

5 Aspects of the Environment Considered

5.1 Human Beings

5.1.1 Introduction and Methodology

This section of the Environmental Impact Statement considers the human environment in the vicinity of the subject site in terms of population profile and trends, employment and community aspects.

The methodology for this chapter involves the examination, compilation and analysis of all relevant population and socio-economic data collected by the Central Statistics Office (CSO). In addition, relevant planning and land-use documents for the area including the Dun Laoghaire Rathdown County Development Plan 2010-2016, have been examined.

Following the examination of all relevant baseline information relating to the existing population and socio-economic situation in the area, the chapter then provides an assessment of the potential impacts of the proposed development before setting out what ameliorative measures are required to minimise such impacts, if necessary.

For the purposes of this assessment, the 'Harbour Environs' area includes the District Electoral Divisions (DED's) of Dun Laoghaire-Salthill, Dun Laoghaire-West Central and Dun Laoghaire-East Central.

5.1.2 Characteristics of the Proposal

Dun Laoghaire Harbour Company representing the wider Dun Laoghaire Cruise Stakeholder Group is seeking to enhance the existing cruise berthing facilities at Dun Laoghaire Harbour in order to ensure Dun Laoghaire Harbour is in a position to attract next generation cruise ships. The existing berthing facilities are not capable of catering for the next generation cruise ships and a new facility is required so as to attract these ships to Dun Laoghaire Harbour.

The proposed development will broadly involve the construction of a new quay, berth and access causeway; the dredging of a navigation channel; and associated landside accommodation works. This development will provide for the berthing of Freedom Class cruise liners which may have a displacement of 71,200 tonnes, a length of 340m, a beam of 48m and a draught of 8.8m, within Dun Laoghaire Harbour. Within the harbour, the approach channel will be positioned so that the centreline of the berth will be located 120m to the west of St Michaels Pier. The channel and berth will be oriented to align with the centre of the existing harbour entrance so that the cruise ship will not have to undertake any turns within the harbour itself. The cruise vessel would either turn outside the harbour and back down the channel onto the berth, or steam onto the berth and back out into the turning circle, depending on conditions.

The development comprising both maritime and landside works can be summarised as follows:

Maritime Works

- An approach navigation channel approximately 1,150m long situated beyond the existing Harbour breakwaters
- A vessel turning circle approximately 500m diameter, situated outside the existing Harbour breakwaters
- An inner navigation channel approximately 850m long within the existing Harbour breakwaters

- A new quay approximately 435m long constructed in the west of the harbour water body.

Landside Works

- A shared use pedestrian and private vehicle access zone located adjacent to the existing Marina together with a new boardwalk parallel to this shared area, complete with new feature lighting
- A new pedestrian footpath with high quality concrete pavement along Harbour Road providing linkage with the existing Terminal Plaza complete with new feature lighting
- A 20 coach drop off/ pick up area within a dedicated section of the existing HSS ferry marshalling area
- A coach overflow holding area placed within Accommodation Walk which straddles the Old Quay Bridge at the west of the Harbour
- Local modifications to an existing retaining wall adjoining the car park located adjacent to the Old Quay area also at the west of the Harbour
- Demolition of certain harbour infrastructure such as an RC boundary wall along the HSS Yard boundary, the motorist's administration building, a section of the Porte cohere canopy structure, plus tree removal and replacement
- Construction of new buried utilities and services, and miscellaneous lighting columns and signage for vehicles and non-motorised users.

Full details of the proposed development, are provided in Section 3 of this EIS (Description of Proposed Development).

5.1.3 Receiving Environment

Dun Laoghaire Harbour is located in Dublin Bay, on the south Dublin shoreline between Blackrock and Dalkey. Dun Laoghaire Harbour was built between the years 1817 and 1842. The harbour land extends for approximately 1.6 km along the coastline. The form of the harbour is generated by its two breakwater arms, each over 1km long (the East and West Pier). The enclosed area of water has an area of approximately 101 ha. The harbour consists of a number of features commensurate with its function including piers and slipways, mooring and boat storage facilities and maritime buildings. At present the harbour accommodates a range of marine activities. The harbour is used by a number of clubs, organisations and groups including the Royal National Lifeboat Institution, the Irish Coast Guard, Commissioner of Irish Lights, the Naval Service and a number of rowing, sailing and yachting clubs. Further details of these users are set out in 'Community' section below and the accompanying Navigation Impact Assessment.

The harbour is overlooked by the town of Dun Laoghaire from the south-west. Dun Laoghaire town is situated on a gentle hill that slopes towards the harbour. Separating the harbour and the town is the N31 (Old Dunleary Road), which continues into Crofton Road and Queens Road, and the Dublin Area Rapid Transit (DART) railway line. The N31 terminates inside the harbour lands and is the main access to the Dun Laoghaire Harbour. The harbour itself has four access routes for vehicles each spurred off the coastal road. In relation to public transport, the harbour is served by both Dublin Bus and the DART.

The harbour is developed and maintained by Dun Laoghaire Harbour Company (DLHC) who are the statutory commercial body charged with developing Dun Laoghaire Harbour and established under the Harbours Act of 1996.

Under the provisions of the Dun Laoghaire-Rathdown County Development Plan 2010-2016, the Dun Laoghaire Harbour area is zoned Objective "W" which carries the following objective:-

"To provide for waterfront development and harbour related uses".

The following assessment will examine the impact on human beings (demographic) of the proposed development which is the subject of this planning application.

5.1.4 Population

5.1.4.1 Receiving Environment

For the purposes of this assessment, the 'Harbour Environs' area includes the District Electoral Divisions (DED's) of Dun Laoghaire-Salthill, Dun Laoghaire-West Central and Dun Laoghaire-East Central. The DED is the smallest area for which Census statistical data is published. The CSO has published Census data from 2011 which is the latest available, and provides information on age profile, occupation, household composition and general employment status. A detailed examination of the local population is set out below. Data generated by Census 2002, 2006 & 2011 is compared in order that an analysis of demographic trends may be presented.

In addition, figures for the District Electoral Division of the 'Harbour Environs' area are compared with those for the State, Greater Dublin Area (GDA), Dublin County, Dublin City & Dun Laoghaire Rathdown area, in order to get a clearer picture and contextualise local statistics.

It is necessary to note at this point that the intra-Censal period 1996-2002 is a 6 year term due to the postponement of the 2001 Census to March 2002. This is followed by a four-year intra-Censal period between 2002-2006 and a five year intra-Censal period between 2006-2011.

In this section, recent demographic and socio-economic trends are examined at State, County and local level under three sections; population, employment and community aspects.

5.1.4.2 Population Trends

Between 1961 and 1986 the combined population of Dublin County and Dublin City Area increased by 42.2% from 718,322 to 1,021,449 persons, a rate of growth almost double that of the State over the same period. Growth trends of this magnitude were experienced throughout the province of Leinster during the 1960s to the mid 1980s.

However, declining birth rates and the reversal of migratory trends towards the capital during the eighties and nineties led to a downturn in the rate of population growth. During this period, the State as a whole experienced a decline in population by 0.4%. Although Dublin County and Dublin City Area maintained a positive rate of growth (+0.4%) closer observation reveals that the largest proportion of this growth occurred in the City (+5.4%).

Between 1991 and 1996, the population of the State rose by +2.85%. During the late 1990s, the country experienced significant levels of in-migration fuelled by buoyant economic conditions. This in turn led to a national population increase of +8% or 291,116 persons between 1996 and 2002, the highest rate of growth since the 1970s.

The Dublin City and County Area experienced a growth rate of 6.1% between 1996 & 2002, and a lower growth rate of 5.7% between 2002 & 2006. Comparatively, Dun Laoghaire Rathdown only saw an increase of 0.9% between 1996 & 2002 and 1.2% between 2002 & 2006. The population of the Harbour Environs grew by 6% between 1996 & 2002 and subsequently decreased by -2.6% between 2002 & 2006.

"This below average growth rate can be attributed to a shortage in housing supply within the Dun Laoghaire Rathdown area, which has resulted in a deflection of population to the outer Counties of the Greater Dublin Area" (Dun Laoghaire Rathdown, Housing Strategy 2004-2010).

This low growth rate was in contrast to national and regional trends, with the State population growing by 8% between 1996 & 2002, and further increasing between 2002 & 2006 by 7.7%.

Overall, the State population increased by 21% between 1996 & 2011. In comparison the population of Dun Laoghaire Rathdown increased by only 7.9% between 1996 & 2011. The population of the Harbour Environs experienced a population growth of 15% between 1996 & 2011 which is above the Dun Laoghaire Rathdown growth rate but below the State growth rate for this period.

Table 5.1.1 Population Change at State, County & Local Level 1996-2011

Population Change at State, City & Local Level 1996-2011								
	1996	2002	2006	2011	1996-2002	2002-2006	2006-2011	1996-2011
State	3,629,087	3,917,336	4,239,848	4,588,252	+8%	+7.7%	+7.6%	+21%
GDA	1,405,671	1,535,446	1,662,536	1,804,156	+12.2%	+7.6%	+7.8%	+22%
Dublin County & City	1,058,264	1,122,821	1,187,176	1,273,069	+6.1%	+5.7%	+7.2%	+20.3%
Dublin City	481,854	495,781	506,211	527,612	+2.9%	+2%	+4.2%	+8.7%
DLRCC	189,999	191,792	194,038	206,261	+0.9%	+1.2%	+5.9%	+7.9%
Dun Laoghaire-East Central	2,000	2,144	1,855	2,234	+7.2%	-13.5%	+20.4%	+11.7%
Dun Laoghaire-Salthill	1,428	1,593	1,708	1,623	+11.6%	+7.2%	-5.0%	+13.6%
Dun Laoghaire-West Central	1,988	2,003	2,029	2,368	+0.8%	+1.3%	+16.7%	+19.1%
Harbour Environs	5,416	5,740	5,592	6,225	+6.0%	-2.6%	11.3%	+15.0%

Source: CSO table annotated by SLA

5.1.4.3 Population Change 2002-2011

Data published in the 2002 Census showed that the population of Leinster rose to over two million people for the first time in the history of the State. Between 2002 and 2011, the population of the State increased by 16.4% from 3,917,203 to 4,588,252 people. This growth can be attributed to significant levels of in-migration and increase in birth rate and life expectancy.

The Dublin area, which is an amalgamation of the four Dublin Authorities of Dublin City, Dun Laoghaire-Rathdown County, South Dublin County and Fingal County, experienced a growth rate of 5.7% between 2002-2006 and a growth of 7.2% between 2006 and 2011. Dun Laoghaire-Rathdown experienced a slight population growth between 2002 and 2006 with an increase of 1.2%. Significantly more population growth was experienced between 2006 and

2011, with a 6.3% increase recorded. The Harbour Environs population declined by 2.6% from 2002-2006 but returned to a growth of 11.3% for the 2006-2011 period.

The demographic changes outside of Dublin within the GDA were fuelled by the proliferation of 'commuter towns' in Counties Meath and Kildare. This pattern of development is indicative of the increasing urban sprawl of the Greater Dublin Area, whereby insufficient housing provision combined with steep house prices force many house hunters towards the urban periphery and commuter belt of the GDA. This period also corresponds with one of the most prosperous for the Irish economy that attracted a large number of migrants. These figures are highlighted in Table 5.1.1 above.

Table 5.1.1 above indicates that while the state population grew by 7.6% between 2006 and 2011, the population of the Dublin City area only grew by 4.2%.

The proposed cruise berth has a niche market, catering for cruise visitors to Dun Laoghaire. An examination of local population is relevant with respect to the employment opportunities it might provide. It is important to note that due to the unique nature of the site and the proposal, noting that Dun Laoghaire Harbour is a 'regional harbour' as identified under the National Ports Policy (2013) and is a long established harbour; the displacement of local services caused by the proposed development is not applicable in this instance.

5.1.4.4 Age Distribution

The age profile of the area is an important consideration to establish the population make up of an area.

For the purpose of analysing the population structure of the receiving environment three factors are examined:

- the dependent population (i.e. those persons within the 0-14 and 65+ age cohorts);
- the working/independent population (i.e. those persons in the 15-64 year age cohorts); and
- the childbearing age cohorts, aged 25-44.

These age categories are shown in Table 5.1.2 below.

The dependant population includes the young (age cohort 0-14 yrs) and more elderly (age cohort 65+ yrs), who may be financially or physically dependent on the independent age cohort. If the proportion of individuals in the dependent age cohorts is relatively high, this may place additional pressure on the working/independent age cohort to fund childcare, education or healthcare services that to be privately or publicly provided.

A high percentage of the population in the 15 to 64 years age group would also indicate a requirement for employment and housing, as this sector of the population are more likely to seek employment and form new households.

The analysis presented here is based on the small area population statistics (SAPS) produced by the Central Statistics Office for the 2011 Census of Population. The DED figures for 2011 have also been included in this section.

Table 5.1.2: Age Profile at State, County and Local Level 2011

Age Profile at State, City and Local Level – 2011						
	0-14	15-24	25-44	45-64	65+	Total
State	21.3%	12.7%	31.6%	22.7%	11.7%	4,588,252
GDA	20.8%	12.6%	33.1%	21.8%	10.5%	1,873,777
Dublin County	19.3%	13.6%	34.9%	21.3%	10.9%	1,273,069
Dublin City	12.8%	14.5%	37.1%	20.5%	12.6%	527,612
South Dublin	23.1%	13.1%	33.0%	22.1%	8.7%	265,205
Fingal	24.2%	11.9%	36.6%	19.9%	7.2%	273,991
Meath	25.2%	11.3%	33.0%	21.4%	8.8%	184,135
Wicklow	18.1%	14%	29.5%	23.7%	14.4%	206,261
Kildare	24.5%	12.4%	33.5%	21.5%	7.9%	210,312
DLRCC	18.1%	11.1%	29.5%	23.7%	14.5%	206,261
Dun Laoghaire-East Central	12.8%	10.9%	39.3%	23.8%	13.07%	2,234
Dun Laoghaire-Salthill	13.5%	10.1%	36.7%	24.5%	15.09%	1,623
Dun Laoghaire-West Central	13.1%	9.2%	37.6%	21.8%	18.2%	2,368
Harbour Environs	13.1%	10%	37.9%	23.4%	15.5%	6,225

Source: Census Population 2011 table annotated by SLA

5.1.4.5 Dependant Age Cohorts (0-14 and 65+ years)

The proportion of dependants (0-14 and +65 years) within the population of the the Harbour Environs is recorded at 28.6% in 2011. This is proportionally lower than the dependant figures recorded for the Dublin County area (30.2%), the Dun Laoghaire Rathdown area (32.6%) and the figure recorded for the State (33%) over the same period.

When broken down into individual cohort groups of young and old, it is apparent that the Dun Laoghaire Rathdown area has a much lower proportion of young dependants (13.1%), than that recorded for the State (21.3%) and the Dublin County area (19.3%).

An analysis of the age profile of the local population indicates that in comparison to the State and to Dublin City, the Harbour Environs and the Dun Laoghaire Rathdown area have a distinctly adult population. There is a higher percentage distribution in the 45-64 year age group within the Harbour Environs area (23.4%) and within Dun Laoghaire Rathdown (23.7%) compared to Dublin City (20.5%), the GDA (21.8%) and the State (22.7%). 15.5% of the population of the Harbour Environs and 14.5% of Dun Laoghaire Rathdown area are in the 65+ age cohorts. These figures are much higher than Dublin County (10.9%), GDA (10.5%) and the State (11.7%).

This highlights that Dun Laoghaire has an older age profile of working age and older dependents compared to the wider Dublin Area, the GDA Region and the State.

5.1.4.6 Independent / Working Age Cohorts (15- 64 years)

The working age group is defined as those persons residing within the 15-64 year age cohorts.

Census 2011 provides the working age (15-64 years) profile for the State (67%), the GDA (67.5%), Dublin County (69.8%) and Dublin City (72.1%). The figures for the Harbour Environs is broadly similar at 71.3% but Dun Laoghaire Rathdown reveals a lower percentage of 64.3%.

Persons contained in the 15-24 age cohort will have medium term impacts in social and economic terms, as they enter the workforce and seek to set up independent households.

The representation in the population of the working age cohort has implications for the provision of housing and employment primarily, and in turn support services for them and their dependents.

5.1.4.7 Child Bearing Age Cohort (Females 15-44 years)

Reviewing statistical data for the child bearing (female) age cohort is relevant when considering requirements for housing, employment and childcare facilities to serve a given population, in the short and medium term.

In the case of the cruise berth proposal, it is not necessary to analyse this cohort in great detail as this group (15-44) is already included within the analysis of the working age cohort (males & females).

5.1.4.8 Potential Impact of the Proposal on Population

Construction Phase

It is anticipated that the construction of the new cruise berth will take approximately 18 months to complete. A indicative construction programme is included in Section 3 of this EIS. As detailed in the 'Employment' section below and the Economic Impact Assessment submitted as part of this planning application, approximately 200 FTE jobs will be provided by the construction phase of the cruise berth, taking direct, indirect and induced impacts into account. The Economic Impact Assessment also estimates that the construction of the proposed cruise berth will contribute approximately €21 million to the national economy.

The harbour staff (working population), harbour users and surrounding local residents are expected to be the most aware of any construction activity associated with this scheme.

It is considered that the construction phase of the proposed development will have no significant impact on the existing resident population of the area, given that it will be a finite, transient process. It is expected that those employed during the construction phase will for the most part travel from their existing residence rather than taking temporary accommodation in the area.

Thus, should the proposed development proceed to implementation, it is anticipated that the potential impacts for population, such as any growth or decline, arising from the construction phase would be transient and negligible.

Potential impacts in relation to 'Employment' and 'Community' are considered elsewhere in this chapter.

Operational Phase

The proposed cruise berth will attract next generation cruise ships which have capacity to carry between 2,500 and 5,000 passengers and 1,500 and 2,000 crew. It is important to note that these persons will be tourists / visitors; they will only visit during the cruise season; and they will not be permanent residents of Dun Laoghaire. As Dun Laoghaire Harbour is a 'port-of-call' for these cruise ships, their stay in Dun Laoghaire will be temporary and sleeping accommodation will be provided on the cruise ship for these visitors. These tourists / visitors would create additional revenue in Dun Laoghaire, benefiting the resident population.

As detailed in the Economic Impact Assessment that accompanies this planning application, after twenty years it is estimated that the number of permanent jobs created in Dun

Laoghaire as a result of the project will be between 70 and 250, based on the expenditure of the cruise passengers and crew under the scenarios outlined in this accompanying economic assessment.

As such, the creation of additional jobs would provide more opportunities for the working population which is considered to be a positive impact. The introduction of new jobs would also create additional revenue in Dun Laoghaire, thus also having a positive impact on the resident population.

As the predicted job increase would happen over a 20-year period, it is considered that the proposal would not have a significant adverse impact on housing supply or services in the area.

Under the provisions of the Dun Laoghaire-Rathdown County Development Plan 2010-2016, Dun Laoghaire Harbour area is zoned Objective "W" which carries the following objective:-

"To provide for waterfront development and harbour related uses".

Investment in the Dun Laoghaire Harbour is expected to secure the retention of existing jobs, create new jobs and improve the maritime infrastructure at a local, regional and national level. The proposed development at this site is considered strategically appropriate, being located within an existing harbour that is earmarked for this type of development under a number of policy documents, as outlined in Section 3.1 (Project Rationale) and Section 4 (Planning & Development Context).

Potential impacts in relation to 'Employment' and 'Community' are considered elsewhere in this Chapter.

'Do Nothing' Scenario

Under the provisions of the Dun Laoghaire-Rathdown County Development Plan 2010-2016, the Dun Laoghaire Harbour area is zoned Objective "W" which is *"To provide for waterfront development and harbour related uses".*

Specific Local Objective 13 of the Dun Laoghaire-Rathdown County Development Plan 2010-2016, provides for the development of Dun Laoghaire Harbour in accordance with a Harbour Masterplan. The Dun Laoghaire Harbour Masterplan 2011-2030 has been completed in accordance with SLO 13. Strategic Objective 5 of the Dun Laoghaire Harbour Masterplan under the heading of 'Harbour Functions' is as follows:-

Accommodate cruise liner facilities, having regard to the needs of other harbour users, potential environmental impacts and the feasibility of providing such facilities

Therefore, should the subject development proposal not proceed under a 'Do-Nothing' scenario, the policies and objectives of Dun Laoghaire-Rathdown County Council would not be executed.

Under the 'do-nothing' scenario, it is envisaged that the established harbour would remain in its current state. This would mean that the positive economic impacts, as identified in the Economic Impact Assessment submitted with this application, would not be realised.

5.1.4.9 Ameliorative, Remedial or Reductive Measures on Population

Construction Phase

The construction phase of the proposed development is unlikely to generate any significant adverse impact on the demography of the area. As such, no remedial or reductive measures are identified.

Operational Phase

The operational phase is unlikely to have any significant adverse impact on the working population within the harbour and Dun Laoghaire town centre or for the population living in the harbour environs area.

The proposed cruise berth will attract next generation cruise ships which have capacity to carry between 2,500 and 5,000 passengers and 1,500 and 2,000 crew. It is important to note that these persons will be tourists / visitors; they will only visit during the cruise season; and they will not be permanent residents of Dun Laoghaire. As Dun Laoghaire Harbour is a 'port-of-call' for these cruise ships, their stay in Dun Laoghaire will be temporary and sleeping accommodation will be provided on the cruise ship for these visitors. These tourists / visitors would create additional revenue in Dun Laoghaire, benefiting the resident population. As such, no remedial or reductive measures are identified.

As the predicted job increase (70-250 jobs) would happen over a 20-year period, it is considered that the proposal would not have a significant adverse impact on housing supply or services in the area. Consequently, no remedial or reductive measures are identified. As discussed above, the proposal would provide more job opportunities for the working population and this job creation would also create additional revenue for Dun Laoghaire and the associated resident population.

'Worst Case' Scenario

The influx of persons to Dun Laoghaire as a result of the proposal will be temporary as these persons will be tourists / visitors and accommodation will be provided on the cruise ship for these people. The main permanent impact of the proposal on the local population is the creation of new jobs. This is seen as a positive impact. Ameliorative, remedial or reductive measures for a 'worst case' impact are therefore not considered to be applicable in this instance.

5.1.4.10 Predicted Impact of the Proposal on Population

Construction Phase

It is not envisaged that any significant increase or decrease in working population at the harbour or residing population in the Harbour Environs or surrounding areas will occur during the construction phase.

It is anticipated that construction workers employed during the construction phase will travel from their existing residence rather than taking temporary accommodation in the area. A short term, transient increase in the local working population on-site will be generated by construction employment.

The construction phase of the proposed development is unlikely to generate any significant adverse impact on the demography of the area.

Operational Phase

The operational phase is unlikely to have any significant adverse impact on the working population within the harbour or for the population living in the harbour environs area.

The proposed cruise berth will attract next generation cruise ships which have capacity to carry between 2,500 and 5,000 passengers and 1,500 and 2,000 crew. It is important to note that these persons will be tourists / visitors; they will only visit during the cruise season; and they will not be permanent residents of Dun Laoghaire. As Dun Laoghaire Harbour is a 'port-of-call' for these cruise ships, their stay in Dun Laoghaire will be temporary and sleeping

accommodation will be provided on the cruise ship for these visitors. These tourists / visitors would create additional revenue in Dun Laoghaire, benefiting the resident population.

As the predicted job increase (70-250 jobs) would happen over a 20-year period, it is anticipated that the local services and housing supply can cope with this increase over this time period.

As discussed above, the proposal would provide more job opportunities for the working population and this job creation would also create additional revenue for Dun Laoghaire and the associated resident population.

'Worst Case' Scenario

The influx of persons to Dun Laoghaire as a result of the proposal will be temporary as these persons will be tourists / visitors and accommodation will be provided on the cruise ship for these people.

As the predicted job increase (70-250 jobs) would happen over a 20-year period, it is anticipated that the local services and housing supply can cope with this increase over this time period, noting that the predicted job creation would increase the revenue available to Dun Laoghaire for local services.

5.1.4.11 Cumulative Impact of the Dun Laoghaire Harbour Redevelopment on Population

The proposed development is one element of the wider redevelopment of Dun Laoghaire Harbour, as detailed in the Dun Laoghaire Harbour Masterplan 2011-2030. The masterplan sets out the long-term objectives for the development of the harbour, including the provision of cruise berth facilities in the harbour. The masterplan was informed by an extensive process of public consultation and was subject to both a Strategic Environmental Assessment and also a Statement of Appropriate Assessment. Therefore the cumulative impact of the wider harbour redevelopment has been considered under the context of this masterplan. A copy of this masterplan (including the Strategic Environmental Assessment) is appended to this EIS.

5.1.5 Employment

The impact of the subject development proposal on employment in the vicinity of Dun Laoghaire Harbour within the Harbour Environs, comprising of the three DED's of Dun Laoghaire-Salthill, Dun Laoghaire-West Central and Dun Laoghaire-East Central will be examined in the context of the numbers of persons at work and the levels of unemployment at State, GDA, Dublin County and local level.

Trends in Numbers of Persons in Work

Between 2006 & 2011 the total number of people at work in the State, the GDA and County Dublin declined by 6.4%, 5.8% and 5.6% respectively. In contrast, the Harbour Environs experienced an increase in the number of people "at work" between 2006 & 2011, increasing by 5.6%. We refer to the statistics provided in the table below.

Table 5.1.3 Number of Persons at Work in 2006 and 2011

Numbers of Persons in Work in 2006 & 2011			
	2006	2011	2006-2011
State	1,930,042	1,807,360	-6.4%
GDA	800,240	753,565	-5.8%
Dublin County	572,896	540,729	-5.6%
Dublin City	245,007	227,429	-7.2%
South Dublin	119,280	106,534	-10.7%
Fingal	120,794	119,276	-1.3%
DLRCC	87,815	87,490	-0.37%
Dun Laoghaire-East Central	1,024	1,138	+11%
Dun Laoghaire-Salthill	909	792	-12.9%
Dun Laoghaire-West Central	924	1,087	+17.6%
Harbour Environs	2,857	3,017	+5.6%

Source: Census of Population 2006 & 2011 table annotated by SLA

Unemployment Trends

To establish a more balanced picture of the employment situation it is necessary to examine trends in unemployment. Following a period of virtually full employment, unemployment levels have increased sharply since January 2008.

According to the Central Statistics Office, the seasonally adjusted standardised unemployment rate (SUR) has risen from a low point of 4.4% in 2007, to 7.1% in September 2008 and to 14.0% in September 2010. The latest CSO figures, indicate that the standardised unemployment rate in April 2015 is 9.8%, which equals the rate for March 2015.

The following table, sourced from the CSO, indicates the level of persons who are unemployed between 2002 & 2011. We refer also to the Live Register for more informative and up to date statistics on persons registering as being unemployed within the working age cohort.

Table 5.1.4 Number of Persons Unemployed in 2002, 2006 and 2011

Numbers of Persons Unemployed in 2002, 2006 & 2011						
	2002	2006	2011	Total Unemployed 2002**	Total Unemployed 2006**	Total Unemployed 2011**
State	9.7%	9.3%	23.5%	159,346	179,456	424,843
Dublin*	9.3%	9.8%	20.6%	47,276	56,105	111,449
Dun Laoghaire-Rathdown	6.1%	5.7%	12.7%	4,966	5,021	11,071
Dun Laoghaire-salthill	8.8%	6.4%	12.6%	74	58	100
Dun Laoghaire-West Central	14.3%	10%	16.9%	115	92	184
Dun Laoghaire-East Central	7.8%	8%	14.2%	85	82	162
Harbour Environs	10%	8.1%	14.8%	274	232	446

Source: Census of Population, 2002, 2006 & 2011, table annotated by SLA

* ***Includes Dublin City, Dun Laoghaire Rathdown, Fingal & South Dublin***

** ***Total Unemployed Figure includes First Time Job Seekers & Unemployed, having lost or given up previous job.***

The Harbour Environs has seen an increase in the number of persons unemployed during the period 2002-2011, rising from 10% in 2002 to 14.8% in 2011. This increase in unemployment is consistent with trends at a national, county and local level, noting that the State and Dublin experienced a much greater rise in unemployment during this same period, as detailed in the table above.

Table 5.1.5 Number of Persons on the Live Register- April 2014 to April 2015

Numbers of Persons on the Live Register		
	April 2014	April 2015
State	388,559	343,551
Dublin	94,529	82,928
Dun Laoghaire-Rathdown*	6,261	5,293

Source: Central Statistics Office, table annotated by SLA

* ***This area conforms to the Local Social Welfare Area and not the Local Authority Area***

The Live Register is primarily an administrative count and not specifically designed to measure unemployment. However, it is habitually used as an data tool and short-term trend indicator of unemployment. The Live Register comprises persons aged 15 to 65 years who are

registered at local offices at the Department of Social, Community and Family Affairs in the following classes:

- Applicants for Unemployment Benefit
- Applicants for Unemployment Assistance
- Other registrants including applications for credited Social Welfare contributions

The latest figures for the Live Register for April 2015 reveal that the numbers of persons on the Live Register recorded for the State decreased by 45,008 persons (-11.6%) during the period from April 2014 to April 2015. By comparison, records indicate a decrease in numbers on the Live Register in the order of 12.3% in Dublin and 15.6% in Dun Laoghaire-Rathdown over the same year period.

5.1.5.1 Potential Impact of the Proposal on Employment

Construction Phase

It is anticipated that the construction of the new cruise berth will take approximately 18 months to complete. A indicative construction programme is included in Section 3 of this EIS. As detailed in the Economic Impact Assessment submitted as part of this planning application, approximately 200 FTE jobs will be provided by the construction phase of the cruise berth, taking direct, indirect and induced impacts into account.

In addition to the direct financial and employment benefits of the construction programme itself, it is anticipated that builder suppliers and other related services would benefit during the construction programme due to an increase in trade demand. The Economic Impact Assessment submitted as part of this planning application, estimates that the construction of the proposed cruise berth will contribute approximately €21 million to the national economy.

Overall the proposed development has potential to provide a short term direct and indirect local employment benefits, and thus benefit to the local economy during the construction phase.

Operational Phase

The proposed cruise berth facility has the potential to create employment opportunities and generate revenue, once operational which would have a positive impact on employment.

As detailed in the Economic Impact Assessment submitted with this planning application, the economic impacts for Dun Laoghaire as result of the proposal are considerable and are estimated to lie between €16 million and €41 million after twenty years, depending on the number of vessels coming into Dublin Bay. The Economic Impact Assessment also estimates that the number of permanent jobs created in Dun Laoghaire as a result of the project will be between 70 and 250, based on the expenditure of the cruise passengers and crew under the scenarios described in the accompanying economic assessment.

'Worst-Case' Scenario

A worst case-scenario would be that the proposed development does not go ahead, meaning that the positive economic impacts (including job creation), as identified in the Economic Impact Assessment submitted with this application, would not be realised.

Another worst case scenario might be that throughout the construction phase an employment or economic benefit is not experienced locally, or existing jobs are displaced. This is

considered unlikely, particularly having regard to the findings of the Economic Impact Assessment that accompanies this planning application.

5.1.5.2 Avoidance, Remedial or Reductive Measures on Employment

Construction Phase

The proposed development is likely to increase potential for direct and indirect local employment during the construction period. As detailed in the Economic Impact Assessment submitted as part of this planning application, approximately 200 FTE jobs will be provided by the construction phase of the cruise berth, taking direct, indirect and induced impacts into account and that the construction of the proposed cruise berth will contribute approximately €21 million to the national economy.

The construction phase of the proposed development is unlikely to generate any significant adverse impact on the employment profile of the area. As such, no remedial or reductive measures are identified.

Operational Phase

As indicated in the Economic Impact Assessment submitted with this planning application, the proposed development is likely to have a positive impact on employment by creating jobs and generating revenue. As such, no remedial or reductive measures are therefore considered necessary with respect to employment during the operational phase.

5.1.5.3 Predicted Impact of the Proposal on Employment

Construction Phase

As detailed in the Economic Impact Assessment submitted as part of this planning application, approximately 200 FTE jobs will be provided by the construction phase of the cruise berth, taking direct, indirect and induced impacts into account.

In addition to the direct financial and employment benefits of the construction programme itself, it is anticipated that builder suppliers and other related services would benefit during the construction programme due to an increase in trade demand. The Economic Impact Assessment submitted with the planning application estimates that the construction of the proposed cruise berth will contribute approximately €21 million to the national economy.

Overall, it is predicted that the proposed development will provide short term direct and indirect local employment benefits during the construction phase, thus benefitting the local economy.

Operational Phase

It is predicted that the proposed cruise berth facility will create employment opportunities and generate revenue, which would have a positive impact on employment.

As detailed in the Economic Impact Assessment submitted with this planning application, the economic impacts for Dun Laoghaire as result of the proposal are considerable and are estimated to lie between €16 million and €41 million after twenty years, depending on the number of vessels coming into Dublin Bay. The Economic Impact Assessment also estimates

that the number of permanent jobs created in Dun Laoghaire as a result of the project will be between 70 and 250, based on the expenditure of the cruise passengers and crew under the scenarios described in this accompanying economic assessment.

5.1.5.4 Cumulative Impact of the NRH Redevelopment on Employment

The proposed development is one element of the wider redevelopment of Dun Laoghaire Harbour, as detailed in the Dun Laoghaire Harbour Masterplan 2011-2030. The masterplan sets out the long-term objectives for the development of the harbour, including the provision of cruise berth facilities in the harbour. The masterplan was informed by an extensive process of public consultation and was subject to both a Strategic Environmental Assessment and also a Statement of Appropriate Assessment. Therefore the cumulative impact of the wider harbour redevelopment has been considered under the context of this masterplan. A copy of this masterplan (including the Strategic Environmental Assessment) is appended to this EIS.

5.1.6 Community Aspects – Harbour Users

5.1.6.1 Introduction

Dun Laoghaire Harbour is used by a wide range of people for a variety of activities. The Applicant in this case manages and controls the Harbour and is familiar with these activities and how they have changed over time.

It is worth highlighting at the outset that the Harbour Company and the Harbour Master are continually managing and adjusting the activities in the Harbour, to reflect the wide variety of activities that have and are taking place in the Harbour.

In preparing this section of the Environmental Impact Statement, the Applicant has availed of the expertise, knowledge and understanding of the Harbour and how it works of the following people:-

1. Tim Ryan

Operations Manager, Dun Laoghaire Harbour Company

Tim Ryan is operations manager with Dun Laoghaire Harbour Company. He was previously Aids to Navigation Inspector with the Commissioner of Irish Lights. Mr. Ryan is a Chartered Engineer with considerable experience of harbour use. Mr. Ryan has been consulted and has advised on many port, harbour, renewable energy and agricultural developments during his time as Inspector at Commissioner of Irish Lights.

2. Simon Coate

Dun Laoghaire Harbourmaster

Captain Simon Coate is a Master Mariner and Harbour Master in Dun Laoghaire. Captain Coate spent 29 years at sea in the Merchant Navy, with the marine oil exploration industry and then with Commissioners of Irish Lights. He joined Dun Laoghaire Harbour Company in 1991 and was appointed Port Operations Manager in 2000 with responsibility for security and all port related commercial activities. He was appointed Harbour Master of Dun Laoghaire Harbour in 2009.

The Harbour Master is also involved in the co-ordination with the Yacht Clubs of youth sailing events.

3. Alistair Rumball

Irish National Sailing School

Alistair Rumball, as founder of the Irish National Sailing School and former leading Irish sailor, has almost 50 years experience of the marine industry. Having run the sailing business from Dun Laoghaire since 1972, Alistair's knowledge of the area is unrivalled. In addition to his role as Managing Director, Alistair is regarded as one of Europe's leading Marine Safety Co-ordinators for Film and Television work, and has worked on some of the biggest blockbusters of the last 30 years, including Saving Private Ryan, Into the West and Robin Hood.

5.1.6.2 Methodology

The methodology employed in this case was to identify the various users of the harbour and to identify the nature and extent of their activities to the extent required to enable an assessment of impact to occur.

In particular, the assessment will consider the impact on the ability of harbour users to continue to avail of the harbour and what mitigation measures, if any, are required to mitigate or ameliorate any impact identified.

In order to be comprehensive in this review, each of the primary harbour users are identified and considered under the following headings:-

- Receiving Environment
- Potential Impact
- Avoidance, Remedial or Reductive Measures
- Predicted Impact

Whilst a certain amount of repetition arises as a result, it was considered on balance reasonable to do this as it enables each harbour user to identify their specific impacts and the discussions around their respective activity.

A separate report has been prepared considering the impact on navigation risk of the proposals. In that regard a Navigation Impact Assessment has also been prepared and accompanies this EIS.- see Appendix 5.1.2. The assessment of Harbour Users should be read in conjunction with the Navigation Impact Assessment.

5.1.6.3 Receiving Environment

Before detailing the users of the harbour and the extent and nature of use of each broad category of user, it is worth outlining the operational context within which the current uses function.

The Harbour was initially constructed as a 'port of refuge'. The Harbour functioned as the base for the Mail Boat which berthed at the Carlisle Pier. This Pier was in turn connected to the Dublin to Kingstown Railway Line, with trains bringing both passengers and freight directly to the ships on this berth. Soon afterwards, a ferry service started in the Harbour in addition to the Mail Boat. The next development at the Harbour was the introduction of a car ferry, which evolved to the operation of the Stena HSS service in the mid 1990's. In recent years the Stena HSS service was reduced by the operator from its peak sailing of 5 sailings per day (10 movements in the Harbour) to a seasonal service of just 1 sailing per day (2 movements in the Harbour). The Marina facility located to the east of the planned cruise berth was built around the same time as the Stena HSS service commenced. The Stena HSS service has recently ceased operating. The history of the Harbour in terms of its Heritage is discussed in greater detail in Section 5.11 of this EIS.

There have been Yacht Clubs present in the Harbour for in excess of 175 years. These Clubs have successfully operated in tandem with the commercial comings and goings of the Harbour throughout this period. Throughout this period, there have been changes within the Harbour both in terms of activities and users and these transitions have been successfully managed over that period. As any new developments arise in the harbour, the Harbour Master appraises harbour users of same and puts in place the necessary safeguards or restrictions.

Dun Laoghaire Harbour is used for both commercial and leisure activities. It is acknowledged in the National Port Policy 2013 that the extent of commercial traffic in the Harbour has been reducing in recent years. This fact is readily acknowledged by the Applicant. The Harbour records show that aside from ferry and the RNLi activity in the Harbour, commercial traffic in the harbour in 2014 comprised of 39 visits; being a drop from 54 visits in 2013. In both cases, these visits are spread across the calendar year.. To date in 2015 (ie to 5 May 2015), there have been 11 such visits to the Harbour.

In recognition of the changing composition of activity in the Harbour, the Harbour Company Masterplan (2011) detailed a range of new initiatives for the use of the Harbour which are reflective of this change. The Harbour is in a period of transition. Consideration of the Harbour Masterplan is discussed in greater detail at Chapter 3 of this EIS.



1D2O2287 Photography: Peter Barrow, 7th August 2013, Tel: 087-2559638

Figure 5.1.1. Aerial Photograph of the harbour, August 2013 (Source: Peter Barrow)

Notwithstanding the various transitions of Harbour use that has occurred over time, the Harbour still remains a working harbour 52 weeks of the year. Some of the more recent changes within the Harbour have been the following:-

- Construction of Marina, the Marina East Breakwater and Marina West Breakwater (2001)
- Introduction of Cruise Tender in the Coal Harbour (2013)
- Removal of Swing Moorings in the West Bight area (2013/14)
- Reduction of Swing Moorings in the East Bight area (2013/14)
- Ceasing of the Stena HSS Service (2015)
- Use of Carlisle Pier for smaller cruise ships

- Use of Berth 1 and Berth 4 for Dublin Bay Cruise operation

The operation of the Harbour is controlled by the Harbours Acts of 1946 and 1996 and the Fisheries Centre Harbour Act 1980.

The Code of Practice for the Safe Operation of Recreational Craft, published by the Maritime Safety Directorate & Irish Coast Guard (2005, Reprint 2006, Revised Issue 2008) confirms with respect to the Harbours Acts that:-

Under these Acts, Harbour Masters have the power to create bye-laws within the limits of their port areas. While the majority of shipping within such ports is of a commercial nature, recreational craft are required to comply with any relevant byelaws, in particular those in relation to:

- *Safety of navigation*
- *Speed limits*
- *Operating within channels*
- *Buoyage*
- *Mooring and berthing*

Details of bye-laws are available from the Harbour Masters Office.

All activities within the Harbour are understandably undertaken within a set of long established protocols and arrangements for the safety and benefit of harbour users. These are referred to as the *Notice to Mariners* and *Harbour Bye Laws*. A copy of the *Notice to Mariners* currently in place in Dun Laoghaire Harbour are included in Appendix 5.1.2 of this EIS for reference purposes.

The current *Notice to Mariners* address the following matters:-

- No. 1 – the Notice to Mariners now in Force
- No. 2 – Fairway Priorities
- No. 3 – VHF Reporting Sound Signals
- No. 4 – Small Craft Regulations and Restrictions
- No. 5 – Passenger Ship Tendering

These *Notices to Mariners* amount to the “rules of the road” for all Harbour Users. A Notice to Mariners dating to 2007 which also remains in force is also included in Appendix 5.1.2 of this EIS. Whilst all of the Notice to Mariners are contained in the Appendices to this EIS, it is useful to recite a number of these as they form part of the existing context for users of the harbour.

Notice to Mariners No. 2

The harbour fairways and approaches are generally to be kept clear and free. It is prohibited to anchor or lay moorings in these areas as marked on navigational publications and charts

No Race Marks, Buoys, Floats, etc. are to be laid in the fairways or the near approaches to the harbour - other than by specific, written permission from the Harbour Master

Any Lobster / Crab Pots that are laid shall remain clear of all harbour navigational waters, and slipways

Clear Fairway Priorities

Large Power driven vessels (Ferries, Lighthouse Authorities, Naval) have priority over all other craft, including the area of the harbour limits that extend 600 metres seaward of the harbour mouth

Signals

Large Power driven vessels are to sound a prolonged blast when approaching the harbour mouth from either direction, or the appropriate signal when manoeuvring off, departing or preparing to depart from their berths

Irrespective as to whether or not any such signal is sounded, the obligation remains for small craft to give priority to the large power driven vessels

Notice to Mariners No. 3

VHF Reporting

All vessels (including fishing but excluding pleasure craft) are required to call "Harbour Office Dun Laoghaire" on VHF Channel 14 as follows:-

1 ETA at Breakwater at least two hours in advance, and for any scheduled ferries & local fishing craft a call at least half an hour in advance

2 ETD at least one hour in advance, followed by confirmation five minutes prior to departure or for scheduled ferries & local fishing craft a call five minutes prior to departure

Sound Signals

All power driven vessels shall on approaches to the harbour mouth (both arriving and departing) sound one prolonged blast on the whistle in accordance with Rule 34(e) of the "International Regulations for Preventing Collisions at Sea"

A vessel shall sound when departing, both by day and night:-

- (a) Departing ship's head out, one prolonged blast on the whistle.*
- (b) Departing stern first, sound three short blasts on the whistle*

A vessel may also sound a preliminary, prolonged blast, just prior to departure, so as to alert other harbour users of its imminent departure

Notice to Mariners No. 4

Main Fairway Large power driven Vessels (Ferries, Lighthouse Authorities, Naval, smaller power-driven vessels with restricted manoeuvrability such as cruise ship tenders etc) have priority over all other craft in the main fairways and harbour approaches

It is incumbent upon each individual small craft, but especially boats engaged in sail training, to ensure early and sufficient action is taken to present a free and unhindered passage to the large power-driven vessels

Attention is also drawn to the "Maritime Safety Act, 2005" whereby the contravention of its Section No. 23 attracts heavy fines and /or terms of imprisonment for, "Dangerous navigation or operation of vessels"; and to the DTTAS Notice No 29 of 2009 – "Small craft operating at entrances to ports"

The Marina Fairway is to be kept clear at all times. Craft transiting to/from sea are to keep on the Starboard side of their fairway

Windsurfing, Paragliding, etc. are NOT permitted within the Harbour unless with specific permission in writing from the Harbour Master

***Speed Limits - Speedboats, Jet Skis, etc are to observe a speed of 8 Knots (15 kph)**
*This applies to all craft in Dun Laoghaire Harbour and its approaches. This limit reduces to 4 knots (or no wake) within the marina**

Diving, Sub Aqua, Swimming activities, etc are generally NOT permitted within the harbour owing to the danger from water traffic. Application for permission to dive (e.g. for servicing of yacht moorings) must be made in writing. Diving may then take place only when the specific permission (in writing) is received from the Harbour Master. The activity must comply with all the operational conditions of the granted permission

Harbour Recreational Area for Small Craft is the triangular area of the North Bight-westwards of a line from West Pier Lighthouse to the marina west breakwater

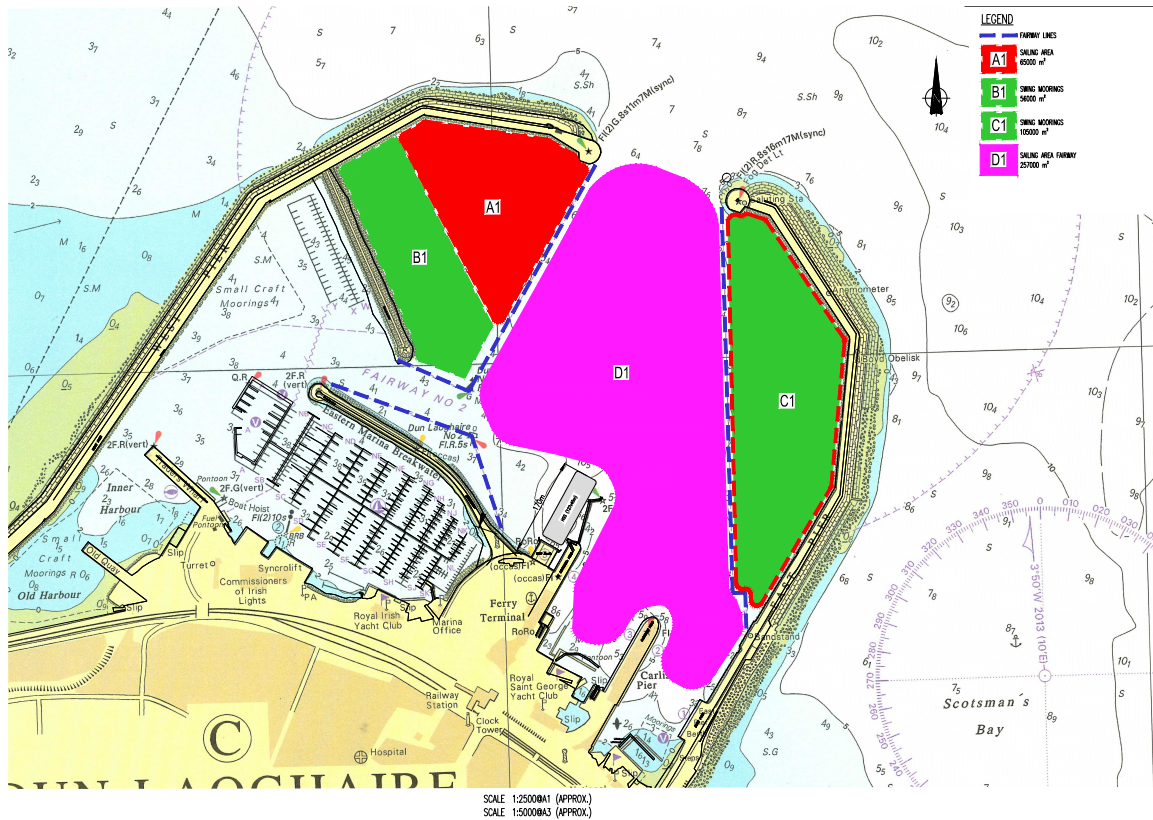


Figure 5.1.2 – Map of the Harbour showing how in operational terms the water body was arranged prior to 2014. A full size copy of this drawing is included in Appendix 5.1.2 to this EIS.

The areas shaded in green depict the swing moorings that were in place (Area B1 and C1). The pink triangle area (Area A1) is the Designated Recreational Area for small craft under the Notices to Mariners. Area D1 is the Fairway zone in the centre of the harbour that is the main transit zone for vessels entering and exiting the harbour.

Fairways – these exist to clearly identify the areas where commercial traffic has complete right of way and where commercial traffic will normally occur. In practice, this area is used to transit to and from and across the harbour. Everything inside the dashed blue lines amounts to a fairway area within the harbour.

At present, vessels visiting the Harbour are most typically berthed at Berth 2 (Carlisle Pier) or Berth 4 (St. Michael’s Pier). Berth 5 (St. Michael’s Pier was used by the HSS up until recently). The RNLI are based off the Carlisle Pier. Aside from this, the Granuaile occasionally berths alongside the Commissioner of Irish Lights and the St. Bridget berths at Berth 1 off the East Pier. Figure 5.1.1 highlights the main areas within the harbour referred to in this report.

Any of the smaller craft using the harbour are used to larger vessels entering of existing the harbour. The protocols in place for such instances are readily understood by harbour users.

Small craft sailing activity is heavily weather dependent. There are occasions when the winds are either too strong or too light to enable dinghy sailing to occur. There was for example an instance earlier in the summer when Wednesday evening sailing was not possible due to a lack of wind.

Small sailing craft are moored in a variety of locations within the Harbour. The primary location for moorings are as follows:-

- The Marina
- The Coal Harbour
- Swing Moorings in the East Bight
- Swing Moorings inside the Marina West Breakwater

The dinghy fleets using the harbour are normally stored on the shore within the compounds of the respective Yacht Clubs.



Figure 5.1.3: Aerial Photograph of the harbour, 2014 (Source: Sgt. Paul Maguire, Irish Air Corps)

The following users can be found in Dun Laoghaire Harbour (see also www.dlharbour.ie):-

1. Ferry Service
2. Commissioner of Irish Lights
3. Naval Service
4. RNLI
5. Sail Training Vessels
6. Freight Vessels
7. Marine Activity Centre

8. Dublin Bay Cruises
9. Sea Scouts
10. Rowing and Diving Clubs
11. Public Boatyard and Slipway
12. Fishermen
13. Dun Laoghaire Marina
14. Yacht Clubs
15. Walkers

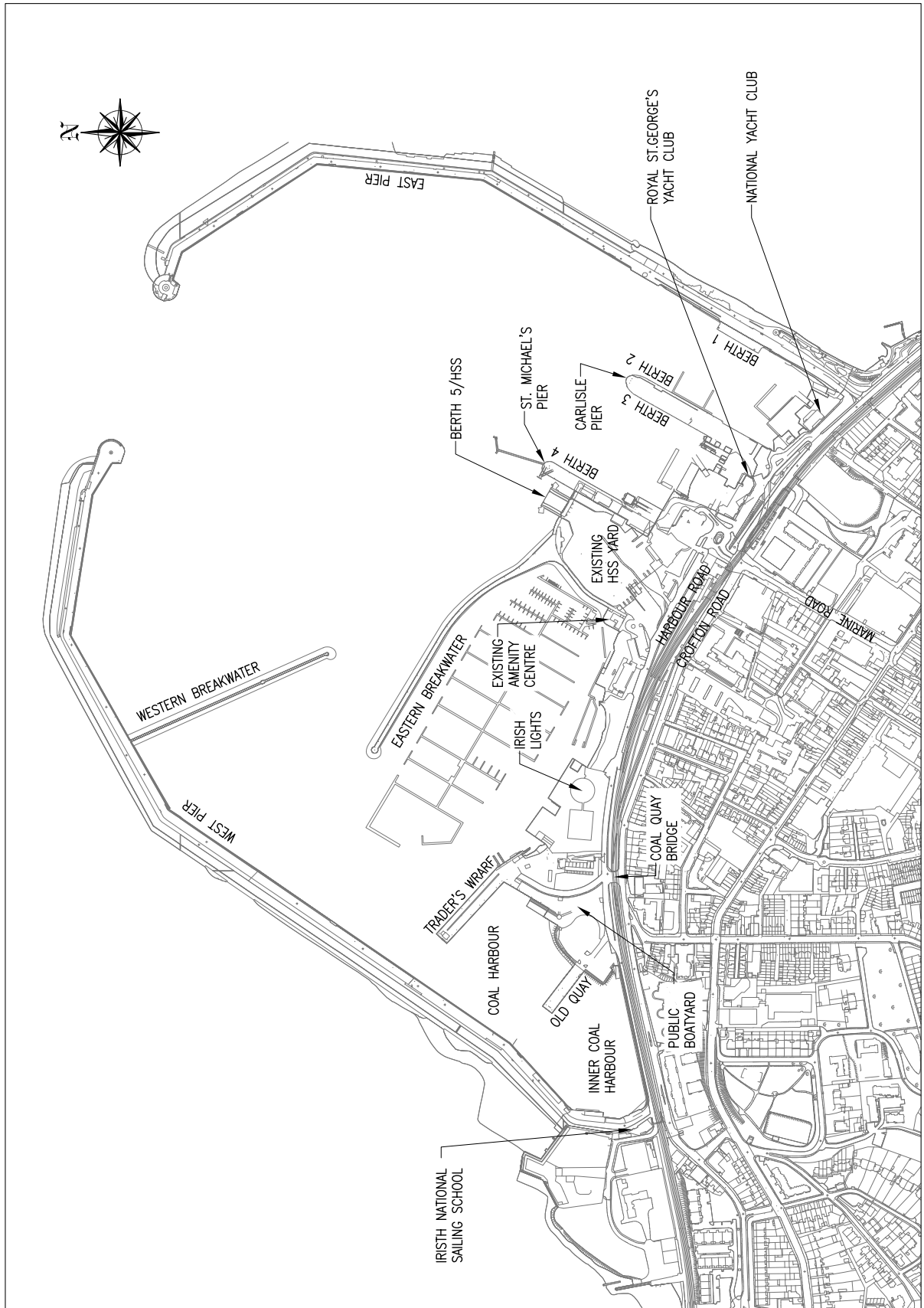


Figure 5.1.4 – Plan of the Existing Harbour showing the locations of the harbour referred to in this Chapter of the EIS. This drawing is included in Appendix 5.1.2 also.

The nature, extent, timing and frequency of use differs across these users. There are some users active within the Harbour throughout the year. For example, the RNLI, the Commissioner for Irish Lights and the Irish National Sailing School based in the Marine Activity Centre. People walk the Piers on a year round basis. The recreational activities associated with the harbour are primarily a Summer pastime (April to September). There is limited sailing activity during the winter months. Marine Insurance Brokers will not insure boats on moorings in the outer harbour from October to March. The advent of the Marina has facilitated a greater extent of winter sailing activity than was previously the case.

The existing users of the harbour waters are familiar with the manner in which the harbour is managed and operated. The users follow the laws of the sea and good seamanship, where a variety of leisure activities occur often simultaneously and regularly would have occurred when larger vessels enter the harbour.

Traditionally, the only racing that consistently took place within the harbour itself is the Water Wags. In more recent times, as the commercial activity associated with the HSS in particular diminished, there has begun to be dinghy sailing activity on Sundays. On occasion, requests have been made to the Harbour Master to allow a race to occur within the harbour. Requests have also occasionally been made to the Harbour Master to allow racing associated with Junior Regattas to occur in the harbour. The Harbour Master has allowed these events to occur where this has proven feasible, but with the Notices to Mariners continuing to apply.

We will outline the activities involved in each case, as follows:-

1. Ferry Service

For over 150 years, a regular ferry service has crossed the Irish Sea between Dun Laoghaire Harbour and Holyhead in Wales.

The early 1960's saw the introduction of car ferry vessels to the route. These catered primarily for car tourists and operated from St. Michael's Pier. The "mail boats" continued to operate from the Carlisle Pier which had the terminal at that point. The St. Columba, which was Sealink's flagship on the Irish Sea was introduced on the route in 1977 and could accommodate 2400 passengers and 335 cars and had a travel time of three and a half hours.

Up until very recently, the Stena Line operated a seasonal high-speed ferry crossing from Dun Laoghaire Harbour in the summer months and around the Christmas period, known as the HSS.

The HSS Berth is located to the east of the proposed location of the Cruise Berth on St Michaels Pier. The HSS upon entering the middle of the harbour bow first, would perform a 180° turn within the fairway area and then reverse on to the Berth. Having performed that manoeuvre, the HSS always departed the harbour bow first. It would take approximately 15 minutes for the HSS to berth from its point of approach to the harbour mouth.

We have obtained information from the Harbour Master regarding the extent of vessel movements to and from the harbour resulting from the HSS. At the outset of the service in 1996 the HSS was operating 5 sailings a day, 7 days a week. The five sailings were as follows:-

In	Out
01.30	02.00
06.00	06.30
10.35	11.10
15.35	16.05
20.15	21.45

From 1996 to 2000, the service operated on 4 sailings per day, 7 days a week as follows:-

In	Out
06.00	06.30
10.35	11.10
15.35	16.05
20.15	21.45

From 2000 to 2006, the service was reduced to 3 sailings per day, 7 days a week, as follows:-

In	Out
10.35	11.10
15.35	16.05
20.15	21.45

Between 2006 to 2008, the service was further reduced to just 2 sailings per day, 7 days a week, as follows:-

In	Out
10.30	11.10
17.30	18.00

Shortly afterwards, the HSS service moved to a seasonal service between May to September and between Christmas and New Year each year, with a single sailing a day during these periods. During those seasonal periods, the HSS arrived at 12.30 and departed at 13.30.

The Harbour Master notes that these sailings may on occasion have differed slightly as changes were made for a variety of reasons on an infrequent basis throughout this period, including for reasons associated with bad weather.



Photo: Peter Barrow 21st August 2006. Tel: 0872-559638

Figure 5.1.5 – View of the HSS at berth with cars and trucks on the standage area waiting to board.

The HSS Dun Laoghaire ferry service has been discontinued and will not operate a crossing service from 2015 onwards. Stena announced their decision to discontinue ferry crossings in February 2015. Stena is in the process of removing its infrastructure from Dun Laoghaire Harbour.

It is however relevant for the purposes of understanding the impact of the current proposal on Harbour Users to appreciate the manner in which the HSS service operated within the Harbour.

The HSS entered the Harbour in forward motion. The width, or beam, of the HSS vessel is 40m. The beam of the Splendida is 34m, with the beam of the Royal Princess is 36m. Both of these vessels are typical of the vessel which would be attracted to Dun Laoghaire by the provision of a cruise berth. When the HSS reached a location that is roughly the centre of the Harbour waterbody, it used its thrusters to undergo a 180° turn such that its bow faced towards the mouth of the Harbour and the stern faced towards its berth at St. Michael's Pier. On leaving the berth, the HSS departed the Harbour in forward motion. As outlined above, this series of movements occurred up to 5 times a day throughout the year.

Throughout this time, the Swing Moorings in the East and West Bights were in place. From 2001, the Marina was also constructed. In addition, the extent of other commercial port traffic was far greater than has been the case in recent years. For example, in 2011 there were 182 vessel arrivals in Dun Laoghaire (source: Table 1.1, National Ports Policy 2013). In 2014, the number of vessel arrivals had dropped to 23 no. (Granuaile 22, Navy 1).

The Harbour Company are hopeful of securing a new smaller scale ferry service operating from the harbour from 2016. It is envisaged that this ferry service will cater for cars and pedestrians and not freight traffic.

2. Commissioner of Irish Lights (CIL)

The Commissioners of Irish Lights have their head office and maintenance centre in Dun Laoghaire Harbour. This is located between the Coal Harbour and the Royal Irish Yacht Club and overlooks the Marina. The Commissioners of Irish Lights operate from its berth within the Harbour on a year round basis.



Figure 5.1.6 – the offices of the Commissioner of Irish Lights

The Commissioners of Irish Lights (CIL) is the General Lighthouse Authority for the island of Ireland (RoI and NI) responsible for the provision, maintenance and management of all physical/electronic aids to navigation (AtoN) and marking/removal of wrecks posing a danger to marine navigation. CIL is also responsible for the superintendence and management, including statutory sanction, of local aids to navigation provided by ports, local authorities and other bodies. The CIL coastal marine infrastructure (over 250 mainland and off-shore locations) provides the platform for aids to navigation monitoring, traffic analysis, MetOcean/environmental, commercial and lighthouse tourism services.



Figure 5.1.7 – the Granuaile alongside the Carlisle Pier

CIL's mission statement is "To promote and deliver services for the safety and protection of persons, infrastructure and interests at sea in a modern context" and to ensure Ireland meets its obligations under the SOLAS Convention and supports the trade and tourism sectors.

3. Naval Service

The Naval Service is a regular user of Dun Laoghaire Harbour at various times of the year. The service plays a vital role of fishery protection and their vessels around the coast of Ireland. Ships are tied up on Berth 1 on the East Pier, or Berth 4 (St. Michaels Pier).



Figure 5.1.8 - Naval Services Vessel (LE Aoife) moored at Berth 1

4. RNLi

The RNLi is based on either side of the National Yacht Club. Their main office and access point is located at the base of the Carlisle Pier. The RNLi additionally have a boathouse at the base of the East Pier.



Figure 5.1.9- 'RNLB Anna Livia' owned and used by the RNLi

The RNLi is listed as a charity, with the purpose of saving lives at sea. Their volunteer crews are on call 24/7 and provide a lifeboat search and rescue service around the UK and Ireland. In Dun Laoghaire this service is provided with the aid of a 14-metre Trent Class Lifeboat named 'RNLB Anna Livia', which is moored on a front and aft mooring just off the base of Carlisle Pier.

5. Sail Training Vessels

The Harbour is on occasion visited by Sail Training Vessels. These would berth at Berth 1 (East Pier), but could equally use Berth 1 or 3. There has been 3 such visits in the past 2 years.

6. Freight Vessels

Freight Vessels visit the harbour very occasionally, usually with special cargo. This can occur at any time in the year and has been reducing in frequency over many years. These vessels would usually berth at Berth 2 or 4. In 2013/14 five shipments of tanks for Diageo were discharged at Berth 2.

7. Marine Activity Centre

The Irish Nautical College and Training school was based in this building at the foot of the West Pier from 1951 to 1975. Subsequently the Commissioners of Irish Lights leased the building until 1986 as a training centre for members of the service.



Figure 5.1.10– Marine Activity Centre, Inner Coal Harbour

In keeping with this tradition Roinn na Mara opened the premises as a Marine Activity Centre in June 1989 to provide a facility for training in sailing and other water sports, safety training courses and lectures on marine matters. There are at present three organisations – the Dun Laoghaire Vocational Educational Committee, the Irish National Sailing School and the Irish Youth Sailing Club – operating from the Centre. (The two latter organisations being Irish Sailing Association recognised teaching establishments).

The Irish National Sailing School (INSS) operates a sail training facility from the Coal Harbour 6 days a week, 12 months a year. The INSS caters for both Child and Adult sailing. In addition to undertaking sail training within the Harbour, the INSS also uses Seapoint Beach and Bay. During the summer months, the INSS could have upwards of 120 dinghies on the water on any given day. According to their web site, they are the largest sail training provider in Ireland and have been teaching people on sailing courses since 1972. Further details can be found at www.inss.ie.

8. Dublin Bay Cruises

Dublin Bay Cruises operate the St. Bridget in Dublin Bay and offer cruises in and around the Bay including trips to Dublin City, Dun Laoghaire, Howth and Dalkey Island. The St. Bridget sails from Berth 1 in Dun Laoghaire Harbour. The Cruises cater for up to approximately 96 passengers.



Figure 5.1.11 – St. Bridget berthing at Berth 1

Dublin Bay Cruises offer the following sight seeing tours:-

- Dun Laoghaire to Dublin City
- Dublin City to Howth (via Dun Laoghaire)
- Dun Laoghaire to Howth
- Howth – Irelands Eye – Howth
- Howth to Dun Laoghaire
- Dun Laoghaire to Dalkey Island Return

The consequence of these tours is that the following pattern of arrivals and departures from Dun Laoghaire Harbour occurs:-

In	Out
	09.30
12.00	12.30
16.00	16.30
18.00	

These tours are operating this year between 2 April to 30 September 2015.

Further detail can be obtained at www.dublinbaycruises.com.

9. 8ú Calafort, Cuan Dun Laoghaire, Gasóga Mara (8th Port of Dublin, Dun Laoghaire Harbour, Sea Scouts Group):

The Sea Scouts meet in the Sea Scout Den on the West Pier in Dun Laoghaire, opposite the Dun Laoghaire Motor Yacht Club (DMYC).



Figure 5.1.12 – Sea Scouts Building



Figure 5.1.13 – Sea Scouts boats moored in the Inner Coal Harbour

Sea Scout members receive a grounding in seamanship in addition to the other outdoor skills and sporting activities normally associated with scouting such as hillwalking and camping.

The Sea Scouts operate from the Inner Coal Harbour and go to the Designated Recreational Area using the fairways. This occurs during the evenings over the Summer months.

10. St. Michael's Rowing Club

The tradition of skiff rowing in Dun Laoghaire originates from the last century when 'hobblers', the name given to those who piloted ships to berth in the Harbour, raced against each other. The St Michael's Rowing Club was formed in the 1920's by redundant hobblers and members of the famous Workman's Club who instructed the young men from the area in the skill of rowing. This tradition has continued down to the present day and can often be seen rowing out from their base in the Coal Harbour.



Figure 5.1.14 – rowers from St. Michael’s Rowing Club training in the fairway

The Rowing Club uses the Harbour to practice and would typically row in an east west direction across the harbour, although other routes are also used. The Club generally trains between April – July each year. There is a bi-annual race to the Kish Lighthouse undertaken.

11. Diving Clubs

There is no diving permitted within the Harbour (see Notice to Mariners No. 4). The diving clubs transit out of the harbour in boats and undertake their dives within the Bay; typically centred around Scotsman’s Bay. This recreational diving activity takes place during the Summer months.



Figure 5.1.15 – Diving Ribs moored at the Inner Coal Harbour.

12. Public Boatyard and Slipway.

A boatyard is provided in the Coal Harbour for members of the public who do not have access to Yacht Clubs or storage facilities. The two public slipways provide popular access to the water and are a hive of activity in the summer months. The Dun Laoghaire Harbour Company facilitates interaction and meetings with representatives of user groups of the public boatyard under the heading of 'Coal Harbour Users Group' (CHUG).



Figure 5.1.16 – Public Slipway in the Coal Harbour

An area for the public to store their boats (mostly dinghies) and use the slipway for launching them.

The use of these public slips is growing and the Harbour Company are aware of proposals by user groups within the Harbour to consider building a further public slipway to the west of the West Pier near Seapoint Beach to accommodate this growing demand.

13. Fishermen.

There are a small number of fishing vessels operating from Traders Wharf in the Coal Harbour. They work throughout the year, mainly fishing for whelks.



Figure 5.1.17 – Fishing Vessels moored alongside Traders Wharf, Coal Harbour

14. Dun Laoghaire Marina

Dun Laoghaire Marina opened on St Patrick's Day, 2001. The Marina Company, which operates this facility, is separate to the Harbour Company. Since the Marina opened, it has grown in success and now has capacity for 820 boats. The Marina can be accessed 24 hours a day by boats of up to 4m draft. The Marina has berths to suit boats from 6m to 30m in length with a maximum displacement weight of 80 tonnes.



Figure 5.1.18 – The Dun Laoghaire Marina, including the eastern and western marina breakwaters (with swing moorings shown in the North Bite/pre-2014)

Dun Laoghaire Marina is a Five Gold Anchor rated marina and has everything you would expect from a high standard marina. For more information of the Marina visit www.dlmarina.com.

15. Yacht Clubs

There are 10 yachting organisations with their base in Dun Laoghaire Harbour:-

- i. The National Yacht Club (NYC)
- ii. The Royal St George Yacht club (RSGYC)
- iii. The Royal Irish Yacht Club (RIYC)
- iv. The Dun Laoghaire Motor Yacht Club (DMYC)
- v. The Dublin Bay Sailing Club (DBSC)
- vi. The Royal Alfred Yacht Club (RAYC)
- vii. Irish National Sailing Club (INSC youth training)
- viii. Irish Youth Sailing Club (IYSC)
- ix. Sailing in Dublin (SID)
- x. Water Wags

Collectively, Dun Laoghaire's waterfront clubs have in the order of 5,000 members, who in turn own approximately 700 keelboats and 1,000 dinghies. These numbers fluctuate yearly,

up, or down. Generally keelboats are stored and moored in the water and dinghies are stored on shore.

The DBSC and the RAYC are 'virtual' clubs. They do not have a premises in the harbour, but they do have members and organise racing. There are race courses set out within the Bay, DBSC occasionally ask permission for dinghies to race inside the harbour when weather inclement outside, this continues to work well (twice so far this year).

Yacht Racing

Yachts are moored at various locations around the harbour. At present, the majority are moored within the Marina, which has capacity for 850 boats. A number remain on swing moorings in the East Bight area (38, a reduction from 88) and an area to the south of the West Pier marina breakwater. There are also boats moored within the Coal Harbours. Both the RIYC and the RSGYC have limited fixed moorings directly in front of their clubs. Sailors are typically ferried to their boats by club launches.

Racing can involve up to 400 boats, with a variety of race courses set out in the Bay. DBSC arrange races every Tuesday and Thursday evenings (start time is typically 7pm) and also Saturday afternoons during the Summer months. Boats participating in these races use the harbour as a transit zone using the designated fairways to exit the harbour and return from the Bay in the same manner once the races are complete.

There is also an element of informal sailing that takes place. These are boats that sail from the Harbour and do not race, rather they sail around the Bay or to other destinations.

Dinghy Racing

Dinghy racing takes place typically within Dublin Bay. Dinghy sailors use the designated fairways to exit the harbour and return from the Bay in the same manner once the races are complete.

Normal dinghy racing occurs during the Summer months from April to September, the vast majority of this activity takes place outside the harbour.

Youth Sailing/Training

Sail training activity takes place within the Harbour in line with the *Notice to Mariners*. The Designated Training Area for dinghy sailing is situated in the North Bight. Notice to Mariners No. 4, which states:-

Harbour Recreational Area for Small Craft is the triangular area of the North Bight- westwards of a line from West Pier Lighthouse to the marina west breakwater

As a general rule, beginners tend to seek the shelter from the wind until they have mastered the art of sailing. The more senior of the junior sailors venture to areas in the harbour where a greater exposure to the wind can be found, and the experienced junior sailors race outside the harbour.

Over the past 15 years or so, there have been more senior junior sailors using Dublin Bay to train in as the winds are more consistent and reliable there than in the harbour itself.

Youth Sail Training associated with the Clubs primarily takes place during the school Summer holidays (max. 13 weeks a year) when the children are free to sail.

Notwithstanding the *Notice to Mariners No. 4*, it is recognized that the very junior sailors/beginners associated with the NYC and RSGYC have recently been utilizing the sheltered water space immediately around the Carlisle Pier and St. Michael's Pier to learn to sail. Both the IYSC and the INSS use the Designated Recreational Area at the North Bight. This Designated Recreational Area now measures 121,000m², or 12.1Ha..

Since 2014, with the removal of Swing Moorings entirely from this area, the extent of the Designated Recreational Area has increased by +86%.

Water Wags

The Water Wags sail within the central part of the Harbour. Racing takes place every Wednesday evening over the April to October period each year. Sailing starts around 18.30 and ends at 20.30 on Wednesdays and at 13.30 to 17.00 on Saturdays. The numbers sailing each day can differ, but there is a fleet of 27 boats. Membership is approximately 60 people.

The Water Wags normally sail an Olympic Triangle within the harbour water body. This has occurred with the permission of the Harbour Master and is otherwise subject to the Notice to Mariners.

Sail-ability Dun Laoghaire

The Sail-ability activity is heavily supervised and provides children with a range of disabilities the opportunity to experience sailing in a controlled environment. This activity occurs in a safe inshore area of the harbour, usually just outside the Marina, where the children can be winched in to the boats and where lighter winds are experienced.

Friday Night Sailing

This is an Open event for junior sailors and is run during a 6 week period over the Summer. It is organized jointly by NYC, RSGYC and RIYC. This racing occurs within the fairways of the harbour. Approximately 60-70 boats take part in 2-3 races each Friday evening. The first race usually starts at 6pm in May and June, or at 3pm in July when the children have finished school. This uses the available water space of the harbour, being the fairways and occurs within the Harbour with the authorization of the Harbour Master.

Frostbite

The DMYC Frostbite Series (2014/15) had an entry of 100 dingy's, of which only 60 sailed on a regular basis. The Frostbite series takes place on Sunday mornings in the winter. Frostbite racing has occurred within the Harbour with the permission of the Harbour Master. This uses the available water space of the harbour, being the fairways and occurs within the Harbour with the authorization of the Harbour Master.

September Series

The September Series of races for junior sailors takes place on Sunday's in September (4-5 weeks) and is organized jointly by the Yacht Clubs. It commences on the last Sunday in August and ends on the second last Sunday in September. The first race starts at 2pm. This uses the available water space of the harbour, being the fairways and occurs within the Harbour with the authorization of the Harbour Master.

Regattas and Competitions

Regattas and Competitions that are hosted at the harbour involve racing within the Bay. The harbour acts as a holding area and/or transit area from the yacht clubs to the race area.

In such circumstances, special arrangements are put in place by the Harbour Master in consultation with the organisers to enable the events to take place.

16. Walkers

The East and West Pier of Dun Laoghaire Harbour are open 365 days a year 24 hours a day and are heavily used by members of the public for walking or jogging. More recently, the marina breakwaters are also available for this activity on the same basis, but are much less commonly used than the main piers.

5.1.6.4 Characteristics of the Proposal

Chapter 3 of this EIS and the accompanying plans and particulars describe the project in detail. The following are the most relevant elements of the proposals that could have an impact on harbour users.

Construction Phase

A construction methodology for the project is set out in Chapter 3 of this EIS, dealing with the Description of the Proposal.

Overall, it is expected the construction phase will occur over an 18 month period.

The construction process can be readily split in to two phases of operation, as follows:-

- Landside Works
- Marine Works

Landside Works

It is envisaged that the works to the landside area, including demolition of existing structures, the site development and landscape works involved can be completed within an 8 month period. The works on the landside area can occur in tandem with the works in the marine area.

It is expected that part of the residual HSS standage area will be used as a construction compound.

Marine Works

The works within the marine area can in turn be divided in to the following stages:-

- Dredging
- Driving Piles for the new quay/berth
- Construct the berth and access causeway

It is expected that the dredging works will occur 24 hours a day for a period of 4 months. There is dredging required both inside and outside the harbour. The dredging will be undertaken by a trailer suction hopper vessel, which will sail up and down the dredge channel in the harbour and then move to dredge the turning area and access channel outside the harbour. In that instance, the dredge vessel will sail up and down the channel until the dredging works are complete.

In order to comply with the National Parks & Wildlife Service Guidelines so as to minimise the impact on marine wildlife, the short 3-4 month period of dredging is proposed to occur during the Summer months (April to September) and will operate on a 24/7 basis.

Once the dredging is complete inside the harbour, the next phase will involve the driving of the monopoles into the seabed that will form the structural support for the new berth. The process of pile driving is expected to take 4 months. This process will be undertaken off a floating plant within the harbour and is expected to start nearest to the shore and gradually move in to the harbour.

The final stage involves the construction of the berth itself and the access causeway. This process is expected to take place over a 9-10 month period. It is possible that the access causeway and berth will be brought to the harbour in pre-constructed segments. In any event, the construction of this part of the project will commence at the shore and proceed in to the harbour full details are in Chapter 3.

Operational Phase

The landside operations are not relevant to the assessment of impact on the use of the harbour. Those impacts are considered elsewhere in this EIS; under Transportation and Architectural Heritage for example.

During the operational phase of the cruise berth, it is envisaged following a number of years of operation that approximately 100 cruise visits per cruise season annually could visit the harbour. These visits are expected to occur during the 'cruise season', which is currently April to September each year.

It is estimated, following simulation exercises, that the cruise vessels will take approximately 30 minutes from reaching the turning circle outside the harbour to being berthed. The vessels will steam bow first into the berth and stern first back out, or may go visa versa. There will be no turning manoeuvre in the harbour.

Cruise vessels are envisaged as arriving to the harbour between 6.00am and 8.00am in the morning. They remain at the berth for the duration of the visit. The vessels are expected to depart the berth between 5.00pm and 7.00pm.

Arising from this, the arrival of the cruise vessel in the morning of the given days is not expected to cause any adverse impact to other harbour users due to the time of day involved.

The departure time of the cruise vessels has limited impact on sailors within the harbour on Tuesday and Thursday evenings, and none on Saturday afternoons. There are limited sailing events on Friday and Wednesday evenings also. Events held on Sunday afternoons are not likely to be affected.

Outside of the cruise season, it is envisaged that the cruise berth could potentially be used for a variety of purposes, including the berthing of other vessels.

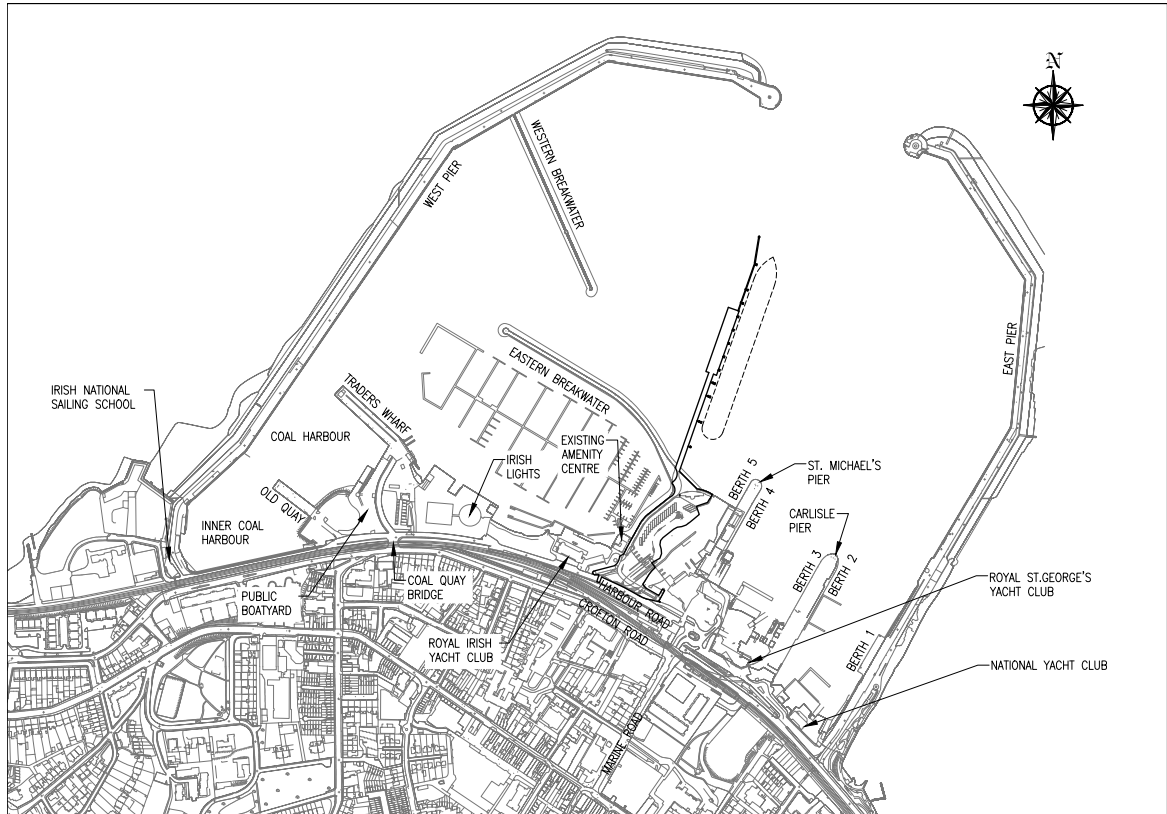


Figure 5.1.19 – Diagram of Harbour showing proposed cruise berth inserted in to harbour with existing locations identified for ease of cross reference. A copy of this Plan is included in Appendix 5.1.2 also.

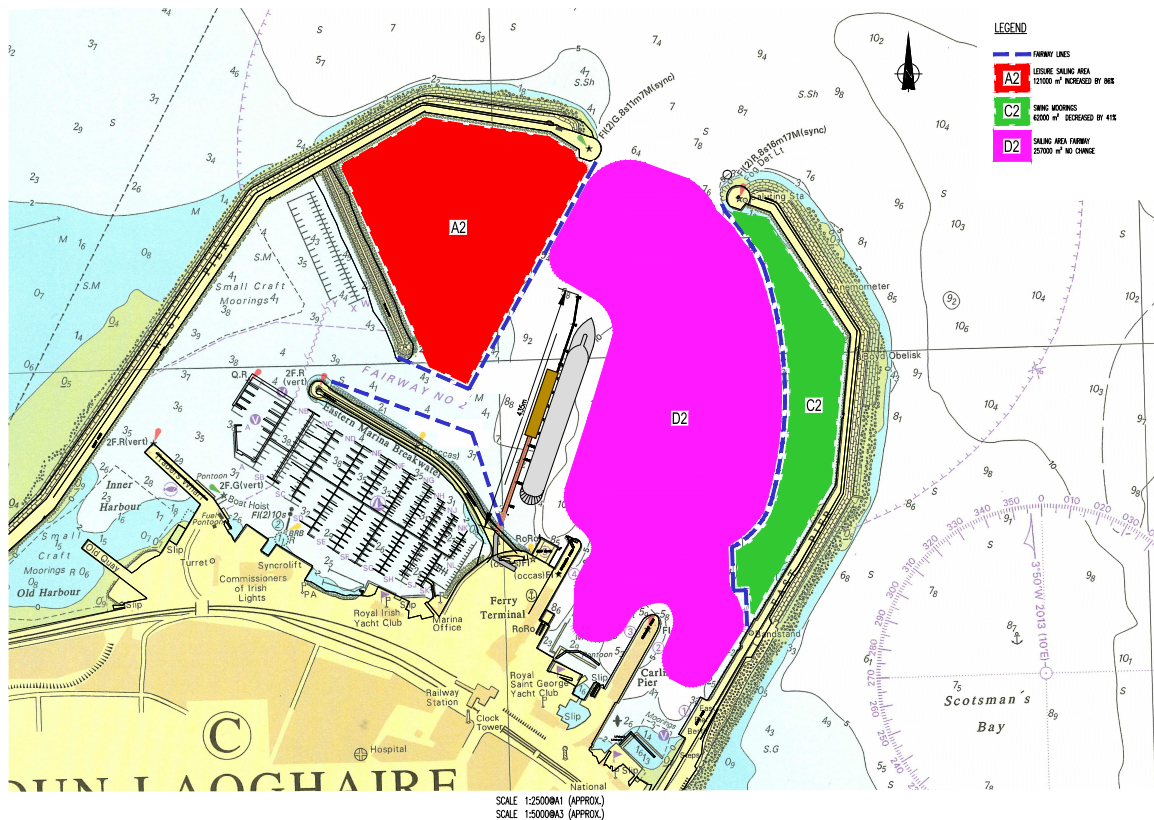


Figure 5.1.20 – Map of the Harbour showing how in operational terms the water body will be organised after the cruise berth is in place. A full size copy of this drawing is included in Appendix 5.1.2 of this EIS.

The diagram above highlights the manner in which the available water body of the Harbour will be divided. This diagram is also contained within the Appendices to this EIS. The Fairway areas are denoted by the blue dashed lines. Area A2 is the now enlarged Designated Recreational Area. Area C2 is the area of the remaining swing moorings on the East Bight. Area D2 is the main fairway water body. The diagram above confirms that amounts to 257,000sqm (25.7 Ha) in area. By reference to Figure 5.1.17 above, this is the same quantum of free water body in the harbour at present, albeit configured somewhat differently.

Cumulative Impact

As detailed in Chapter 3 of this Report, there are a number of separate projects set out in the Harbour Masterplan which the Harbour Company are advancing. These are at various stages of development, from early inception to receipt of permission.

In terms of the impact on Harbour Users, the only project being promoted by the Harbour Company involving works within the harbour itself, is the Urban Beach (An Bord Pleanala Ref. PL 06D.244306).

In addition, as identified on the planning drawings and elsewhere in the EIS, Stena is in the process of removing the physical infrastructure associated with the HSS from the harbour. This will include the HSS Linkspan and the Dolphins off St. Michael’s Pier. It is envisaged that

these will have been removed within the next 9-12 months, subject to receipt of the appropriate licences and consents.

5.1.6.5 Potential Impact of the Proposal

Construction Phase

1. Ferry Service

The Harbour Company expect a new modest ferry service could be launched in 2016. The frequency of sailing could be 2 per day, over a 6 month period (April- September). It is envisaged that this service will be for cars and passengers only.

The landside works would have no potential impact on the ability to operate a ferry service. Either Berth 2, 4 or a modified Berth 5 would be capable of catering for a car ferry (no freight traffic).

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent access to Berth 2 or Berth 4 in the eastern portion of the harbour, it would appear that there is no potential for an adverse impact arising during that part of the construction operation.

2. Commissioner of Irish Lights

The landside works would have no potential impact on the ability to operate the Grainuaile from the berth.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent access to the Commissioner's vessel, it would appear that there is no potential for an adverse impact arising during that part of the construction operation.

The landside works would have no potential impact on the operational ability of the Commissioners of Irish Lights.

The Commissioner of Irish Lights, being permanently resident within the harbour will be aware of the proposed construction activity within the general harbour area. This will be carefully managed through a Construction Management and Traffic Plan that will be agreed with Dun Laoghaire Rathdown County Council and An Garda Síochána.

3. Naval Service

The landside works would have no potential impact on the ability of the Naval Service to use the harbour.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent access to Berth 2 or 4 where the Naval Service would normally berth, it would appear that there is no potential for an adverse impact arising during that part of the construction operation.

4. RNLI

The landside works would have no potential impact on the ability of the RNLI to use the harbour.

The ability of the RNLI to operate during the construction phase of the project will not be hindered in any way.

5. Sail Training Vessels

The landside works would have no potential impact on the ability of Sail Training vessels to use the harbour.

The dredging operation will take place over a period of 3 – 4 months and has the potential to hinder the ability of any Sail Training Vessel to access and exit the harbour. However, dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent access to Berth 2 or 4 where Sail Training vessels would normally berth, it would appear that there is no potential for an adverse impact arising during that part of the construction operation.

6. Freight Vessels

The landside works would have no potential impact on the ability of freight vessels to use the harbour.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent access to Berth 2 or 4 where freight vessels would normally berth, it would appear that there is no potential for an adverse impact arising during that part of the construction operation.

7. Marine Activity Centre

The landside works would have no potential impact on the users of the Marine Activity Centre to use the harbour.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times, whilst also providing for small craft movements. Notices to Mariners will apply.

In the event the INSS or any of the other users of the Marine Activity Centre wished to access the Designated Recreational Area in the North Bight during the 3-4 month dredging period, there will be no obstacle caused by the dredging operation to cause any difficulty in undertaking this.

As the construction of the access causeway and berth will not prevent use of the fairway to access the mouth of the harbour, or the Designated Recreational Area in the North Bight, it would appear that there is no potential for an adverse impact arising on this group of harbour users during that part of the construction operation. The users of the Marine Activity Centre will be aware of marine side construction activity within the harbour.

8. Dublin Bay Cruises

The landside works would have no potential impact on the ability of Dublin Bay Cruises to use the harbour.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent access to Berth 1 where the Dublin Bay Cruises operate from, it would appear that there is no potential for an adverse impact arising during that part of the construction operation.

9. Sea Scouts

The landside works would have no potential impact on the users of the Marine Activity Centre to use the harbour.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Notices to Mariners will apply.

In the event the Sea Scouts wished to access the Designated Recreational Area in the North Bight during the 3-4 month dredging period, there will be no obstacle caused by the dredging operation to cause any difficulty in undertaking this.

As the construction of the access causeway and berth will not prevent use of the fairway to access the mouth of the harbour, or the Designated Recreational Area in the North Bight, there is no potential for an adverse impact arising on this group of harbour users during that part of the construction operation. The Sea Scouts will be aware of marine side construction activity within the harbour.

10. Rowing and Diving Clubs

The landside works would have no potential impact on either the Rowing Club or the Diving Club to use the harbour.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times, whilst also providing for small craft movements. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent use of the fairway to access the mouth of the harbour, there is no potential for an adverse impact arising on diving clubs during that part of the construction operation.

The construction of the access causeway and berth has the potential to cause an impact on the ability of the rowing club to undertake an east west course directly across the harbour during training.

Both the Rowing Club and Diving Club will be aware of marine side construction activity within the harbour.

11. Public Boatyard and Slipway

The landside works during construction would have no potential impact on the users of the public boatyard and slipway to use the harbour. Users of the public boatyard and slipway will be conscious of the limited construction works taking place opposite Coal Quay Bridge that will be undertaken as part of the project.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times, whilst also providing for small craft movements. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent use of the fairway to access the mouth of the harbour, or the Designated Recreational Area in the North Bight, there is no potential for an adverse impact arising on this group of harbour users during that part of the construction operation.

These users will be aware of marine side construction activity within the harbour.

12. Fishermen

The landside works during construction would have no potential impact on the Fishermen using the harbour.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times, whilst also providing for small craft movements. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent use of the fairway to access the mouth of the harbour, there is no potential for an adverse impact arising on this group of harbour users during that part of the construction operation.

These users will be aware of marine side construction activity within the harbour.

13. Dun Laoghaire Marina

The landside works during construction have the potential to impact on the users of the Marina. The proposals include for the provision of a cantilevered walkway over the existing rock armour sea wall on the inner edge of the Marina.

The users of the Marina will be keenly aware of the landside construction works given their proximity to same.

Access to and from the Marina during the construction phase will not be affected as the fairway will remain in place.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times, whilst also providing for small craft movements. Notices to Mariners will apply.

As the construction of the access causeway and berth will not prevent use of the fairway to access the mouth of the harbour, there is no potential for an adverse impact arising on this group of harbour users during that part of the construction operation.

14. Yacht Clubs

Yacht Sailing

The landside works during construction would have no potential impact on the ability of yachts to use the harbour.

Access to and from the Marina to the harbour mouth during the construction phase will not be affected as the fairway will remain in place.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times, whilst also providing for small craft movements. Notices to Mariners will apply.

As the dredge channel outside the harbour does not interfere with any of the race courses, the ability of yacht racing to continue is unaffected by this dredging process.

The construction of the access causeway and berth will not prevent use of the fairways to access the mouth of the harbour and as such using the harbour to transit to and from the bay for racing will not be affected.

It is acknowledged that some members of the RIYC and RSGYC moor their boats within the Marina. As a result, club launches pass east west across the harbour to access these boats. During the construction of the access causeway and berth, there is a potential impact on the route the club launches can take to transit sailors to and from their boats moored in the Marina.

Access to the boats in the East Bight using launches will not be affected .

Members of the Yacht Clubs using the Marina will be aware of marine side construction activity within the harbour.

Dinghy Sailing

The landside works during construction would have no potential impact on the ability of dinghies to use the harbour.

Access to and from the harbour mouth for dinghy sailing in the Bay during the construction phase will not be affected as the fairways will remain in place and access will remain.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times, whilst also providing for small craft movements. Notices to Mariners will apply.

As the dredge channel outside the harbour does not interfere with any of the race courses, the ability of yacht racing to continue is unaffected by this dredging process.

Access to the Designated Recreational Area in the North Bight will remain possible using the fairways both during dredging and during the construction of the access causeway and the berth.

The construction of the access causeway and berth will not prevent use of the fairways to access the mouth of the harbour and as such using the harbour to transit to and from the bay for racing will not be affected.

Youth Sailing/Training

The landside works during construction would have no potential impact on youth sailing/training in the harbour.

Access to and from the harbour mouth for youth sailing/training in the Bay during the construction phase will not be affected as the fairways will remain in place and access will remain.

The dredging operation will occur over a period of 3 – 4 months. Dredging and ship movements will be carefully monitored and planned to allow access for ferries and

other power driven vessels to enter and depart the harbour mouth at all times, whilst also providing for small craft movements. Existing Notices to Mariners will apply.

Access to the Designated Recreational Area in the North Bight will remain possible using the fairways both during dredging and during the construction of the access causeway and the berth (4 months). It is acknowledged that the route to and from the Designated Recreational Area will be more constricted than it is at present.

The construction of the access causeway and berth will not prevent use of the fairways to access the mouth of the harbour and as such using the harbour to transit to and from the bay for racing will not be affected.

Water Wags

The landside works during construction would have no potential impact on the use of the harbour by the Water Wags.

There will be a period of 3-4 months when the Water Wag racing may be disrupted inside the harbour. Alternative race courses to the Olympic course may have to be selected or alternatively racing could be held in Scotsmans Bay.

Sail-ability Dun Laoghaire

The landside works during construction would have no potential impact on the use of the harbour for existing activities by Sail-ability Dun Laoghaire.

It is not considered that there will be any potential adverse impact on Sail-ability Dun Laoghaire during the marine side works of the construction phase of the project.

Friday Night Racing

The landside works during construction would have no potential impact on Friday Night Racing in the harbour.

There will be a period of 3-4 months when the Friday Night Racing may be disrupted inside the harbour. Alternative race courses may have to be selected on the day of racing, or alternatively could be held in Scotsmans Bay.

Frostbite

The landside works during construction would have no potential impact on Frostbite Racing in the harbour.

As the dredging process is scheduled to occur during the summer months, this aspect of the project will have no impact on frostbite racing.

During the 4 month period of construction of the access causeway and berth, dinghy/sailing craft and ship movements will be carefully monitored and planned by the Harbour Master to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Alternative race courses may have to be selected on the day of racing, or alternatively could be held in Dublin Bay.

September Series

The landside works during construction would have no potential impact on September Series Racing in the harbour.

During the 4 month period of construction of the access causeway and berth, dinghy/sailing craft and ship movements will be carefully monitored and planned by the Harbour Master to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Alternative race courses may have to be selected on the day of racing and could be held outside in Dublin Bay.

Regattas and Competitions

The landside works during construction would have no potential impact on Regattas or Competitions hosted by Dun Laoghaire Harbour.

The dredging operation will take place over a period of 3 – 4. Dredging and dinghy/sailing craft movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour mouth at all times. Existing Notices to Mariners will apply.

During the 4 month period of construction of the access causeway and berth, there would only be limited disruption to the use of the harbour as a holding or transit area for these competitions.

15. Walkers

There is no potential adverse impact on the ability of people to gain access to the East or West Piers within the harbour during the construction phase of the project.

Access to the Marina Breakwater during a 4 month construction phase associated with the landside works is likely to be restricted for health and safety reasons associated with the works planned in this area.

Operational Phase

Once operational, the following potential impacts on the various harbour users are possible:-

1. Ferry Service

There is no potential negative impact arising as there is presently no ferry service in operation.

Were a ferry service to return to Dun Laoghaire, it would only be a small craft service catering for small numbers of cars and foot passengers. It is not envisaged that the operators capable of accommodating freight traffic will come to Dun Laoghaire again.

Ship movements will be carefully monitored and planned to allow access for ferries and other power driven vessels to enter and depart the harbour at all times.

In addition, Harbour users are well used to the discipline required as a result of the arrival/ departures of ferries, over the year.

2. Commissioner of Irish Lights

There is no potential adverse impact arising as the ability of the Commissioner's vessels to enter and exit the Harbour as is currently the case would remain.

3. Naval Service

There is no potential adverse impact arising as the ability of the Naval Service vessels to enter and exit the Harbour as is currently the case would remain.

4. RNLI

There is no potential adverse impact arising as the ability of the RNLI vessels to enter and exit the Harbour as is currently the case would remain.

The RNLI Lifeboat is a highly maneuverable vessel and would have no difficulty passing through the mouth of the harbour at the same time as a cruise vessel were entering/exiting. It is expected there will be at least 50m between the cruise vessel and the roundheads of the harbour mouth for small craft such as the lifeboat to pass. This would be a very similar situation to that which occurred when the Stena HSS entered the harbour.

5. Sail Training Vessels

There is no potential adverse impact arising as the ability of Sail Training vessels to enter and exit the Harbour as is currently the case would remain.

6. Freight Vessels

There is no potential adverse impact arising as the ability of freight vessels to enter and exit the Harbour as is currently the case would remain.

7. Marine Activity Centre (Youth training)

There is no potential adverse impact arising as the ability of vessels associated with users of the Marine Activity Centre to enter, exit and use the amenities of the Harbour in line with the Notices to Mariners as is currently the case would remain.

The users of the Marine Activity Centre have small craft which would have no difficulty passing through the mouth of the harbour at the same time as a cruise vessel were entering/exiting. It is expected there will be at least 50m between the cruise vessel and the roundheads of the harbour mouth for small craft such as the lifeboat to pass. This would be a very similar situation to that which occurred when the Stena HSS entered the harbour.

All movement of small craft will continue to be the subject of the existing Notices to Mariners 1 – 5.

8. Dublin Bay Cruises

There is no potential adverse impact arising as the ability of the St. Bridget to enter, exit and use the amenities of the Harbour in line with the Notices to Mariners as is currently the case would remain.

9. Sea Scouts

There is no potential adverse impact arising as the ability of vessels associated with the Sea Scouts to enter, exit and use the amenities of the Harbour in line with the Notices to Mariners as is currently the case would remain.

10. Rowing Clubs

As regards the Rowing Club, once operational the cruise berth will result in the east west training route across the harbour being severed by the new facility and a different course is easily achievable.

11. Diving Clubs

There is no potential adverse impact arising as the ability of vessels associated with the Diving Clubs to enter, exit and use the amenities of the Harbour in line with the Notices to Mariners as is currently the case would remain.

12. Public Boatyard and Slipway

There is no potential adverse impact arising as the ability of vessels associated with users of public boatyard and slipway to enter, exit and use the amenities of the Harbour as is currently the case would remain.

13. Fishermen

There is no potential adverse impact arising on the ability of fishermen arising from the operation of the cruise berth and they can continue to use the Harbour as is currently the case.

14. Dun Laoghaire Marina

There is no potential adverse impact arising as the ability of vessels associated with Dun Laoghaire Marina to enter, exit and use the amenities of the Harbour as is currently the case would remain.

There is the potential for the route the launches take between the Marina itself and the Clubs would need to alter slightly as the new facility could create an impassable barrier. Provision has been made in the design of the access causeway leading to the berth for an underpass that could accommodate launches during the majority of tidal conditions. As a result, no adverse impact is envisaged.

Where the launches travel between the NYC and the RSGYC and the West Bight swing moorings, there will be no potential impact arising during the operational phase.

15. Yacht Clubs

Yacht Sailing

There is no potential adverse impact arising as the ability of yachts going racing in the Bay to be able to enter, exit and use the amenities of the Harbour as is currently the case would remain.

Dinghy Racing

There is no potential adverse impact arising as the ability of dinghies going racing in the Bay to be able to enter, exit and use the amenities of the Harbour as is currently the case would remain.

Youth Sailing/Training

The extent of the Designated Recreational Area in the East Bight has been extended in the past year by over 86% in water area. This has occurred through the removal of the swing moorings between the marina breakwater to the south and the previous designated area for youth sailing in the harbour.

There is potential impact on the available wind for sailing caused by the cruise vessel being located at the berth. Any wind shadow could create calmer conditions for training very young sailors.

Water Wags

The operation of the cruise berth may have an adverse effect on the ability of the Water Wags to continue to sail the same course as is currently the case. A potential adverse effect may arise in this case.

A number of new 'in-harbour' courses are entirely possible to facilitate the Water Wags and as a result no significant adverse impact arises. Alternative race courses to the Olympic course may have to be selected or alternatively racing could be held in Scotsmans Bay.

There is potential impact on the available wind for sailing caused by the cruise vessel being located at the berth.

Sail-ability Dun Laoghaire

It is not considered that there will be any potential adverse impact on Sail-ability Dun Laoghaire during the operational phase of the project. The areas currently in use for this activity will remain available.

Friday Night Racing

The operation of the cruise berth may alter the racing area available for this racing in the harbour.

A number of new 'in-harbour' courses are entirely possible to facilitate the Friday Night Racing and as a result no significant adverse impact arises. Alternative race courses may have to be selected or alternatively racing could be held in Scotsmans Bay.

There is potential impact on the available wind for sailing caused by the cruise vessel being located at the berth.

Frostbite Series

The operation of the cruise berth may alter the racing area available for this racing in the harbour.

A number of new 'in-harbour' courses are entirely possible to facilitate the Frostbite Series and as a result no significant adverse impact arises. Alternative race courses may have to be selected or alternatively racing could be held in Scotsmans Bay.

There is no potential impact on the available wind for sailing caused by the cruise facility, as no cruise ship will be berthed during this winter period.

September Series

The operation of the cruise berth may alter the racing area available for this racing in the harbour.

A number of new 'in-harbour' courses are entirely possible to facilitate the September Series and as a result no significant adverse impact arises. Alternative race courses may have to be selected or alternatively racing could be held in Scotsmans Bay.

There is potential impact on the available wind for sailing caused by the cruise vessel being located at the berth.

Regattas and Competitions

The operation of the cruise berth is not considered to have a potential adverse impact on the ability of Dun Laoghaire to host regattas or competitions.

The harbour is only used for transit to the Bay, there is no potential impact on the available wind for sailing caused by the cruise vessel being located at the berth.

16. Walkers

There is no potential adverse impact on the ability of people to gain access to the Piers for recreational purposes within the harbour during the operational phase of the project.

'Do Nothing' Scenario

In the do-nothing scenario, where the cruise berth facility is not built, the harbour would continue to be used by harbour users in line with current circumstances. As any new developments arise in the harbour, the Harbour Master would continue to appraise harbour users of same and to put in place the necessary safeguards or restrictions.

Cumulative Impact

The other possible developments at the Harbour as outlined in Chapter 3 of this EIS would not cause any potential adverse impact on harbour users over and above that described above. We note that An Bord Pleanála have approved the Urban Beach project.

5.1.6.6 Avoidance, Remedial or Reductive Measures

Construction Phase

1. Ferry Service

As there is no potential impact on a ferry service as none is operating at present, there are no avoidance, remedial or reductive measures required during the construction phase in respect of this.

In the event the Harbour Company is successful in obtaining an operator for a new small scale car ferry service, this will most likely operate from Berth 2 or 4.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

2. Commissioner of Irish Lights

As the landside works would have no potential impact on the use of the harbour by the Commissioner of Irish Lights, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

As a result there are no avoidance, remedial or reductive measures required during the construction phase in respect of this harbour user.

3. Naval Service

As the landside works would have no potential impact on the use of the harbour by the Naval Service, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

As a result there are no avoidance, remedial or reductive measures required during the construction phase in respect of this harbour user.

4. RNLI

As the landside works would have no potential impact on the use of the harbour by the RNLI, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The ability of the RNLI lifeboat to exit or enter the harbour will not be affected by either the dredging or the construction of the new berth.

As a result there are no avoidance, remedial or reductive measures required during the construction phase in respect of this harbour user.

5. Sail Training Vessels

As the landside works would have no potential impact on the use of the harbour by visiting Sail Training Vessels, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

In addition, the visit of such a vessel is very infrequent.

6. Freight Vessels

As the landside works would have no potential impact on the use of the harbour by visiting Freight Vessels, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

In addition, the visit of such a vessel is very infrequent.

7. Marine Activity Centre (youth training)

As the landside works would have no potential impact on the use of the harbour by users of the Marine Activity Centre, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

During the 3-4 month dredging works, it will continue to be possible for small craft to pass between the slow moving dredge vessel and the roundheads of the harbour wall. Such a situation regularly occurred as the HSS entered the harbour in previous years. As a result, no adverse impact on these users ability to access either the Bay of the Designated Recreational Area arises.

As the works associated with the construction of the access causeway and berth would have no potential impact on the use of the harbour by users from the Marine Activity Centre, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

8. Dublin Bay Cruises

As the landside works would have no potential impact on the use of the harbour by Dublin Bay Cruises, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the marine side works would have no potential impact on the use of the harbour by Dublin Bay Cruises, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

9. Sea Scouts

As the landside works would have no potential impact on the use of the harbour by the Sea Scouts, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the marine side works would have no potential impact on the use of the harbour by the Sea Scouts, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

10. Rowing and Diving Clubs

As the landside works would have no potential impact on the use of the harbour by users of the Rowing and Diving Clubs, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the marine side works would have no potential impact on the use of the harbour by the Diving Clubs, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

In respect of the Rowing Club, the ability to train east to west across the harbour in front of the HSS berth will be curtailed by the construction phase. Alternative training routes within the harbour would be feasible, in particular in an east to west direction closer to the mouth of the harbour. In addition, Scotsman's Bay or Seapoint Bay are alternative training locations that are also available.

As a consequence, it will continue to be possible for the Rowing Club to have the option to train within the Harbour or in the Bay.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

11. Public Boatyard and Slipway

As the landside works would have no potential impact on the use of the harbour by users of the Public Boatyard and Slipway, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the marine side works would have no potential impact on the use of the harbour by users of the Public Boatyard or Slipway, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

12. Fishermen

As the landside works would have no potential impact on the use of the harbour by Fishermen, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the marine side works would have no potential impact on the use of the harbour by Fishermen, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

13. Dun Laoghaire Marina

The landside works adjacent to the Marina on the walkway leading to the marina breakwater will be carefully controlled in line with a construction methodology to be agreed with Dun Laoghaire Rathdown County Council in due course. The works will be undertaken in line with the relevant health and safety provisions. These aspects of the project combined will ensure that there is no adverse impact on users of the marina during the works to the landside area.

As there is no potential impact for users of the marina seeking to exit the harbour as the fairways will remain in operation within the harbour when the construction of the access causeway and berth are on-going, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

Such a situation is similar to what would have happened regularly in the past when the HSS service was operating and sailors would be very familiar with this.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

14. Yacht Clubs

Yacht Racing

As the landside works would have no potential impact on the use of the harbour by yachts going sailing, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the dredging will occur during the Summer months and operate on a 24/7 basis over a 3-4 month period, any slight inconvenience caused would only arise on Tuesday and Thursday evenings from 6pm, and on Saturday afternoons. Otherwise, the dredging activity on the remaining days and times will not interfere with yacht racing.

Such a situation is similar to what would have happened regularly in the past when the HSS service was operating and the sailors would be familiar with these arrangements.

As such, even during the dredging works both inside and outside the harbour, yachts will continue to be able to use the fairways to access and exit the harbour and to race in the Bay, in line with the operational provisions that currently exist.

As the construction of the access causeway and berth will proceed outwards from the landside, the impact initially will be minimal, with the ability of launches to pass east west between the Marina and the Clubs continuing for a period of this phase of construction. It is proposed to introduce an 'underpass' within the access causeway that will facilitate launches at most stages of the tide once complete, providing in excess of 1.5m air draft. This underpass would not be available for use by the launches until such time as the construction of the berth is complete, a period of 6 months overall, as there will be construction activity moving to and from the land across the underpass during this period.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

Dinghy Racing

As the landside works would have no potential impact on the use of the harbour by dinghies going racing, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the dredging will occur during the Summer months and operate on a 24/7 basis over a 3-4 month period, any slight inconvenience caused would only arise on Tuesday and Thursday evenings from 6pm, and on Saturday afternoons. This is a

temporary short term impact. Otherwise, the dredging activity on the remaining days and times will not interfere with dinghy racing.

As the marine side works will not adversely affect the ability of dinghies to access the Designated Recreational Area in the North Bight, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

Such a situation is similar to what would have happened regularly in the past when the HSS service was operating and dinghy sailors would be very familiar with this.

As such, even during the dredging works both inside and outside the harbour, dinghies will continue to be able to use the fairways to access and exit the harbour and to race in the Bay, in line with the operational provisions that currently exist.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

Youth Sailing/Training

As the landside works would have no potential impact on the use of the harbour for youth sailing/training, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the marine side works will not adversely affect the ability of youth sailing/training activities to access the Designated Recreational Area in the North Bight, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase. It has already been highlighted that the Designated Recreational Area is about 86% larger than it was before the swing moorings were removed.

There will be a period of 3-4 months when the movement of recreational craft (whether it be transiting or youth training) that will have to be carefully managed. The Harbour Master will continue to liaise with the DBSC, Junior Organisers and other event organisers during this period.

Such a situation is similar to what would have happened regularly in the past when the HSS service was operating.

The current unauthorised activity of the very junior sail training taking place within the shelter of the Carlisle Pier area would be unaffected by this proposal also.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

Water Wags

As the landside works would have no potential impact on the use of the harbour by the Water Wags, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the Water Wags only race inside the harbour on Wednesday evenings, the dredging activity only has the potential to impact the Water Wags at that time. As the dredging will occur during the Summer months and operate on a 24/7 basis over a 3-4 month period, any slight inconvenience caused would only arise on Wednesday evenings from 6pm. Otherwise, the dredging activity on the remaining days and times will not interfere with Water Wags racing.

The construction of the access causeway and berth may have an impact on the ability of the Water Wags to race their current course.

The use of the harbour by the Water Wags is with the permission of the Harbour Master. At all times in the past, the racing by the Water Wags in the harbour was accommodated subject to the commercial activities of the harbour taking precedence. For example, when the HSS entered the harbour at race time, the boats exited the fairway area, with the racing only re-commencing when the HSS had berthed/left the harbour.

It is considered feasible that the Water Wags could continue to race in the harbour, albeit on a different course to that used at present. Alternatively, the Water Wags could choose to race in the Bay.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

Sail-ability Dun Laoghaire

As the area currently being used for Sail-ability Dun Laoghaire will not be affected by the construction phase of the project no potential adverse impact arises and as a result, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

Friday Night Racing

As the landside works would have no potential impact on the use of the harbour for Friday Night Racing, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the dredging will occur during the Summer months and operate on a 24/7 basis over a 3-4 month period, any slight inconvenience caused would only arise on Friday evenings from 6pm during this period. Otherwise, the dredging activity on the remaining days and times will not interfere with this racing.

It is considered feasible that an alternative course can be found to race inside the harbour during the construction phase.

The construction of the access causeway and berth may temporarily reduce the extent of free water within the centre of the harbour. Whilst this may alter the potential race course available, it is considered feasible to agree an alternative course to race within the harbour during this construction period. The extent of free water

space available within the harbour is the same as that prior to the swing moorings being removed and as such an alternative course is considered feasible. This could ultimately be used as the future course also once the project is complete. Alternatively, the Friday Night Racing could choose to sail in the Bay.

The existing Notice to Mariners will apply. The existing Notices to Mariners will be adapted by the Harbour Master to apply to the cruise facility and arrivals/departures of all vessels during the construction phase will be managed appropriately.

Frostbite Series

As the landside works would have no potential impact on the use of the harbour for Frostbite Series, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the dredging will occur during the Summer months and operate on a 24/7 basis over a 3-4 month period, this will not interfere with frostbite racing.

The construction of the access causeway and berth will temporarily reduce the extent of free water within the centre of the harbour. Whilst this will alter the potential race course available, it is considered feasible to agree with the Harbour Master an alternative course to race within the harbour during this construction period. The extent of free water space available within the harbour is the same as that prior to the swing moorings being removed and as such an alternative course is considered feasible. This could ultimately be used as the future course also once the project is complete. Alternatively, Frostbite Racing could choose to sail in the Bay.

September Series

As the landside works would have no potential impact on the use of the harbour for the September Series, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

As the dredging will occur during the Summer months and operate on a 24/7 basis over a 3-4 month period, any slight inconvenience caused would only arise on Sunday mornings over a 4-5 week period (ie 4-5 mornings only). Otherwise, the dredging activity on the remaining days and times will not interfere with this racing.

The construction of the access causeway and berth may temporarily reduce the extent of free water within the centre of the harbour. Whilst this may alter the potential race course available, it is considered feasible to agree an alternative course to race within the harbour during this construction period. The extent of free water space available within the harbour is the same as that prior to the swing moorings being removed and as such an alternative course is considered feasible. This could ultimately be used as the future course also once the project is complete. Alternatively, the September Series could choose to sail in the Bay.

Regattas and Competitions

As the landside works would have no potential impact on the use of the harbour for Regattas or Competitions, no avoidance, remedial or reductive measures are required for this aspect of the works during the construction phase.

The Harbour Master receives requests to accommodate Regattas and Competitions hosted by the harbour on an occasional basis.

It is not considered that the construction phase of the cruise berth project would preclude such an event from happening. Such events are planned well in advance and involve the Harbour Master.

15. Walkers

As no potential adverse impacts arise from the construction of the cruise berth on the ability of people to use and enjoy the East and West piers for recreational purposes, no avoidance, remedial or reductive measures are required.

There will be limited inconvenience caused by the landside works as walkers will not be able to access the marina breakwater for recreational purposes. As this is a little used area for walking, this is not considered a significant inconvenience.

Operational Phase

1. Ferry Service

As there is no ferry service at present, there is no avoidance, remedial or reductive measures required during the operational phase relating to ferry's.

In the event a new ferry service were to operate from the harbour, the Harbour Master would ensure that the scheduling of arrivals and departures of that service would not conflict with the cruise vessels or with leisure craft. As such, no avoidance, remedial or reductive measures over and above the normal provisions relating to harbour use are required for this harbour user during the operational phase.

2. Commissioner of Irish Lights

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the Commissioner of Irish Lights to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

The Commissioner of Irish Lights will continue to be able to use the harbour and access their berth in the same manner as is currently the case in line with the Notices to Mariners.

3. Naval Service

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the Naval Service to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

The Naval Service will continue to be able to use the harbour and access their berth in the same manner as is currently the case in line with the Notices to Mariners.

4. RNLI

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the RNLI to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

The RNLI will continue to be able to use the harbour and access their berth in the same manner as is currently the case in line with the Notices to Mariners.

5. Sail Training Vessels

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the Sail Training vessels to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

The Sail Training vessels will continue to be able to use the harbour in the same manner as is currently the case in line with the Notices to Mariners.

6. Freight Vessels

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the freight vessels to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

Freight vessels will continue to be able to use the harbour and access their berth in the same manner as is currently the case in line with the Notices to Mariners.

7. Marine Activity Centre (youth training)

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the users of the Marine Activity Centre to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

Users will continue to be able to use the harbour and access the Designated Recreational Area in the North Bight in the same manner as is currently the case in line with the Notices to Mariners. As already highlighted, the Designated Recreational Area has recently been increased by +86% in terms of its available water body.

8. Dublin Bay Cruises

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the St. Bridget to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

The St. Bridget will continue to be able to use the harbour in the same manner as is currently the case in line with the Notices to Mariners.

9. Sea Scouts

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the Sea Scouts to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

Users will continue to be able to use the harbour and access the Designated Recreational Area in the North Bight in the same manner as is currently the case in line with the Notices to Mariners. As already highlighted, the Designated Recreational Area has recently been increased by +86% in terms of its available water body.

10. Rowing and Diving Clubs

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the Diving Clubs to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase for this user.

Whilst the Rowing Club will no longer be in a position to row east to west across the harbour just north of St. Michael's Pier, there are still very large parts of the harbour that can continue to use for training purposes, including east to west from the North Bight to the East Bight across the mouth of the harbour. The extent of free water in the main fairway located inside the harbour amounts to approximately 25.7Ha, which is a very substantial area. Equally, the areas outside the Bay remains available for training and that option is unaffected by the cruise berth proposals.

11. Public Boatyard and Slipway

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the users of the Public Boatyard and Slipway to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

Users will continue to be able to use the harbour and access the Designated Recreational Area in the North Bight in the same manner as is currently the case in line with the Notices to Mariners. As already highlighted, the Designated Recreational Area has recently been increased by +86% in terms of its available water body.

12. Fishermen

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the Fishermen to use the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

13. Dun Laoghaire Marina

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the yachts going to race transiting through the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

As the cruise berth passes over the route motor launches might pass travelling between the Yacht Clubs and the Marina, provision has been made within the access causeway structure to provide a 1.5m high underpass which will be adequate to accommodate motor launches through the majority of tidal conditions. That underpass is capable of use, even when the cruise ship is at berth.

14. Yacht Clubs

Yacht Sailing

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the yachts going to race transiting through the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

As the cruise berth passes over the route motor launches might pass travelling between the Yacht Clubs and the Marina, provision has been made within the access causeway structure to provide a 1.5m high underpass which will be adequate to accommodate motor launches through the majority of tidal conditions. That underpass is capable of use, even when the cruise ship is at berth.

Dinghy Racing

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the dinghies going to race into the bay, transiting through the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

Youth Sailing/Training

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the youth sailing/training transiting through the harbour either to the Designated Recreational Area or the harbour mouth, there is no avoidance, remedial or reductive measures required during the operational phase.

The Designated Recreational Area is located in the North Bight and benefits from the shelter of the West Pier. It is recognised that Youth Sailors/Training requires less wind than that afforded in the Bay, for example. As already noted, experience shows that the more experienced junior sailors travel to the Bay where more consistent winds are found.

Large cruise ships at berth will have an effect on the wind patterns locally, and will result in "wind shadow" downwind of the ship. The affected area will vary depending on a number of factors, including the size of the ship, the direction of the wind and the speed of the wind. No matter what direction the wind is blowing, there will always be an area of the harbour that will be windward of ships at berth and therefore unaffected. This unaffected area of the harbour will always be available for dinghy/youth sailing.

It will also be possible to sail in the area affected by "wind shadow" on the leeward (sheltered) side of the ship, with the exception possibly of up close to the

ship. Winds blowing roughly parallel to the ship will have little or no "wind shadow" effect. Experienced sailors are familiar with the "wind shadow" effect as their sails create "wind shadow" and a knowledge of this effect is used to gain competitive advantage in racing by manoeuvring to put their competitors in the bad wind caused by the "wind shadow" of their boats.

Water Wags

The operation of the cruise berth will result in an impact on the use by the Water Wags of the existing course used within the harbour with the consent of the Harbour Master.

The operation of the Cruise Berth does not prevent the Water Wags continuing to race their fleet of 27 boats on Wednesday evenings and Saturday afternoons. There are two large water bodies located on either side of the berth. The Designated Recreational Area and the main fairway have a combined water body area of 37.8Ha.

The position of the cruise berth, will, it is acknowledged, result in the need for alternative racing courses to be considered, if this racing is to continue within the harbour. In this regard, other harbours along the east coast; Bray, Greystones, Howth, each have a sailing tradition and none can accommodate sailing in the harbour. The alternative of racing in the Bay remains a viable option.

Large cruise ships at berth will have an effect on the wind patterns locally, and will result in "wind shadow" downwind of the ship. The affected area will vary depending on a number of factors, including the size of the ship, the direction of the wind and the speed of the wind. No matter what direction the wind is blowing, there will always be an area of the harbour that will be windward of ships at berth and therefore unaffected. This unaffected area of the harbour will always be available for the water wags.

It will also be possible to sail in the area affected by "wind shadow" on the leeward (sheltered) side of the ship, with the exception possibly of up close to the ship. Winds blowing roughly parallel to the ship will have little or no "wind shadow" effect. Experienced sailors are familiar with the "wind shadow" effect as their sails create "wind shadow" and a knowledge of this effect is used to gain competitive advantage in racing by manoeuvring to put their competitors in the bad wind caused by the "wind shadow" of their boats.

The ability for the Water Wags to continue to race in Dun Laoghaire, either within the harbour itself on a modified course, or within the Bay is not prejudiced by the operation of the cruise berth.

As there is no significant potential impact arising from the operation of the cruise berth on the ability of the Water Wags going to race in the bay and therefore transiting through the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

Sail-ability Dun Laoghaire

As there is no significant potential impact arising from the operation of the cruise berth on the ability of Sail-ability Dun Laoghaire continuing to use the safe waters of the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

Friday Night Racing

The ability for Friday Night Racing to continue on the six evenings a year is not precluded by the operation of the Cruise Berth.

The position of the cruise berth will, it is acknowledged, result in alternative racing courses to be considered for this racing to continue within the harbour. There are two large water bodies located on either side of the berth. The Designated Recreational Area and the main fairway have a combined water body area of 37.8Ha. The alternative of racing in the Bay remains.

The ability for Friday Night Racing to continue in Dun Laoghaire, either within the harbour in a modified course, or within the Bay, is not prejudiced by the operation of the cruise berth. Accordingly, no significant adverse impact arises.

It is envisaged that the cruise berth will have departed the harbour when these races occur, as a result no 'wind shadow' issue arises.

Frostbite Series

The ability for Frostbite racing for 100 dinghies or so to continue is not precluded by the operation of the Cruise Berth.

The position of the cruise berth will, it is acknowledged, result in alternative racing courses to be considered for this racing to continue within the harbour. There are two large water bodies located on either side of the berth. The Designated Recreational Area and the main fairway have a combined water body area of 37.8Ha. The alternative of racing in the Bay remains.

The Harbour Company in conjunction with the Harbour Master and the Race Organisers are willing to consider the feasibility of removing (temporarily) the two catwalks at the extremity of the cruise berth during the winter period. In doing so, a further 70m of water space would be created for winter sailing activity.

It is envisaged that the cruise berth will not be operating during this winter period when these races occur, as a result no 'wind shadow' issue arises.

September Series

The ability for a September Series of racing 100 dinghies to continue is not precluded by the operation of the Cruise Berth.

The position of the cruise berth will, it is acknowledged, result in alternative racing courses to be considered for this racing to continue within the harbour. There are two large water bodies located on either side of the berth. The Designated Recreational Area and the main fairway have a combined water body area of 37.8Ha. The alternative of racing in the Bay remains.

Large cruise ships at berth will have an effect on the wind patterns locally, and will result in "wind shadow" downwind of the ship. The affected area will vary depending on a number of factors, including the size of the ship, the direction of the wind and the speed of the wind. No matter what direction the wind is blowing, there will always be an area of the harbour that will be windward of ships at berth and therefore unaffected. This unaffected area of the harbour will always be available for dinghy/youth sailing.

It will also be possible to sail in the area affected by "wind shadow" on the leeward (sheltered) side of the ship, with the exception possibly of up close to the ship. Winds blowing roughly parallel to the ship will have little or no "wind shadow" effect. Experienced sailors are familiar with the "wind shadow" effect as their sails create "wind shadow" and a knowledge of this effect is used to gain competitive advantage in racing by manoeuvring to put their competitors in the bad wind caused by the "wind shadow" of their boats.

Regattas & Competitions

The ability of the harbour to host regattas and competitions will remain possible with the operation of the cruise berth. It is Dublin Bay that has the international sailing reputation and most of the regattas and competitions are held in the Bay, with the harbour acting as a holding area and transit area for boats. The harbour will be capable of functioning in that way even with the cruise berth operational.

Regattas for the more junior sailors will also be capable of being accommodated within the harbour. In the event that more challenging courses are required than that which can be provided in the harbour, alternative courses can be catered for in the Bay.

15. Walkers

As there is no significant potential impact arising from the operation of the cruise berth on the ability of people to walk the Piers within the harbour, there is no avoidance, remedial or reductive measures required during the operational phase.

It is however worth noting that enhanced public access to the Marina Breakwater forms part of the cruise berth proposal. In addition, a cantilevered walkway with seating areas over the rock armour of the Marina is also being provided as part of the public realm improvement works of the project. This west facing area will afford walkers the opportunity to utilize the Marina Breakwater more often and provides them with an area inside the Marina where people can enjoy the evening sunshine during the summer months.

Cumulative Impact

Aside from the development of the Urban Beach for which permission has already been obtained, the other developments envisaged in the Harbour Masterplan involve landside works which would not cause any significant impact on the users of the harbour. As a result, no specific additional avoidance, remedial or reductive measures are required during the operational phase.

5.1.6.7 Predicted Impact of the Proposal

Construction Phase

1. Ferry Service

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the ferry service.

Overall, a short term, temporary, neutral impact is predicted during the construction phase.

2. Commissioner of Irish Lights

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact is predicted on the Commissioner of Irish Lights.

Overall, a short term, temporary, neutral impact is predicted during the construction phase.

3. Naval Service

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Naval Service.

Overall, a short term, temporary neutral impact is predicted during the construction phase.

4. RNLI

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the RNLI.

Overall, a short term, temporary neutral impact is predicted during the construction phase.

5. Sail Training Vessels

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Sail Training Vessels.

Overall, a short term, temporary neutral impact is predicted during the construction phase.

6. Freight Vessels

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Freight Vessels.

Overall, a short term, temporary neutral impact is predicted during the construction phase.

7. Marine Activity Centre

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on users of the Marine Activity Centre.

Overall, a short term, temporary neutral impact arises during the construction phase.

8. Dublin Bay Cruises

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Dublin Bay Cruises operation.

Overall, a short term, temporary neutral impact is predicted during the construction phase.

9. Sea Scouts

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Sea Scouts.

Overall, a short term, temporary neutral impact is predicted during the construction phase.

10. Rowing Club

In respect of the Rowing Club, there will be an adverse impact on the ability of the club to train in the east to west direction across the southern portion of the harbour during the construction phase. There does however remain a substantial quantum of water available in the harbour for training purposes – approx. 37.8Ha. The Bay remains available for both training purposes and racing for the Rowing Club.

Overall, a short term, temporary slight adverse impact arises during the construction phase for the Rowing Club.

11. Diving Club

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Diving Club.

Overall, a short term, temporary neutral impact is predicted during the construction phase for the Diving Clubs.

12. Public Boatyard and Slipway

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the users of the Public Boatyard and Slipway.

Overall, a short term, temporary neutral impact is predicted during the construction phase on the users of the Public Boatyard and Slipway.

13. Fishermen

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Fishermen.

Overall, a short term, temporary neutral impact is predicted during the construction phase on the users of the Fishermen.

14. Dun Laoghaire Marina

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the users of the Dun Laoghaire Marina.

Overall, a short term, temporary slight impact is predicted during the construction phase on the users of the Marina arising from the inconvenience of a slightly longer travel time between the Yacht Clubs and the Marina by motor launch on the 3 days a week this sailing occurs.

15. Yacht Clubs

Yacht Sailing

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Yacht Sailing.

Overall, a short term, temporary slight impact is predicted during the construction phase on the users of the Marina arising from the inconvenience of a slightly longer

travel time between the Yacht Clubs and the Marina by motor launch on the 3 days a week sailing occurs.

Dinghy Racing

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Dinghy Racing.

Overall, a short term, temporary neutral impact is predicted during the construction phase on Dinghy Racing.

Youth Sailing/Training

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Youth Sailing/Training.

Overall, a short term, temporary slight adverse impact is predicted during the construction phase on the Youth Sailing/Training as access to and from the Designated Recreational Area may take longer than normal due to the construction works in the harbour. This is slightly mitigated by the increased scale of the Designated Recreational Area now available.

Water Wags

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Water Wags.

Overall, a short term, temporary slight adverse impact is predicted during the construction phase on the Water Wags.

Sail-ability Dun Laoghaire

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Sail-ability Dun Laoghaire.

Overall, a short term, temporary neutral impact is predicted during the construction phase on Sail-ability Dun Laoghaire.

Friday Night Racing

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Friday Night Racing.

Overall, a short term, temporary neutral/slight adverse impact is predicted during the construction phase on Friday Night Racing. It is considered that the water body available during the construction phase would still be capable of accommodating 60-70 dinghies sailing. The alternative of the Bay for racing would also remain.

Frostbite Series

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Frostbite Series.

It is considered that the water body available during the construction phase would still be capable of accommodating about 100 dinghies sailing. The alternative of the Bay for racing would also remain.

Overall, a short term, temporary neutral/slight adverse impact is predicted during the construction phase on the Frostbite Series.

September Series

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the September Series.

It is considered that the water body available during the construction phase would still be capable of accommodating these races. The alternative of the Bay for racing would also remain.

Overall, a short term, temporary neutral/slight adverse impact is predicted during the construction phase on the September Series for dinghy sailing.

Regattas & Competitions

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Regattas & Competitions.

Overall, a short term, temporary neutral/slight adverse impact is predicted during the construction phase on ability to host Regattas or Competitions.

16. Walkers

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Walkers.

Overall, a short term, temporary neutral/slight impact arises during the construction phase on Walkers due to the closure of the walkway leading to the Marina Breakwater to members of the public. It is considered neutral/slight given the very limited use by the public at present.

Operational Phase

1. Ferry Service

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the ferry service from the operation of the cruise berth.

Overall, a neutral impact is predicted during the operational phase.

2. Commissioner of Irish Lights

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Commissioner of Irish Lights.

Overall, a neutral impact is predicted during the operational phase.

3. Naval Service

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Naval Service.

Overall, a neutral impact is predicted during the operational phase.

4. RNLI

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the RNLI.

Overall, a neutral impact is predicted during the operational phase.

5. Sail Training Vessels

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Sail Training Vessels.

Overall, a neutral impact is predicted during the operational phase.

6. Freight Vessels

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Freight Vessels.

Overall, a neutral impact is predicted during the operational phase.

7. Marine Activity Centre

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on users of the Marine Activity Centre.

Overall, a neutral impact is predicted during the operational phase.

8. Dublin Bay Cruises

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Dublin Bay Cruises operation.

Overall, a neutral impact is predicted during the operational phase.

9. Sea Scouts

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Sea Scouts.

Overall, a neutral impact is predicted during the operational phase.

10. Rowing Club

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Rowing Club.

In respect of the Rowing Club, there will be an adverse impact on the ability of the club to train in the east to west direction across the southern portion of the harbour during the operational phase. There does however remain substantial water available in the harbour for training purposes – approx. 37.8Ha. The Bay also remains available for both training purposes and racing for the Rowing Club.

Overall, a permanent slight adverse impact is predicted during the operational phase of the project.

11. Diving Club

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Diving Club.

Overall, a neutral impact is predicted during the operational phase on Diving Clubs.

12. Public Boatyard and Slipway

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the users of the Public Boatyard and Slipway.

Overall, a neutral impact is predicted during the operational phase.

13. Fishermen

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Fishermen.

Overall, a neutral impact is predicted during the operational phase.

14. Dun Laoghaire Marina

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the users of the Dun Laoghaire Marina.

With the inclusion of the underpass beneath the access causeway being available for motor launches to travel to and from the Marina and the Clubs during the majority of tidal conditions, overall a permanent neutral/slight adverse impact is predicted during the operational phase (but only when cruise ships are berthed).

15. Yacht Clubs

Yacht Racing

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Yacht Sailing.

With the inclusion of the underpass beneath the access causeway being available for motor launches to travel to and from the Marina and the Clubs during the majority of tidal conditions, overall a permanent neutral/slight adverse impact is predicted during the operational phase (but only when cruise ships are berthed).

Dinghy Racing

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Dingy Racing.

Overall, a neutral impact is predicted during the operational phase.

Youth Sailing/Training

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact predicted on Youth Sailing/Training during the operational phase.

Whilst the presence of the cruise berth in the harbour will cause a change to travel patterns between the Designated Recreational Area and the Clubs, or other users of this area for training purposes, this is not predicted to be a significant impact. It will remain possible to continue to use the remaining harbour area.

In the periods when a cruise ship is berthed coincides with a time Youth Sailing/Training occurs, any 'wind shadow' effect caused by the cruise ship will not prevent the sailing or training activity from occurring either in parts of the harbour with greater, or lesser wind, depending on the users needs, or, alternatively this could occur in the Bay.

Overall, a permanent neutral impact is predicted on Youth Sailing/Training during the operational phase.

It could be argued that with the enlargement by 86% of the Designated Recreational Area in the Harbour, that the impact is actually a positive one for Youth Sailing/Training. However, as the enlarged Designated Recreational Area does not form part of this project, it was considered reasonable to conclude a neutral impact.

Water Wags

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact predicted on the Water Wags ability to continue sailing.

Whilst the presence of the cruise berth in the harbour will cause a change to the course currently being raced by the Water Wags, this is not predicted to be a significant impact as it will remain possible to continue to use the remaining harbour area for racing.

In the periods when a cruise ship is berthed coincides with the Water Wags event any 'wind shadow' effect caused by the cruise ship will not prevent the sailing or training activity from occurring either in parts of the harbour with greater, or lesser wind, depending on the users needs, or, alternatively this could occur in the Bay.

Overall, a slight-moderate permanent adverse impact is predicted on Water Wags during the operational phase.

Sail-ability Dun Laoghaire

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact predicted on the ability of Sail-ability Dun Laoghaire continuing to use the harbour during the operational phase.

Overall, a neutral impact is predicted during the operational phase.

Friday Night Racing

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on Friday Night Racing.

It is considered that the water body available would still be capable of accommodating these races. The alternative of the Bay for racing would also remain.

In the periods when a cruise ship is berthed coincides with a time Friday Night Racing occurs, any 'wind shadow' effect caused by the cruise ship will not prevent the sailing or training activity from occurring either in parts of the harbour with greater, or lesser wind, depending on the users needs, or, alternatively this could occur in the Bay.

Overall, a neutral - slight permanent adverse impact arises during the operational phase on the Friday Night Racing for dinghy sailing.

Frostbite Series

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Frostbite Series.

It is considered that the water body available would still be capable of accommodating about 100 dinghies sailing. The alternative of the Bay for racing would also remain.

Overall, a neutral - slight permanent adverse impact arises during the operational phase on the Frostbite Series.

September Series

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the September Series.

It is considered that the water body available during the construction phase would still be capable of accommodating these races. The alternative of the Bay for racing would also remain.

In the periods when a cruise ship is berthed coincides with the September Series any 'wind shadow' effect caused by the cruise ship will not prevent the sailing or training activity from occurring either in parts of the harbour with greater, or lesser wind, depending on the users needs, or, alternatively this could occur in the Bay.

Overall, a neutral - slight permanent adverse impact arises during the operational phase on the September Series.

Regattas & Competitions

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact arising on the Regattas & Competitions.

It is considered that the quantum of the water body available remains the same, and is as capable of catering for these events as before.

Overall, it is considered that Dun Laoghaire will remain well placed to host regattas and competitions after the cruise berth is operational.

16. Walking

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact predicted on the ability of Walkers continuing to use the harbour during the operational phase.

The provision of the boardwalk in particular is a major public amenity gain and is part of the planned Masterplan for the Harbour.

Overall, a slight-moderate permanent positive impact is predicted during the operational phase arising from the enhanced extent and quality of public realm accessible in the harbour following the completion of the project in the harbour.

'Worst Case' Scenario

The worst case scenario in this case would be that the various harbour users would cease to function or operate as a direct result of the project proceeding.

As has been demonstrated in this section of the EIS, the planned cruise berth facility will not prevent the various harbour users continuing to enjoy the harbour resource.

Cumulative Impact

Having regard to the potential impacts and the avoidance, remedial or reductive measures noted above, there is no significant adverse impact predicted on the operational phase of the cruise berth arising from the implementation of the Harbour Masterplan.