

The Oral Hearing

Introduction

A preliminary oral hearing took place on Wednesday 7th of October 2015 and its purpose was to ascertain the number of observers who planned to attend the main oral hearing, for how long they intended to speak and whether expert witnesses would be involved. The substantive oral hearing commenced on Wednesday 14th of October 2015 and concluded on the 12th of November 2015 having sat for 17 days. The hearing took place in the Academy Plaza Hotel, Findlater Street, Dublin 1.

A digital recording of the proceedings, copies of written submissions, where provided, and the attendance lists are attached to this report.

Oral Hearing Proceedings

The following sections provide a brief summary only of the main additional information that emerged at the oral hearing over and above that contained in the application documentation and written submissions already received and summarised in the foregoing sections of this report.

Due to the unavailability of the applicant's experts for the entire duration of the hearing, it was typically organised with three presentations by relevant experts, followed by cross questioning on those subjects. Therefore, this record of the hearing is set out in that format.

Day 1: 14/10/15

COUNCILLORS:

The hearing was attended by a number of Councillors, who expressed a desire to make a submission to the hearing and then leave. This was facilitated immediately after the opening of the hearing. **Cllr. Victor Boyhan** in his submission sought to highlight the National Ports Policy which assigns Dun Laoghaire as a port of regional importance, whilst Dublin Port is of national importance, a level of importance supported by the Board's recent decision on Dublin Port. Referred to the suite of plans required to facilitate the proposed development with reference to the fact that the Council are currently engaging in a Draft Dev. Plan process and that there is no framework plan for the town, therefore it is argued that the proposal is premature. The status of the Harbour Masterplan is questioned. Cllr. Boyhan states that he examined the DLH submission made in relation to the Draft Plan where the applicants sought to insert into the County Plan the wording "in accordance with the DLH Masterplan", to which the County Manager responded in the Report that "it is a completely separate report". At the time of the oral hearing the Elected Members

were meeting to discuss and vote on the Draft Plan and Cllr. Boyhan (as an elected member to DLRCC) sought to highlight that a new objective to be considered by the Council members is the provision for a new Diaspora Centre at DLH and the designation of DLH as a National Sports Centre. A large number of other issues were raised in the submission, however, no new issues over and above the submissions already received.

Richard Boyd Barrett T.D. attended the hearing most days and also spoke at the opening of the hearing. He also acted in his role as Chairperson of Save our Seafront. Argued that the proposal is premature having regard to the Harbour Bill which will decide on the future status of DLH. Also referred to the Maritime and Foreshore Act, within which there are significant changes proposed to the foreshore, which will have implications for DLH. Sought to highlight that during the public consultation phase of the application, there was an overwhelming majority opposed to the proposal. The involvement of the Council in conjunction with the applications on the proposal prior to the submission of the SID application to the Board is questioned. No minutes of these meetings are provided or stated to have been taken, and this is deemed to be highly irregular. The issue of project splitting is also raised in the context that the application should be for the entire masterplan area as each is inextricably linked. In response to assertions that the proposal is complementary to Dublin Port, it is therefore questioned why there is no evidence of a positive submission by Dublin Port. The financial risk of the proposal is also raised by the T.D., who states that if it fails, the financial risk will be borne by the public. It is estimated to cost in the region of €18m+, which DLH does not have.

APPLICANTS SUBMISSIONS:

The Applicant was requested to make a brief opening submission to the hearing to describe the nature and extent of the proposed development. The Applicant's expert witnesses were requested to provide a brief summary of their main findings and conclusions, and to then focus on the matters raised in the observations received by the Board in relation to the following broad and overlapping issues:

- Procedural Issues
- Strategic Considerations
- Traffic & Transport
- Construction
- Pier/Boardwalk
- Heritage & Visual Amenity
- Environmental Impacts

-Reinstatement

-Navigation & Marine Safety

-Commercial/Dublin Port

I wish to advise the Board that the OH did not hear these topics in sequence for a number of reasons; (1) unavailability of particular witness on specific dates, which changed for some, during the course of the hearing, (2) and the over-run of the hearing. Therefore, the submissions by the Applicant were interspersed with Observer submissions and questions.

Mr. Tim Ryan, Operations Manager for the DLHC, provided a **project overview** for the development. Mr. Ryan sought to highlight the long and varied history of marine activity, mixed commercial and recreational, within the harbour since its construction. He provided details as to the status of the DLHC as a commercial semi-state company which was formed in 1997 to maintain and develop the harbour. The DLHC Masterplan adopted in 2011 identified the need to develop strategies to ensure the long-term future of the harbour and the development of cruise business is identified as one of the opportunities to be pursued. Mr. Ryan outlined that during the 2015 cruise season, a total of 13,089 cruise ship passengers arrived in Dun Laoghaire. Four of these visits were by small cruise ships that berthed alongside the Carlisle Pier and the rest were large vessels of 300m or greater in length who anchored in deep water outside the Harbour and used the tender berth. DLHC acknowledges the environmental significance of the Harbours' location and its status and sought to provide reassurance that the proposal will have no adverse environmental effects. The issue of community gain is referred to and it is stated that the community will benefit from an improved public realm within the harbour generally, a strengthened connection between the seafront and the town, increased foreign tourist visitor numbers arriving to the locality and the cruise ships as an attraction in themselves.

Mr. Paul O'Connell set out the **procedural matters**. Mr. O'Connell, as Managing Director of Waterman Moylan, was responsible along with Stephen Little & Associates, Planning Consultants, for the planning application. I wish to highlight that Stephen Little & Associates, were not present for the entire duration of the hearing. It was indicated at the outset that the hearing scheduled date for the 14th of October, did not suit, however, given the over-run into November, their absence was never explained, despite their role as the main compiler and intermediary between different experts. In my opinion, their absence was unhelpful. I would note that Mr. O'Connell stated that he and Stephen Little were responsible for making the planning application, however, Mr. O'Connell's background is as an engineer rather than a planner.

Mr. O'Connell outlined the process under which the appeal was determined to be a SID application and outlined that that DLH Company has full legal title/legal interest in all of the lands the subject of the application. In respect of development on the foreshore, a letter of consent from DECLG was obtained (letter 24/03/2015) and submitted. Detailed that the scale of plans and drawings were agreed with ABP prior to submission. On the site notices there was no reference to DL Harbour as a protected structure as it is not a protected structure. However, where works are proposed to a protected structure, (west pier roundhead) this is indicated. On page 14 of the submission, the details of public consultation are provided which outlines that letters were circulated to the key stakeholders and statutory bodies from the 12th-16 of March and that meetings were held with key stakeholders from the 23rd March-1st April 2015.

Mr. Tom Flynn, (Barrister-at-Law) spoke on **legal matters** pertaining to the application. He stated that an error had been made on the application form submitted to the Board where it was made under Section 37(e). It was argued that the application was clearly submitted in the context of legislation pertaining to Strategic Infrastructure Development. It was highlighted that the same error was made in the Dublin Port application to the Board, and it was not invalidated in that appeal. It was also argued by Mr. Flynn that the provisions of Articles 22 and 23 relating to planning applications and the drawings required do not directly relate to SID applications. The issue of drawings was discussed with the Board in the pre-application consultations and was accepted.

Mr. Diarmuid O'Gráda (in the absence of Mr. Stephen Little who compiled the EIS) set out the **planning issues** pertaining to the proposal. He sought to refer to PA0007 [development of additional Port facilities with access to deepwater berths at the north eastern part of Dublin Port] where the Reporting Inspector referred to the potential monopoly of Dublin Port. Mr. O'Gráda argued that the National Ports Policy is based on commercial cargo traffic and ignores passenger traffic and consequently is a severe omission of the NPP. Nonetheless, the NPP points to the future role of DLH in the marine, Leisure and tourism sectors. He sought to highlight that the Board cited the Harbour Masterplan in its consideration of the "urban beach" proposal. Mr. O'Gráda likened the proposal to strategic air traffic planning whereby in London there is a choice of airports to fly into from Dublin where they complement each other in the services they provide but compete for passengers. In the case of DLH, this analogy is the correct one as DLH and Dublin Port compete for passengers but result in bringing greater tourist numbers to Dublin. In this context, the non-statutory document "*Destination Dublin: A Collective Strategy for Tourism Growth to 2020*", which was prepared by Fáilte Ireland, wherein cruise tourism is specifically mentioned (page 10). It identifies the intention to set up a Cruise Dublin Forum to bring together all the relevant stakeholders. It is stated in the Strategy that "*the new Dublin proposition will underpin the overall appeal of Dublin as a potential*

destination which will contribute to demand by cruise passengers for Dublin and ideally, lead to an eventual growth in the no. of ships calling at Dublin and Dun Laoghaire". The submission concludes that the proposal conforms to the zoning objective, local objective and specific local objectives of the Draft DLRCC Development Plan. The draft Plan indicates Council support for the continued development of DLH over the lifetime of the new plan and the proposed cruise berth development represents one aspect of that.

Mr. Opdebeeck, a Director at Waterman Moylan Engineering Consultants, considered the issue of **transportation**. In his submission to the hearing, Mr. Opdebeeck set out the baseline studies that were carried out, including the traffic assessment. He sought to address concerns that arose in submissions relating to traffic congestion that was experienced in Dun Laoghaire arising from the arrival of the HSS Stena Line to Carlisle Pier. Mr. Opdebeeck set out the current traffic management arrangements that have been developed in Dun Laoghaire for visiting cruise ships to date by the Dun Laoghaire Harbour Company with the agreement of the DLRCC and the Gardaí. Particular concerns in relation to the Coal Quay Bridge junction have been monitored by the Council during the past arrival of cruise ships during which no significant adverse impacts were noted. The Hearing was presented with a table outlining the EIS model which gave an estimated number of passengers and the modal split of those disembarking and those taking a tour and compared this with the observed behaviour of 5 other cruise ships that arrived to Dun Laoghaire Harbour [page 9]. The EIS was based on a model of 90% of passengers disembarking, whilst evidence shows that the average is 82% with a low of 60% and a high of 90%. The EIS model is based on 55% of passengers taking a coach tour, whilst the historical average is 34%.

In response to observers' concerns, the submission outlined a response in relation to the proposal to provide for coach parking overflow at Accommodation Walk and its possible conflict with the objectives off the East Coast Trail Cycle Route. It is outlined that the use of this area will generally only be used in the early morning and only when the number of coaches arriving at the harbour exceeds the capacity of the main coach embarkation site in the HSS marshalling area of 22 spaces. It is therefore argued that impact of the East Coast Trail Cycle route will be temporary only.

Reference is made to 3 existing cycle hire businesses in the DL area and it is intended to provide bicycle parking facilities in the vicinity of the existing Motorist building.

Services required by the cruise ship are limited and no service vehicles will be permitted to approach the area during the busiest hours while the passengers are disembarking or embarking. All service vehicles will be directive to approach the area via the coach loading facility.

Cross-Questioning occurred on this module on the 15/10/15 (Day 2) and the morning of the 16/10/15 (Day 3).

- A lot of Observers sought to question the appropriateness of the public consultation carried out by DLHC which occurred over the Easter Holidays in 2015.
- Observers highlighted the participation of DLRCC in the pre-planning meetings with the Board and as a member of the Stakeholder Group. It was argued that the Council should be actively involved in the Hearing. This was resisted by the Council who advised that they were there in a listening capacity only. [Later, at the request of the Reporting Inspector, the Council clarified issues pertaining to their submission and the status of the Draft Dev Plan. The question of the Council's involvement in the process prior to the formal submission of the SID application to the Board was considered to be outside of the remit of the Reporting Inspector and therefore only minimal discussion on that issue was permitted].
- Following questions by Observers, it was clarified that the surveys of cruise ships and the modal split by passengers disembarking, was undertaken by students of the Smurfit Business School, UCD.
- Questions highlighted that a Road Safety Audit is not present in the EIS. Furthermore, the use of the Metals by overflow coach parking is not part of the Road Safety Audit as it was not included in the preliminary design. Bus movements across Coal Quay Bridge were not included in the Audit. Mr. Opdebeeck acknowledged that he was unaware of the protected status of the "the Metals" (included in the ACA). The Applicant indicated that it had been their intention to provide a Road Safety Audit but acknowledged that they had failed to do so.
- Acknowledged that surveys undertaken of cruise ships would have utilised tenders, whereby disembarking would have been much slower than that provided for under the current proposal.
- Mr. Opdebeeck was not aware of planning history of the Harbour with regard to specific transport conditions. Ms. Mulcrone of Reid Associates sought to highlight that planning conditions exist pertaining to traffic and the control of queuing from the HSS.
- Mr. Opdebeeck was not aware of the [or any] dredging implications with respect to traffic or of the traffic implications of construction waste. It is questioned how a Traffic Management Plan can be prepared without regard to construction details i.e. vehicles etc.

- It is argued that the provision of 30 coaches for the visiting ships is too low taking an average of 30 passengers per coach.
- No cumulative analysis carried out taking account of proposals in the Masterplan.
- Mr. O’Grada was questioned in the relation to the National Ports Plan who argued that there was a “*lacuna*” in the NPP whereby it failed to mention the issue of passenger traffic with regard to DLHC.
- Mr. Ryan was questioned in relation to the number of cruise ships planned to call to DLH in 2015 (22) and the resulting (8) number that did call. The difference arose from simulation exercises carried out by Dublin Port who then established that they were able to provide berthing facilities for cruise ships, which is always the preferred option, therefore the cruise companies switched.
- Mr. O’Donnell, Barrister-at-law, for the Dun Laoghaire Combined Clubs, questioned Mr. O’Connell in respect of the extent of the landownership of the applicant, which was stated not to include the foreshore and that no letter of consent to make the application was furnished with the SID application. Furthermore, the application boundary does not extend to include the Burford Bank. The Applicant responded that this is standard practice whereby a foreshore licence will be applied for in the event of a grant of permission from the Board and refers to the fact that Dublin Port did not include Burford Bank within its application boundary.
- During the course of the hearing, Observers sought to clarify the existence of drawings of the round heads on the pier. The Applicants acknowledged that no such drawings were furnished and that any works proposed to the piers constituted repair works and they argued were therefore not mandatory.

The **2nd Module** of the hearing considered construction and dredging and details concerning the pier/boardwalk and commenced on the afternoon of the 16th October 2015 (Day 3). Any new details are highlighted as follows:

Mr. O’Connell presented a paper on **construction and dredging**. He indicated that the worldwide ocean-going cruise ship fleet currently consists of approximately 300 vessels, of which 90% are under 300m in length, 5% between 300m and 330m and 5% greater than 330m. The trend in the cruise industry is towards bigger ships, carrying a greater number of passengers. Of the ships currently on order worldwide, approximately 50% are greater than 300m in length, with the largest vessels being up to 360m in length.

On the issue of dredging, this is described as being the first major activity to be carried out on the project. Dredging is to be carried out by trailing suction hopper dredger. This will steam along the alignment of the navigation channels and turning circle as it dredges, and when its hopper is full, it will steam to the Burford bank where it will deposit its load before returning to the works area to commence dredging again. It is not envisaged that any dredged material will be brought ashore for disposal at landfill. He therefore sought to clarify any remaining confusion arising from Mr. Opdebeeck's presentation with regard to traffic implications arising from dredging operations.

Piling may commence whilst dredging is in process. It will be carried out from floating barges moored in position using spud legs and anchors, and moving between pile locations as piles are installed. In the underlying stiff soil, soil and rock will be removed ahead of the pile by means of rotary drilling through the steel tube, with final driving to the required depth.

Deck construction has been designed to maximise the use of precast concrete elements. It was outlined that such elements can be cast on site within the HSS marshalling area, or alternatively, can be brought to site on standard flatbed trucks. It was outlined that for the purposes of the assessment of the impact of construction traffic, it was assumed that any precast elements would be cast on site, as they would generate more traffic in the way of concrete delivery trucks rather than being cast off site. In relation to concerns voiced in submissions to the Board prior to the hearing, the Applicant sought to address the following:

- The navigational analysis carried out by Moffatt & Nichol considered two vessel propulsion system types, one a fixed propeller system and the other an Azipod system. The large 250m fixed propeller ship modelled represents the worst-case vessel to use in the simulations. Most large cruise ships today are equipped with the Azipod propulsion system which provides much greater control and manoeuvrability. An Azipod powered vessel was also modelled, to assess the performance of the typical cruise vessel type that is likely to call at the harbour.
- The navigational analysis evaluated the winds that are most prevalent and also the highest strength at the site (i.e. from the west, southwest and the south).
- The information on tides was formulated in the Coastal Process studies report which was carried out after the navigational analysis so the information on tidal currents was not available for incorporation into navigation simulation exercise. The studies were made available to Moffatt & Nichol subsequently. Moffatt & Nichol has indicated that currents of about 1 knot would not affect the findings of the navigation analysis and the information on tidal currents

outlined in the ABPmer report does not warrant re-running the simulation at this time.

- Due to the technology afforded by the Azipod propulsion systems, the issue of “swept path” of such a vessel coming into the harbour is not anticipated to be an issue. The technology and use of thrusters will permit the vessel to counteract to a large extent the effects of tidal cross-currents at the low speeds that the vessel will be transiting between the berth and the turning circle.
- The alignment of the approach channel into the harbour from the east to the turning circle provides the shortest length of channel to be traversed from deep water. It is also aligned more closely with the tidal current and minimises the area of seabed to be disturbed by dredging and the volume of material to be dredged.
- It is accepted that the navigational analysis does not examine the combination of peak tidal flood currents and strong winds from the easterly direction, which would tend to push turning ships towards the western half of the turning circle.
- Applicant expresses confidence that based on the navigational analysis, a review of the ABPmer Coastal Process studies, tidal current predictions and discussions with cruise ship captains that the approach channel and turning basin as proposed are acceptable for similar cruise vessels to those used in the simulations and are more than sufficient for the purposes of making an application.
- Further navigation simulation work, both via desktop modelling systems and at the NMI full-bridge simulator in Cork with the Dublin Port pilots, will be necessary as plans for the cruise berth facility advance, to agree on the operational and environmental limits of the approach channel and turning circle with the pilots for a range of vessel sizes and classes. It would also be normal practice for cruise line masters to undertake simulations prior to attempting to enter a new berth facility, or before attempting to take bigger ships into a facility, to confirm the best approach to the berth-indeed, it was such a simulation that allowed Dublin port to receive cruise ships over 300m long in the summer of 2015 by reversing the ships up the Liffey.
- In relation to concerns that the dredged channel at -10.5mCD is below the level of the East and West Pier Roundhead foundations are disputed by the Applicant. Rather it is argued that the roundheads are constructed on the underlying Upper Boulder Clay, which the two nearest boreholes have determined is -15.5mCD, which is 5m below the bed of the dredged channel. Therefore, the Applicant argues that there is no risk whatsoever to the stability of the existing stone piers. It is elaborated that the loose marine sediments

which lies on top of the boulder clay do not support the roundheads and is likely to undergo localised erosion on the sea bed and side slopes of the dredged channel. However, it is stated that even in the most extreme and improbable case of complete erosion of the sediments adjacent to the roundheads, their stability would be unaffected.

- Propeller wash from the main engines or Azipods, and bow thrusters of large cruise ships could pose a scour risk to the East Marina breakwater at the southern end of the berth. Hence protection in this area is proposed to protect the breakwater and adjoining existing structures from the potential risk of undermining due to scour in the form of a concrete mattress system.
- Further information is given as to the propellers of a cruise ship. It is stated that Azipods and thrusters are essentially propellers, with thrusters being small fixed propellers pointing sideways, and Azipods being propellers mounted in a pod which can turn through 360 degrees. Thus, cruise ships move by propelling water horizontally through their spinning propellers. There is no downward directing of the water stream towards the seabed and therefore no risk of deep scour holes developing, akin to that created by the HSS ferry. The propellers are also very large, and while they push a lot of water to move the ship, this water stream does not have the same speed or force as the jet stream from the HSS, and therefore dissipates more quickly.
- Once the cruise terminal has started to operate the bathymetry will be checked at the start of each cruise season and after any extreme storms that may occur.
- Not able to predict the frequency or volume of maintenance dredging that will be required to maintain the navigation channels for the berth. Historically, the bathymetry both within and outside the harbour has been very stable. It is anticipated that the volumes to be dredged in any maintenance dredging campaigns will be small.
- An underpass has been provided along the berth to accommodate a direct route for launches coming around the end of St. Michael's Pier and travelling to the Marina or vice versa. The underpass will offer a clear horizontal distance of at least 10m between vertical piles supporting the access causeway and will have vertical headroom of at least 1.5m at MHWS (mean high water spring) and MLWS (mean low water spring). The option of a lifting bridge span in the access causeway to allow the passage of smaller boats with masts was considered but was concluded to be unpractical from an operational perspective. Likewise, as put forward in submissions, the possibility of removing the access catwalk (which extends from the northern end of the quay structure to the dolphins) which is restricted to operations

crew, was considered. Again this was not considered to be a practical solution due to the nature of the catwalk, the necessity to employ heavy hoist systems support the weight of the catwalks securely and possibly the use of a floating crane. The catwalk removal would coincide with the least sailing activity within the harbour.

Ms. Grainne Shaffrey presented a paper on the **Boardwalk/Pier** to the hearing. With regard to issues raised in submissions to the Board the following is highlighted:

- Landscaping is primarily hard due to the need to provide a durable surface for hundreds of people moving on and off the ships in a restricted area. It is also in keeping with a dock-side environment and the general character of DLH.
- The Harbour Road will be temporarily reconfigured until such time as the HSS marshalling yard is redeveloped as part of the St. Michael's Plaza development.
- In resurfacing of the East Pier, Shaffrey Assoc. worked closely with DLCC and the contractors to develop an original concrete mix including sea shells that was then ground to expose the shell and special aggregate. The orthogonal concrete panels were divided by granite strips in reference to the granite of the pier. The same level of consideration will be brought to this project. Confident that an attractive surface can be achieved with the use of either poured concrete or concrete blocks.
- Seating steps will form part of the boardwalk and will be formed from selected hardwood and the timber will be allowed to weather naturally resulting in a grey tone.
- The timber fence is a temporary measure. Its purpose is to screen the marina, boardwalk and serpentine route from the bus stand and the HSS martialling yard. Though temporary, it will be in place for several years and has been designed to be durable and attractive. A stone clad concrete plinth will support a steel frame that will be clad in vertical timber sheeting on both sides. The sheeting will be randomly stained, painted or burnt to a random pattern to give echoes of seaside timber architecture.
- In relation to safety, the edge of the boardwalk will be protected by guardrails everywhere where practical (the berthing area is unguarded). Further risk assessments will be carried out at detailed design stage.

Ms. Shaffrey also presented a paper on the **Architectural Heritage Impacts** of the proposal and sought to address the comments raised in submissions:

The Harbour, as an entity, or structure, is not a protected structure, though Ms. Shaffrey acknowledged the presence of 29 protected structures within the Harbour. The question had been raised in submissions as to whether the entirety of the harbour and the foreshore was within the wider curtilage of protected structures. Ms. Shaffrey's response was that the issue of curtilage is not defined in relation to Part IV of the Planning and Development Act, 2000 (as amended). She argued that the most comprehensive study on curtilage has probably been carried out by the Heritage Council, which also concluded that there is no single definition of curtilage which can be applied to a protected structure. Acknowledged that the Harbour is a candidate Architectural Conservation Area and has been for the last two development plans and continues in the Draft Development Plan for the Council area.

The Architectural Heritage Assessment has concluded that the Harbour has the capacity to absorb the new interventions and activities which the development proposes without adversely affecting the defining characteristics which give architectural heritage significance to the place.

The acknowledgement of the value of traditional uses/users, which is an intangible value, should not be seen as belonging to specific groups, it is rather the types, the continuity and the diversity of uses which operate collectively within the harbour, which contributes to the cultural heritage.

References are made to the Dun Laoghaire Harbour Heritage Management Plan and the ICOMOS Burra Charter for Places of Cultural Significance by the Observers in their submissions. Neither of these are statutory plans or guidance documents. ICOMOS is UNESCO's principal advisor in matters concerning the protection of monuments and sites. Argues that a conservation plan is typically prepared for historic places of significance where complex forces may be at play in influencing change and where there are a number of factors which make the place significant. The DLH Heritage Management Plan was prepared on this basis and it forms part of the EIS.

Ms. Shaffrey sought to highlight the evolution of the harbour to that of today, as when construction started, it was to be a single pier (the east pier). Within 20 years of completion, the Carlisle Pier and Traders Wharf were constructed to cater for increasing demand. More recently, we have seen the construction of St. Michael's Wharf, later expanded to accommodate the ferry terminal and HSS infrastructure. *"Within this context of change, the defining characteristics of the Harbour-the great embracing arms of the East and West Piers; the materiality and the range of diverse uses have all persisted"*. It is argued that the Harbour has the capacity to absorb the new interventions and activities which the development proposes without adversely affecting these defining characteristics which give architectural heritage significance to the place.

Ms. Shaffrey acknowledged the value of traditional uses/users within the harbour, but argued that this intangible nature of DLH should not be seen as a belonging to specific groups, it is rather the types, the continuity and the diversity of uses which operate collectively within the Harbour, which contributes to the cultural heritage.

Ms. Shaffrey put forward the opinion that the scale of the proposal is commensurate with that of the development of St. Michael's Wharf extension which incorporated the new Ferry Terminal building. Ms. Shaffrey sought to highlight the open nature of the proposed new pier which ensures that the scale of intervention in the harbour can be absorbed without adverse impact.

Reference is made in the submission to the use of the Accommodation Walk for overflow coach parking. This area has been previously used for parking by the Circus and for storage of materials by Irish Rail when carrying out electrification works to the railway line. It is argued that whilst it is not currently used, and where it is acknowledged that there is architectural heritage interest in this area by reason of its association with the "metals" infrastructure and the building of the harbour, this section of the Metals does not make a very positive contribution to the public realm. Ms. Shaffrey concluded that the coach parking impacts will be temporary/transient and will be only used where demand requires it.

In response to the submission made by DLRCC to the Board, in which the Council request that conditions be attached to any grant of permission which would require monitoring of the long-term impacts on the historic pier structures and that a conservation methodology would be required for the carrying out of any minor repairs to underwater masonry on the west Pier Roundhead with a Conservation Architect/Engineer retained to advise and monitor works in consultation with the Planning Authority, Ms. Shaffrey sets out the mitigation measures set out in the EIS section on Architectural Heritage would align with those comments.

Mr. Dave Kirkwood, Managing Director of Mitchell+Associates presented a paper on **Landscape and Visual Impact Assessment** to the Oral Hearing. Mr. Kirkwood considered that during the operational phase of the development that the scale of a docked ship would not be out of character, within such an expansive water body and that its presence would affirm the purpose of the harbour. Six photomontages were submitted as part of the EIS and the Hearing. Mr. Kirkwood argued that the periodic/temporary introduction into the harbour of a cruise ship creates impacts which range from slight to significant and which are assessed as positive in nearly all of the views.

In response to concerns raised in submissions that the methodology used is not as per best practice, it is argued by Mr. Kirkwood that the methodology adopted for the Landscape Visual Impact Assessment (LVIA) is as set out in the EPS Guidelines (2202) and which are further elaborated in the EPA's Advice notes on Current Practice in the preparation of Environmental Impact Statements (2003). The cruise ship used for modelling and insertion into the photomontages is the "Independence of the Seas", which has a length of 339m, a beam of 38.6m, a height of 44.6m to top deck and a height of 69.8m overall. Mr. Kirkwood disputed the quality of light used in the photomontages was poor as argued in a number of submissions. A number of submissions argued the point that the photomontages should not have assumed the removal of the HSS infrastructure thereby resulting in unsound methodology. Mr. Kirkwood responded that by the time the proposed development is operational, the HSS infrastructure will have been removed, the visual context in this part of the harbour will have changed and it is therefore appropriate to illustrate this in the "proposed" photomontages. He outlined that it was his understanding that the DLRCC and ABP were consulted on this matter and guided that proposed views should be shown with the Stena HSS infrastructure removed. On the number of photomontages provided, Mr. Kirkwood felt it would be unreasonable to provide a photomontage from every protected view (with reference to east/west piers and Crofton Road in particular) and rather sought to provide photomontages where they can be compared with the real view as set out in the GLVIA Guidelines. A photomontage of the "Metals" was not considered necessary according to Mr. Kirkwood due to the relatively brief periodicity of parking in this area and their depressed elevations. A number of submissions cross referenced the scale of the ship to that of Liberty Hall, which Mr. Kirkwood argued ignores the vastly different contexts within which each is normally viewed. *"In contrast to the relative permanence of buildings, the presence of a ship in the harbour is a temporary, periodic condition"*.¹ Mr. Kirkwood sought to highlight that a ship docked in DLH will be some 350m distant from the nearer of the illustrated buildings and more than 10km distant from Liberty Hall. Mr. Kirkwood's submission concluded with the statement that the "periodic/temporary introduction into the harbour of a cruise ship, creates impacts which range from slight to significant and which are assessed as positive in nearly of the views.

Day 4 of the Hearing-19/10/15

¹ Page 8 of Mr. Kirkwood's submission to the OH.

This module was followed by cross questioning as a number of the speakers were said to be unavailable at a later point in the hearing. The questions gave rise to the following issues:

- The capacity of the dredging hopper is stated by Mr. O'Connell to be 4000-5000m³ and would most likely be sourced from the UK. The construction impact is based on the use of 1 hopper. A second vessel to be used is a "plough" where it will pull in material into the reach of the "hopper", such as material that is situated close to the east marine breakwater. It is stated that both of these vessels are described in the EIS.
- The depth of the piles is not known yet. Ground investigations will be carried out at approval stage.
- Questions were asked in relation to the number of boreholes and whether a sufficient number were used. It is stated by Mr. O'Connell that 12 boreholes and a further 3 rotary boreholes were used. Of the 3 boreholes, only 1 hit rock. 100-150m between each borehole. It is acknowledged that 30-40 piles could hit rock. However, argued that there was sufficient information for the purposes of the application and that for the tendering process, more boreholes may be established. It was clarified that no rock was encountered in the approach channel.
- In relation to the depth of the channel, Mr. O'Connell clarified that the draft of the ships to be brought in about 8.2-8.7m, which would give the cruise ships about 2m clearance above the sea bed. Masters of ships would generally require 10-15% clearance.
- Mr. O'Donnell BL repeatedly sought to argue that the design as considered by Moffatt & Nichol was a preliminary design. The tidal current information was not provided to M&N. M&N were given the information of the cross tidal flows subsequent to the model but did not run it through the model as they were of the opinion that it would not have a significant impact on the results already established. It is argued by Observers that this provides an incomplete assessment as very few ports would have the small margin of error offered by the mouth of the harbour.
- The issue of wind is also discussed, wherein it was established that there is an anemometer on the site but that one in Dublin Airport was used for the purposes of the EIS. The winds surveyed were from the southwest, west and south, a ¼ of all winds. It is subsequently argued that M&N only looked at the winds blowing away from the shore, which is only 25% of all winds. The counter argument is that the winds

surveyed by the Applicant were the most critical and that those from the east would be similar to that surveyed. It is argued by Mr. O' Donnell, BL, that wind in one direction would push the cruise ship towards one roundhead, where there is a distance of only 55m between the approach channel and the roundhead. The applicant responds that if the winds are unfavourable that the cruise ship would wait in open water for the winds to abate. Tugs would not be used in this instance.

- There was much discussion on the make-up of the roundheads. The Observers argued that the base of the roundheads was unknown. Whilst Ms. Shaffrey and Mr. O'Connell state that for 175 years that the roundheads have been stable. Ms. Shaffrey believes that the roundhead goes to 9m below sea-level. It is questioned as to whether the roundhead sits on boulder clay. The dredged channel will go to -10.5m whilst the boulder clay is at -15m. It is argued by the Applicant that the roundheads do not display any settlement therefore it would appear to be boulder clay. The Applicant did not carry out a site investigation as it would have been very intrusive to roundheads. It is argued by Mr. O'Connell that the dredging and suction for side slopes are quite removed from the roundheads.
- There was some discussion on the issue of maintenance dredging which was not referred to in the EIS but which Mr. O'Connell stated would be required after a particularly bad storm or after a passage of time. It was not clear how frequently this would be necessary. Mr. O'Brien (of People Before Profit) questioned whether this had been factored into in the financial model of DLH.
- Mr. Bond (an Observer and Civil Engineer) questioned Mr. O'Connell on the effects of sedimentation in the turning circle. He was of the opinion that in the first easterly gale that the turning circle would be filled in. If that happened it is argued that there would be a tidal constraint on a ship coming in. Mr. O'Connell states that maintenance dredging would address this issue. There was ample discussion on the slopes of the dredged channel and whether these would be maintained at the 1:5. Mr. Bond argued that they would fall to a 1:10 or 1:12 degree slope with an easterly gale which are not uncommon during the summer months. Mr. O'Connell argued that he did not expect these gales to be of such severity that they would cause infilling of the channel. Mr. O'Connell acknowledged that the M&N Report recommends that additional information be sought on wind, tides and waves, which will be carried out via simulation exercises. However, is

of the opinion that sufficient research and modelling carried out to determine that ships can come in and out of DLH.

- There was ample discussion regarding the Cork facility where M&N modelling could have been run where the Dublin Port Pilots could have been satisfied regarding the proposal. However, Mr. O'Connell argued that this process was premature and would be carried out in the event of approval. Reference was made to Dublin Port's response to the Applicant's proposal to submit an application to the Board where they sought further information. DLH provided this information and are of the opinion that the submission made by DP to ABP was not as critical. Mr. Bond sought to draw attention to Capt. Dignam's submission in relation to the proposal where cross currents will push an incoming cruise ship off line of the dredged channel. Mr. O'Connell is of the opinion that with the low speeds of the incoming ship together with the thrusters that there would be no issue of divergence of the approach channel. Mr. Bond queried this that in certain conditions combined with the weight of the ship would be unable to safely use the approach channel. Mr. O'Connell states cruise ships will not be able to access the berth 100% time by reason of high winds combined with mean spring tides. The Applicant estimated that this may occur 1-2% of the time, whilst observers argued that it could be as much as 20% of the time that ships would be unable to come in the harbour mouth due to high tides/winds.
- Mr. Pat Shannon raised the issue of wake of waves when a cruise ship is leaving the harbour. Reference is made to an incident on Monkstown Beach where a person died due to the wake of the HSS ferry leaving dun Laoghaire. It is clarified that the HSS left the harbour at a far higher speed than would occur with a cruise ship and this issue would not arise.
- A number of questions were posed to Mr. Kirkwood on the quality of the photomontages, the number and location of the photomontages, which the observers all argued were deficient. A large focus of the argument was the absence of an image of the ship in the harbour or walking along the pier, where its use by up to 1m people could be reasonably be expected to be affected. Mr. Kirkwood argued that in such a photomontage the ship would have taken up most of the image and would have given a misleading account of the impact. Furthermore, scale can only be seen when compared to other items of scale. It was further argued by Mr. O'Donnell BL, that the palette of colours used in the photomontages were of the same colour (i.e. sky and ship) in an effect to lessen the impact upon the viewer. Mr.

Kirkwood disputed this stating that the light colour used on the ship tends to be reflective of all cruise ships. Mr. Neil Wallace also questioned whether a shadow analysis should have been undertaken of the piers when a cruise ship is in. Mr. Derek Jago, former County Architect for DLRCC argued that the photomontages should have been taken with a 9mm lens rather than a 24mm lens, as it is more representative of the human eye, furthermore those photographs taken within the piers should have been at the lower level, which has more footfall. Mr. Kirkwood responded that a 24mm lens was used to get the context for closer views in Views 3, 4 and 5 whilst the standard 50mm lens was used in the other views. The independence of the Mr. Kirkwood was questioned by Observers, who stated that the opinions proffered were only from a positive perspective.

- A number of questions were posed to Ms. Shaffrey regarding the presence of 29 protected structures within the confines of the harbour, which the DLRCC Development Plan has identified as a protected structure in its entirety. However, Ms. Shaffrey clarified that the Record of Protected Structures does not identify the harbour in its entirety as a Protected Structure. Reference is made by one of the observers to Kingston Borough Council who in 1838 lay down the rules for the Harbour and who required that the train station be laid down below road level so as not to impact upon the harbour view for residents.
- Mr. Boyd Barrett T.D. sought to question Ms. Shaffrey in relation to her professional training vis-a-vis a previous application within the harbour wherein Carlisle Pier train station was demolished by DLHC (or its predecessor) and that Ms. Shaffrey described it as being a “warehouse” in support of its illegal demolition. The Board subsequently concluded that it was an unauthorised demolition and not of architectural heritage [06D.RL.2672].
- Ms. Shaffrey was also questioned on the attendant curtilage of the 29 structures within the harbour, where surely the attendant areas are the harbour.
- From a legal perspective, Ms. Mulcrone referred to the 2014 Regulations which have not been transposed to date, but may be by the time of the Board decision which require a full provision of information upfront. This was brought up in the context of maintenance dredging where quantities of dredged material were unknown and the regularity of such maintenance.

- Ms. Mulcrone also brought up the issue of impact of 24-hour dredging upon residential properties, where the EIS has no mitigation measures, whilst in Dublin Port, the dredging was restricted to daylight hours.
- Ms. Mulcrone sought information from Mr. O'Connell regarding a thruster impact study upon the roundheads. None was carried out and Mr. O'Connell feels it was unnecessary as part of the preliminary studies submitted to the Board and was of the opinion that there was no risk of thrusters causing problems.
- Ms. Mulcrone questioned the absence of a specific Flood Risk Assessment for the proposal. The one used was that carried out for the DLH Masterplan. In response it is stated that the entire proposed site is situated in Flood Zone C with the exception of the Boardwalk which is in Flood Zone A.

Due to time and availability constraints, **Mr. Paddy Shanahan** was facilitated in making a submission at this point in the hearing. Mr. Shanahan is a Banker with over 30 years' experience working in New York and Long and has led the financing of any large multi-million euro projects across a broad range of industrial sectors in the U.S., Western and Eastern Europe and Australia. His contention that the proposed development is not sustainable is based on his experience and expertise. Mr. Shanahan copies of DLHC accounts from 2012 to 2014 from the web site of the Oireachtas Library and Research Centre. After analysing the accounts Mr. Shanahan found that their financial position has been declining in recent years. In 2012 the company's cash reserves declined by €2.0m and in 2013 by a further €1.3m. The decline in cash was much smaller in 2014 (€37,000) thanks to the receipt of a grant of €406,420 from an unidentified source. At the end of 2014, DLHC had cash reserves of €3.5m. Mr. Shanahan argues that they are in a difficult financial position with no revenue from Stena HSS in 2015. DLHC would only get a loan of €18m if it was in a strong financial position and if there was a reasonable prospect that the proposed development could generate a strong cash flow. It is clear that DLHC fails the 1st test and the proposal is not economically sustainable and by extension, does not constitute sustainable development. He questioned rhetorically whether the proposal can make money. Based on the accounts, DLHC only makes an average of €8,235 per ship. Whereas Dublin Port has €52m in cash in bank and has been awarded a grant of €23m by the EU and the EIB approved a loan of €100m. Finds it difficult to see that DLHC could even earn €500,000 per annum from its cruise business.

Following this section on cross questioning, the OH moved into the 3rd module on the 21st October, which considered Contamination, Tide and Wave Climate, Water Quality, Noise & Vibration, Air Quality and Ecology.

Dr. Edward Porter made a submission on **air quality** to the hearing on behalf of the applicant and he outlined his position as Director of Air Quality and Climate with AWN Consulting. It was stated in the submission that the baseline air quality in the region of the proposed cruise berth was assessed by means of an analysis of representative EPA monitoring data for the region and by comprehensive air dispersion modelling of the existing road infrastructure. Air emissions from the proposed docked cruise ships were modelled using the USEPA approved AERSCREEN air dispersion model. Results from the screening dispersion model show that worst-case predicted NO₂ concentrations will be significantly below the annual mean and 1-hour maximum limit values at the worst-cases sensitive receptors. The predicted concentrations will reach 4% and 9% of the annual and maximum one-hour limit values, respectively, for NO₂.

In response to submissions regarding air pollution of ships whilst at the berth, it is stated that the cruise ships may have 96MW maximum capacity (for the “Oasis of the Seas”), the power requirements whilst hoteling will be significantly lower than this. Reference is made to the California Air Resources Board (CARB) “*Emission Estimation Methodology for Ocean-Going Vessels*” (OGVs) (CARB, 2011) states that whilst the local factor (% of total power) for cruising is typically 80%, the load factor for hoteling is typically 16%. Thus, the air emissions whilst hoteling will be typically 80% less than air emissions associated with cruising.

In relation to sulphur, EU Directive 2012/33/EU has amended earlier legislation which has the effect of decreasing the sulphur content of fuel when at berth. This was transposed into Irish Law as S.I. 361 of 2015 European Union Regulations 2015 to ensure that marine fuels with a sulphur content exceeding 0.10% by mass are not used while the ship is at berth. The AERSCREEN assessment carried out on behalf of the proposal states that the screening assessment of emissions assumed a worst-case cruise ship hoteling continuously for a full year has confirmed ambient levels of SO₂, NO₂ and PM₁₀/PM_{2.5} are well below the ambient air quality standards both at nearby residential receptors are in the immediate vicinity of the harbour.

Teri Hayes of AWN Consulting Ltd. presented a submission to the OH on **Water Quality**. Ms. Hayes is a Director of environmental and water services at AWN Consulting Ltd. In her submission it is stated that the most likely impacts are during construction (if not adequately mitigated)

will consist of soil disturbance during dredging of the navigation approach, disposal of dredged soil, construction of a new quay and run-off containing silt/hydrocarbons as a result of construction and demolition works on land. The submission sought to highlight that there is no plan to discharge sewage or grey-water within the port area during normal operation at the harbour. Whilst at sea the MARPOL convention covers the cruise line industry, where at distance of more than 3 nautical miles from the nearest land, sewage which is comminuted or disinfected can be discharged, whilst at a distance of more than 12 nautical miles sewage which is not disinfected can be discharged. The ship must be in route and proceeding at not less than 4 knots.

Mr. **Ronan Murphy** of AWN Consulting presented a paper on **Noise and Vibration** to the OH. Mr. Murphy stated that detailed noise modelling has been carried out. The result of this modelling indicate that cruise operations will not impact the existing noise climate in the vicinity of noise sensitive locations so as to be a disturbance during the daytime or evening period. It is stated that during the night-time period, avoidance of overnighting or appropriate management measures shall be implemented by ships to ensure that ship noise operations do not impact on the nearest noise sensitive locations.

It is stated that the principle sources of noise associated with the cruise ships when within the harbour will include noise arising from the propulsion units when manoeuvring as well as noise generated by the engine exhaust and ventilation system when docked. A literature review gives rise to Mr. Murphy's suggestion that *"cruise ship engines operate on a significantly reduced capacity once docked. Due to this reduced power requirement that the cruise ships will typically only operate 1 main or 2 auxiliary engines when docked, with these engines being primarily diesel or gas turbine units with power capacity of 8 to 14MW. It is the exhaust noise from these engines that is the dominant source of noise arising from the ships once they are docked"*.² It is elaborated that such large ships normally have diesel engines. Also gas turbine engines are also used, they are primarily for propulsion purposes and are typically switched off when docked or in "hotel" mode. The International Maritime Organisation requires all ships to achieve on-board noise limits of 70dBA L_{Aeq} and therefore significant noise attenuation is incorporated into the ship design. The submission argues that the ships will be below 45dBA during early morning docking. During day-time hours, it is argued that the harbour amenity is not a low noise environment, and that the operational noise

² Noise and Vibration Submission to OH by Mr. Murphy, AWN Consulting, on behalf of the Applicant, Page 3.

arising from the development would be below 50dBLAeq at all points along the east and west pier and would not impact on the public amenity of the harbour. In relation to Observer's comments regarding coaches arriving and parking at Accommodation Walk, it is stated by Mr. Murphy that the buses would not arrive until 8am at which stage the local traffic is already at such a level that the additional noise arising from the cruise ship traffic will be imperceptible at any noise sensitive location.

Ms. Aebhín Cawley presented a submission on **Ecology**. The paper is stated as having been prepared by Ms. Cawley, who is a director of Scott Cawley Ltd and Mr. John Brophy, as a senior ecologist from BEC Consultants Ltd. At the beginning of the presentation Ms. Cawley advised the OH that Mr. Brophy was unavailable. Subsequently, it was decided that Ms. Cawley could not read into the record the marine elements in which she is not an expert and accordingly I have not read those sections of the submission entitled "Marine Ecology". The Inspector expressed dissatisfaction at the poor communication from the Applicants regarding the Expert's non-attendance, particularly in light of many efforts to facilitate them prior to and during the hearing. This dissatisfaction was echoed by those Observers and other parties to the hearing. Mr. Brophy came at a later point in the day.

Ms. Cawley outlined that she had overall responsibility for co-ordinating the team of ecological surveyors and specialists required to complete a range of ecological surveys, overseeing the projection of the Flora and Fauna chapter of the EIS, and the production of an AA Screening Report and NIS.

The submission notes that section 5.2.2.1-5.2.26 were accidentally omitted from the EIS but have been appended to the submission made to the OH.

The submission by Ms. Cawley outlines that other plans and projects in the wider area were considered that could act cumulatively with the proposed development, these are regular maintenance dredging by Dublin Port, Alexandra Basin Redevelopment (Dublin Port) and Dun Laoghaire Urban Beach. In terms of potential impacts to SPAs, it is acknowledged that the sound generated by impact piling on all projects (regular maintenance dredging by DP, Alexandra Basin Redevelopment (DP), Dun Laoghaire Urban Beach and Dublin Array Wind Farm) will result in some level of disturbance to Harbour Porpoises within, and inshore of the Rockabill to Dalkey Island SAC. RPS in their report of 2015 concluded that the Alexandra Basin Redevelopment which will involve a 38 month piling programme would not have any significant effect on marine mammals. Ms. Cawley argued that the small diameter piles used in the

works proposed to DLH cruise berth and the short piling period of 12 weeks will allow the proposed development to have the lowest impact on the sound environment of the area of those considered, and a negligible in-combination effect. It is also not expected that the Dublin Array will have commenced construction works before the piling works are completed for DLH, therefore leading to the argument that there will be no cumulative effect through overlapping works. The distance between the three projects also means that the likelihood of a measurable negative effect is low, with the sound levels attenuating with distance and that any in-combination effect will be negligible. It is acknowledged that the sound generated by impact piling on the Alexandra Basin Redevelopment and the proposed development could result in noise disturbance to wintering and breeding bird species. It is outlined that the dredging will be carried out for the Alexandra Basin Redevelopment in the period October –March over an anticipated 6 year period (up to a max. of 10) due to the presence of out-migrating salmon smolts and so it will not overlap with the DLH dredging, which is proposed to take place over the summer months (March-Sept) with a planned duration of 14-17 weeks. The DL Urban Beach is stated to be completed by Spring/Summer 2016 and therefore the works will not lead to any cumulative impacts. It is further elaborated that the potential for cumulative impact on wintering birds would only arise if the operation of the two facilities overlaps with the wintering bird season in part.

Ms. Cawley sets out in her paper a response to some of the issues raised by third parties and Observers to the appeal. In particular, a response is set out to the submission by the Dept. of Arts, Heritage and the Gaeltacht who sought that dredging be restricted to daylight hours. It is argued on behalf of the Applicant that if dredging is restricted to daylight hours, it will run for 32 weeks as opposed to 14-17 weeks. It is argued that the proposed dredging programme as put forward balances the very low risk of injury or disturbance to marine mammals of commencing some dredging cycles outside daylight hours with minimising the overall duration of the disturbance. Therefore, the Board is requested to exclude dredging from a restriction to daylight hours only.

Ms. Cawley sought to respond to criticism from An Taisce in their submission that they have not assessed the 4 week overlap of dredging with DP. The relevant sections for this assessment were carried out and are listed in Ms. Cawley's paper where it is outlined that any potential cumulative impacts are not significant and would not result in adverse effects on the integrity of any European sites.

It is highlighted that the discharge of ballast waters from cruise ships has the potential to release non-native invasive species. However, Ms. Cawley argues that the cruise liners will operate in line with the International Marine Organisation (IMO) which seeks to minimise the risk of the ships acting as a vector for marine invasive species.

It is acknowledged that there is some potential for indirect effects of piling noise on the fish prey of fish eating breeding birds and there is also potential for indirect effects of dredging on fish eating breeding birds as they use their eyes to catch prey by reason of reduction in underwater visibility in the vicinity of the dredging operations. However according to the ABP MER Study, "high suspended solid levels are common in shallow waters close to the coastline and suspended solid concentrations from dredging operations will disperse to negligible levels within 2km".

Ms. Cawley made reference to an Emergency Management Plan which would address the issue of accidental oil spillages within DLH. It was ascertained that this had not been submitted to the hearing. I note that this is now on the DLH website.

Mr. Paul O'Connell read into the record his submission, on behalf of the Applicant, on the issue of **Reinstatement**. This submission investigates reinstating the harbour to its predevelopment state, should the proposed development be implemented. It is stated that full reinstatement cannot be offered as part of this project. It would be the intention of DLHC to offer a hierarchy of reversal, primarily being the reuse of the berth by other vessels (known and future unknown) where appropriate, removal of the catwalk structures spanning between monopole dolphins north of the quay structure, and any alterations of the landside elements of the proposed Project that are deemed appropriate. It is estimated that the removal of the catwalks and berth furniture would take 6-8 weeks whilst the removal of the quay, access causeway and piles would take 6 months.

Mr. O'Connell of Waterman Moylan Consulting Engineers presented a paper on **Contamination, Tide and Wave Climate, Soil Disturbance, Disposal of Dredged Material**. He outlined that the proposed project will involve the dredging of approx. 710,000 m³ of seabed materials to form the approach channels and turning circle for the new berth, if approved. Samples taken indicated that the material is suitable for Dumping at Sea based on their sediment chemistry. The Marine Institute were consulted and also indicated that they had no objection to the intended Dumping at Sea application, in the event of planning permission. Disposal of dredged material overland by road is not envisaged. It is argued that the long-term direct impact of the dredged marine sediment on the Burford Bank

disposal ground will be slight, if detectable at all. ABP Marine Environmental Research (ABPmer) was commissioned to review the impact that the proposed project may have on the tide and wave climate. It determined that the dredged channel will have a small effect on local patterns of tidal currents in the order of 0.06 to 0.2 knots. No measurable difference in local wave height is predicted to occur either inside or outside the harbour when waves and/or winds are from the south-east clockwise through north directions. However, there is a measurable effect for waves from the north clockwise to the southeast, with a small reduction in wave height inside the harbour between the harbour entrance and the breakwaters, a small reduction in wave height outside the harbour within the turning circle and approach channel, a small increase in wave height inside the harbour in the eastern part of the harbour and a small increase in wave height outside the harbour, north of the turning circle. The increases in wave height in the eastern part of the harbour are expected to be 5cm-10cm during the 1:10 year storm and 15-20cm in the 1:50 year storm.

In response to submissions to the Board, Mr. O'Connell clarified that the dredging of the navigation channel within the harbour is not anticipated to hit rock or hard ground, rather investigations demonstrated the presence of loose sand and silt. In relation to concerns regarding the dredging of highly polluted material, it is stated that the Marine Institute confirmed on the basis of samples that they tested, it would have no objection to the material being dumped at sea. This is to be formalised as part of an application for a Dumping at Sea licence. No dredging is proposed in the area of the Old Harbour and Coal Harbour and the Carlisle Pier and the East Pier where mercury was previously found.

In relation to concerns by Objectors that sediment will be deposited within the Dublin Bay SAC and that such sediment will modify the water visibility and chemical mix of the water and is liable to have a detrimental impact on the birds, fish and flora therein, it is argued that the concentrations in sediment in suspension outside the harbour, resulting from the dredging, will be negligible, with Suspended Sediment Concentrations (SSC) of 0-5mg/l; outside the harbour generally and will be temporary during construction. Any fines in suspension outside the harbour will be deposited in the surrounding coastal or offshore environment, in a layer of negligible thickness, less than 0.1mm.

Cross-questioning was then held in relation to the foregoing module on the 21st/22nd October:

Mr. Stewart posed questions in relation to the air quality impact of the engines of these cruise ships running in the harbour, which they will do for the duration of their stay in the harbour. The movement of the ship from the berth with the bow thrusters will necessitate additional burning of fuel. This impact on air quality will be over 50% of a calendar year. It is argued that the fumes will rise and then be dispersed and with the constant movement of the ship out of the harbour, the fumes will continue to disperse. Dr. Porter was asked in relation to EU regulations and air quality regulations which came into force on 20th August 2015 in Ireland where the cruise ship must use fuel of 1% fuel content whilst at berth and hoteling. Immediately before leaving and whilst manoeuvring into the harbour the higher grade fuel content will be used (3% sulphur content). He repeats that whilst the ship is moving the impact is moving and the dispersion of sulphur is also moving. The rate of emissions between manoeuvring and hoteling is actually quite minimal as the ship is at a very low speed.

Questions were also asked in relation to the dumping of fuel at sea by Mr. Stewart. The regulations in place require that there is no dumping at sea for 3 nautical miles away from the shore to allow assimilation. The Rockabill to Dalkey Island SAC lies just on the edge of the 3 nautical mile zone and therefore the cruise ship would be free to discharge the waste on board with nitrates and phosphorus on board. Ms. Hayes and Mr. Brophy argue that it would be released slowly and not all dumped at once as the ship is moving. It was also debated that a cruise ship has capacity to carry sewage on board for 62 hours. However, if for reason of a storm, the cruise ship gets delayed in the harbour for 3 days, it was questioned what the implications would be. Mr. Stewart refers to an EU Directive which requires that sewage facilities be provided at every port to ensure that the dumping at sea issue does not arise. The Applicant's argue that this would be a case for a turn-around port like Copenhagen. Ms. Mulcrone interjected to state that the regulations do not differentiate between port of call and a turn-around port. The Reporting Inspector sought clarification on this issue from a legal perspective from Mr. Tom Flynn, BL, on behalf of the applicant. This issue was not clarified during the course of the hearing according to this Inspector's records.

Ms. Mulcrone argued that the Construction Environmental Management Plan as referenced in section 5.2.2.6.2 of the EIS was not submitted with the application as required by the Sweetman Case. Ms. Cawley disputes that it is not normal process, at the time that the plan is proposed that a particular construction contractor has not been appointed to date. Rather the EIS sets out the minimum standards which must be complied with. Mr.

Flynn, BL, argues that the terms of the development will be decided upon by the Board and then it becomes a condition of the development that a CEMP be devised and formulated. Ms. Mulcrone argues that the proximity of the development to SAC/SPA, that this should have been provided upfront. Ms. Cawley argues that the impacts are not of significance to warrant the CEMP in advance of any approval.

Related to the issue of dumping of waste at sea, is the issue of Biosphere Reserve. This was introduced in the summer of 2015 which recognises Dublin Bay including that of the SAC/SPA. This issue was introduced by Mr. Paul O' Brien of Save our Seafront. In this context, it is questioned whether that the totality of the project has been considered by the Applicant i.e. the DLHC Masterplan. The Applicant stated that other projects were considered i.e. the proposal for an urban beach within the Harbour.

Also raised during the course of the hearing is the issue of Littoral Drift. This is described as waves mobilising sand and bringing it into shore and occurs along the eastern shore in Dublin Port. It is stated that under calm conditions, this does not occur, it happens over a season incrementally. It is likely that this littoral drift will move northwards towards South Dublin Bay SPA. Applicant responded that they are of the opinion that this will be managed by maintenance dredging and that the issue of littoral drift is considered in section 4.5 of the ABPmer Report.

Water Wags sought to introduce the issue of the ABPmer Report. In their questioning they referenced Dublin Port who modelled three storms from the east, north and south and were therefore of the opinion that the ABPmer Report is deficient. Again, Mr. O' Connell argues that there is sufficient information on which to base a decision and that the consultants who devised the model had sight of the wind data collated after the modelling exercise but were of the opinion that it did not give rise to significant changes in the output.

Mr. Pat Shannon raised a question regarding the proposal by Dublin Port and DLH to dump material at Burford Bank and whether there could potentially be a chemical reaction between the difference sources of spoil. The Applicant argued that this was an issue to be addressed in the Foreshore Licence Application.

Ms. Mulcrone posed a question on the impact of the dredger noise upon mammals, which necessitated interaction between the specialists. No answer was available in this instance. It was subsequently argued that this highlighted the absence of interaction between the specialists in relation to the proposal.

There were a number of questions raised in respect of the noise of the ship entering the harbour where the Cruise Ship would be required to blow whistles at 200m+ decibel level 143dB @ 2 nautical miles off shore (just shy of 4km). The ship would also give a prolonged blast when manoeuvring off the berth of 4-6 seconds. It was also raised at the hearing the issue of fire drills which must be conducted weekly. It was questioned how loud is a standard fire alarm internally and externally. It was deemed unreasonable that the Ship Master would not be permitted to carry out such a test at berth and that the Harbour Master would not allow it. However, no clarity on the level of noise to be anticipated was provided.

On the issue of reinstatement, no costs were provided. It was stated by Mr O' Connell that the major costs will be in reinstatement of the berth. An Taisce stated that they wanted costs of the proposal in the event that the project is financially unsuccessful as ultimately it would be the taxpayer who would be funding the reinstatement.

The hearing then progressed into the Sailing/Navigation Module of the Proposal on late afternoon of the 22nd October and 23rd October 2015.

Capt. Simon Coates presented a submission on **Marine Safety**. Capt. Coates was appointed Assistant Harbour Master in DLH in 1991, to Harbour Master in 2009-2011, I understand he then retired for a year, followed by his appointment once more to Harbour Master in 2012. He confirmed that Dublin Bay, from Howth Head to Dalkey Sound, with the exception of DLH, is within the jurisdiction of Dublin Port. DLH's jurisdiction includes the water space between the East and West Pier and an area outside the Harbour mouth to a distance of 600m from the two Pier ends. Any ships berthing at the proposed new pier would be required to do so within a Dublin Port Pilot onboard. It is stated that prior to being operational, a number of simulations will be conducted with various types and sizes of Cruise Ships to determine the safe operating "windows" for the new berth. In relation to concerns expressed in submissions regarding the entry of a ship through the harbour mouth during a strong tide, it is stated that all ships would traverse the harbour with a Dublin Port pilot and that modern ships, particularly those with thrusters and Azipods can make constant corrections to their course as required. Capt. Coates confirmed that DLH has a current Emergency Management Plan and this would be updated to take account of the development if approved. DLH also has an Oil Spill Contingency Plan. In response to another submission, Capt. Coates stated that it is not anticipated that any exclusion zone will be required in the water around a berthed Cruise Ship. There are currently

no such restrictions around Cruise Ships berthed on the Carlisle Pier. In relation to concerns regarding the sailing conditions when a boat is entering the harbour, Capt. Coates stated that for a short period, whilst a Cruise ship is making its approach or departing its berth, the use of the fairway would be restricted as per the Maritime Safety Directorate Notice to Mariners. It was argued by Capt. Coates that a cruise ship encountering a serious issue within the approach channel to Dublin Port could disrupt the main supply port into Ireland for hours or in a worst case scenario possibly days/weeks. Having a second berth option in DLH reduces this risk.

Capt. Simon Coates also made a submission to the hearing on the issue of **navigation** within the harbour. He sought to remind the OH that DLH is first and foremost a working harbour. DLH accommodates a marine leisure component which it is recognised and acknowledged contributes to its charm and character. Activities within the Harbour are controlled by Notices to Mariners and the Harbour Bye-Laws. In relation to issues raised in submissions to ABP, it stated that junior sailing training has been facilitated with the reorganisation of swing moorings in 2014, which freed up the North Bight area, which is now defined as per Notice to Mariners No. 4 as being the defined area for junior sail training. Whilst it is acknowledged by the Capt. that the new berth will result in some modest change to the existing pattern of activities for some users, other users within the harbour will see no change. Capt. Coates sought to highlight that many other clubs around the country who participate in sailing do not have the luxury of an enclosed harbour and the training often takes place in open sea and is always subject weather.

In relation to concerns regarding the wind shadow effect of a cruise ship, the Capt. responded that the large cruise ships on the berth will have an effect on the wind patterns locally and will result in some “wind shadow” downward of the ship. However, he further stated that no matter what direction the wind is blowing, there will always be an area of the harbour that will be windward of the ships at berth and therefore unaffected. Capt. Coates sought to highlight in response to concerns raised in submission that total distance from the marina breakwater to the West Pier roundhead is about 0.66km or 660m. The berth will extend northwards for just under $\frac{2}{3}$ rds of this distance leaving approximately $\frac{1}{3}$ remaining for cross harbour activity. In addition the proposed berth will include an underpass which will allow passage from club launches and RIBs to pass from east to west and vice versa. It was acknowledged that the berth would have some impact on racing in the harbour as some courses would have to be shortened. However, argued that the Water Wags could sail in the Bay.

Capt. Coates sought to highlight the fact that the cruise schedule would be known one and sometimes 2 years in advance. Therefore potential clashing with race starts on Tuesday and Thursday evenings could be managed. The “turning circle” and approach channel will only be designated “no go” areas when a large cruise ship is expected. DLHC has always been very supportive of all International Sailing Events, indeed DLHC instigated the “Dun Laoghaire International Sailing Events” initiative in collaboration with the Waterfront Clubs, the next major event being held in 2016. Capt. Coates argues that the introduction of a cruise berth will not prevent the continued use of the harbour as a passage to the Bay and no competitions will be lost due to the cruise berth project being implemented as there is still plenty of room for yachts to proceed to sea.

Mr. Alistair Rumball made a submission on behalf of the Applicant as the centre Principal of the **Irish National Sailing and Powerboat School**. The INSPS operates out of the Coal Harbour in DLH and has been in operation for 38 years and operates 7 days a week. Mr. Rumball sees the development of the cruise liner berth as a natural progression within the overall mast plan for DLH. He also argued that the location of the berth in the western part of the designated fairway is suitable as it keeps the Harbour mouth open. The INSPS is described as Ireland’s largest provider of sail and powerboat training and regularly has 200 clients or more on the water, particularly during summer months. The designated training area inside the harbour is used by the less experienced sailors and the more experienced sailors sail out in Dublin Bay. Mr. Rumball discussed the issue of sailing competitions in the harbour and the impact of the proposed berth in his submission. He believed that racing near the cruise berth is *“just another challenge, the inventive mind of the race officer and competitions should be able to lay demanding race tracks which will have a different format to the traditional courses. If this proposal is approached with an open mind it can be seen as a step forward rather than as a blockage”*.³ In relation to the Water Wags concerns, it is stated by Mr. Rumball that the dinghies racing the Dublin Bay Sailing Club race on a Tuesday night during the summer months to a similar timeframe that the Wags do. These dinghies race in Scotman’s Bay every Tuesday night, some of these dinghies are smaller than the Wag Sailboats. Whilst he agreed that is convenient to sail in the harbour rather than Scotman’s or Salthill Bay, Mr. Rumball argued is not an ideal location for true wind racing, as all club racers will agree. Likewise Mr. Rumball argues that the frostbite race series which compete during the winter months could potentially race in the Eastern part of the Harbour. Subsequently he

³ Mr. Alistair’s Rumball’s submission to the OH, Page 5-Impact on Sailing Competitions in the Harbour.

argues that the cruise pier inside the harbour will not affect international sailing competitions at all. Mr. Rumball also sought to highlight that by reason of the “gated communities” of the four waterfront clubs restrict, via their 4 slipways, the majority of the water access for the select few.

Mr. Tim Ryan, Operations Manager of DLHC, made a submission to the OH on the issue of **SailAbility**, where he states that it is the policy of DLHC to provide maximum support and assistance to persons with disabilities. The sailability programme is valued and DLHC consider that it will be able to continue its weekly training in the same areas as now i.e. in front of the moorings in front of the RSGYC.

Capt. Cowman also made a presentation to the hearing on **marine safety**.

Cross Questioning in relation to this aspect of the hearing was split across two weeks as Capt. Coates was unavailable due to prior commitments.

An Taisce questioned Capt. Coates in relation to the special needs sailors who traditionally sail within the harbour, as to how they would be affected. Capt. Coates stated that they are currently sailing north of the RSGC, and that they could continue there.

Questions were asked of Capt. Coates in relation to the flexibility of the cruise ships to facilitate races. The Harbour Master stated that he would look at the programme schedule and gave assurances that some races could be facilitated given that the cruise schedule is often determined 2 years in advance. A cruise could be asked to leave a 5-5.30 pm and that the race boats could follow the cruise ship out. He suggests that it would only take 15 minutes before reaching the harbour mouth from the berth.

Mr. William Prentice, Vice President of the Water Wags asked questions of Capt. Coates in relation to water wags and their ability to continue to use the harbour when the cruise ship is in. Mr. Prentice sought to highlight that in the last 25 years, they have only sailed 20 times outside the harbour. Capt. Coates is of the belief that the water wags could still race in the harbour with the jetty present. Capt. Coates fails to understand that with good weather conditions why the water wags would not sail outside the harbour.

Vincent Daly, a Special Needs Tutor with Sailability questioned Capt. Coates in relation to the impact of the cruise berth upon sailors with special needs who traditionally sail within the harbour for safety reasons. Capt. Coates suggests that the moorings could be removed from the

eastern bight to allow for sailing in that area, however, it is countenanced by Mr. Daly that the cruise berth goes straight through that sailing area.

Capt. Coates was also questioned regarding the Volvo Regatta which has achieved International success and which is held in DLH every 2 years. This event is scheduled to take place in the middle of the cruise season. Capt. Coates states that DLH would give an undertaking not to run cruises that week. It was subsequently questioned as to how this would affect their business model with the loss of 7 visits. However, he countenanced that this was a pessimistic view and argues that without the involvement of the Harbour Master some of the sailing events would not have taken place. Capt. Coates sought to highlight the cooperation between the DLHC and the sailing clubs which had occurred to date and which would occur in the future alongside the cruise venture.

Mr. Pat Shannon, Commodore of the Dublin Bay Sailing Club, sought to highlight the importance of the harbour to their club (the largest sailing organisation in Europe). He explained that during the Volvo Regatta 2015, the dinghy fleet resorted to racing inside the harbour due to weather conditions.

Mr. Robert Stewart asked of the Harbour Master as to how visitors to DLH would know where the approach channel of the cruise ship is. It was stated that there will be physical markers at the entrance to the channel and the virtual markers would be situated on the turning circle which would be identified on GPS.

Ms. Mulcrone sought to highlight an issue where a cruise ship caused significant waves in Dublin Port. Capt. Dignam, Harbour Master in Dublin Port, spoke of an incident where a cruise ship broke the speed limit prescribed by Dublin Port in a 25 knot wind caused a bow wave upon the South Bull Wall. He sought to highlight the size of the ships and the effect of the wind, that they are susceptible. They may have to wait in the harbour or out at sea for the winds to moderate. If tugs are required it would take 21/2 hours to travel from Dublin Port to DLH.

Ms. Mulcrone asked Capt. Cowman of his involvement in the EIS. He stated that he had no direct involvement in the EIS, rather he was brought on in a consultancy capacity. Ms. Mulcrone sought to ask Capt. Cowman whether the wind speed was adequately assessed. Capt. Cowman stated that winds above 15knots would be assessed at a later stage with Dublin Port Pilots. He argued that DLH does not have a transit corridor of the scale of Dublin Port and speeds of 9 knots are not anticipated. He argued that the speeds of 12 knots would not be achieved in DLH to counteract windage. Capt. Cowman argued that the ship would perform relative to

the wind speed if stopped due to the bow thrusters and Azipods thereafter to control any drift.

Ms. Mulcrone argued that inadequate simulations have been carried out in relation to the proposal. Capt. Cowman argued that a preliminary study was carried out in Waterford with a Dublin Pilot and it looked at the orientation of the jetty and the inward and outward movements of the ship through the harbour mouth. It showed that there was a possibility of creating such a jetty with a slight deflection to the west in winds of force 6 and a maximum currents across the mouth of 1.5knots (with wind behind the tide). Ms. Mulcrone argued that the proposal seems to be based on very basic studies without adequate navigational studies. Whilst the Waterford study was not submitted, that it was superseded by the M&N report.

Capt. Dignam, as **Harbour Master of Dublin Port**, was questioned by Ms. Mulcrone in relation to the preliminary studies. He spoke about the preliminary real time simulation studies that they carried out in the National Maritime Centre in Cork. The Dublin Port Pilots went to Cork to do the simulation exercises followed by a number of Masters of International Cruise Companies. This exercise set out the limitations for Dublin Port. Once they realised that the cruise ships could come into the Port stern first and berth alongside, a number of cruise ships then switched from anchoring in the bay to come into DLH to berthing in Dublin Port. Capt. Dignam confirmed that he had no involvement in the simulation exercises for DLH. He restated that the simulation exercises carried out by DLH are lacking in the size of the ship, wind, and tides and therefore the limits have not been set for the proposal. However, following questions by the Applicant of Capt. Dignam, it is stated that no cruise ship would enter DLH without such simulations.

The Water Wags in their line of questioning to Capt. Cowman, confirmed that no cruise ships or masters of ships were involved in the simulations or M&N study. They asked questions of the Applicant where the letters of support from the Cruise Ship Companies are, making reference to Dublin Port OH where 4 such companies actively participated in the oral hearing. The Applicant stated that a letter of support had been provided with the application.

On Tuesday 2nd November, 2015, the OH heard the economic module which included Capt. Philip Cowman, and DKM Economic Consultants.

Capt. Cowman, who was previously Harbour Master to Port of Waterford and is from 2009 to the present representing DLH to the Cruise Industry, undertaking marketing campaigns in conjunction with DLRC, to the USA,

UK and Europe. He argued that he is the only manager from Irish Ports dealing with relevant Cruise Industry Senior Executives on a continuous basis since 1993 and so have very broad experience of the cruise industry. He argued that both Carnival and Princess Cruises gave very specific manifestation to their positive views about DLH by scheduling first-time-ever cruise calls to Ireland (DLH) for the likes of Queen Mary 2, Queen Victoria and Royal Princess (9 calls). Capt. Cowman argues that research on cruise passenger satisfaction indicates their experience with DLH is very positive. The operational/capacity constraints of Dublin Port mean that DL Cruise Berth is complementary to Dublin Port.

In this presentation, Capt. Cowman confirmed that incineration is not permitted within the Harbour and will not be permitted into the future. Sewage treatment on large vessels can retain treated sewage, "Black water" for up to approx. 3 days with full capacity pax + crew. "Grey water" capacity is separate and similar to this. Should a requirement exceed this capacity, grey water can be transferred to ballast tanks and black water to grey water tanks. Furthermore, Capt. Cowman outlined that large cruise vessels entering/exiting DL Channel and Harbour will be at manoeuvring speeds, sub 4 knots/5 mph, and so will be able to maintain position and aspect in channel and turning area without undue difficulty, with manageable weather and existing tidal parameters and consequently would only cause minor disturbance to in-harbour leisure sailing-during the arrival and departure. The Capt. Also made reference to many examples of very large cruise vessels docking/undocking and making harbour passage surrounded by pleasure vessels of all sizes and descriptions at Ford Lauderdale, Vigo, Miami, Cartagena etc.

Capt. Coates was questioned by Ronan O'Neill on behalf of DBSC, as a race officer for Sailability, Junior and Winter Frostbite. He questioned how it would be possible to run 4 point race-course in the harbour. Capt. Coates then stated that he wanted to show an additional diagram during the cross-questioning. As it was deemed to be showing new information of potential race course some 4 days after submission made and during cross questioning, it was therefore not accepted. It was deemed more appropriate that it had been shown at an earlier point in the hearing.

DLHC anticipate that DLH will get to the commercial level of DP in relation to cruise calls during their construction of the new berths which is anticipated to take 3-5 years.

Mr. Wilde Crosby, a Barrister at Law, also an extra Master Mariner also acted on behalf of DBSC in the absence of Mr. O'Donnell (also a Barrister at Law). Again the difference between the real-time simulations as carried

out in Cork and that model carried out by M&N is discussed, which Mr. Wilde Crosby sought to highlight does not equate to standing on a bridge and account for human misjudgement in considering traversing out of the channel, currents and an oncoming ship. However, Mr. O'Connell rejected any criticism and stood over it being a judgement based approach.

Questions were also asked in relation to who authored the Navigational Impact Assessment. It is stated that the assessment was written by Stephen Little but reviewed by Capt. Coates and Mr. Tim Ryan. Mr. Wilde Crosby sought to highlight that the risk assessment does not refer to the fact that before a cruise ship comes in to DLH arising from the proposal, that simulation exercises will have to be carried out in Cork. Mr. Wilde Crosby also argues that what with the deepening of the harbour, that this will increase the swell. It should have been hydro geologically assessed. Mr. O'Connell argues that's that this is present and considered in the ABPmer Report. Mr. Wilde Crosby also sought to question Section 4.1.2 of the Navigation Analysis where he argues that in 15 knot winds from the west (described as a light wind) that a cruise ship would not be able to come in. He argued that it limits the acceptance of ships to Azipods, whereas over 300m boats are mostly stern propulsion. He argued that this is ignored in the risk assessment. Mr. O'Connell disputed this and stated this to be untrue. Mr. Wilde Crosby argues that this being such a light wind, and it setting a limitation to the quantum of ships that can come in has been ignored in the EIS. Mr. O'Connell argued that in this instance a ship would wait out in the bay for the wind to drop before coming in.

He refers to the Risk Assessment where this wind conditions is not referred to as being a risk. Capt. Coates argues that the issue is considered in relation to a ship going aground. It was counter-argued by Mr. Wilde Crosby that it is considered in general terms only. Also sought to argue that the need for further simulations is not referred to in the risk assessment. Capt. Coates argued that that decision for further simulations being required came before the risk assessment.

It was further argued that the Risk Assessment should have considered the issue of swell, when the boat is tied up in the harbour. Capt. Coates argued that this risk is the same as any other ship and accepts it was not considered. Mr. Wilde Crosby argued that DLH was originally designed as an asylum harbour. But what with the deepening of the harbour, that this would increase the swell. Argues that this should have been hydraulically assessed. Mr. O'Connell argues this is covered in the ABPmer Report, with before and after assessment and is in the EIS. Accepts there is a

slight increase in the wave height in the storm event of 1:50 to the east of the DLH. Small impact on small crafts.

Mr. Wilde Crosby asked how the cruise ship be driven into the berth. Capt. Coates answered that the berth is directed directly at right angles to the mouth of the channel. With a ship you cannot drive straight in as you might clip the jetty and force it all to collapse, so you must come in slightly off. Capt. Coates does not see this is a hazard. Boat would be coming stern first. Mr. O'Connell clarified that if the ship came in dead centre to the channel, she would be 40m off the line of the berth of the ship and therefore would not collide with the jetty.

Mr. Wilde Crosby also asked questions in relation to potential collisions between the cruise ship and small ships, which Capt. Coates argued this danger would be mitigated by circulation of Notice to Mariners (NtM). However, Mr. Wilde Crosby argued that the NtM does not accord with the Bye-Laws in that "Priority" is not used in both and the term "fairway" is not defined. Upon clarification from the Inspector, in Mr. Wilde Crosby's opinion that it would not stand up in Court. Capt. Coates argued if this is the case, the NtM will be revised as part of the development. Mr. Wilde Crosby argues that given the reliance on the NtM, that the proposed NtM should be in the EIS. Mr. Wilde Crosby referred to an incident in Dublin Port where collision occurred in 2001 killing 5 people and Costa Cordia. Mr. Tom Flynn, BL, stated that the pilot of the ship is facing criminal charges. Mr. Wilde Crosby argued reliance on NtM as a mitigation measure, is unsafe. It seems to be a catch all. Capt. Coates stated that a Guard boat and a monitoring boat would be present when a boat is coming in. It is subsequently confirmed by the Applicant that the term "fairways" is defined in the Bye-Laws.

Mr. Adam Cronin, formerly Maritime Inspector to the Dept. of the Marine, argues that the tapers as shown in the M&N Report, Figure 5.1, have not been incorporated into the Planning Application drawings. The sentence in section 5 of the M&N Report states "proposed improvements involve tapering the intersection of the approach and harbour channels at the intersection with the turning basin. These modifications allow for more channel clearance whilst the cruise ships turn to or from the harbour". Mr. Cronin argues that this recommendation was not implemented in the planning drawings. Mr. O'Connell disputes that this is a recommendation, and rather sought to highlight that this was an internal report which fed into the design process and that they partially amended the design of the approach channel, however he confirmed that the rationale for this decision is not illustrated anywhere within the application documentation. Mr. Cronin argues that the tapers brings the channel closes to the

roundheads and increases the area of dredging. Mr. O'Connell disputed this, as the roundheads are quite distant from the tapers, rather the channel is closer. Also argued that the quantity of the area dredged is minimal as the area to the east is quite shallow, another 4m would need to be dredged, whilst that area to the west would only need 1m dredging.

Mr. Alan Coughlan, Harbourmaster for the Shannon Estuary and former President of the International Harbourmaster's Association questioned where the Cork simulation commenced their runs from. Capt. Coates confirmed that the runs did not include the turning circle. An American pilot and a Cork pilot did the simulation runs as it was confidential at the time and therefore no Dublin Port Pilot was used. He again confirmed that the navigational analysis did not consider current. Mr. Coughlan argued that when the ship traverses from the open water to the harbour with the cross current, that up to 200,000 tonnes of water will be displaced and therefore over time would have to have an impact on the roundheads. He also questioned on who the Dublin Pilot of the ship works for. Capt. Coates confirmed that the Pilot works for the Master of the Ship. However, the Master of DLH would communicate with the Master of the Ship if there were issues with the approach of the ship to the berth.

Asked Capt. Coates if happy with the M&N Report given that it does not give limitations to the size of the ship accepted and the conditions under which cruise ships accepted. Capt. Coates said provided that the simulation exercises are carried out, that he was happy with that. Capt. Cowman disputed the figure of 200,000 tonnes but did not give an alternative figure.

Mr. Ronan O'Neill disputes the feeling of "exhilarating" when viewing the cruise ship when a junior sailor or a disabled sailor from a small dinghy. Also questioned the degree of wind impact from a cruise ship, referred to "Hell Gates" where it bounces off the piers and the ice house. Capt. Coates disputed that the size of the boat would give rise to wind impact for small crafts. Capt. Coates argued that they did consider the wind impact, but in response questions admitted that no wind tunnel effect was assessed. Mr. Ronan O' Neill then asked could a club quality course be set in the harbour. Capt. Coates argued it could. Mr. O'Neill disputed this and stated it was not possible and highlighted his 45 years' experience as a sailor and 5 years as a race safety officer. Made this point in relation to the 120 dinghies that take place in the Winter Frostbite series. The existing HSS jetty already impedes movement within the harbour. Mr. O'Neill then referred to the drawing submitted by Water Wags which illustrated the pathways used by two boats during their Water Wag races around 2 points, which filled up all of the harbour. Mr. O'Neill referred to

the frostbite series facilitating 120 dinghies around 3 markers and questioned how this would be possible. Capt. Coates felt it would be possible. He sought to introduce new evidence in response to a question, a week after his submission had been made. This opportunity was declined as cross questioning of this witness was almost complete. Therefore, no evidence of a counter argument was shown.

Mr. Derek Jago asked where the best area for sailing in the harbour, Capt. Coates confirmed that it is the centre. Therefore, Mr. Jago asks why are the sailors then being pushed into the corners of the harbour where the water is most turbulent against the harbour walls. Mr. Jago referred to his experience as a County Architect for DLRCC where wind studies were often assessed and his opinion was that the stronger the wind, the more turbulent the downdraft. In relation to the wind hitting a static structure, he argued that it would give rise to a downdraft of 10x's the structure.

Ms. Annette Hughes on behalf of **DKM Consultants** presented a submission to the hearing. Due to restricted availability, Ms. Hughes was the last person to make a submission on behalf of the Applicant, therefore it was accommodated at the end of the sailing module. DKM has previously been involved with DLHC for whom they completed an Economic Impact Study of the Dun Laoghaire Harbour Masterplan together with a short report on the economic Value of Ferries Services to DL. In 2015 DKM completed the Economic Impact of the Proposed Dun Laoghaire Harbour Cruise Berth submitted to the OH. During the course of the submission, Ms. Hughes sought to reference a number of documents, such as the Grow Dublin Taskforce: Destination Dublin-A Collective Strategy for Growth to 2020 (2014) prepared by Fáilte Ireland. The following extract was highlighted from the GDTT where "*Cruise visitors who come to Dublin as part of a European cruise*" as one of the "*five sectors that offer potential for significant growth and the best return on investment*". The same document describes Dublin as a "*must see*" destination on a European cruise holiday and that "*for the purpose of cruise tourism, Dublin is served by two ports-Dublin Port itself and Dun Laoghaire Harbour*". Ms. Hughes sought to highlight that this is the first time that Fáilte Ireland have recognised the importance of cruise tourism. The submission sought to account for the references to a Copenhagen scenario in the Economic Impact Study. This was sourced from the GDTT as one of the two cites having models most suited to developing Dublin's tourism strategy including cruise tourism. The GDTT refers to Copenhagen as being a successful tourism destination, hence DKM outlined the Copenhagen scenario as the most optimistic scenario modelled. The European Cruise Market was described as been the no. 2

cruise destination in the world (after America) and Europe is also the second biggest source market worldwide for cruises. The Cruise Line International Association indicated a forecast annual growth in the European cruise tourism market of 2.5% on average per annum over the period 2015-2019. A table in the submission to the OH is referenced where it is stated that 36 cruise vessels are on order as of August 2015 of which 13 are between 300m-329 and 9 are 330m and above. One of the challenges for the cruise industry according to the CLIA is “*a lack of investment in coastal infrastructure and port facilities throughout the Continent*”. The no. of cruise calls visiting Irish ports are stated to have increased by an annual average of around 6% between 2006 and 2012 to 229. Dublin is described as having the highest share at 34.3% in 2014. In 2015, 121,736 cruise passengers and 50,281 crew visited on 96 vessels at Dublin Port whilst 13,089 passengers and 5,815 crew visited on 8 vessels in DLH. During the course of the presentation Ms. Hughes sought to highlight that DKM were not asked by the DLHC to prepare a cost benefit analysis or a feasibility study for the project. Rather DKM assessed the economic impact of the proposed project both during construction and upon completion by following a solid economic methodology which DKM has applied in previous economic studies across a range of sectors of the Irish economy. The methodology used the 2005 Input-Output Tables in the Economic Impact Report to ascertain the construction impacts as the profile of the construction industry presented in the 2010 Input-Output table was loss making which DKM did not consider a sustainable scenario to work with. Elsewhere DKM used the 2010 Input-Output tables to ascertain the economic impacts during the operational phase. The methodology used establishes the spending by passengers and crew, which is then broken down in line with the goods and services purchased by cruise passengers and crew (based on Fáilte Ireland Cruise Tourism Research). These expenditures are then categorised into broad sectors to facilitate use of the CSO’s Input-Output tables, which allow direct, indirect and induced economic impacts of spending in those sectors to be estimated. According to DKM’s submission, the economic impact takes into account the fact that every euro of expenditure spent in the cruise tourism sector (excluding any spend on imports) will impact not just on the output of that sector but also on the demand for other products in other sectors right down the supply chain. The analysis uses economic multipliers to establish the direct impacts and the broader indirect and induced impacts based on 3 of the 58 industry groups defined by the CSO in the Input-Output tables, notably those most relevant to the expenditure by cruise passengers and crew. The model looks at the Do-Nothing Scenario, (the prospects for cruise business in Dublin without any new investment in cruise facilities in DLH), the Central Scenario (where both

DLH and DP complete their cruise facility as planned) and the Copenhagen Scenario (the most optimistic scenario and assumes that Dublin emulates Copenhagen’s success). According to the table entitled “Leading Cruise Ports in 2014”, Copenhagen is listed 2nd out of the top 10 for Northern Europe with 750,000 passengers through its ports. In the assumptions for growth projections, the following table is reproduced as it is referred to in cross questioning:

Annual Average Growth % 2017-2046 Cruise Calls	Do Nothing Scenario	Central Scenario	Copenhagen Scenario
Dublin Port	2%	3.5%	4%
Dun Laoghaire	1%	3.5%	6%
Dublin	2%	3.5%	5%
Irish Market	2%	3%	4%

Therefore, DKM believes that over a 30 year horizon that the number of cruise calls could range between 190 under the Do-Nothing Scenario and 440 under the Copenhagen Scenario. Ms. Hughes sought to highlight that the Copenhagen Scenario would only be achieved within a collaborative strategy for Dublin Bay. It is expected that by Year 10 the proposed project would deliver a net additional economic impact of between €4m (Central Scenario) and €9 million per annum (Copenhagen Scenario) rising to a potential impact of between €28 million and €75 million respectively per annum by Year 30. Over a 20 year horizon, DKM estimates that between 239 and 829 FTE jobs would be created/supported nationwide as a result of additional spending by cruise passengers and crew in Dublin, under the Central and Copenhagen Scenarios respectively.

In relation to third party submissions, one of the issues raised by submissions to the Board is the cost of the project. DKM suggests that the total cost of the project was estimated at €18m. It is stated that this is an indicative cost only, rather the final cost estimate will only become available as the project moves into the detailed design, site investigations and tendering phases. DLHC will fund this project via normal commercial loan facilities which have yet to be finalised.

The submission states that on average passengers spend €71 during their time disembarked at Irish ports. Expenditure by crew is also significant considering those that disembark spend an average of €48. This is stated to compare to an average per diem expenditure of €72 for holidaymakers who have arrived by air or ferry to Ireland. It is therefore assumed, the aggregate total spend of 7,2158 passengers and 3,547 crew on 3 cruise ships that arrived over the course of summer 2015 was €364,377. 99% of passengers disembarking on the cruise ships indicated they had spent some time in DL, with passengers, on average, staying in the town for almost 2 hours. Passengers spent €37 per person in the local economy which yielded an estimated aggregate total spent of €289,605. Of the sampled cruise ship crew visited the town of DL, they on average stayed 2 hours in the town. The survey from which these statistics are quoted in the submission to the OH came from a study carried out by the UCD Smurfit School on behalf of the Applicant.

In relation to concerns regarding loss of revenue from major international sailing events, it is stated that the professional opinion from DLHC navigation experts is that these events could still proceed if there is a cruise berth in the harbour.

Ms. Hughes also argued that Dublin Port is at a disadvantage with its multi-purpose berth, whereas DLH is proposing a single purpose dedicated berth.

Following this submission, there was a significant degree of cross-questioning which ran from the 3rd-5th of November.

An Taisce asked whether Ms. Hughes was aware that Venice has now banned cruise traffic from visiting its ports. Ms. Hughes clarifies that this is specifically to do with the structure and make-up of the city which is centred on canals.

Concerns were raised regarding the provision of 42 bus parking spaces and that DL would simply be a landing point only. Capt. Cowman stated that in his opinion 50% of passengers do tours whilst 5% do their own journey. Ms. Hughes stated that research shows that 85% disembark and of that 37% will book a pre-organised tour. Many will go to Wicklow as well as Dublin City.

Greater detail was sought of Ms. Hughes by An Taisce in relation to the survey undertaken by Smurfit Business School. It is stated by Ms. Hughes that it was commissioned by DLHC. 3 ships were surveyed in 2015.

An Taisce also sought clarification on the €18m cost of the project where it was stated that this is the construction cost and that no cost was determined if the project was unsuccessful.

Many of the participants at the oral hearing sought to question Ms. Hughes on the Copenhagen scenario and its applicability to DLH.

In relation to Dublin Port, Mr. O'Brien of save our seafront asked about the relationship with DP and DLH. Ms. Hughes was of the opinion that the overspill of commercial cruise business would go to DLH. Ms. Hughes is of the opinion that Dublin Port's capacity will run out in 23 years as only 1 cruise berth can traverse the channel at any one time.

Ms. Mulcrone introduced Dr. Pat McCloughran as her economic expert who argued that the economic impact did not consider any negative implications with the project. Therefore, he questioned its validity as an economic impact report. Dr. McCloughran also referred to Section 4.5 of the DKM Economic Report where it is stated that environmental impacts and mitigating factors are discussed elsewhere. It is questioned as to where these are. It is argued by Dr. McCloughran that positive and negative impacts should be considered.

Dr. McCloughran argued that the vitality in the number of cruise ships visiting DLH is as a result of Dublin Port competition and volatility in the market (reference to the number of planned stoppages by cruise ships at DLH which did not materialise in summer of 2015). Ms. Hughes disputed this stating that the volatility as evidenced in 2015 is a direct result of DLH having no berth.

Dr. McCloughran questioned Ms. Hughes on the collaboration aspect of the relationship as she sees it between DP and DLH. She argued that for marketing purposes, DP and DLH would operate together whilst for commercial purposes, they would compete internally for business, in a similar fashion to that of Aer Lingus and Ryanair.

Dr. McCloughran made reference to Galway Harbour SID where DKM did a Cost Benefit Analysis and a feasibility study. Ms. Hughes advises that she was not requested to do one by DLH.

There were many questions in relation to the direct and indirect impacts and the multiplier effects used to quantify the total impact of the development and the net economic benefit of the proposal. Dr. McCloughran argued that the indicative cost as set out in Table 4.1 of the DKM Economic Report was based on an incorrect application of the multiplier to the total cost of the construction project of €18m rather than

as he argued to the sum of €6,556 identified as a direct impact. Ms. Hughes disputed all such assertions.

Dr. McCloughran questioned where the economic need of the proposal is set out, which Ms. Hughes referred to section 3 of the DKM report entitled “Needs Analysis/Project Rationale”.

There were many questions on the models used by DKM in relation to forecasting. One such question by Mr Stewart sought clarification on the means on which Dublin will achieve the passenger no.’s of Copenhagen as it presently experiences in 30 years’ time i.e. of 700,000. As of 2015, Dublin Bay has 134,825 passenger no.’s yet in 2017, a figure of 210,000 is achieved. Mr. Stewart argued that the figure of 200,000 has been compounded across the model. He argued that for Dublin to achieve these figures, that it would have to be a Port of Call as opposed to a turnaround port as is envisaged. Ms. Hughes accepted that the Copenhagen scenario is ambitious but sought to highlight that it is not growing at 6% per annum as is envisaged for Dublin. Mr. Stewart sought to highlight that there is new sulphur regulations which will apply to the Cruise trade, from which Ireland has a derogation from up to 2020. It already applies to the EU apart from some waters around Ireland. He highlighted that New Visby Quay located about 100miles outside Copenhagen has been constructed to comply with these regulations in association with the Baltic States who have combined for create a uniform entrance. DLH would not have those facilities. Ms. Hughes responded that a full reception building is being provided and the ships will have to deal with the waste on board.

Mr. Wallace disputed the figures quoted by Ms. Hughes in relation to the tourist spend in the local economy and argued that no high end products are being sold with an average spend of €37 in the local economy. Ms. Hughes argued that this is higher than those arriving by air into the local economy.

Mr. Fitzpatrick also posed questions in relation to Ms. Hughes submission. He sought to clarify why Ms. Hughes argued that the cruise tourism is worth €27m whilst Dublin Port thinks it is €45.

In response to questions by Mr. Fitzpatrick, Capt. Cowman stated that there are 290-300 cruise ships in the works, of which only 5% over 330m. He argued that the cruise industry is not going to see continual growth in size as constrained by harbour size.

Given the length of the oral hearing and restricted availability of the Applicant’s team at times, there was not one solid block within which the

Observers' submissions were heard. However, for the sake of convenience, I have collated them here, for the most part in the order in which they were heard (though there may be some exceptions). Clearly, there was some repetition, so, for the Board's convenience, I have highlighted the principle points below:

Dun Laoghaire Rathdown County Council attended the hearing every day, but in a listening capacity only, apart from day 14 of the hearing on the afternoon of the 9th of November, where they spoke to clarify points in relation to the status of the Draft DLRCC Development Plan at the request of this Inspector. Prior to their attendance at the hearing, I was of the understanding that DLRCC would be making a submission, however, upon attendance, it was clarified that the Planning Authority was there to answer questions in relation to Section 37(e)(8) of the Planning and Development Act, (as amended) and therefore questions relation to the sustainable objectives and environment only would be answered. The Planning Authority were of the opinion that the submission already made to the Board stated their opinion succinctly and had no wish to add to that.

I would state that I found their general disengagement with the process, at times unhelpful. Following their submission, a number of people sought to question the Council in respect of their involvement with the Applicant prior to the formal submission of the SID application to the Board. However, as Inspector, I felt this was outside the remit of the application and therefore these questions were not permitted. There was general dissatisfaction with this decision.

Questions were subsequently asked in relation to the status of the harbour, whether it is a "protected structure" in its entirety. It was pointed out to the P.A. (for whom Ms. Naughton was answering the questions) that their submission referred to the Harbour as a protected structure. Furthermore, similar references were made on page 108 and 110 of the current CDP. Ms. Naughton stated that the Record of Protected Structures does not refer to the harbour as a protected structure and argued that this takes precedence.

Mr. Boyd Barrett T.D. also sought to ask questions in relation to the economic backdrop to the proposal where the Council allocated €1.3m to the DLHC, yet no one will answer questions regarding that transfer. No answer was given on this issue as it was declared outside the remit of those in attendance.

Mr. Boyd Barrett also sought the P.A. to consider the cumulative aspects of the proposal. Ms. Naughton clarified the non-statutory basis of the Masterplan. They assessed the proposal against the Dev. Plan and

particularly considered the public through-routes proposed. However, Mr. Boyd Barrett did not see that as being consistent with the proper planning and development of the area.

Mr. Boyd Barrett also sought clarification on the possible obsolescence of the cruise berth. Ms. Naughton stated that this issue was brought up in the urban beach proposal and that they stated that if it is not in active use, it would have to be removed. Sought a similar condition in relation to the cruise berth to prevent obsolescence.

In relation to the status of the motions which were voted on by the Elected Members in the Council Chamber during the course of the hearing in October and the beginning of November, Ms. Naughton stated that the Draft Plan and the revised motions would go out on public display and that a further Chief Executive Report would be prepared and the draft Plan would not be adopted until April 2016. She elaborated that she was in no position to comment on those motions nor their potential implications.

The absence of the Conservation Officer from the PA Team was noted. Ms. Naughton referred to the interdepartmental reports on file where she argued a full contribution had already been made.

Ms. Mulcrone questioned the PA in relation to who the primary author was of the overall report, to which it was stated that John Keating wrote the body of the report. In response to questions, Ms. Naughton clarified that there is no specific objective for a cruise berth in the current development plan. Ms. Mulcrone asked are there any other "National developments" that are not listed in the development plan? The area of the water on which the berth is located is unzoned. However, Ms. Naughton stated that their LAP (to be prepared) would include the sea as being within the curtilage. Ms. Mulcrone further argued that there is no zoning objective or use objective for the site.

Ms. Mulcrone sought to clarify the status of the PA in relation to the National Ports Policy. In relation to the tiers 1-3, the proposal falls within tier 1 but is designated tier 3. Ms. Naughton argued that this is an issue for the Board to resolve.

In relation to the National East Coast Trail (Sandycove to Sutton), Ms. Naughton stated that the Board should ask the NTA to comment on the up to date position as they are looking at the entire route.

In relation to questions as to whether the PA had sufficient information to consider the impact of the thrusters on the roundheads, Ms. Naughton clarified that this is a matter for the Board to consider.

In relation to questions on the waste implications of a ship staying on an extra day? Ms. Naughton stated the PA considered the proposal on a port of call basis.

An Taisce asked questions in relation to the PA's general satisfaction with the photomontages, to which Ms. Naughton stated they were happy with the views provided. In relation to potential that ferry services resume alongside the cruise proposal, the PA clarified that the Board should seek further information on this issue.

An Taisce also asked questions in relation to the community gain and off-peak use of the cruise berth. Ms. Naughton stated that the PA recommended in their submission that the Board clarify whether the jetty can facilitate off-season ships and whether additional uses could be provided. This issue remains to be clarified.

Mr. Flynn, BL, in questions to Ms. Naughton reiterated that the harbour is not a protected structure as it is not on the RPS.

Mr. Fergal McLoughlin, who works as an Organisation Development Consultant, spoke in a personal capacity as well as for An Taisce at times at the hearing. Mr. McLoughlin argued that it makes no sense to have 2 similar facilities within 5 miles of each other competing for the same market. He also argued that the development should not have been granted SID status as it has not been open to the requisite public consultation (Aarhus Agreement), no cost benefit analysis provided and no consideration was given to alternative proposals. He disputed the stated €18m cost of the project, suggesting €50m nearer the mark. DKM state that DL Harbour will fund this project via normal commercial loan facilities, yet Mr. Paddy Shanahan who is a respected international banker, outlined in this Statement to the hearing that he had analysed the DLH company accounts and found them to be in a difficult financial position and they have neither the reserves nor the ability to borrow the funds required to build the proposed cruise berth. DKM state that 99% of passengers disembarking on the cruise ships indicated that they had spent time in DL, with passengers on average staying in the town for almost 2 hours", spending ,€37 per person. This is contradicted by an on-the ground survey carried out by the Dun Laoghaire Rate Payers Association of the visit of the Royal Princess cruise ship in May 2015, where it shows that a mere 7.2% of local businesses recorded any sale to visitors. (survey included in submission). DKM state that economic activity related to the project will increase by €4m by year 10. This was refuted and disproved by Mr. Jim Fitzpatrick in cross examination who clarified that the actual

increase would be a mere €1.2m by year 10- a very poor return given the costs/disruption of the project.

In relation to environmental concerns, Mr. McLoughlin argues that Mr. Kirkwood's photomontages were unremittingly positive and at variance with the scale of the proposal. In relation to the public consultation exercise carried out by DLH, it is stated that no attempt was made by DLH to communicate how the cruise ships would actually look in situ at the proposed jetty. An ad in the influential Afloat Magazine (Summer 2015) depicts a cruise ship in the harbour (Appendix 3). It is approximately ½ the size of a 340m cruise ship. The length of the jetty is also far short of the proposed 435m. Mr. McLoughlin also referred to the Harbour Bill going through the Dáil and its implications.

Mr. Boyd Barrett TD, Chairperson of **Save Our Seafront**, in his submission sought to highlight that DLRCC has failed to explain the Council's role in the instigation and development of the cruise Berth proposal represents a fundamental gap in the evidence being submitted to the Board to support the application. The evidence of recent motions passed by the Council relating to the harbour and cruise ships suggest that the elected Councils current view of the issue is directly at variance with the view of the applicant in relation to cruise ships. DLRCC has contributed €1.3m of public funds towards the development of this project and the current application. The public will bear the cost of this and potentially the far greater costs of the development if it fails to realise the volume of cruise ships business, DLHC claim it will. The absence of the Council as a corporate body at the oral hearing fundamentally invalidates the application because we have no definitive view of whether or not the council agrees or disagrees with the project. There is overwhelming opposition to the proposal and highlights that 2200 members of the public have signed petitions. Views of the general public have been generally ignored and cite that consideration of environmental impacts and formal engagement with the public only commences when DLHC set about submitting its application in 2015, a full 5 years after it commenced developing the proposal and after the proposal was effectively complete and all the major decisions on it had been taken. The Council first informed the elected members of its intention to promote a cruise berth plan and allocate money to it in September 2013. The Council in its report to the elected members in May 2015 clearly states that according to the Harbour Company itself, the "Regeneration of St. Michaels Pier" involving hundreds of private apartments and a hotel, "will be essential to the economic viability of the Harbour Company into the future and will be financial driver of other projects identified in the master plan". The Council

is here confirming that they were informed by the Harbour Company, that the cruise berth comes with the proposed development of St. Michael's Pier as set out in the master plan. In other words, the Harbour Company have admitted to the Council management that the plan for the cruise berth and the plan for apartments and a hotel on St. Michael's Pier are one and the same plan. Therefore it is argued that the proposal is project splitting. The plans for the regeneration of St. Michael's Pier and other elements of the master plan which are "essential" and "financial drivers" of the cruise berth project should therefore have formed part of a single application. Refers to the apparent contradiction in the County Development Plan, between the list of 26 listed protected structures set out in the list of protected structures and the written statement, which asserts that the "harbour is a protected structure", confirms that Council policy is to view the harbour as a whole to be the curtilage of the protected structures. It should be noted in this regard that in the introduction of the development plan, under the section title: Structure of the Plan, the plan states that the written statement is "the main policy document". Can only conclude that the "main policy" of the Council as set out in its statutory development plan is that the harbour as a whole is the curtilage of the harbours' protected structures. Other points were made by Save our Seafront, which have already been covered. Also submitted is a copy of the minutes of a meeting to discuss the future of DLH including a Report from the Chief Executive in relation to the proposed Harbours Amendment Bill 2015 and the various infrastructure projects proposed for DLH in the DLHC's Masterplan, and the minutes of a question posed by Councillor Boyhan put to the Chief Executive of the Council where "to confirm if the due diligence into DLHC is progressing in a timely and satisfactory manner, and a likely date for the completion of the process" and a report to the Council Meeting of Sept 2013 where the Council contributed to the cost of detailed design and planning approval of the proposed cruise facility in DLH. Also submitted is as question posed by Councillor Halpin to the Chief Executive on the Council's involvement in the DL cruise Stakeholder Group.

Mr. Neil Wallace, resident of Dun Laoghaire spoke at the OH regarding the public consultation exercise carried out prior to the submission of the SID application, which the applicant claimed was "extensive". The ads advising of the public consultation exercise were listed as ads in the Sun newspaper and the Dun Laoghaire Gazette. It is very difficult for ordinary local residents to get involved in the planning process and the number at the hearing and submissions made is not reflective of the number of people opposed to this proposal. The piers are an amenity enjoyed by many people for many reasons, and it enriches people's life beyond

financial consideration. So all this is to improve the Harbour's balance sheet. The residents have so much to lose. The DLHC have dressed this proposal as a "win-win consideration", with financial benefits to all. However, the OH has shown this to be unsubstantiated. DLHC should consider alternatives and show that DL has learnt from previous mistakes. The decision arising from the OH will have ramifications for generations to come.

Mr. Wallace submitted a no. of documents during the course of the hearing, where reference had been made to particular documents during the course of questions. These are as follows:

- 2014 Cruise Ship Report Card where it rates sewage treatment, air pollution reduction, water quality compliance, transparency, change from 2013, 2014 Final Grade.

- Extract from BBC News website (29/04/06) where it describes 160,000 tonnes Freedom of the Seas where it carries 4,375 passengers. Replaced the Ocean Liner Queen Mary 2 as the world's biggest cruise liner.

- Extract from Newspaper "Demolition marks last stop at historic DL pier" from 12/09/09, where it discusses the railway station on Carlisle Pier being demolished to facilitate a public car park and promenade". A 2007 inventory of DLH's architectural heritage by conservation architects Shaffrey Association mistakenly described the railway station as a "warehouse" even though its report noted that the Dublin-Kingston line had been extended onto Carlisle Pier when it was built in 1859. While the Shaffrey Report identified the granite pier as being of "regional" importance architecturally, it assigned no such standing to any of the structures on it, recommending only that they be recorded.

- Copy of the Burra Charter-The Australia ICOMOS Charter for Places of Cultural Significance 2013.

- Extract entitled "Cruise industry delivers new boost to European economic recovery".

- Extract from a questions session in the Council Chamber between Deputy Ciaran Cuffe and Mr. Gerry Dunne on behalf of DLHC. The latter stated that one truss was saved from Carlisle Railway Station and 50 iron columns. Deputy Cuffe expresses anger that only one truss kept when there was probably up to 80 in the building. Mr. Dunne defends his actions on the account of the advice given by Shaffrey & Assoc.

Capt. Alan Coughlan, Master Mariner, Harbour Master for the Shannon Estuary and President of the "International Harbour Masters

Association” for 6 years. He acted as an expert for DLCC. He made a submission (copy submitted) to the Board and asked questions. He highlighted that the effect of the Harbours Act 1996 is that DLH has no control over the proposed approach channel and has to rely on the availability of Dublin Port Pilots to bring in Cruise Liners which could result in unavoidable delays. Capt. Coughlan spoke about simulations and the different types. As with Flight Training where Pilots are in a simulated cockpit, in Bridge Simulation the Marine Pilot is on a full ship’s bridge where the view from the bridge window replicates the actual view to be seen by the bridge team in reality. The effects of any engine, rudder or thruster orders given can be seen in real time. The effects of current and wind are very obvious to the bridge team who must react to counter them. Rather, the simulation carried out by the Applicants was carried out in a desk top system with no real time view and the advantages which that gives. The simulation has omissions, no current, the wind inputted was for the quadrant south through to the west. Capt. Coughlan sought to highlight that the summer 2015 was one of prolonged northerly winds and during these months it is not unusual for stiff SE’ly winds to develop lasting up to sunset. The results of the simulation carried out seem to suggest that in all but calm conditions the entry of large fixed propeller ships is discounted while large Azipod ships are more acceptable. The results of the Applicant’s simulation puts further caveats, they state “further analysis into this proposal warrants more detailed of the Metocean conditions around DLH”. In considering the effect of wind and current, Capt. Coughlan stated that the freedom class cruise ships have a surface area of 14,500sq.m. In a 25 knot NW wind, a ship coming bow first, would swing in the turning circle and the effect of the wind would grow in strength as it turns reaching its maximum when the wind is perpendicular to the side of the ship, this is the aspect of the ship leaving the circle, passing through the entrance, into the channel and at the berth. Capt. Coughlan estimated that the resultant force on pushing the ship to the west would be 150 tonnes. As the ship is coming in very slow into the harbour, the ship would have to apply opposite force to counteract the wind effect. This is done by the use of bow thrusters and the Azipod on the eastern side of the stern. To this add the effect of a current ebbing in a SE direction at 1.5kts. This additional influence would only affect the ship while outside the breakwaters. But while the bow section at all times affected by the wind enters the harbour, the stern section is still under the influence of both the wind and tide. This will therefore require the use of extra power, which Capt. Coughlan estimates to be 80 tonnes. He argued that the slow speed of entry means that the effects will impact the entrance channel and the inner approach channel to a far greater degree than the outer approach channel or the turning circle. He concludes that he would have concerns

that it would impact upon the eventual undermining of the Roundheads, the western one in particular, an issue not adequately assessed in the EIS. Capt. Coughlan also referred to the Navigational Analysis which he highlighted had not taken the advice of local experts i.e. Dublin Port Harbour Master or Pilots. The Capt. was personally involved in a Marine Risk Assessment for the Shannon Estuary LNG plant, where the proposers together with the Port Company conducted Bridge Simulation exercises involving Shannon Pilots and Capt. Coughlan before submitting their application. Capt. Coughlan was of the opinion that the Risk Assessment felt way short of what is demanded. The Navigational Analyses has accepted that large fixed propeller ships are ruled out by the simulators in all but the lightest of breezes. Azipod vessels are more manoeuvrable and can better cope with the narrow channel and more wind than conventional ships. This comes at the expense of large forces generated by such vessels to keep up to the wind, current and the effect of such forces on the channel sides and structures at the entrance. Capt. Coughlan argued that the involvement of an American Pilot in the analysis and a Cork Pilot in the Nautical College simulation takes away from the credibility of the results. Given that the Nautical College in Cork has already modelled DL and has the Freedom Class vessel in its database, it is difficult to understand why the Navigation Analysis was not undertaken at that facility. Capt. Coughlan concluded that given his background as Harbour Master for 30 years, he is reluctant to become involved in issues such as this as he would have a natural tendency to support the growth of ports. However, upon being asked to review the documentation submitted, he found there were more questions than answers and cannot say with certainty that the proposal is as safe as the proposers claim.

The Applicant took the opportunity to ask Capt. Coughlan some questions. Arising from this, Capt. Coughlan accepted that the desktop model as applied in the ABPmer report would be acceptable if wind and current were applied. The winds and current as used by the Capt. in his model are mean spring tides which only last 1-1.5 hours. A 25 knot wind and high tide only occurs 0.5% of the time. Mr. O'Connell reiterated that the simulations carried out to date have provided that engineering wise the proposal is feasible and safe.

Mr. Dermot Reidy also spoke on behalf of **DLCC**. His expert evidence derived from his role as a **Senior Development Advisor in Construction with Enterprise Ireland**. DLCC recommend that the internal harbour area is retained for watersports/leisure use and to avoid any development which further subdivides/restricts the harbour. Attached to his submission is a case study of the Socio-Economic Significance of the Volvo Dun

Laoghaire Regatta. For the Volvo Dun Laoghaire Regatta (2015) there were 425 entries. These were representative of 69 yacht clubs in Ireland, Northern Ireland, England, Scotland, Wales and the Isle of Man. In July 2012, DL played host to the ISAF Youth World Championships and the hosting of these major events projects DL as a major sailing venue to a global media audience. DL was in international news again in November 2012 when the ISAF (world governing body for sailing) hosted its annual conference in the Royal Marine. It is at this conference that the classes and events for the Olympics in Rio 2016 were finalised. In 2016 the harbour will host the ISAF Laser Radial World Championships, where over 400 competitors from 30 nations, their families and support teams are expected in DL over the summer for this prestigious event. (from own research, this is to be held from 23-30 July 2016). The economic benefits are listed by Mr. Reidy, who argues that the Volvo Regatta in DL in 2009 generated in excess of €2.3m for the DL area. The Regatta held in 2015, is described as being the 3rd largest in the EU. The construction of a new cruiser berth runs the risk of industrialising the Harbour and of putting enormous constrain on this heritage site which will adversely affect the growing reputation which is being achieved. With the reduction and infilling of the water area and the creation of adverse wind-shadow effects and the closing of facilities to allow for the cruise ship arrivals and departures it will not be possible to compete for hosting such events.

DKM's Report, as part of the DLHC submission, cites comparable facilities in Copenhagen, which are believed to have cost+€80m. This €80m facility was not a cruise-pier but a facility similar to the Dublin Port development. Copenhagen is a gateway to The Baltic Sea and it has 3490m of quay space compared with the 340m proposed for DLH. Not a valid comparison. Mr. Reidy attached a significant number of quotes regarding research on the cruise industry and referenced them. He argued that the proposed facility is obsolete. The application for Freedom class vessels of which there are currently 3 in operation, globally. As per RCCL's own requirements, Freedom Class vessels require a minimum depth of 11.8m (8.8m +3.0m). The DL facility is for 10.5m depth and this means that the facility is, at best, restricted by tide. Its successors, cannot be accommodated.

DLHC has evidenced no comments in relation to the Carnival Cruise Ships of the USA. Additionally, the tidal and wind modelling exercise in the planning submission was conducted without the assistance of the Royal Caribbean and this indicates that there is little or no existing coordination between DLHC and this cruise line company.

Mr. Liam Shanahan, an Observer to the appeal, gave a submission to the hearing in an independent capacity. He advised the hearing that he had **worked a lifetime in the construction, commissioning and operation of major central power plants worldwide**. He argued that the plan for the proposal is economically unsound without a Cost Benefit Analysis. DLH is a marine park which should be declared a state park. Dr. O'Grada in his evidence drew the extraordinary analogy with the evolution of Dublin Airport, from 30 passenger DC3's to massive 747's and Air Buses. His argument, and that of the Applicant's architect, is that DL has evolved from its original status as a harbour of refuge to a certain degree of commercialism (the ferry, Irish Lights, the Navy Berth) and that therefore these massive Cruise Ship facilities were a natural progression, with Dublin Airport as the model. Mr. Shanahan cites how no one can live at the airport, whereas DLH is used by over a million people a year. He argued that large modern cruise ships are ugly, the size of a Manhattan sized city block sitting on a hull. They require a major power plant, which, while at berth, runs constantly at whatever load it takes to power the equivalent of a town of 6000 inhabitants, including air conditioning, plus the hour long enormous propulsion power required at berthing in the morning and sail away in the evening. Mr. Shanahan discussed the issue of sulphur dioxide (SO₂, Sulphur trioxide (SO₃) and nitrogen oxides (NO_x). These are stated to be deadly cancer causing pollutants. Under EU law, as from the 1st January 2015, all shipping companies are required to use fuel with a maximum sulphur content of 0.1% m/m while operating in European waters within the Sulphur Emission Control Area (SECA), and the Nitrogen Oxide Emission Control Area (NECA). The Emission Control Areas are North American Waters, The Baltic Sea, The North Sea, the US Caribbean Area of Control. Irish Waters are outside the Special Area of Control and the sulphur oxides and NO_x emissions permitted in our sea areas between 1/01/12 and 1/01/20 are from burning diesel with sulphur 3.5% m/m, 35x's higher than the SAC areas, and about 5x's higher for NO_x emissions. Mr. Shanahan argues that these conditions are likely to carry on through 2025. Although the sulphur limit for diesel on all vessels actually berthed in Irish ports is 0.1%, the limit while manoeuvring on and off the berth is 3.5%. Thus for at least an hour a day, the sulphur content of the Diesel in use in the harbour will be 35x's greater than when berthed, and concentrations of poisonous emissions in the air we breathe will be double the legal limit, based on the Harbour Board's consultant's model.

The **Water Wags** made a submission to the hearing and their submission was made by a number of people, Nathan Reilly, William Prentice (past Treasurer and current Vice-President of the Water Wags), Hal Sisk (retired

civil engineer with expertise in Coastal Engineering & former director and Chairman of Ascon Ltd & maritime historian) and David McFarlane.

Mr. Reilly, BL, focused on the legal aspects of their case. He sought to highlight that a key purpose of EIA under Directive 85.337 is to inform the competent authority of all relevant aspects of the development, of all its significant environmental effects, and of the measures by which such effects are to be mitigated. Specific reference made to *Keane v ABP*, where Hogan J. stated that “*the entire object of the Directive is to enable planning authorities to be armed with the necessary information as well “enable them to take a decision on a specified project with a comprehensive understanding of the project’s likely significant impact on the environment”*”. Water Wags wish to emphasise 3 points. In the EIS, it is concluded that there is no significant adverse impact predicted on the Water Wags ability to continue sailing. This is not correct, the movement of ships will disrupt racing, large ships moored in the middle of the Harbour will have a wind blocking effect and the mere existence of a jetty in the centre of the Harbour will render it useless for Wag Races. A race around the margins of the Harbour is not a viable option. The erection of the jetty is likened to a wall across the middle of Croke Park. Reference is made to the Dun Laoghaire Harbour Review Group (chairman Prof. Dermot McAleese) which reported in 1988 who concluded that: Expansion of the commercial side of the Harbour should be encouraged, especially if it generated employment, provided it does not adversely affect the amenity value” (report submitted). This report lead to the setting up of the Harbour Company and it is ironic that it should now be trying to do something which is contrary to its founding report. The EIS is deficient as tidal stream data was available from 1993 and 1997, yet was not used by M&N. The ABPmer report failed to model wave and consequent sedimentation, directly impacting on side slop stability and maintenance dredging, in stark contrast to recent, relevant and available EIS for Dublin Port’s ABR scheme, with identical exposure on its approach channel. It is argued that the developers admitted that this was unprecedented, and non-incremental proposal, from a harbour entity with only a track record of vessels 7x’s smaller. **Mr. Hal Sisk** argued that the proposed “design ship” at 15,000 Gross Tonnage is 7x’s larger than Stena’s HSS at 19,000GT. In our view, this means that there must be a much greater burden of proof to demonstrate that the proposal is feasible, and testing to a much more credible level (simulations in NMC, Cork). It is also questioned whether the proposal is fit for purpose as Azipod equipped cruise ships are frequently proposed as the answer to all ship handling issues, yet only 1 of 4 large cruise ships currently berthing in Dublin Bay in 2015 is Azipod equipped. Disputed Dr. O’Grada’s historical account of the harbour as

“from the outset primarily a commercial harbour” stating that it was a Harbour of Refuge and a role it fulfilled for most of its history. DL’s strongest single social and historic heritage claim to fame is that it was here that the worldwide sport of amateur sailing was pioneered and popularised, as documented in Mr. Sisk’s book “Dublin Bay, the Cradle of Yacht Racing” (submitted as part of submission sent into ABP). **Mr. David McFarlane, a Chartered Accountant**, who has been in business for 35 years, considered that the economic impact statement to be so fundamentally flawed that it is inadequate for use in any decision regarding the proper planning and sustainable development of this proposal. Mr. McFarlane based the economic impact statement on a number of incorrect assumptions, i.e. it assumed that Dublin Port could only handle 3 ships when it can handle 4, assumed that DP had a limit of 140 ships which is incorrect, assumed that DP would have capacity limitations without evidence and that DP could not handle ships over 300m when it received 2 on the same day in 2015. He argued that DP and DLH can, as things stand, satisfy the demand for cruise visits under any reasonable forecast of increasing demand for over 30 years, there is no economic benefit from the additional berth.

Questions were asked of the Water Wags in relation the ability of the sailors to sail outside of the harbour. It was explained that unlike modern dinghies if water gets in, a rescue boat is needed to allow at least one crew member to leave the boat and the remaining crew member to pump water out of the boat and sometimes it is necessary to tow the dinghy into the shelter of the harbour so allow this to occur. Mr Rumball (on behalf of the Applicant) sought to highlight the exclusivity of the clubs. In relation to the Dublin Port, Mr. O’Connell sought to highlight that ABR application, which had identical issues i.e. the winds from the east, was received by ABP 4 days after DLH submitted their proposal. Mr. Sisk counter argued that whilst the information was not in the public domain, but it was not of the standard set out in DP’s application. Mr. Sisk upon questions clarified that of the 4 ships that came in on one day to DP over 330m in 2015, only one ship has Azipods. Mr. O’Connell felt that this was an unfair representative sample of the international quantity of cruise ships.

11th November 2016

Mr. R. Heron spoke briefly at the hearing and outlined his use of the harbour as a regular sailor. Therefore, he mentioned previously cited issues of impact of the berth upon sailing and youth sailing within the harbour. Mr. Heron also spoke about the lack of detail in relation to proposed dredging and was of the opinion that the excavations and dredging on the scale proposed without proper analysis and assessment

could be disastrous. Details of the dredged area on plans submitted, CN-102, CN-103 show that this is very close to the end of the piers. The effect of the strong tide past the entrance and severe storms should be factored into the proposed development with a working scale model. The 100 year storm is no longer a rarity. Mr. Heron spoke about the exposed nature of the harbour to north-easterly gales and an event in April 1981 which resulted in damage to a number of boats in the harbour as result of such gales and the mooring of a ship at berth coming loose. He expressed the opinion that the harbour was more suited to super-yachts which accommodate 100-150 people rather than the construction of a jetty which may be obsolete by reason of a downturn.

Ms. Susan Spain also gave a submission to the hearing. The main points she sought to make derived from her experience as the **Junior Sailing Secretary at National Yacht Club** and as a member of the Main Committee and of the Junior Committee at the National Yacht Club. Ms. Spain argued that the harbour is used by juniors for learning to sail, for developing their skills, for training, for racing and for team racing. The EIS in Ms. Spain's opinion does not adequately address the impact of the berth and the cruise ships on junior sailing and that if the proposal does go ahead, she questioned where Junior Sailing is to go as there is no other appropriate area within Dublin Bay. Mr. Coates asked questions in relation to the use of the harbour and Ms. Spain clarified that at the beginning of each season she would communicate with the Harbourmaster the times of training and scheduled racing and she would be made aware of the HSS arrival and departure times and the naval boat which comes in and out.

Mr. Kevin Cullen gave an account of the **Frostbite Series** and how racing is organised and how 3 marks are used to separate the boats. The course is organised according to the wind direction and takes 1.5 hours/2 hours and typically sail in n.e./s.w. winds. The eastern area of the harbour is used a lot by the sailors. But they have to be careful of the moorings already present, as the markers get tangled up in them and they are expensive to replace. The jetty will destroy the race options for the harbour.

Mr. Ronan O'Neill, Rear Commodore of the Dun Laoghaire Motor Yacht Club (DMYC) with responsibility for the organising, running and administration of our Junior Sail training activities, National Class Championships, the Bi-annual Regatta and the club's involvement in the Bi-annual DL Regatta, spoke at the hearing on behalf of DLCC. Mr. O'Neill is also the Flag Officer responsible for the Annual Winter Dinghy's Racing event known as the DMYC Frostbite series. He sought to highlight

those activities that cannot take place outside the harbour. These are the Junior September Series, Team Racing, SailAbility, Disabled Sailing, and the Frostbite series. Factors which influence the need to sail within the harbour are wind strength, sea conditions, tide and wave height, time, safety and sailors abilities. In historical terms, the first Regatta was held in DL in 1828 and they have been a feature of the harbour ever since. Refers to impact on the harbour-quoting Mr. Rumball who spoke on behalf of the Applicant-“the proposed berth will be just over 2.5 times the length of the HSS berth when the HSS is docked”. Mr. O’Neill argues that the following will be lost as a result of the development: the ability to lay a “usable racing course”, disabled sailing and the ability to host the Special Olympics ever again and SailAbility Training and/or National Racing Events. The racecourse as set by Mr. O’Neill is most often a course for E/SE and W/NW wind directions. The area within which the course is set is determined by the wind shadow and wind deflection created by the piers, the area in the east bite and north where there is existing ground chains, the need to cater for and allow for a navigation path for other harbour users around the outside of a race course, space for spectators (in boats, particularly in relation to SailAbility) and the temporary marks must be set away from ground chains (in case of entanglement). The Applicants and their experts offered an opinion that a race course could be laid for “club racing”, with no evidence, despite their being aware of this issue since April. The Economic presentation based on the best/most favourable possibility, Dublin not able to cater for Cruise Ships above 290m and no negative or realistic analysis of proposition considered.

Mr. Adam Cronin, as managing director of Cronin Millar Consulting Engineers and former Engineering Inspector with the Dept. of the Marine, made a submission to the hearing on behalf of DLCC. He questioned whether the proposal is obsolete before it is built as it can accommodate freedom class cruise ship as the maximum whereas Dublin Port and Port of Cork will be able to accommodate larger liners. Mr. Cronin argued that the applicant is over dredging by 0.5m to allow for sedimentation, whereas design level is actually -10.0m. In relation to the Navigation Analysis Report (Moffat & Nichol) it is stated that the report concludes that more detailed metocean data is required, no current data was used in the modelling, limited wave data was used and the approach channel to turning circle requires tapers. He also comment that very light winds of 15 knots only have been simulated, currents not included, design wave with height of 0.4m, whereas a potential height of 3m, no ship simulation exercises were undertaken, ships will have weather/tidal restrictions, model showed that stern drive vessel cannot enter harbour and the M&N recommendation regarding channel tapering not adopted. Mr. Cronin

argued that the Navigation Impact Assessment (S. Little & Assoc.) did not examine the many potential impacts that the construction of a jetty in the centre of the harbour will have on existing harbour users. He also argued that the no. of boreholes is half what it should have been, with no boreholes in the outer approach channel. In relation to the dredged channel side slopes, Mr. Cronin stated that the proposed side slopes of 1:5 are suitable for the seabed composition, assuming no induced environmental or ship forces (still water), however he believes that the required side slopes for seabed material allowing for induced environmental and ship forces is 1:10 minimum to 1:15. With the proposed side slopes of 1:5, the top of the dredged channel will be 30m from the outer face/rock armour of the roundhead structures. Also argued that there is no site specific flood risk assessment which addresses the impacts on proposed structures and impacts on existing structures. The Minister in assessing a foreshore lease application, must ensure that the proposed development will not have a detrimental impact on navigation, fisheries (both of which are common law rights) and the environment. Mr. Cronin stated that the submission has not adequately addressed these issues. He concluded that the depth of the proposed dredged channel is adequate, but that it can't go any deeper as the side slopes would have to go wider thereby impacting on the roundheads.

Mr. O'Connell asked Mr. Cronin questions in relation to the statement that having just one berth. Mr. O'Connell would have a choice of berth, so they have 3 berths in Dublin Port and 1 in DLH. Is the proposal obsolete? The ships quantum class account for only 2% of the overall cruise ships. Mr. Cronin argued that it is all about the size of the boat.

Mr. Ian Lumley, Built Environment & Heritage Officer of An Taisce, presented a submission to the OH. He questioned whether the proposal advance Ireland's meeting of International and national climate obligations, where Ireland is committed to a "low carbon roadmap" to 2050. It is submitted that this development is unnecessary as sufficient port capacity increase has been permitted at Dublin Port. Mr. Lumley also questioned whether this is an appropriately defined and justified strategic infrastructure investment. Any acceptance of the status of the proposal as a SID requires that as well as the Socio Economic arguments justifying the scheme, the need for the scheme, the cost benefit analysis and consideration of alternatives, need to be addressed by the Board. Advises that the Board needs to address its legal record in addressing the direct and indirect effects of a project including cumulative impact in its decision making. The board has to date in a wide number of cases shown a systemic failure to address the direct and indirect upstream and

downstream impact of a range of projects on: cumulative climate and air pollution, biodiversity, energy demand and sourcing, traffic generation, land use change in its decision making. Reference is made to 3 cases on judicial review which the Board lost. In relation to dredging and dumping, Mr. Lumley argues that this application needs to be assessed in conjunction with the proposal by DPC, which has been granted consent by the Board for increased import capacity requiring the dumping at sea of 10m tonnes of silt in the Burford Bank within the Rockabill to Dalkey Island SAC area. It is contended that this is a particular issue in relation to the harbour porpoise. This application requires consideration under Article 6 of the habitats Directive to determine if there is a significant impact on a priority habitat or species affecting the integrity of the site. Also questions if the Board is able to complete an EIA if the matter is subject to a separate EPA Dumping at Sea licence. In relation to enforcement, Mr. Lumley questioned what is the role of the local authority and Port Company if its function is to be transferred to the local authority, in agreeing environmental monitoring on its own project. On the issue of amenity, it is stated in the DLRCC Development Plan 2010-2016 that “all proposals for new developments should preserve or enhance the character and quality of the environment within a cACA”. It is argued that it will not and that cruise ships will distort the historic skyline. Also submitted, are the International Regulations for Prevention of Collision at sea which cited that in a vessel of 200m or more, the ship may blow its whilst at 143dB at 2 nautical miles, whereas the DL Harbour Bye Laws stated that one prolonged blast when approaching the harbour entrance in accordance with Rule 34E of the Collision Regulations. Also provided details on the number of individual boats (501) visiting DLH between April and Sept 2015 and the large proportion of which berthed overnight. Evidence is provided of weekly drills carried out on cruise ships.

Mr. Liam Owens, Current Convenor of DLCC (former Commodore of DMYC) gave an account of his professional experience as a Quantity Surveyor, a Lecturer in Construction Cost Planning/Cost Control, 30 years+ experience in international development with the UN, World Bank, Inter-American Development Bank and the New US\$1bn Port at Bandar Abbas, Straits of Hormuz, Iran. In relation to cruising in the harbour, no account taken of the silent majority of cruise boat owners who do not belong to any club, and who pay mooring fees directly to DLH or clubs. Gives example of the Danish Royal Family's barge who were in the harbour last summer. These people buy all the needs locally unlike cruise ships. Mr. Owens outlined the advantages of DLH for cruising and racing as per an extract from DLHC publication; four of the finest sailing clubs in Ireland, easy national and international access, large protected bay, large

harbour with 800 berth marina and extensive onshore facilities. It is argued by Mr. Owens that the vital attraction of DLH is that the harbour is accessible at all stages of the tide. It is postulated that cruise, marine leisure, boating don't co-exist with commercial/industrial traffic. These large cruise liners use vast quantities of diesel-up to 27,000 litres per hour. Siren blasts above 800 decibels to wake you up. With the proposal, DLH will be become an industrialised port with the noise, fuelling and overall scale of the cruise ships so close to the town. Mr. Owens was of the opinion that DLHC has very little in-house expertise to manage it, a poor track record of achievement, access and departure limited for cruising sail boats to specific channels, determined, to be newly policed with the Harbour Master's patrol boats and time constrained. The sailing tradition in the harbour is under threat with no mitigation offered. Mr. Owens also referred to the impact of the Harbour Bill, asking if DLRCC has the capacity to manage a newly industrialised harbour. Byelaw No. 11 was also cited which states: "*the Master of a Vessel, or a rod fisherman from the shore, on the occasion of any boat race, regatta, championship race, public procession or any other occasion when a number of vessels are assembled in the harbour shall not permit his vessel, or the road fisherman his line or casting thereof, to pass therein so as to obstruct, or impede or interfere with the boat race, regatta, championship race or procession, or to endanger the safety of persons assembling in the Harbour*". He argued that this byelaw has not been revoked and it confirms that the Harbour Authority recognises that sailing events, championships hold considerable rights. Mr. Owens then sought to highlight the under achievements of DLHC referring to the approval received for the urban beach, but no development to date, that initiatives for coal harbour marine floated twice with no result and minimal progress on other elements of the 2011 Masterplan. He questioned whether substantial transfers from DLRCC to fund consultants is either acceptable or sustainable. In relation to the costings of the project stated to be €18m, considers this to be incomplete and unsubstantiated, thereby presenting a huge risk.

Derek Jago, whose expertise I have previously listed, also gave a submission to the hearing. Mr. Jago sought to focus on the effects on sailing winds in DLH caused by the presence of a cruise ship. He felt compelled to respond to the repeated content made in the EIS that the presence of a cruise ship will have no effect on sailing. Mr. Jago questioned why the proposers did not conduct an analysis of how the wind works in support of the application and rather he believes, relied on bad advice. He described the primary wind flows that traverse the harbour as being on a south east/north west direction following the coast with the harbour walls presenting a significant modifying obstruction to that

windflow. Mr. Jago went into some depth regarding the turbulent effect that the winds can have in the harbour once the flow over the harbour walls, or in light winds, the presence of local thermal winds within the harbour. Mr. Jago argued that the presence of a large object such as the ship in the centre of the harbour will totally negate the air flow characteristics as the extreme size of the ship will divert the east or west winds causing a shadow effect of little to no wind in light conditions to an extremely turbulent wind in heavier conditions out to the region of 500m. Mr. Jago argues that computational wind analysis should have been carried out and he made reference to “computational Fluid Dynamic” analysis using Large Eddy Simulation. He concluded stating that the impact of this structure on sailing in DLH would be so profound as to cause a total collapse of the events structure. During questions of Mr. Jago, Capt. Coates sought to highlight the involvement and active participation of DLH in arrangement of some competitions, with specific reference to the 2016 Laser Radial Race.

Mr. Jago also made a submission on “the importance of Dun Laoghaire as an International Sailing Venue”. He sought to highlight that DLH has produced 28 Olympic sailors and multiple world and European champions. Mr. Jago argues that without the international Regattas in DLH Ireland’s reputation worldwide as a centre of sailing excellence would diminish. It is stated that the sailing clubs need the economic boost that such events bring and therefore welcome the growing interactions between the Clubs and the Local Authority as the realisation that such events are beneficial to the town and refers to the Dragon World championship which resulted in the Royal Marine Hotel being reserved for a week. There has been an international sailing event in the harbour almost every year. It is further elaborated that the International Class Regattas take place within a fixed geographical area of 1.5 to 2 sq.kms around laid marks, usually about 2 km to the north of the Harbour.

Dr. Eric Farrell, was introduced to the hearing, as an expert witness of behalf of Observer, Mr. Bond. This submission was heard out of sequence, to facilitate an availability issue. Dr. Farrell is a Senior Consultant/Director with AGL Consulting and recently retired senior lecturer from the Dept. of Civil, Structural and Engineering of Trinity College, Dublin and also retired from the position of Adjunct Associate Professor. He has practiced as a geotechnical engineering consultant for over 30 years, mainly in Ireland but also overseas. His witness statement focused on the feasibility of constructing the Roundheads of DL Pier on the top of the sands and soft silts without the need for dredging. Dr. Farrell argued that there is no clear evidence in the historical

documentation as to whether the Roundheads at the end of DL Piers were constructed on top of the original sand and silt soils or whether 9m deep excavations were formed to take the foundations to the top of the boulder clay which is understood to be at approximately -15.5m CD. Having analysed the “Geotechnical Site Investigation Report for Proposed Cruise Facility” (as submitted by applicant), Dr. Farrell considers that the construction of the Roundheads on the original sea bed has been modelled in stages with the placement of the initial layer from the sea bed level of -6.5mCD to -5mCD and subsequent layers in about 1m stages. An arbitrary consolidation phase of 10 days has been allowed at each stage. With the illustration of Figures 6.1-6.3 as per the submission, Dr. Farrell argued that the construction of the Roundheads to +7.5m CD can readily be achieved by building in stages and allowing dissipation of excess pore water pressures at each stage. The dissipation stages used in this analyses come to 120 days but this could be reduced as the stages were only selected to show the feasibility of this approach, which is considered to be the method that was adopted. Mr. Paul O’Connell questioned Dr. Farrell on his submission. Dr. Farrell acknowledged that the model did not take account of the differing foundation heights of the piers, such as the battery or the east pier, however, he argued that the same principles would apply. Mr. O’Connell argues that their studies do not show differential settlement in the roundheads. Dr. Farrell states that the displacement is in the order of 0.5m. Mr. O’Connell stated his team at being at a disadvantage as they were unaware that geotechnical evidence would be presented by an Observer, otherwise they would have had a similar expert available.

Ms. Mulcrone of Reid’s Associates, acted on behalf of 5 Observers and during the course of the hearing, she also acted on behalf of DLCC, in particular when Mr. O’Donnell and/or Mr. Wilde Crosby, DLCC’s legal counsel, was absent. Therefore, during submission stage, Ms. Mulcrone was responsible for a number of submissions either speaking on her own behalf, the DLCC’s behalf and/or introducing expert witnesses. During one such submission, Ms. Mulcrone sought to highlight the preliminary nature of the proposal as put forward by the Applicants, that the feasibility of berthing a 330m cruise ship safely had not been demonstrated and the scope of the briefs were experts employed on behalf of the Applicant stated “*I was not asked to do that*”, many talks and discussions but no evidence, the EIS was deeply flawed and no real engagement with Dublin Port on Navigation, which is a critical gap in information. Ms. Mulcrone also questioned the validity of the application with reference to the fact that the plans do not comply with planning regulations (no drawings of piers), the red line application boundary does not include site of disposal of

dredged spoil, the applicant's tenure is uncertain, the applicant has insufficient legal interest, no control of dredged channel outside Harbour (DP's control) and HSS no longer operational so the baseline is flawed. On the issue of the EIS, it is argued that the potential impacts are not identified, mitigation measures not properly addressed, likely impacts negative and positive direct and indirect, and the inter-relationship between topics are flawed. She also accused the applicant of project splitting with the disposal of dredged material an integral part of the development works, which have not been properly considered and not included in site outline. In relation to dredging, Ms. Mulcrone referred to the Sweetman test⁴ and argued that the impact of the dredging on the integrity of the SAC cannot be ruled out, with 24/7 dredging, threat to calving porpoises, waste disposal and waste from ships. She also argued that there is no need for the development having regard to the permitted redevelopment of existing port facilities at Alexandra Basin and Berths 52 and 53 together with associated works in Dublin Port.

Ms. Mulcrone also disputed the use of Copenhagen as an appropriate reference for DLH and argued that the Green Port in Copenhagen's Malmo Port has built 3 new dedicated Cruise Terminals, at 1,200m long and 70m wide requiring an investment of €54m.

Ms. Mulcrone also referenced the County Development Plan and the objectives therein, which she argued the proposal contradicted. She referred to the abundance of protected structures on the piers and within the harbour and referred to the Metals as the most important industrial heritage structure in the County. Furthermore, the use of the parking area in the former terminal, she argued, contradicted the Draft Development Plan 2016-2022 Urban Framework Plan for the DLH and the town which highlighted this area as an opportunity site. Ms. Mulcrone also cited the revised objectives that were inserted into the Draft Plan by elected members during the course of the oral hearing which sought the development of a *“national watersports centre to facilitate the training and participation in a varied range of watersports and activities to provide a focus for national and international watersports events. Site appraisal and analysis of the harbour environs to identify the optimum location(s) for such a centre to be expedited as an integral component of the forthcoming*

⁴ “Authorisation for a plan or project, as referred to in Article 6(3) of the Habitats Directive, may therefore be given only on condition that the competent authorities—once all aspects of the plan or project have been identified which can, by themselves or in combination with other plans or projects, affect the conservation objectives of the site concerned, and in the light of the best scientific knowledge in the field—are certain that the plan or project will not have lasting adverse effects on the integrity of that site. That is so where no reasonable scientific doubt remains as to the absence of such effects”.

DL and environs Local Area Plan (LAP).” “Any commercial shipping proposals within the Harbour should be required to ensure that there is no material detrimental impact upon the water based recreational amenity facilities of the Harbour and its ability to host national and international competitions”.⁵

Mr. Michael O’Donnell, Barrister-at-Law, spoke on behalf of **DLCC**. Mr. O’Donnell argued that it was not lawful to limit for this Inspector to limit his presentation to the OH. Mr. O’Donnell argued that this process was unfair as no such limitations were put on the Applicants. Mr. O’Donnell argued that the Board is dependent on the specialist knowledge being presented at the OH, as the Inspector does not possess this knowledge. Mr. O’Donnell felt that this Inspector expressed irritation at concerns being raised. That the Inspector stated certain consequences would be faced upon Mr. O’Donnell if he raised concerns [this was in relation to previous interruptions of the Applicant’s submissions, which interrupted the flow of the hearing and this Inspector asked Mr. O’Donnell to refrain. After repeated interruptions, Mr. O’Donnell was advised that he would be asked to leave if he continued]. Mr. O’Donnell then continued and stated that I did not manage the OH in a professional manner. This Inspector interjected at this point, to state that I rejected the allegations and have tried to run the hearing most expeditiously. Mr. O’Donnell countenanced that putting time limits on his submission is not appropriate and that I should not have taken his submission personally and that the record of the OH would defend his position. That the approach adopted by this Inspector has curtailed the discussion of issues.

Mr. O’Donnell in his subsequent submission then stated that the applicant’s inclusion of DLRCC at one stage and not at SID submission stage and then stated to be independent of one another, offends the principle of bias. *“This matter has recently been addressed by the Supreme Court in Reid v The IDA, Ireland and the Attorney General where the Supreme Court adopted a very high test in respect of such issues which relate to the exercise of quasi-judicial-type functions. The entire process where DLRCC is an Applicant for planning permission as well as purporting to be an independent Planning Authority objectively advising on the impacts of the Applicant cannot be reconciled with either fair procedures, natural and/or constitutional justice or with the level of objectivity that persons in the position of DLRCC must not only exercise but be seen to have exercised”* (page 3 of submission). The absence of drawings for the roundheads, which have works proposed to them, which

⁵ Change of Objective No. 13 as per the Draft Development Plan 2016-2022. Yet to be adopted.

are protected structures within a harbour of international importance. Yet, we have had to proceed with the application, it should be rendered invalid. Feels it is incredible that the hearing has been allowed to proceed despite this. Also argued the invalidity of the application with respect to the absence of detail in relation to significant quantities of waste to be removed and loaded onto a ship, to which no reference is made. Mr. O'Donnell argued that the application does not comply with the requirements of the EIA Directive and indeed in the application it is formulated on a fundamental misunderstanding of the requirements of that Directive. It is stated that *"no consideration of the effects of the movement of these cruise liners with the particular navigation methodology to be employed with the roundheads, a structure constructed for two centuries and which is particularly vulnerable and requires as part of this application to be repaired. Not only are none of these issues considered in the EIS, that is the effects on the roundheads are not considered, the interaction of effects in terms of navigation on the round heads are not considered, the effect of dredging on the round heads are not considered and the totality of impacts which is a pre-condition for a valid EIS, is nowhere described"*. Refers to the proposal to dump at Burford and the failure of the applicant to consider all significant effects both direct and indirect and in this case (arguing it will be considered by the EPA under the licence), the disposal within the Natura site of such a quantity of material is of such significance that its omission from any consideration in the EIS renders that statement demonstrably invalid.

In relation to the owner of the land, as representative of the state, it is the Minister for Finance who should have given consent to proceed with this proposal. Refers to Glen of the Downs legal case, where it was determined that WCC did not have consent to bring the case, as it was the Minister for Finance. Mr. O'Donnell argued that the wrong person has been asked for consent and therefore DLHC are not in a position to implement the proposal. Knows that this was not raised in the DP oral hearing. The most basic of planning issues have not been dealt with.

Questions put to Mr. O' Donnell by Mr. Flynn stated that DLRCC were there to inform the Board in relation to the proposal. In relation to Mr. Stephen Little's absence, it is stated by Mr. Flynn that he has been abroad for the duration of the hearing, and that there is nothing in the act that the person preparing the EIS be present. He did not accept the proposition that the planner has to be present where planning evidence is being given. Disputed any allegations of project splitting, it is stated that the proposal has been dealt with in the exact same way as Galway Harbour.

Mr. Sven Spollen-Behrens of the **Dun Laoghaire Business Improvement District (BID)** spoke in support of the development, where he has been CEO since April 2014. The DL BID Company Ltd. is a non-profit Limited Company set up under statute by the Local Government (Business Improvement Districts) Act 2016 for the purpose of implementing and managing the economic rejuvenation of DL. The BID Cruise Guest Welcome Working Group was established to give Céad Mile Fáilte to cruise passengers and crew and to maximise economic impact on town and hinterland. Refers to a number of studies (title only) where the direct economic benefit to a hinterland is described from cruise tourism. A survey was undertaken by SID of 107 businesses in which 78% answered that they would welcome an expansion in the number of cruise passengers and crew visiting DL and whilst 69% believed that the town would economically benefit. Key findings from the Florida and Caribbean cruise industry is that on average 55.5% of the passengers booked shore excursions. Mr. Spollen-Behrens quoted the Economic Impact Report on DL Cruise Ship Traffic, summer 2015, prepared by UCD in October 2015 (no copy received) in which 995 of passengers on the cruise ships visited the town of DL. On average, passengers are stated to have stayed in the town for almost 2 hours. It is also stated that passengers spend €37 per person in the local economy which yielded an estimated aggregated total spend of just over a ¼ of a million euro. All of the sampled cruise ship crew visited the town of DL. On average crew members stayed in the town for 2 hours and spent €21 per person in the local economy which yielded an estimated aggregated total spend of €74,773. Some questions were asked in relation to DL BID's survey and role in the project.

Mr. Kyron O’Gorman, as **Director of the DL Powerboat School**, made a submission to the hearing. He also acts as an Irish Coast Guard and is the Officer in Charge from Dublin to Bray. The DL PBS is located on the west Pier in the Harbour and has operated for over 30 years in the harbour. The IYSC is for children from non-sailing backgrounds and is totally run on a voluntary basis. Their harbour activities are power boating, kayaking, sailing, fishing, president’s awards, navigation, first aid, and VHF. Mr. O’Gorman argued that the cruise liner pier would have no effect on their activities whatsoever. Argued that the activity of kayaking and banana boating would be improved as would not have to contend with HSS multiple sailings. Their junior sail in the inner harbour and coal harbour and work alongside the pier walls out of the way of leisure traffic. Already have to content with the high harbour walls and the height of the clear water cove apartments.

Mr. Robert Stewart also made a submission to the hearing and submitted a copy of the “**Cruise Tourism to Ireland Research Report-2010**” and “**Competition in the Irish Ports Sector, February 2013, submission to the Competition Authority by the DLHC**”. The Observer resides at Clifton Terrace and he and his wife currently enjoy uninterrupted views of the sea. This will be altered by the proposal by DLHC. Mr. Stewart argued that the EIS submission by the Harbour Authorities in relation to visual impact was both misleading and inadequate with no photographs submitted that would show the impact on views from the houses having sea or harbour views.

On the issue of air pollution, Mr. Stewart argued that the EIS submission is deficient and fundamentally flawed. The report was based on emissions for a port in Alaska, which used only fuel with a 0.1% sulphur content. Because such fuel is below the permitted norms, the assumption was made that there were no harmful effects. The regulations in Ireland are different. In Irish water, including approaches to Harbours until the ship is berthed fuel with a sulphur content of 1.5% is permitted. Mr. Stewart further stated that the fuel switching process takes time to implement and in the Port of Hamburg, ships on berthing are allowed 2 hours to switch fuel and when leaving are allowed to switch over 20 minutes prior to leaving the Berth. He argued that this would give rise to 30 minutes while off shore of pollution and another 30 mins of pollution as move through channel and 10 mins for berthing and whilst tied up 140 mins. Dr. Porter on behalf of the applicant argued that the air comes out of the stack with sufficient velocity to force the exhaust gases to rise vertically from the stack. As it cools it will fall to the land circa 1km from where the ship was. Mr. Stewart was not satisfied with that response. He also argued that no study of sewage and grey discharges from ships was carried out on the grounds that ships would always comply with Marpol regulations, which allows ships to discharge such wastes once they are 3 nautical miles from shore. However, ships will be passing close to SPAs (7) where they extend out in the sea from the shore. Mr. Stewart referred to the Marpol Regulations and EU Law, which has been incorporated into Irish Law, which requires ports to have certain facilities as does the National Waste Management Plan. These facilities have not been designed into the facility on the grounds that they will not be needed. Indeed the Jetty width is not sufficient to provide a sufficient turning circle to allow road tankers to turn if required to collect sewage, grey water and other liquid wastes for treatment in licenced treatment plants. Mr. Stewart sought to protest regarding the absence of a discussion on the Cost Benefit Analysis of the project, which this Inspector argued was outside of the remit of the Board. He argued with regard to the Economic Benefit Plan we cannot assess its

worth without knowing whether it can survive financially, will it be able to pay its bills or will it require a subvention and if so, how much. Without such an assessment, it is argued that the Economic Model can only be treated as unproven. In addition, we know the model is no longer valid as Dublin Port now has the capacity size to handle the 300m+ vessels. Mr. Stewart also argued that the spend per cruise passenger and crew was incorrectly inflated and unsubstantiated and quotes figures from the "Cruise Ship Economic Contribution" prepared by GP Wild (International) Limited and Business Research Economic Advisors which give per average spend as much lower. Therefore, argues that the economic effect of the cruise ships needs to be reduced to reflect the significant drop in Spend Revenue Forecast. In relation to DLH's function as a port of call, Mr. Stewart sought to highlight that its success is dependent on its distance from the home ports and if they fit into the cruise area served by the home port. As stated by others, Mr. Stewart felt that the use of the Copenhagen model as a role model was inappropriate. He also argued that the traffic report did not deal adequately with the increased bus and truck traffic on Seapoint Avenue particularly at rush hour, it also failed to mention the impact on Dart services during peak rush hours from Cruise Passengers travelling to Dublin.

Having read the document submitted by Mr. Stewart entitled Competition in the Ports Sector it seems to expound the theory that Dublin Port's ability to take larger cruise ships will not materialise until 2031, whilst DLHC in in a position to provide such a facility by 2015 at a significantly lower capital cost. Its states that "*if the concentration of port business upon Dublin Port is an issue, then it is particularly so in the cruise sector. There is, however, an alternative, the development of a cruise berth in DL*".⁶ I have also familiarised myself with the second document entitled Cruise Tourism to Ireland Research Report-2010 prepared by Fáilte Ireland. This document states that "*while high levels of satisfaction were reported with the look of the port in respect of Cork, Dublin and Waterford may need to improve their port appearance to sustain growth in cruise tourism*". "*Cruise operators themselves prefer a dedicated cruise berth in keeping with the luxury experience the cruise liner is creating*". I note that arising from interviews with cruise operators that it is stated in the report that "*given the increase in cruise ship sizes, ports which offer access to all ship sizes appeal to operators*".⁷ On page 20 of the Report, it is outlined that 3

⁶ Competition in the Irish Ports Sector, Feb 2013, A submission to the Competition Authority by DLHC. Page 9.

⁷ Cruise Tourism to Ireland Research Report-2010, prepared by Fáilte Ireland. Page 14.

out of 5 cruise ships arriving in Ireland originated in Britain, a further 24% of ships commenced their cruise in Northern Europe and 11% in Germany.

Mr. Stewart also submitted the **Port of Cork Port Waste Management Plan, February 2013**, in which the stated aim is to *“protect the marine environment by reducing discharges into the sea of ship generated wastes and cargo residues, to improve the availability and use of reception facilities and strengthen the enforcement regime”*.⁸ It states that arising from the EU Directive 2000/59/EC that all wastes are to be delivered to reception facilities unless there is capacity on board for retention until next port of call. It elaborates that if *“retaining waste on board, a legitimate reason for not using the port reception facilities must be given. Failure to do so will result in detention in port until waste has been discharged”*.⁹

Day 17: 12th November 2015

Ms. Mulcrone made a submission on behalf of DLCC in relation to **public realm**. She referred to the use of the harbour by 1m pedestrians, 350,000 sailors and 5,000 members of sailing clubs. She argued that the proposal would have an adverse impact upon the residential amenity on Charlemont Terrace, (oldest terrace in DL and in 90% residential use), Connaught Place dating from the 1840's and is in 100% residential use and Crawford Terrace (also 90% res. use) for reasons of the noise of dredging, its 24/7 basis, its untenable location and that there is no screening offered on the upper floors of dwellings from the noise. Also referred to the queuing of buses early on accommodation walk. Ms. Mulcrone highlighted that DLHC have no means to monitor the speed of cruise ships, they will be relying on DP to do this. Ms. Mulcrone also sought to point out that the CEO of DLHC is the chair of DLBIDS and felt this should have been declared. She argued that there is no permission for Carlisle Pier to be used by DLHC as a storage depot for industrial cargo, no permission for late night port activity and no permission for storage of any materials on the metals (or any change of use for that matter). Ms. Mulcrone argued that the objectivity of the EIA process is now critical to ensure compliance with the principles of the 2014 EIA Directive/50/EU and refers to new factors to be considered are effects on human health and land.

Mr. John Spain of John Spain Associates also made a submission to the hearing and sought to refer to the **planning aspects** of the proposal. He

⁸ Port of Cork Waste Management Plan, Feb 2013, Preamble.

⁹ Ibid, section 5.2.

referred to the National Ports Policy 2013, Dublin Port capacity, DLH Masterplan, Draft Development Plan in his submission. Mr. Spain cited the Dublin Port Masterplan 2012-2040 (page 32) where it states that the revenue from Cruise ships is approximately €700,000 per annum (2011). There were 85 cruise ship visits in 2011, this equates to revenue of approximately just €8,235 per ship. The development costs of the new cruise berths were estimated at €30m. The DP Masterplan states that *“given the relatively low revenues generated by cruise ships, such an investment by DP Company alone could not be justified...additional funding would be needed from other sources”*. Mr. Spain further argues that the proposed berth at DLH could well worsen rather than improve the finances of DLHC and it may well be the case that the project would be heavily reliant on government subsidy.

Mr. Spain referred to SLO 13 of the DLRCC Dev. Plan where it stated that *“any approved Masterplan must adhere to the overall zonings, policies and objectives of the Development Plan”*. The current Harbour Masterplan 2011 had not been prepared at the time of adoption of the DLRCC Dev Plan in 2010 and therefore the development plan cannot and does not provide any form of endorsement of the Harbour Masterplan.

Mr. Spain argued that the amendments in respect of the future use of the harbour within the draft Dev Plan recently passed clearly indicate that DLRCC favours an approach to the future development of the harbour that will focus on recreation and amenity users including strengthening and support sailing and recreational activities in DLH including the development of a National Watersport Centre as opposed to a large scale commercial cruise berth facility. No questions were asked of Mr. Spain.

Harry Hermon, Chief Executive of the Irish Sailing Association also spoke at the hearing. ISA has 17,500 members in 63 Clubs in the 26 counties of Ireland. 5 of these clubs are based in DL with just under 4,000 members between them, i.e. just under ¼ of the country's total membership in one harbour. A survey conducted during the 2009 DL regatta shows an average spend of the 245 local boats @ €1,914 each, and the 180 visiting boats at €2,781 each for the event, which when applied to the 2015 regatta brings a total spend in DL at 4969,510 for the week. These figures do not include spend on accommodation or event entry fees. In relation to the proposal, activity normally conducted within the harbour for safety reasons will be under pressure to move outside the harbour limits. This will provide to be much more difficult and incur additional resources for the organisers, as going outside the harbour will require more safety cover (higher ratios), more experienced sailors, better communication and less training time on the water as slower getting out of

the harbour into clear wind. During questions, Mr. Hermon acknowledged that as people become more advanced in sailing that they can move outside harbour. Capt. Coates sought to highlight that DLH is unusual in having the facility of a harbour on its doorstep for sailing in.

Dr. Pat McCloughran (as founder and managing director of **PMCA Economic Consulting**) presented a submission focusing on the economic impacts. The expert witness on behalf of DLCC sought to speak about Cost Benefit Analysis of this proposal, but was not permitted as it was considered to be outside of the remit of the Board. However, Dr. McCloughran did speak about the National Ports Policy and the operating performance of DLHC, previous competition between Dublin Port and DLHC, success factors for cruise port of call and specific aspects of the DKM report. He argued that the economic impact assessment where everything is headed on the one direction, benefits, positive outcomes, all good news for the application. However, in this case DLHC is endeavouring to enter a highly competitive, international marketplace, where it will be starting at very small scale and hoping to survive. It will face competition from DP as well as other ports in Europe, which begs the question of feasibility and competitor analysis, which are absent. Dr. McCloughran referred to DKM's business case and CBA of a Strategic Infrastructure Project for Galway Harbour Company, requiring such an analysis. At the beginning of that DKM Report it is stated that "*a Business Case and a Cost Benefit Analysis (CBA) are required as part of the process, not only as back-up of the socio-economic case, but because they are a requirement of the Department of Transport in order for the Minister to grant permission for the project to proceed*". Dr. McCloughran argued that it is surprising that they did not conduct a CBA in the case of DLHC, at least as a "*back up*" to further demonstrate the economic impact of the proposed project. Also referred to as absent from the DKM report is the objective features needed to compete and succeed as a cruise port of call. The submission identifies that Copenhagen has 3,490m of 3.409km of available quay space as opposed to a project 435m at DKH and 939m in Dublin Port. In relation to projections set out in the DKM Report, it is stated that in the "Do Nothing" scenario, all we are told is that there would be 192 calls and 481,183 passengers in 2046 but no details are given about the distribution of these estimates between DP and DLH. The same is true of the central and Copenhagen Scenarios. Dr. McCloughan argues that this is highly unsatisfactory because the lack of clarity and detail in the report means that estimates cannot be independently assessed. He also postulated that the gross construction spend as stated by DKM is €18m which is treated as a positive economic impact, the direct spend if €6.556m, implying that the leakage/imports from the Irish economy is

€11.444m. Due to this leakage of €11.444m, the direct employment effects during construction phase should be 46 instead of 89.

Questions were asked of Dr. McCloughan. In relation to the robustness of the €18 cost, the Applicant argued that it is not possible to be more precise as it would require them to know the scope of the planning permission as granted. It also argued that the “Grow Tourism Taskforce Report” applies to both DP and DLH.

Mr. James Howley, as **Director of Howley Hayes Architects**, spoke in relation to the historic nature of the harbour. He has 35 years’ experience in architectural practice as well as a Master’s degree in conservations studies at the University of York. Also accredited as a conservation architect Grade 1. Also responsible for designing the Millennium Bridge in Dublin with his former partner Sean Harrington. Mr. Howley listed a number of projects he worked on for private clients and those for DLRCC such as the Band Stand, the Killiney Obelisk the Stillorgan Obelisk and the People’s Park, they also carried out two phases of complex masonry repair to the east pier below sea level for the Harbour Company. Mr. Howley stated that this evidence is guided by the principles of the international charters and conventions, particularly the Venice and Burra Charters, which are the benchmarks for international best practice in the care, repair and reuse of historic buildings and places. He felt that the status of DLH as a protected structure is not in question. However, it is not just a harbour, consisting of two great multi-tiered piers, but a harbour that includes an abundant collection of protected structures and monuments, which collectively combine to provide an historic place of considerable cultural significance. Mr. Howley stated that *“he could talk about the quality of the proposed design both of the new pier and the landside infrastructure, which I believe to be very poor and lacking in any sensitivity to context or local distinctiveness. I could also dwell at length on what I believe to be the glaring oversight of the design team for not investigating the superstructure of the existing historic piers, which I know from my direct professional involvement to be in poor condition below the low tide level”*. Mr. Howley *“believes that there is not one single aspect of the proposal that conforms to the spirit or the letter of either the Athens or the Burra Charters, nor indeed the Architectural Heritage Protection Guidelines for Planning Authorities, as published by our own government. They very concept of this proposal is as flawed as its design and the inadequate consideration of the physical impact such vast civil works will have on already damaged and delicate historic fabric”*. Mr. Howley concluded that the new berth will not just detract from the special historic

character of the place, but rather it “*will destroy it*”. No questions were asked of the expert witness.

12th November:

Mr. Blaney made a submission to the hearing and gave an account of his experience as a Chartered Surveyor and owner of Dun Laoghaire Shopping Centre from 1990-1996 and now operates as a Property Development. He also has 50+ years sailing in DLH. Mr. Blaney argues that the harbour is the attraction and likens it to Croke Park and the GAA and the Aviva Stadium to Rugby. He argues that the harbour is not about the spectacle of grossly monstrous ships for 120 days of the year. Mr. Blaney spoke about DLRCC Council who he was of the opinion have abandoned their own planning principles for the board to decide on the proposal. Rather the Councillors have voted in draft policies and not the co-applicant in October 2015. The proposal will result in the dominance of one use over all other established and traditional users. Mr. Blaney sought to highlight that the proposed ships are 7x's the size of HSS. HSS is 20,000 GT / 127m / 40m / 27m (HI) and the cruise ship is 53,000 GT / 269m / 28m / 28m (HI). He argued that the ships are too big for the harbour. Mr. Blaney also argued that the Board should have acquired independent technical expertise. He also referred to health and safety issues such as the channel width leaving minimal room for error, the absence of a disaster plan or a risk assessment and also referred to DLH cruise proposal as eating the crumbs off Dublin Port's Table. In questions, there was some discussion regarding the reversibility of the proposal having regard to already redundant structures in the harbour. There was also discussion regarding the Risk Assessment, which Mr. Flynn sought to point out was only collated by SLA, but the input was made by the Harbour Master and the Operations Manager. Mr. Flynn sought to highlight that the permission granted to DP is for a multi-use berth rather than being a dedicated 3 berths for cruise ships. Mr. Flynn states that this is enforced by condition.

Mr. Brian Bond made a submission to the hearing and gave an account of his experience as a Chartered Civil Engineer of both Engineers Ireland and the Institute of Civil Engineers (ICE). He also has a PhD awarded for research in geotechnical engineering (studying Irish “boulder clay”). Mr. Bond also stated that he has extensive experience of both design and construction of harbour works (Dublin Port, Shannon Estuary, Dun Laoghaire and Wicklow). Mr. Bond commented on the issue of navigation of large cruise ships into DLH. He argued that DLHC did not consult Dublin Port over the feasibility of bringing these very large ships into DLH, despite the approach channel and turning circle lying within DPC's harbour

limits and Dublin Port Harbour Master is the Pilotage Superintendent for DLH. Similarly any works carried out within DPC's Harbour Limits would require DPC's approval. When the Navigational Analysis was sent to Capt. Dignam of Dublin Port, he found the DLHC's Navigational Analysis is seriously flawed. Capt. Dignam specifically found that the study did not consider a wide enough range of cruise ships, only limited wind speeds and directions were simulated, the study did not take into account the effect of tidal currents which can be 1.5-2 knots across the harbour mouth and he commented that the *"proximity of the turning basin to the shallow water plus the fact it is an area where strong currents are experienced means that there is a significant risk that a large cruise ship might be forced aground"*. Mr. Bond commented on the currents across the harbour. He rejected that the ABPmer Study on tidal currents outside the Harbour are based entirely on a computer generated model. Rather DLHC has not carried out any measurement of tidal currents for the Cruise Ship Plan and the data used by ABPmer was entirely historical and was readily available to Waterman Moylan. He refers to a discrepancy in opinions regarding the currents, Mr. O'Connell argues that the current across the harbour is 1 to 1.2 knots, whilst Capt. Dignam believes the currents could be in the range of 1.5-2 knots. Mr. Bond refers to cross examination with Mr. O'Connell who undertook to provide documents relating to:

- (a)** His instructions to M&N to carry out the navigation analysis, and
- (b)** His correspondence with M&N, after the ABPmer Report was available, about the effect of tidal currents and the reported assurance from M&N that currents of up to 1 knot would be no problem.

Mr. Bond sought to remind the hearing that Mr. O'Connell has not produced either of these documents.

Mr. Bond also spoke on the issue of forces that will be applied by the cruise ships as they enter the harbour. He argued that the latter force applied to the ship by tidal currents are very significant and comparable with the forces applied by strong winds. Mr. O'Connell's assertion that tidal currents are of minor importance is stated to be wrong. The designated Freedom Class cruise ship is 340m long and the forces on its beam would be significantly more than 300m long Azipod which was modelled in the Navigational Analysis. Mr. Bond argues that there is insufficient information in the M&N Report to enable this difference to be established. Throughout his cross examination, when faced with circumstances which would create navigational problem, and which had not been considered in the EIS, Mr. O'Connell said that the ship would be

re-scheduled or diverted until the problem no longer existed. In this case, it would mean waiting for the wind to go down and/or for there to be less current. In relation to the latter, Mr. Bond argued that the period at high and low water when there is effectively no current is very short. Such loss of availability is not mentioned in the Application and would be a deterrent to cruise ship operators considering using the berth. Mr. Bond also argued that no consideration has been given to the effect of turbulence caused by waves on the sea bed where there is a considerable depth of loose marine sediment and no consideration has been given to the severe scouring which will be caused to the sides and bottom of the dredged channel and turning basin by the ships propellers (Azipods and bow thrusters). Mr. Bond in his submission referred to the strong potential for impact of the thrusters on the masonry of the roundheads and furthermore, the issue of dredging and the degree of slope required are likely to impact on the foundations of the roundheads. In relation to the latter, the issue of maintenance dredging only surfaced at the hearing and there is no consideration of its need. Mr. Bond also disputed the stated cost of the project and argued that it is unrealistic and no witness for the applicant has been able to provide an account as to how it has been arrived at.

During the course of his submission on the 12th of November, Mr. Bond called on Capt. Brittan, Assistant Harbour Master in Dublin Port to answer some questions. Following discussion, it was decided that these questions should be put through the Inspector. Capt. Brittan was asked questions in relating to the impact of scouring. He spoke about Ocean Pier where the cruise ships normally berth, and where scouring has occurred of some 1m to 1.5m in depth, which Capt. Brittan argued has arisen due to the Azipods of the ships. In relation to turbulence from the boat, which can only be visualised on the surface, but which occurs throughout the water column, runs out about 100m from the ship. Capt. Brittan argued that this is strongest from the horizontal point of the propulsion point.

Capt. Brittan and Mr. Bond were asked questions

Dublin maintains a depth level of 7.5m and larger ships that come in are dependent on tidal conditions. When asked in relation to scouring, Capt. Brittan stated that they are taking in 300m+ ships in the last few years and with the Azipods are more powerful, even though large ships with a larger draft would have come in previous to that. Capt. was also asked in relation to Ulysses, the largest ship which comes into the harbour and Mr. O'Connell sought to argue that the scouring might be due to this and to account for scouring along the (70-90m) fairway would be due to the ships having to use thrusters to keep their alignment in the channel scouring

between the two pier walls, Mr. O'Connell sought to argue that this is where the ships start to pick up speed as they go out to open sea. Mr. O'Connell also asked in relation to protected structure where a granite structures exist in Alexandra Basin, whether scouring has occurred. Capt. Brittan confirmed that there is no scouring occurring here by reason of the speed of ships traveling at circa 3knots and it is brought into berth here by tugs.

In questions to Mr. Bond, Mr. O'Connell stated that the M&N report brought in wind and waves (nominal wave) into account and not currents. Mr. O'Connell also asked questions in relation to the movement through the piers and sought to make point that the force of the thrusters would be used in a lesser power once through the piers. Mr. Bond disputed this stating that as ship comes in stern first, the power would be low at stern once through piers, and then the bow of the ship still using thrusters at full force given the size of ships. In relation to scouring, Mr. Bond asserted that there will be scouring, Mr. O'Connell accepted there would be some scouring but not to extent of Dublin Port (3m of scouring). In relation to impact of scouring and impact on roundheads, Mr. Bond stood by his assertion that it's possible given the use of thrusters to stay aligned in the channel. Mr. O'Connell argued that if it happened that DLH would be on top of it. Mr. O'Connell argued that they have a continual dredging licence, however, Capt. Brittan confirmed that they have such a licence but have no dumping licence (applied for), so cannot carry it out at the moment.

I would note that Ms. Mulcrone sought to question Capt. Brittan, which was not permitted.

The concluding submission was made by **Mr. Jim Fitzpatrick** who gave an account of his experience as a sailor including representing Ireland at the ISAF Youth Worlds in 1975, and currently sails as a Water Wag. Mr. Fitzpatrick sought to highlight the importance of the harbour, as it held the first ever national racing event in world sailing. He argued that DLHC must recognise Harbour as an amenity for recreational watersports in priority and they are custodians of this proven world class harbour amenity for future generations. Mr. Fitzpatrick was of the opinion that the permanent dock structure would bring nil net economic benefit to DLH in this view. Whereas, Dublin Port has a track record, a global reputation, a €230m build permit and financial sustainability to fulfil all foreseen cruise ship needs for Dublin Bay. The proposal will give rise to a displacement of

- Almost all kids in club junior sections

- Similar cruise ship calamity risk most definitely
- Special needs people
- The Heritage Water Wags and
- Heritage Team Racing

Mr. Fitzpatrick argued that the proposal gives rise to huge risk of loss of ISAF World Class endorsement of harbour. Mr. Fitzpatrick also argued that the DKM economic report was based on incorrect figures, stating that the per passenger and crew spend was over inflated, with the crew in the majority sending money home rather than spending in the local economy. He argued that this would give rise to a central scenario forecast of €17m p.a. and €27m total economic benefit. When the do nothing scenario of €27 p.a. is deducted, there is no net economic benefit at all. Mr. Fitzpatrick highlighted an alternative vision, where in Sull Community College (sec. school), team racing is part of the core curriculum and an account of given of their success to date in national and international races. Suggests that something similar could occur in South Dublin. No questions were asked of Mr. Fitzpatrick.

The hearing concluded at 5.37pm on Thursday, 12th of November 2015.