of day marks and transit marks; and
- Review of tug capacity.

4.10.5. Overall, there are unlikely to be any significant impacts in respect of navigation as a result of the proposed developments once mitigation measures have been implemented.

Figure 7: Ferry approaching the Port

4.11. Coastal Protection and Flood Defence

4.11.1. The development site is on the northern shore of Poole Harbour which is one of the world’s largest natural harbours. The Harbour is very shallow with one main dredged channel providing access for larger ships. The east and north sides of the development site border the narrow channel that connects the main Poole Harbour with Holes Bay to the north. The Harbour entrance is located approximately 4km south-east of the development site at its nearest point.
4.11.2. The development site is designated as a ‘Secondary A Aquifer’ which is defined as “permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.” This designation is the second highest level of aquifer behind ‘Principal Aquifer’. Groundwater levels at the site are very high due to low land levels and the close proximity of the sea which provides a natural water level control. As the groundwater level is high, the potential for infiltration of surface water is very low.

4.11.3. Surface water run-off from the development site and the surrounding area is currently channelled directly into Poole Harbour through interceptors. This will not change following the proposed developments. The lack of downstream receptors combined with the size of the Harbour means the continuation of this system is thought to be adequate for dealing with this potential impact.

4.11.4. The EA Indicative Floodplain Maps show that New Quay, Ballast Quay and Bulwark Quay are at high probability of flooding, although the majority of the area of the Port of Poole is at low probability. This is not, however, considered to be a significant impact as the proposed developments are classified as being ‘water-compatible’ meaning any flood events would not have a significant adverse impact on them. Combined with this, a height increase of the quay walls to 4mCD and 4.5mCD in accordance with the local Flood Risk Management Strategy will help reduce the flood risk to the development site and offer additional protection for the Port from extreme weather events, e.g. storms.

4.11.5. The EA reports also indicate that the Mean Sea Level at Poole is due to rise 1.26m in the next 116 years, consequently increasing the risk to many areas of the town.

4.11.6. Overall, it is unlikely that there will be any significant adverse impacts as a result of the proposed developments once mitigation measures have been implemented.
Figure 8: Indicative Flood Plain Map (not to scale)
4.12. **Socioeconomics**

4.12.1. Between the 2001 and 2011 Census, the population of Poole grew by 7.3% to 147,645 with the highest proportion of those aged over 65 compared to any other urban area in England. It is predicted that Poole’s population will continue to grow, with the largest growth predicted amongst the age group of 65 and over.

4.12.2. At £421.60, Poole has a lower gross weekly pay compared to the rest of England and the South West, at £499.30 and £448.70 respectively.

4.12.3. Poole has a higher percentage of those of working age, who are in employment, compared to England and the South West: 64.99%, 62.10% and 63.79% respectively. However, Poole has a lower percentage of full-time students compared to the South West and England. There are also relatively fewer people who are unemployed in Poole than in England, 3.21% compared to 4.38% in England as a whole. The largest occupation sectors in Poole are public and other services, financial and business services, and wholesale and retail.

4.12.4. The Port of Poole has always been a major employer in the area, and currently, approximately 110 people are directly employed by the Port of Poole, with a further 2450 people employed by companies working on the Port Estate. It is estimated by PHC that the Port of Poole contributes £53 million to the local economy each year.

4.12.5. With regard to general health, 2011 Census data shows that 46.5% of the population in Poole state that they are in very good health. Life expectancy in Poole in 2012 was 79.4 years for men and 83.5 years for women, which is higher than the averages for both England and the South West.

4.12.6. Poole Harbour is an ideal location for water-based recreation. Recreation within the Harbour is managed by PHC using a zoning scheme which was introduced through the Poole Harbour Aquatic Management Plan.

4.12.7. In addition, it is estimated that 5,000 yachts visit the Harbour every year and eight yacht clubs are located in the Harbour area with an estimated 7,500 members.

4.12.8. There are a number of attractions and activities located within 1km of the Port. In addition there are 38 designated open spaces and recreation areas within Poole.

4.12.9. Should the proposed development not proceed, the number of dry cargo vessels using the port will reduce, and without the deeper quays proposed the port would not be able to compensate for this loss with additional commercial or cruise visits. Under this scenario, trade would reduce and this would consequently have a significant adverse economic effect, reducing the socio-economic benefits provided to the town.

4.12.10. During construction, the local economy will benefit from increased opportunities for trade with the construction company appointed to undertake the works. The local economy is anticipated to benefit from the creation of approximately 35 construction jobs and direct contributions of £750,000 per annum. This is in addition to a predicted indirect contribution of £335,112 per annum and approximately 16 jobs created as an indirect result of the construction works.

4.12.11. During operation, the local economy would benefit from increased trade as a result of more cruise and cargo ships using the Port, and the knock-on effects of spending from their crews and passengers in and around Poole. This increased trade would generate an additional 462 jobs in the South West region and the knock-on effects would generate an additional 220 jobs in the region. In addition, existing jobs would be safeguarded as a result of the increased spending in the regional economy.

4.12.12. Overall, it is considered that development of the port facilities is vital to maintain and enhance the economic and social benefits to the port provides for the town and region. Should the proposed developments proceed, there are not considered to be any significant adverse impacts.
5. **CUMULATIVE IMPACTS**

5.0.1 Cumulative impacts are the combination of the impacts from the proposed developments with other developments occurring in the area. In consultation with the Borough of Poole and the MMO, the other developments considered in this assessment are summarised in Table 1 and shown in Figure 9.

**Table 1: Developments that have been considered in the cumulative impacts assessment**

<table>
<thead>
<tr>
<th>Ref/ name</th>
<th>Development type</th>
<th>Status</th>
<th>Description</th>
<th>Distance and direction from proposed developments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A – Whitley Lake Sea Defence Feasibility Study</td>
<td>Marine</td>
<td>Marine licence issued</td>
<td>Feasibility study of soft engineered sea defence solution over five years from March 2013. Creation and stabilisation of a saltmarsh foreshore and sandy beach in front of a hardened sea defence structure.</td>
<td>4000m south east</td>
</tr>
<tr>
<td>B – The Silo Grain</td>
<td>Housing</td>
<td>Planning approval granted. Demolition complete. Construction not commenced</td>
<td>Demolition of existing building and erection of 5 blocks of 64 flats with ground floor parking and 2 retail units all with access from The Quay.</td>
<td>150m north</td>
</tr>
<tr>
<td>C – Former Pilkington Tile Site</td>
<td>Housing</td>
<td>Planning approval granted. Construction not commenced</td>
<td>Demolition of existing buildings and erection of mixed-use redevelopment comprising: 268 dwellings consisting of 68no. 1-bedroom flats, 125no. 2-bedroom flats, 2no. 2-bedroom houses, 64no. 3-bedroom houses, 9no. 4-bedroom houses.</td>
<td>500m north</td>
</tr>
<tr>
<td>D – West Quay Marina</td>
<td>Housing</td>
<td>Planning approval granted. Construction not commenced</td>
<td>Outline application to demolish existing buildings and erect a mixed use scheme comprising 182 bed hotel, 96 flats, offices, commercial floorspace, basement car-park, accessed from West Quay Road.</td>
<td>450m north</td>
</tr>
<tr>
<td>E – RNLI Lifeboat Maintenance Depot</td>
<td>Employment related</td>
<td>Planning approval granted, under construction</td>
<td>Demolition of existing buildings and structures, raising site levels by approximately 1.4m for flood protection requirements to include construction of new quay wall and construction of a new RNLI boat building and maintenance facility.</td>
<td>750m north</td>
</tr>
<tr>
<td>F – Former Power Station Site</td>
<td>Housing</td>
<td>pending planning approval</td>
<td>Outline application for mixed use development comprising up to 1,350 houses and apartments; care facilities up to 300 bed spaces; non-residential institutions and assembly and leisure space up to 4,000m$^2$; retail and commercial units up to 2,000 m$^2$; foodstore up to 7,000 m$^2$ (gross); fuel filling station; replacement electricity sub station; open space, public waterfront and related infrastructure.</td>
<td>750m north</td>
</tr>
</tbody>
</table>
Figure 9: Potential Cumulative Developments (not to scale)
5.0.2 The relevant planning application documents were reviewed to identify if there were any impacts from developments that combined with likely impacts from the proposed developments.

5.0.3 Potential combined impacts were identified in the following areas:
   - Traffic generation and resultant noise and air quality impacts;
   - Construction impacts from traffic, noise and dust; and
   - Construction noise impacts on wintering birds within the Harbour.

5.0.4 Future predicted increases in traffic, e.g. due to future developments, are already assessed within the Transport section, and therefore any combined impacts from traffic (and the resulting impacts in terms of air quality and noise) have been assessed within the relevant technical sections and do not require a separate ‘cumulative’ assessment.

5.0.5 There is the potential for construction periods of other developments to overlap with the proposed developments at the Port. However, it is standard practice for best practice construction methods to be used for all developments and these are generally managed by a Construction Environmental Management Plan. This ensures, for example, that construction noise limits are not exceeded and that construction traffic is managed through specific construction routes.

5.0.6 There is a potential combined impact from noisy construction activities on wintering birds. This will be managed by not undertaking any noisy construction activities in the most sensitive wintering bird period. Where this is not possible, monitoring of bird populations will be undertaken and construction activities modified if necessary. Similar strategies are in place for the other developments, and therefore there is considered to be no significant combined impacts in this respect.

6 ENVIRONMENTAL MANAGEMENT

6.0.1 A Construction Environmental Management Plan (CEMP) will be produced that will provide details on how construction will be managed to reduce environmental impacts throughout the construction period. This will be implemented by the main contractor responsible for carrying out the works and PHC have committed to this requirement. The CEMP will be based on recommendations made in the ES, such as the control of pollution and agreed construction working hours.
7 FURTHER INFORMATION

7.1 Environmental Statement

7.1.1 Copies of the Environmental Statement will be available at the following locations:

**Poole Harbour Commissioners**
Managers of the Harbour and Trustees of the Port
20 New Quay Road
Hamworthy
Poole Dorset
BH15 4AF
United Kingdom

Telephone: +44 (0)1202 440200
Facsimile: +44 (0)1202 440212
Email: pooleharbourcommissioners@phc.co.uk

**Borough of Poole**
Civic Centre
Poole
BH15 2RU

**Hamworthy Community Library**
Blandford Road,
Poole BH15 4BG

7.1.2 In addition, copies of the Environmental Statement are available on the Poole Harbour Commissioners website and the Marine Management Organisation website at:

Poole Harbour Commissioners: [http://www.phc.co.uk/](http://www.phc.co.uk/)

8 YOUR VIEWS

8.0.1 If you wish to comment upon the HRO or Environmental Statement for the proposed developments, you should write to:

Marine Consents Team
Marine Management Organisation
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE4 7YH

8.0.2 You should clearly mark your correspondence with the title of the proposed developments so that the MMO can take your comments into account during the decision-making process.