



Managers Report from Galway City Council as requested under section 37E(4) of the Planning and Development Act, 2000, as amended.

Re: Galway Harbour Extension
An Bord Pleanála Reference 61.PA0033

24th MARCH 2014

Introduction

Galway City Council received a request from An Bord Pleanála on the 14th January 2014 to prepare a report setting out the views of the authority on the effects of the proposed development that is Galway Harbour Extension on the environment and the proper planning and sustainable development of the area of the authority.

In this regard they specifically requested that the report address, where relevant, the following issues and any other relevant aspects that is considered to be pertinent.

1. Main relevant Development Plan provision relating to the subject site and surrounding area including the relevant Core Strategy provisions. A clear indication of the current status of the relevant Development Plan and any Draft Plans should be given, together with any relevant issues arising.
2. Details of other relevant Plan provisions (e.g. Local Area Plans) and statement regarding status of these Plans (adopted or in draft form).
3. Relevant planning history relating to the subject site and the surrounding area.
4. Relevant enforcement information relating to the subject site.
5. Relevant national, regional and local policies,
6. Any SAAO which may be affected by the proposed development.
7. European designations, Natural Heritage Areas, which may be affected by the proposed development (whether in or proximate to same).
8. Protected Structures, ACA's etc.
9. Waste policy, which may be relevant to the proposed development. This will arise particularly in the case of applications for waste facilities where policies, objectives and other provision of Waste Management Plan should be referred to in addition to the Development Plan.
10. Adequacy of the public water supply.
11. Public sewerage facilities and capacity to facilitate the proposed development.
12. Availability and capacity of public surface water drainage facilities.
13. Flood risk assessment in accordance with *The Planning System and Flood Risk Management – Guidelines for Planning Authorities (November 2009)*.
14. Assessment under the Water Framework Directive and associated regulations.

15. Appropriate assessment under the Habitats Directive.
16. Comments on the adequacy etc. of the EIS submitted with the application.
17. Assessment of landscape status and visual impact, as appropriate.
18. Carrying capacity and safety of road network serving the proposed development.
19. Environmental carrying capacity of the subject site and surrounding area, and the likely significant impact arising from the proposed development, if carried out.
20. Part V (social and affordable housing) provisions (which may be applicable in rare cases).
21. Description of any public use of adjoining, abutting or adjacent lands in the applicants ownership, and the planning authority's view on any condition which may be appropriate for the purpose of conserving a public amenity on these lands.
22. Planning authority view in relation to the decision to be made by the Board.
23. Planning authority view on conditions, which should be attached in the event of the Board deciding to grant permission. (Where an IPPC or Waste licence is required, the Board cannot impose conditions relating to the control of emissions from the activity for which a license is required).
24. Planning authority view on community gain conditions, which may be appropriate.
25. Details of relevant section 48/49 development contribution scheme conditions, which should be attached in the event of a grant.
26. Details of any special contribution conditions, which should be attached in the event of a grant along with detailed calculations and justification for the conditions.
27. Planning Authority's Considered View

Appendix 1: Includes for observations of relevant departments in Galway City Council

Appendix 2: Includes for Extract from Environmental Impact Statement (EIS) Volume 2B, Chapter 15, Mitigation Measures

1. Main relevant Development Plan provisions relating to the subject site and surrounding area including the relevant Core Strategy provisions. A clear indication of the current status of the relevant Development Plan and any Draft Plans should be given, together with any relevant issues arising.

The current development plan for the city is the Galway City Development Plan 2011-2017 this includes the main document, maps and the assessment of the development plan under SEA and HDA. This is the relevant statutory planning policy document pertaining to the site.

There are a number of specific references in the city plan to the existing Harbour as an enterprise and as a part of the transport network for the city. In addition there are references to the likely requirements for the harbour to re-locate and expand. As the proposal before the Board includes for the reclamation of approx. 27ha of area currently on the foreshore and on the seabed, and approx. 46ha of dredge area there are no specific policies for these exact sites but there are general policies in the development plan that are relevant mainly from an environmental, natural heritage and visual amenity perspective.

The main provisions are as follows -

Chapter 1 – Overall Strategy including Core Strategy

In section 1.5

*Re-development of the **Galway Port** facilities is proposed. This would include for the relocation of the port to a deepwater location and development of the existing facilities as a marina. This would increase the potential to improve linkage for both passengers and freight into the city. The integrated transportation study scheduled by the GTU will look at the strategic implications and opportunities this would afford the city and explore the tie-in with both the rail and road network.*

In section 1.8.1 Elements of the Core Strategy

*Investment in strategic routes will also be important in particular the M6, N17 and N18 and the Galway City Outer Bypass as these will result in a release of additional capacity on the existing road network some of which can be rededicated to bus and bicycle use. Initiatives with respect to walking and cycling have been advanced and will have a high priority in new settlement areas where such opportunities can be designed into layouts. The services of Galway Airport and **Galway Harbour** are also of significant importance.*

Chapter 3 Transportation

In section 3.5 Integrated Sustainable Transportation Plan
(Other Transportation Facilities)

***Galway Harbour** is also an important transport facility. The Council will support proposals for the development of new and extended harbour facilities and supporting infrastructure.*

Policy reference

Policy 3.5 Integrated Transportation Plan

- *Support the provision of improved access to Galway Airport and **Galway Harbour** area including an extension of the rail line to the **Harbour**.*

Specific Objective reference

3.6 Specific Objectives

- *Prioritise improvements to pedestrian movements from Headford Road LAP area, Woodquay, and Bothar na mBan and ensure that satisfactory linkages are provided in the redevelopment of Ceannt Station and the **Harbour area**.*

Chapter 4 Natural Heritage Recreation and Amenity

Policy 4.2 Parks and Green Network

- *Support sustainable use and management of areas of natural heritage importance, parks and recreation amenity areas and facilities through an integrated green network policy approach in line with RANS, where it can be demonstrated that there will be no adverse impacts on the integrity of Natura 2000 sites*

Policy 4.3 Greenways and Public Rights of Way

- *Develop a strategic citywide coastal greenway from east to west linking with riverside walkways having due regard to nature conservation considerations.*

Policy 4.4 Natural Heritage and Biodiversity

- *Protect, conserve and promote the enhancement of internationally (EU) and nationally designated sites of natural heritage importance, including Galway Bay Complex and Lough Corrib Complex cSACs, Galway Bay SPA and existing, proposed and possible future NHAs in the city.*
- *Protect and conserve rare and threatened habitats, including those listed on Annex I of the EU Habitats Directive*

Policy 4.5 Coastal Area, Canals and Waterways

- *Protect and maintain the integrity of the coastal environment and waterways by avoiding significant impacts and meeting the requirements of statutory bodies, national and European legislation and standards.*
- *Investigate the extensive water resource in the city with a view to exploring where public access and enjoyment can be improved and where potential sustainable uses can be developed to the benefit of the city and have regard to ecological conservation and safety considerations*
- *Support the implementation of the recommendations of The Western River Basin District Management Plan (WRBDMP) 2009-2015 in relation to the protection of water quality of surface waters, groundwater and coastal waters*

- Ensure development and uses adhere to the principles of sustainable development and prohibit any development or use, which negatively impact on water quality
- Ensure the protection of the River Corrib as a Salmonid River, where appropriate.
- Maintain and extend the achievement of the Blue Flag status.
- Ensure development within the aquatic environment shall be carried out in consultation with prescribed bodies and with adherence to their guidelines
- Ensure development does not have a significant adverse impact, incapable of satisfactory mitigation, on protected species

Section 4.8 Views of Special Amenity Value and Interest (views where there may be potential impact listed)

Table 4. 7 Protected Views

View No.	Description
<i>Panoramic Views</i>	
V. 3	Seascape views of Lough Atalia from Lough Atalia Road, College Road, Dublin Road and Lakeshore Drive.
V. 4	Seascape views of Galway Bay from Grattan Road, Seapoint, the Salthill Promenade and the coast road to the western boundary of the golf course.
V. 8	Seascape views of Galway Bay from the old Dublin Road to the City boundary.
V. 9	Views toward the sea at Roscam.
<i>Linear Views</i>	
V. 12	Seascape views of Galway Bay from Kingston Road.
V. 13	Seascape views of Galway Bay at Ballyloughaun from south of the railway bridge.
V15	Views towards Galway Bay from Hawthorn Drive, Renmore.
V. 17	Seascape views from Military Walk, Renmore.

Policy 4.8 Protected Views of Special Amenity Value and Interest

- Protect views and prospects of special amenity value and interest, which contribute significantly to the visual amenity and character of the city through the control of inappropriate development.
- Require landscaping schemes as part of planning applications to have regard to such views and limit any planting which could have a detrimental impact on the value of protected views.

Section 4.10 Specific Objectives

- Facilitate the extension of existing coastal greenway and linkages to create a citywide coastal path from Silverstrand to Oranmore including the coastal walk extending from Silverstrand to Sailin in conjunction with approved coastal protection works.
- Prepare a master plan for Lough Atalia to include the upgrading of the amenity park, ecological areas and development of sailing activities

- Prepare an amenity environs plan in conjunction with Galway County Council to include greenway linkages to Barna, Oranmore and Tonabrocky
- Develop a number of greenways within the city including:
 - Coastal walk extending from Galway Docks to Roscam Point

Chapter 5 Enterprise and Employment

Section 5.1 Aim Context and Strategy

*The Plans for the re-location and extension of the **Harbour** area, which include for deepwater port facilities has potential to contribute to both tourism and enterprise in the local economy. It is acknowledged that such a development could have strategic importance for the city and is supported subject to assessment on economic viability, environmental, visual and transport grounds.*

Section 5.2.1 Employment Strategy

*The **Harbour** Enterprise Park currently supports a number of industries, some of a heavy industrial nature and some with direct links to the harbour facilities. The Council will continue to support these developments particularly in the context of the expansion plans envisaged by the Galway Harbour Board where they do not have an adverse impact on the integrity of Natura 2000 sites.*

Policy reference

Policy 5.2 Enterprise

- *Promote further sustainable development of the **Harbour** Enterprise Park and related harbour activities subject to acceptability from the appropriate authorities.*
- *Support further sustainable development of Galway **Harbour** subject to environmental, visual, economic viability and transportation considerations.*
- *Support the development of cruise line tourism acknowledging the significant contribution and diversity it could add to the local and regional tourist economy.*

Chapter 7 Built Heritage and Urban Design

Policy No. 7.2 Built Heritage

- *Encourage the protection and enhancement of structures listed in the Record of Protected Structures*
- *Ensure new development enhances the character or setting of a protected structure*

Policy 7.3 Archaeology

- *Ensure all developments, including those with the potential to impact on riverine, inter-tidal and sub-tidal environments require an archaeological assessment prior to works being carried out*

Chapter 8 Environment and Infrastructure

Strategy

Protect and manage water resources effectively and improve coastal and fresh water quality.

Policy 8.5 Flood Risk

- *Review flood risk in the city and carry out detailed site-specific FRA for locations of potential flood risk, where necessary*
- *Require development applications in the locations of potential flood risk, to provide flood impact assessment and flood risk minimisation and mitigation measures, to facilitate assessment, in the interest of reducing the risk of flooding.*
- *Facilitate sustainable flood defence and coastal protection works in order to prevent flooding and coastal erosion, subject to environmental and visual considerations*
- *Ensure new developments, where appropriate, are designed and constructed to meet the flood design standards outlined under Section 11.27 Flood Risk*
- *Continue to protect the coastal area and foreshore and avoid inappropriate development in areas at risk of coastal erosion and/or would cause and escalate coastal erosion in adjoining areas*

Section 8.6 Control of Major Accident Hazards (Seveso II Directive)

There are two Seveso II sites within the city:

- *Topaz (formally Enwest) Galway Terminal, Galway **Harbour Board Enterprise Park**.*
- *Leeside/Fareplay Terminal, Lough Atalia Road.*

Policy 8.6 Control of Major Accident Hazards (Seveso II Directive)

- *Consult with the Health and Safety Authority (also known as the National Authority for Occupational and Health Standards) when changing any policies/objectives and assessing any proposed relevant developments in or in the vicinity of sites identified under the Control of Major Accident Hazards (Seveso II Directive), in order to prevent major accidents involving dangerous substances and to limit their consequences to the environment and community*
- *Ensure that major developments comply with the requirements of the Galway City Major Emergency Plan.*

Policy 8.7 Air Quality and Noise

- *Maintain air quality to a satisfactory standard by regulating and monitoring atmospheric emissions in accordance with EU directives on air quality, by promoting and supporting initiatives to reduce air pollution, by increasing the use of public transport, developing urban woodland, encouraging tree planting and conserving green open space.*
- *Ensure the design of development incorporates measures to minimise noise levels in their design and reduce the emission and intrusion of any noise or vibration which might give reasonable cause for annoyance, where appropriate*

Policy 8.9 Waste Management Policy

- *Encourage the development of a C&D waste recycling facility and other measures in the city for the sorting and grinding of C&D waste for reuse, subject to appropriate environmental and planning considerations.*

- *Ensure that planning proposals for new medium and large-scale developments, such as housing estates, retail and industrial developments include C&D waste management plans*
- *Support the objectives and targets of the Connacht Waste Management Replacement Plan 2006-2011 relating to Galway City and any subsequent Regional Waste Management Plans thereafter, except in relation to incineration*

Policy 8.12 Water Supply and Water Quality

- *Minimise and control discharges to inland surface water bodies, groundwater and coastal waters to prevent water pollution*
- *Ensure any development within the aquatic environment shall be carried out in consultation with prescribed bodies and with adherence to their guidelines*

Chapter 11 Land use zoning objectives and development standards and guidelines.

Section 11.2.5 Industrial I Land Use Zoning Objective

- *I zoned lands at Lough Atalia between the railway line and the seashore comprising of approximately 16.2 hectares. Development on this site will be limited to activities relating to harbour expansion and industries which must be located adjacent to the **harbour** for a viable existence, provided however, that the processes involved are environmentally acceptable and do not interfere with the residential amenity of nearby housing developments*

Development Plan provisions (Associated)

In addition it is pertinent to reference the policies in the City Development Plan relating to the existing “Inner Harbour” area. The implications of the ceasing of industrial uses in the inner harbour area gives context to the long-term vision for the regeneration of this area.

– Overall Strategy including Core Strategy

Section 1.6

*The development strategy is to capitalise on the brownfield site opportunities offered by both Ceannt Station and **Galway Harbour**. These areas, owing to their proximity to the city centre, their combined scale and attractive location on Galway Bay, offer great potential for a sustainable mixed use quarter.*

Section 1.8.1 Elements of the Core Strategy

*The direction for development is to focus a significant amount of development into the east side of the city at Ardaun, to consolidate development in the newer suburbs of Knocknacarra, Castlegar and Doughiska and to capitalise on the brownfield sites at Ceannt Station and **the Harbour area**.*

Section 7.4 Urban Design - Local Area Plans and Masterplans/Framework Plans

*The redevelopment of Ceannt Station, **the Inner Harbour** and Headford Road (south of the Bodkin Roundabout) provide major opportunities for high quality urban design to contribute to creating*

new vibrant areas which can attract investment and uses, provide sustainable residential communities and reinforce the urban structure. The Council will encourage innovative architecture and where appropriate landmark buildings.

*Masterplans/framework plans will be prepared for major redevelopment/brownfield sites, such as the Ceannt Station site and the **Inner Harbour site***

Section 9.2.2 Inner Harbour Area

The need to modernise Galway Harbour facilities will require the docks' functions to be relocated to an alternative site. Galway Harbour Company currently has plans for such a development to the east of the existing Inner Harbour, which will free up the existing site for redevelopment. This represents a welcome challenge to re-establish links with the sea and open up new opportunities for a range of uses including water-related leisure uses. These lands, in addition to other adjoining brownfied lands as defined in Figure 9.3, represent the definition of the Inner Harbour Area and the lands required to be the subject of a master plan/framework plan.

The regeneration plans for Ceannt Station on the adjoining site will have to be a parallel consideration in any redevelopment of the Inner Harbour in order to maximise the benefits to the city in both land use amenity and urban design terms.

In principle the proposals for a mix of uses on these lands complemented by a unique waterfront setting linked to the city centre is acceptable and welcome. It represents a chance to enhance the experience of this area for both visitors and locals. It has potential to reveal the past trading history of the city and celebrate a high quality coastal edge linked to the city centre.

In view of this the Council will consider the redevelopment of these lands where it can be demonstrated that a number of requirements can be satisfied.

In advance of detailed proposals a masterplan/framework plan will be required to be further developed for the overall site as defined in Figure 9.3. This plan will address critical issues including sustainability, protection of adjoining Natura 2000 sites, access, urban design context, maximum building heights, appropriate use mixes, high quality public realm, industrial heritage and likely phasing of construction. The preparation of this plan shall be the responsibility of the applicant in consultation with the local authority, adjoining landowners and stakeholders. This will build on the acknowledged co-operation existing between the harbour landowners and Ceannt Station landowners, which includes for a common objective to have a co-ordinated and integrated approach embedded into future proposals.

There will be a requirement for any redevelopment to ensure that opportunities for water-based recreational facilities are maximised and that public access is secured throughout the area and along the seafront.

Regarding urban design, it should be demonstrated that the proposal can connect into and extend the historic street pattern of the city centre. Any scheme will show a good relationship with the existing urban grain/structure and link public spaces. The design will be required to maximise public

access and permeability throughout the site, give linkage and views to the seafront and key coastal vistas. It should also look at the challenge of transition areas bounding the site and anticipate opportunities for linkage and continuity in the design and layout of these sites. This will be particularly important with regard to the adjoining Ceannt Station site where regeneration is also planned and where maximum advantage of the seafront location can be delivered. In addition, in order to achieve the maximum advantage of this site, any redevelopment should also show how a favourable amenity could be secured in the transition area edging the adjoining industrial lands at the Harbour Enterprise Park.

2. Details of other relevant Plan provisions (e.g. Local Area Plans) and statement regarding status of these Plans (adopted or in draft form).

Not Applicable

3. Relevant planning history relating to the subject site and the surrounding area.

Noting that the site is predominantly outside of the high water mark the list relates to the main developments in the current Harbour and the Harbour Enterprise Park.

- 95/68 Permission granted for harbour offices; ancillary port facilities; storage areas; coal yards; fish processing units; bulk goods storage areas; parking areas; filling/reclamation (7.55ha); open space; sea walls (1,095m long); and shore line promenade (1,170m long).
- 98/592 Permission for 3 No. Bitumen Storage Tanks covered loading Gantry Boiler House, Control office & site works, Galway enterprise Park.
- 04/188 Permission Granted by GCC & on Appeal Feb.2005 for construction of oil storage and distribution terminal with associated offices, car parking, ESB substation and ancillary accommodation.
- 06/621: Permission refused for construction of a Marine Logistics Centre (8,770m²); a new quay wall (95m long by 15m wide) to facilitate docking of fishing vessels; a 104 space car park; and associated landscaping, boundary treatments and site development works
- 07/372 Permission granted on Appeal May 2008 for Bus Garage including Maintenance and Service Building
- 07/1000 Permission granted on 16/04/2008 for development which will consist of a bitumen storage tank, 24m diameter, 10m high to replace a previously approved storage tank, 16.0m diameter, 10m high (Pl. Ref. 84/04); relocation of previously approved office building (Pl Ref: 07/68); and relocation of access gate and bunded diesel tank

08/621 Permission granted for retention and completion of fire pump house with incorporated oil and foam tanks and associated site works as previously granted under pl. ref. no. 07/740 to service development granted under pl. ref. no. 04/188

08/283 Permission granted for the construction of an 88m long slipway and a 2,827m² dry dock (-6m chart datum), consisting of quay wall and pontoons with a 1.5m high decorative perimeter fence. The dry dock and slipway will have access onto the existing channel (-3.4m chart datum). The construction of the dry dock and slipway will be formed by the excavation and infill of existing material above the high water mark. The dry dock and slipway are required during the Volvo Ocean

An application for the extension of Duration of the permission for the Dry Dock was granted under planning reference 13/25 on 2nd April 2013

4. Relevant enforcement information relating to the subject site.

Not Applicable

5. Relevant national, regional and local policies.

There are a number of specific references to Galway Harbour Area / proposals for the Harbour Extension in policy documents as follows.

National Development Plan 2007 –13

Chapter 3 of the NDP (Strategy for Individual Gateways) states that *“Galway is the principal economic and population centre in the West Region... Galway has performed very strongly throughout the 1980’s and 1990’s. Its population grew by 17% between 1996 and 2002, the highest of any gateway other than Letterkenny. Galway City and County grew by a further 10.5% to 231,035 in 2006.”*

The Plan identifies a number of key development and investment priorities over the period of the Plan, including *“Regeneration of docks area of Galway city”*. The Galway Harbour Extension will be the key factor that will facilitate the regeneration of the inner city docks.

National Ports Policy 2013

The NPP acknowledges that ports in Ireland differ in size and current capability and it introduces a categorisation of them into ports of National Significance (Tiers 1 & 2) and Ports of Regional Significance. In this regard, the Ports of National Significance are Dublin, Cork, Shannon/Foynes, Waterford & Rosslare. Galway port is included within a group of 14 no. Ports of Regional Significance. The Policy states that the Regional Ports “handle commercial traffic and function as important facilitators of trade for their regional and local hinterland.” It further notes that 5 no. of the Regional Ports are in state control, including Galway Harbour.

The NPP is a key consideration in the planning assessment of the Galway Harbour Extension. In terms of Regional Ports, the NPP identifies important but different *“roles for the 5 state owned ports of regional significance.”* It recognises the importance of these ports in serving their hinterlands and in supporting balanced regional development. It further notes that these ports could play a more significant role in supporting national economic development in certain specialised trades (e.g. oil/petroleum import & storage/off-shore energy servicing) and maritime tourism. The NPP also supports the development of the cruise tourism sector.

Galway Harbour is identified as an *“important strategic regional hub for petroleum importation, storage and distribution”* (Section 2.7.3). The NPP also identifies Galway Harbour as having important potential in terms of servicing the ocean energy sector by endorsing the findings of the IMDO Report (Section 4.2). It further identifies the benefits of reintegration and rejuvenation between port and city using Volvo Ocean Race as a demonstration of success in this regard (Section 4.5).

The NPP notes that its close proximity to Galway city centre limits the potential to handle additional trade at the existing harbour. However, it acknowledges that the inner harbour is *“an immensely attractive location for the development of marine tourism and leisure facilities, in particular a marina, as well as for urban redevelopment”*. It confirms that the NPP endorses the development proposals in respect of the inner harbour, as referred to in the *Regional Planning Guidelines for the West Region 2010–2022* and the *Galway City Development Plan 2011–2017*, for marine tourism and leisure facilities as well as for urban redevelopment and regeneration. It further confirms the Government’s support of development of cruise tourist traffic at Galway harbour, specifically noting Galway Harbour Company’s efforts to develop this business. The NPP also acknowledges that the Department of Transport, Tourism and Sport and other relevant agencies are currently giving detailed consideration to the plans to relocate commercial Port activities on adjacent lands, as part of the Galway Harbour Extension project.

The document indicates that ports of regional significance are more suited to appropriate *“.....local governance structures that are better placed to ensure that the maximum potential for the regional hinterland of each such port is best achieved. Integration within local governance structures would also facilitate examination of the potential role offered by local or regional private sector interests in particular circumstances”* (Section 2.7 pg. 30)

In this regard draft legislation to allow for the transfer of all of the ports classified as Ports of Regional Significance which includes Galway Harbour Co. is currently in preparation which would give Galway City Council control and oversight of Galway Harbour Co. The Department of Transport and Sport have put Galway City Manager on notice of imminent legislation and the consequent associated increase in local authority control over Galway port activities.

Regional Planning Guidelines for the West

“Support a framework which incorporates a network of growth nodes creating an Atlantic Development Corridor which will enhance economic, social and environmental opportunities and will enable the western seaboard to compete successfully with other economic corridors, thus benefiting the people of the whole region.”

The RPGs set out the aims for the West Region through the formulation of strategic policies. The RPGs make specific reference to harbours and ports and acknowledge that:

“Galway Sea Port is of strategic importance to the West Region....The plans for the relocation and extension of Galway Harbour area which includes deepwater port facilities has the potential to contribute to both tourism and enterprise in the local economy and is considered critical for growth in the region. Ports and Harbours contribute to the economic development and are important transportation links to facilitate the growth and connectivity of the Region. Adequate infrastructure must be in place to facilitate the sustainable development of the aquaculture industry, marine tourism industry and to facilitate water based leisure activities/sports in the West Region.”

Objective IO21 of the RPG’s states the following:

“Support the sustainable redevelopment and expansion of Galway Harbour which is critical for the continued important role in the growth of the West Region. Galway Harbour is also supported in its role to serve and promote water-based tourism. Facilities/ infrastructure could include a secure berthing area for the marine leisure industry. All proposals will be subject to assessment on environmental sustainability, including impacts on the Natura 2000 network through Habitats Directive Assessment, visual, travel and transport impacts. Any proposals should support enhanced integration with the rail and road network.”

Galway County Development Plan 2009-2015

3.2 Strategic Spatial Planning Objective SP 4 commits the Council to investigating the potential for development of integrated transportation hubs at Tuam, Garraun and Athenry to maximise the strategic integration of transport and rational land uses. The development of a rail link from the proposed Galway Harbour site would be facilitated by an integrated transport link at either the newly opened Garraun station or at a location in proximity to the station at Athenry.

3.4 Policy RT33 – Galway Ports and Harbour Policies states that the Council will support the expansion of Galway Sea Port and Ros a Mhil and potential benefits that can be delivered to the County through the development of rail distribution facilities at appropriate locations in the county.

3.5 Section 4: Economic Development and Tourism also contains policy ED35, which supports the 2002 Report entitled “Water Based Tourism; A Strategic Vision for Galway” commissioned by a number of Agencies in collaboration with Ireland West Tourism. The Report includes an aspiration to develop the Galway Harbour area a marine recreation location which would be facilitated by the proposed Galway Harbour Extension project.

There are many other policy documents that do not specifically reference Galway Harbour or indeed the Gateway city of Galway but that are supportive of the sustainable economic development of Galway and the development Irish Sea ports. These are referenced in the EIS.

6. Any SAAO, which may be affected by the proposed development.

Not Applicable

7. European designations, Natural Heritage Areas, which may be affected by the proposed development (whether in or proximate to same).

The proposed development mainly constitutes lands to be reclaimed from the foreshore and the sea. The site is located on the following designated sites –

Galway Bay Complex cSAC Site Code 000268
Inner Galway Bay SPA Site Code 004031
Inner Galway Bay Ramsar Site 838 (County Galway)

pNational Heritage Area (Designated by NPWS)

It is proximate to –

Lough Corrib cSAC Site Code 000297
Lough Corrib SPA Site Code 004042
River Corrib, which has Salmonoid Status
Lough Atalia, which hosts an Annex 1 Priority Habitat (Coastal Lagoon)

In addition it is noted that the Natura Impact Statement, which accompanies the proposal, identifies 12 Natura 2000 Sites within a 15km radius and an additional 10 Natura sites within a 170km (See Section 2.3). It is considered that the associated listing comprehensively identifies all the European sites that may be affected by the proposed development.

8. Protected Structures, ACA's etc

The proposal itself being primarily located on reclaimed land will not have an impact on any protected structure. However it will require accommodation works, which necessitate the lowering of the road under Lough Atalia Bridge, a structure on the RPS- Protected Structure Ref.10002 – Railway & Ancillary Buildings.

The lowering of the roadway beneath the bridge is acceptable and will be subject to appropriate archaeological supervision during construction. It is not considered that it will have an impact on the protected structure. This supervision should also be extended to road works in the vicinity of Forthill Cemetery also a protected Structure RPS Ref 4401. It has been found in the pre- testing that the foundations of the piers of the bridge do not project forward into the road or pathways. In addition the works will not have any direct physical impact on the bridge itself. It is considered that the bridge should however be protected during construction.

(To note also is that an almost identical proposal regarding the lowering of the road under the bridge will be brought before the City Council on the 24th of March 2014 in the form of a Part V111 proposal. These works are deemed necessary in the interest of public safety and for maintaining traffic flow as evidenced by the frequency of bridge strikes. They are not being expedited solely in the interests of the current application).

The nature and location of the site in particular the extensive maritime tradition associated with Galway would suggest that there is both recorded and possibly significant unknown recorded underwater archaeology at the location of both the proposed build and dredge areas. In this regard all archaeological mitigation measures as included for in the EIA should be provided for by condition. That is those included for in Chapter 13.2 of the EIS and in Chapter 15.

It is considered in view of the location and nature of Mutton Is. Lighthouse RPS ref 6510 that specific consideration should be given to the assessment of the impact on the contextual setting of this protected structure as a consequence of the construction of the proposed Harbour Extension. The impact on this structure arises further on also in the report in the discussion on protected views.

Note should also be taken of the potential for the discovery of submerged ancient landscapes. The Heritage Officer, report attached, Appendix 1, references discovery in this regard at nearby locations. This may merit additional focused survey and desktop study work in advance of any works and may require additional mitigation measures also.

9. Waste policy, which may be relevant to the proposed development. This will arise particularly in the case of applications for waste facilities where policies, objectives and other provision of Waste Management Plan should be referred to in addition to the Development Plan.

The EIS including the Appendices provides details of the Environmental Management Framework (EMF), which is intended to form the basis of the Environmental Management Plan (EMP). This, in addition to the documented Port Waste Management Plan for Galway Harbour, aims to address the potential issues associated with waste. They highlight the address of issues that will arise during construction and operation of the Harbour and includes for a Waste Reception Facilities Plan. The Planning Authority would normally require that such arrangements be formalised with the City Council, which would include the need for a Construction & Demolition Waste Management Plan to be agreed in advance of works. In addition a Waste Management Plan for the operational phase would be required to be agreed and designed to facilitate review in accordance with the Council's waste management policy and legislation.

There will be a requirement specifically for waste reception facilities associated with users of the Harbour including the Marina and Cruise Tourism elements. These would normally need to be agreed in advance with the City Council and be subject to ongoing review.

The issue with regard to the recovery and re-use of excavated dredge material may require a waste facility permit or waste licence in accordance with the Waste Management Act as amended. The appropriate authorisation should be in place in advance of works. Depending on

dredging/construction practices there may also be requirements associated with EPA licences/Marine Licences also. The *Replacement Waste Management Plan for the Connacht Region 2006 – 2011* or its review may also have relevance and should be consulted

10. Adequacy of the public water supply.

The proposed development's requirements regarding potable water will not create any capacity issues for Galway City Council's Terryland WTW. The Irish Water Transition Office representatives in Galway City Council have confirmed this as per attached report in Appendix 1. Standard requirements regarding design specifications, metering and connection charges would be required to be applied in accordance with the requirements of Irish Water.

11. Public sewerage facilities and capacity to facilitate the proposed development.

The proposed development's requirements regarding disposal of Foul Drainage will not create any capacity issues for Galway City Council's Mutton Island WWTW. The Irish Water Transition Office representatives in Galway City Council have confirmed this as per attached report in Appendix 1. Standard requirements regarding design specifications and management practices with regard to the Harbour and Ship/Cruise requirement would be required in accordance with any specific requirements of Irish Water and best practice.

12. Availability and capacity of public surface water drainage facilities.

The proposed development's requirements regarding disposal of Surface Water should not create any capacity issues. Standard requirements regarding design specifications and management practices would be required to be applied in accordance with best practices particularly where there is collection and discharge to sea but should regardless be in accordance with Galway City Council standards and best practices particularly where collection and discharge to sea is envisaged.

13. Flood risk assessment in accordance with *The Planning System and Flood Risk Management – Guidelines for Planning Authorities (November 2009)*.

The site owing to nature and location is classified as a High Flood Risk Zone under the Guidelines. This has been acknowledged in the proposed application and a specific Flood Risk Assessment Study has been included in the EIS in Chapter 8 using the methodology and guidance promoted in the Guideline document to facilitate assessment.

It is noted that the end uses Harbour / Marina /Docks although being located in a Flood Zone A are uses considered compatible within these Flood Zone classifications

It is noted that the assessment has included specifically for likely flood risk impact of the proposal on the adjoining flood susceptible areas of the Spanish Arch, Claddagh Quay, and Frenchville areas. This has been assessed using wave climate modelling analysis and historical data and likely climate change scenarios. It has concluded that the development will not adversely impact on the flood risk associated with these areas.

In addition the potential impact on the New Harbour from tidal/fluviat events have been assessed. This has informed the design requirements for the breakwater, wave wall and ground and floor levels of buildings.

The Council consider that it is critical that the Board should consult with the OPW particularly with regard to the preparations of the CFRAM where Galway City has been designated an "area of further assessment". As part of CFRAMs, specific hydrology and hydraulic modelling reports for the Galway City AFA are scheduled to be produced in draft form for the OPW by the end of April 2014 and scheduled to be finalised with the core maps for the OPW in July/August 2014 where public consultation will follow.

It is anticipated that this mapping will take into account recent significant weather events in Galway City 2013/14, particularly with regard to their wave overtopping analysis. In the event that these indicate that revised assumptions should be used the Board should seek a review of the assessment of impact in particular with regard to the impact on flood vulnerability in Galway City.

It is noted that the EIS adopted a figure of 0.5m for sea level rise. It is assumed that this is a reasonable approach, being higher than some previous national policy norms of 0.3m being used. However the Board should be confident that this reflects current best knowledge and practice.

The Board might also find it useful to consult with the OPW on recent work prepared on their behalf for the *Irish Coastal Protection Strategy Studies (ICPSS) for the Galway Bay Area* but as yet unpublished.

As flooding has been identified as a critical issue for the city centre and Salthill the Board should be satisfied that the development will not increase the risk of such occurrences in the city .

Associated with the potential impact on hydrodynamics also is the concern that the harbour extension could impact on wave movement to such an extent that it would exacerbate the erosion at the cliff sea face at the site known as Kelly's field, Renmore, and could also erode the tidal causeway giving access to Hare Island. Although it is assumed in the EIS that this area will in fact be more sheltered these risks regardless should be examined.

In addition it should be ensured that the reference to the increase in wave activity along the south face of Nimmo's pier, which is of historical and infrastructural value, will not undermine this structure.

14 Assessment under the Water Framework Directive and associated regulations.

The Water Framework Directive relates to managing all waters: rivers, lakes, groundwater, estuaries (transitional) and coastal waters. EU Member states are required to ensure that their waters achieve at least good status by 2015 and that status doesn't deteriorate in any waters. To achieve good status and preserve the best waters, management plans were prepared and implementation requirements included for the associated waters. The relevant policy and management document that applies to this area is the *River Basin Management Plan for the Western River Basin District in Ireland (2009-2015)*. Galway City Council is a party to its implementation.

The document classifies the area of Galway Bay, the subject of the proposal as being of good status both ecologically and chemically. The objective in the management plan is to ensure that this status is maintained and that there is no deterioration in the quality of the water. The plan specifically refers to the licensed aquaculture areas and designated shellfish waters. It notes the need to protect these waters in particular from potential pollution.

It is noted that the area the subject of this proposal also has a number of other legislative protections – Bathing Waters/Shellfish waters/ cSAC/SPA. These of themselves will require conservation objectives to be met which will enforce strict regimes to protect water quality too in addition to the management requirements of the *River Basin Management Plan for the Western River Basin District in Ireland (2009-2015)*.

The EIS has elaborated on the likely impacts on water quality in the context of potential pollution, impact on quality from an ecological, recreational and shellfish farming/aquaculture perspective. Prevention, reduction and mitigation measures are included which need to be assessed in the context of achieving the requirements of the Water Framework Directive in addition to other protective requirements. This has relevance in particular with regard to the capital dredge area, which includes for extensive sediment disturbance, which has potential to have impact on water quality and consequently ecology, recreation, commercial fishing and the fish farming.

The Board should be satisfied that there would be no threat to water quality both from an ecological viewpoint as well as from the existing huge recreational value of Galway Bay, fishing value of Lough/River Corrib and economic value of aquaculture and shellfish harvesting.

15. Appropriate Assessment under the Habitats Directive.

The EU Habitats Directive requires an Appropriate Assessment to be carried out where a plan or project is likely to have a significant impact on a Natura 2000 site. As the current application is of a substantial nature and located directly in two Natura 2000 sites namely Galway Bay Complex cSAC, Inner Galway Bay SPA and adjacent to two others - Lough Corrib cSAC and Lough Corrib SPA it is necessary at a minimum to screen for AA.

The City Development Plan in the context of harbour expansion also references the need to assess any harbour extension development in the context of the status of the Natura 2000 sites. In this

regard the H.D.A. of the plan included for assessment of supporting policies for a Harbour Extension. The H.D.A. identified that there was potential for a direct loss /fragmentation of habitats arising from such development. It identified the threat to qualifying interests, the threat to habitats and the integrity of Natura 2000 sites. It also highlighted the potential for contamination from runoff, general disturbance to protected species and disturbance that could impact on sensitive periods – breeding /migratory movement times. This assessment related to the general policies in the city plan. Reference is also made to the need regardless to comply with the Habitats Directive. The current proposal is now a specific project where the detailing is available and assessment on the integrity of the site feasible through the AA process.

Both the EIS and the NIS that accompany the application have endeavoured to be comprehensive and systematic in their examination of the likely impacts. It is acknowledged that the scale and complexity of the proposal in addition to the complex receiving environment render the assessment of the proposal very challenging.

In general the NIS has given attention to the need to consider qualifying interests, species of conservation interests, the conservation objectives of the sites their attributes and targets and consequently has considered the potential impacts and recommended mitigation measures, which should ultimately enable the demonstration of the residual impacts.

The mitigation measures are noted, as are the residual impacts. The NIS concludes that there will be loss of protected habitats, which is deemed significant – this includes Mudflats, Sandflats. There will be both temporary and permanent loss of habitat that supports a wide number of qualifying interests. It also references a number of impacts on conservation objectives both for cSAC, Annex 1 Priority Habitats, and SPA. These are described generally as “probably minor”. Some are described as “indeterminate”. The latter may require more examination to arrive at an impact conclusion to afford a full AA assessment. This will be a decision for the Board to assess

The impacts on Lough Atalia and Renmore Lough, defined as coastal lagoons (a Priority habitat) are considered in the NIS to be negligible and appear to relate to the potential of minor changes in salinity levels owing to the likely changes in the flow of the Corrib into the bay having been deflected more westward as a result of the footprint of the proposal. The planning authority are aware of the recent NPWS classification of Lough Atalia to be of low conservation status, and assume that the negligible impact is as stated.

The section dealing with the analysis of the in combination effects should include for reference to the proposed Galway Eastern Environs WWTW. The Preliminary Report for this scheme outlined the need for a new WWTW located in the Oranmore / Athenry area with the Outfall pipe discharging into Galway Bay to the East of Mutton Island WWTW. The projected load for this plant was estimated at 553,254pe for the year 2023 and was made up of 17% Municipal and 83% Industrial.

It has been referenced elsewhere in the documentation with respect to the proposed Outfall Dispersion Simulations, that Effluent Flows simulated were the projected future mean flows of 0.488m³/s at the Galway City Eastern Environs WWTW outfall. This figure equated to 234,240pe, which equated to only 42% of the projected 2023 figure. It was concluded that the outfall location

would not be impacted by the proposed Harbour Development. There is concern however that the simulations did not take account of the proposed 2023 figure and so there was the potential for the Harbour Extension to limit the discharge volumes available to the City Eastern Environs WWTW. The Board should request that this aspect be re-visited. It should in this regard ensure that the proper functioning of Mutton Is WWTW will not be impacted by the ultimate analysis.

It is acknowledged that An Bord Pleanála is the consenting authority with respect to this application and the competent authority to carry out the AA process. The conclusions of the NIS and EIS where a significant negative impact on the conservation objectives of the Natura 2000 sites is anticipated suggests that a favourable decision may not be feasible under Article 6 (3) owing to the likelihood of adverse impacts on the integrity of the Natura 2000 sites. In this regard the options available under Article 6(4) may arise should the Board consider, in the absence of alternative satisfactory solutions that the proposal merits the examination of the existence of imperative reasons of overriding public interest.

The NIS and supporting chapters in the EIS is very comprehensive, the Planning Authority does not have any issues with regard to gaps in the study other than those stated but does draw attention to the conclusions in the study where there are of a number of indeterminate impacts on conservation objectives. It is considered that the Board should avail of the benefit to consult with NPWS or procure specific expert advice to facilitate their decision making in this area in view of the natural heritage importance of the site to Galway City as well as the national importance as a Natura 2000 site .

16. Comments on the adequacy etc. of the EIS submitted with the application.

In general the EIS and the associated Appendices are considered to be very comprehensive. Where gaps are perceived to exist they have been referenced in this report. Points raised in particular by City Council reports include

Soils

The EIS detailed the assessment in relation to the release of suspended solids and contaminants into Galway Bay as a result of the dredging. While the report details mitigation measures to control and contain the dispersion of suspended solids, the EIS does not address the bathing waters, and there is a concern that there could be an impact on the bathing waters, in particular Ballyloughane Beach due to its close proximity. The EIS should address in particular the mitigation measures to ensure the water quality of Ballyloughane and at Grattan Beach are not affected by the development in construction and operation stage.

As capital dredging is very extensive and the environmental regime very complex there is a need for the Board to be confident that negative impacts can be substantially mitigated. This includes for the likely impacts of disturbance impacting turbidity, suspended sediments and any negative impact from chemical or granular composition and ultimate deposition. This is very important in view of the ecological, recreational and economic value of the waters.

The specific arrangements for limiting times of dredge work near Lough Atalia owing to its classification, as a Priority Habitat should be considered also. The impact of dredging in general may be an area where the Board may benefit from specific expert advice.

The Board should also consider the maintenance dredging proposed and the need for this in the future clarifying what/if consents will be required.

Water

The details of the proposed mitigation measures to be included in the Environmental Management Plan (EMP) for the development during and post construction, to prevent pollution to waters as a result of leakages or spillages are noted and should be submitted to the local authority for agreement prior to the commencement of any development.

Air Quality

A comprehensive dust monitoring and minimisation plan for the construction phase will be required to be submitted to the local authority for agreement prior to the commencement of any development.

An odour management plan for the construction phase, to include odour-monitoring proposals, odour control mechanisms and will be required to be submitted to the local authority for agreement prior to the commencement of any development.

An Air Quality management Plan for the operational phase, to include monitoring proposals, control mechanisms and complaint procedures should be required to be submitted to the local authority for agreement prior to the commencement of any development.

The mitigation measures as outlined in the EIS in relation to air quality should be conditioned as part of any approval. It is noted that EPA licences could also be required for some of the industrial processes that may occur on site.

Noise & Vibration

Noise and vibration monitoring and management programme details should be required to be submitted to the local authority for agreement prior to the commencement of any development and post construction. This is taking into consideration the nature of the works, the extent and timing of the construction period and the proposal for 24-hour operation. The plan should detail noise monitoring proposals, control mechanisms and noise & vibration complaint procedures for both the construction phase and the operational phase of the proposed development.

In order to reduce risk of nuisance where it is suspected during construction and or operation as a source of excessive noise at a noise sensitive location, or where circumstances have altered, there should be a condition required as part of any grant of permission to undertake a noise monitoring survey. The survey and monitoring sites used would have to be agreed with the Planning Authority in advance. If monitoring shows that excessive noise levels have been recorded, remedial measures should be required to take affect immediately.

More specifically it is noted that dredging is to be carried out on a 24-hour basis. Concern is expressed that dredging by Backhoe method which can generate noise of a nuisance level should be restricted to operating during daylight hours only close to Mellows Park and The Claddagh and in accordance with the requirements of the Environmental Management Framework.

Pile driving another source of potential noise nuisance is indicated to be restricted to daylight hours but these are indicated to extend up to 11pm. It is considered that if permission is to issue this should be adjusted to 9pm maximum.

The option of using rail for transport of freight during night hours is discussed yet the impact this might have on residential amenity along the rail line has not been examined. This is not to say it will be a nuisance only that the potential impact might need some examination from a potential noise impact perspective and any opportunities for mitigation explored.

Environmental Management System

A comprehensive Environmental Management System (EMS) specific to the construction/operation phase of the development is envisioned and elaborated on in the Appendices section 4.2 This is a critical instrument in achieving mitigation measures. Exact details would be required to be submitted and agreed with the local authority and other relevant bodies for agreement prior to the commencement of any development. The EMS should be designed to best international standards and include as a minimum the following:

- Management and Reporting structure
- Schedule of Environmental Objectives and Targets
- An Environmental Management Programme
- Corrective Action Procedures
- Awareness and Training Programme
- Communications Programme

The EMS (construction and operational) would be required to be the subject of a regular review and updated if necessary in consultation with the relevant regulatory authorities.

Flora & Fauna

Relevant comments are also included in no. 7

Chapter 7 of the EIS is very comprehensive in particular in relation to the immediate four Natura 2000 sites. However it is also considered that the community of swans located in the Claddagh and at Mutton Island should also be a consideration of the EIS and the impact of the proposal on these species assessed notwithstanding that they are not considered to be qualifying interests or specialist conservation interests of the Natura 2000 sites but recognising their importance to the natural heritage and local interest in the city.

The development of a marina as part of the proposal and also the potential consequent intensification of the inner harbour for marina uses is not deemed to have an impact on flora and fauna. It is

considered however that these developments should be revisited, to assess any possible impact owing to likely boat movements in the water and their associated operations.

Material Assets

The EIS should be more conclusive regarding the extent of the footprint of the proposed development that overlaps with the shrimp breeding and fishing areas. It is noted that the EIS makes a reference that Inner Galway Bay is in fact a significant nursery area for shrimp (7.5.5.2.4) however it comments that there is no detail survey records regarding this element. The Board should be satisfied that this deficit of knowledge is not critical.

Risk Assessment

In addition to complying with the appropriate regulations and codes and best practices particularly those associated with COMAH the development and operators will be required to co-operate with Galway City Council, the Fire Services and Galway Co. Council in relation to preparation and support of the prevailing Major Emergency Plan for the City where relevant and should ensure linkage with the relevant emergency plans for the harbour area and the associated activities. This should include for the construction period also, which will generate a different risk climate.

Economic Justification and the Business Case

The economic value of the harbour in Galway is not in question and neither are the constraints under which the port are currently functioning. However the proposal includes for ambitious plans with regard to trade expansion in addition to remedying the deficits of deep-sea berthing facilities. The scale of infrastructure works would be very significant and would during construction by the nature of such works have a poor visual aspect and impact on the waterfront. If built out and developed in a manner and time as indicated in the EIS there may be justification for carrying this disamenity.

Although the EIS makes references to the likely impact of failure to develop a new harbour it doesn't give any comfort regarding how insurance against the possibility of a number of possible situations i.e. a more prolonged construction scenario than envisioned; a cessation of work after an early stage of construction possibly at a stage where deep sea berthing has been achieved but not consequent stages; where the risk of a business failure mid – construction might occur with the possibility of abandonment of completion of works or the delivery of the non-profit amenity elements.

It is considered that the Board should give this deficit in the EIS Economic Justification serious consideration and examine how this situation can be proofed against. The planning authority is raising these issues in the interests of prudence and in the knowledge of the risks associated with speculative economies and the irreversible impacts failure would have on the Galway City but with no pre judgement on the company involved.

In Combination –

Refer note in No. 15.

17. Assessment of landscape status and visual impact, as appropriate.

The site of the proposal is in an area of open water, which is included in the expanse of Galway Bay. It forms part of the seascape, openly visible from a number of areas in the city. The proposal is of a significant scale consisting of 27ha of reclaimed land, supporting quay walls, breakwaters, docking areas, marina, working yards, supporting built structures, rail line and embankments it is therefore inevitable that there will be a significant visual impact both during the construction stage (estimated to be up to 8 years) and the operation stage including the night environment and anticipated 24 hour operation.

In addition to the horizontal plane of the development the operation stage will add the impact of the vertical elements – the structures, numerous lighting columns ranging (6m to 25m in height), open bulk storage, container storage, possible warehousing, fencing, landscaping, potential plant fixed and moving gantries etc. in addition to the movement of ships and boats. It is noted in the EIS that cargo containers are assumed to only be stacked at two containers maximum. It is not clear why this minimum height is taken as it may not be reasonable or controllable and therefore may not truly reflect likely impact of this element.

The visual impact will be apparent from a range of views both protected and not protected. The EIS has specifically examined a number of views (16). It is considered that this selection is sufficient enough to assess the visual impact from public areas and roads. The methodology for analysis is agreed acceptable.

The overall conclusions that the proposal will have a moderate to significant negative impact on the urban waterfront landscape are accepted. The development is assessed to have a significant negative impact in particular from – South Park, Long Walk and Dock Road – it is accepted that this is the better “face” of the development having the marina however this assumes this stage being reached, fully developed and the marina having significant patronage.

The conclusion that the development will have a slightly negative impact on the suburban settlement landscape is not accepted. Regarding the latter it is considered that views from the East suburbs particularly Renmore and particularly those from Ballyloughaun Beach and Hawthorn Drive are more impacted than that described in the EIS where it is described as slight and that moderate to significant negative impact is more appropriate.

These impacts include general visual impact and also impacts on protected view no.s – V13,V15,V17.

It is acknowledged that extensive landscaping is proposed but it is anticipated that this will have a localised site impact. It is also acknowledged that owing to the requirements for high breakwater defences, proofing against potential sea rises (0.5m) that the harbour structures will be high above the water. The Board should be aware of the exposure and militate against the potential for exposure of raw combiwall/other during tidal variance.

The main building – Port Operations Office has a mix of external finishes and is mainly coloured rust. It is considered that a combination of native stone finish and grey colouring if supplemented with cladding /plaster would be most appropriate and reflect better the local heritage, an image that should be impressed from ship disembarkment. This should be linked in design to the Passenger Terminal Building and finishes co-ordinated. It is considered that the latter building should reflect local heritage both externally and internally – in design, materials, decoration as this would be the first encounter for potential passengers to the West of Ireland and should reflect this experience. The structure should include for use of the Irish language in signage and illustration.

Linked with the visual impact is the visual and amenity quality of the area described as public amenity, which is supported by a landscaping masterplan. This element is also discussed in point no. 21.

The visual and functional quality of the landscape proposals needs to be assessed from a public realm viewpoint. The Board are requested to consider in particular the viability of the planting scheme in a coastal environment with a high degree of climatic exposure. There is also concern regarding the medium in which the trees and shrubs are to be planted in and the narrow width of the linear planted swathes.

If the scheme had been designed with an exoskeletal soft edge scheme incorporating artificial marine scrub, earth works and rock armour (to the non-vessel functioning areas) specifically to the shore facing Lough Atalia to Ballyloughan it could have been blended in to a higher extent than proposed, this potential modification could be examined by the Board

The detailed specification of the hard landscaping is not apparent. If these areas are to successfully attract pedestrians / cyclists and to link in with the green network for the city the quality of the environment and facilities will have to support this. Quality detailing will have to balance the wide, long and regular nature of the routes flanked by car parking and the likely intimidating scales of the proximate environment coupled with the adjacency of industrial used lands. The scheme does not appear to show how the interface with the existing Harbour Enterprise Park is to be ameliorated particularly in the area of “Renmore Promenade”. Strip planting is suggested but this may need to be more thoroughly examined.

High quality public realm and amenity is also an important element when the success of the regeneration of the Inner Harbour is in question. Owing to the lack of detail on address to these lands, which is it hoped will be developed into mixed uses including residential. It is uncertain how the impact of the proposal will effect the chances of such development becoming an attractive waterfront The impacts that need to be addressed relate to visual, noise, traffic flow in addition to air /odour dust management.

The EIS should examine in more detail the fishing pier to ensure that it is viable and affords sufficient protection for associated vessels in view of pier design and wind patterns at this location. Adjustments if required should be made.

18. Carrying capacity and safety of road network serving the proposed development.

Traffic

It is noted that the impact of traffic generated by the proposed development was assessed using Galway City Councils SATURN traffic model. The SATURN model demonstrates that the proposed development will not have a significant impact on city traffic.

Galway City Council in conjunction with the NTA, NRA and Galway County Council are currently upgrading this model in order to take into account recent changes to the road network and to use this tool in the proposals for a Galway City Outer Bypass. However, at this time, the upgraded model has not been completed and the version used by the Galway Harbour Company is the most up to date version. In general SATURN is used to compare different options and is not used as an outright representation of a road network. In this instance, the model is good for assessing the implications of harbour-generated traffic on the future network as a whole but not necessarily for the assessment of individual junction performance.

The traffic section of the EIS relies heavily on the notion that the proposed harbour will not increase existing traffic volumes by more than 5% at most junctions. While this may be correct for general traffic, it does not take into account the increase in HGV traffic. Traffic generation for the development when operational are only provided for the AM and PM peak hours, so a comparison throughout the whole day cannot be carried out. It would also be pertinent that the Traffic Management Plan and indeed the Construction Management Plan should specifically provide for a modification/cessation of works and or activities in the event of special circumstances or events occurring in the city, this should be at the discretionary direction of Galway City Council. The Board may wish to re-visit this element of the assessment.

Galway City Council carried out a traffic count on the Lough Atalia Road / College Road junction and along the Lough Atalia Road in November 2012. It was found that on an average weekday there are 376 HGV movements on Lough Atalia Road. During the AM peak hour there were 41 HGV movements through the Lough Atalia / College Road junction and during the PM peak hour there were 15 HGV movements. During the operation of the development it is expected that there will be 40 HGV movements generated during the AM peak hour and 22 HGV movements during the PM peak hour. This equates to an increase of HGV movements of 102% and 147% during the AM and PM peak hour respectively. This potential increase in the number of HGVs will result in the significant shortening of the lifespan of existing roads, which is generally measured in the number of million standard axles (MSA) of HGVs.

The EIS states that during Phase 1 of construction 305 HGV movements would be generated per day. This increase in the number of HGV movements through the College Road / Lough Atalia Road junction could have a significant effect on the junction. All vehicles travelling outbound on Lough Atalia road and turning right at the junction have to turn through a relatively tight right hand turn. Slow moving, laden HGVs turning can cause considerable wear on the road surface. As part of the proposed development the City Council would recommend requiring the developer to upgrade this junction and realign it in order to ease HGV movements through the junction.

The EIS identified a number of Operational Traffic Haul Routes (Drawing 2139-2180). One of these routes identifies the R336 via Wolfe Tone Bridge as the haul route to Bearna and Moycullen. Galway City Council recently commissioned 2 no. reports on this bridge from Consultancy firm AECOM. The recommendations from these reports, following a structural assessment of the bridge, were that a weight restriction of 26 tonnes should be applied to the bridge in the immediate term and that the bridge should be replaced in the long term. Galway City Council is in the process of implementing this weight restriction. This weight restriction will have an impact on the haul route identified in the EIS and will result in all HGVs in excess of 26T generated by the Harbour to use an alternative route. This should be factored into the assessment of the traffic impact. As it is most likely that this bridge will be replaced in the future, the developer who would consequently have benefited from the increased bearing capacity of a new bridge should make a contribution to its construction.

In general the EIS submitted for the proposed extension to Galway Harbour demonstrates that the development would not have a significant impact on traffic on the wider Galway network.

The EIS assessed movements through junctions but fails to take account of the impact HGV traffic generated will have on the lifespan of pavements on the public road network and the impact on the College Road / Lough Atalia Road junction. The EIS also does not take into account the limitations of Wolfe Tone Bridge and the imminent weight restriction that will be applied in the near future prior to replacement. A number of conditions are recommended in no.25 & 26.

It is noted that the HGV movements/other transport modes during construction and operation will be dictated by a traffic management plan, which is stated to be so designed not to have an impact on network peak periods. The City Council would require that all such details be agreed and would also have to be convinced that all contractors /operators would adhere to the relevant terms which should have penalty clauses included.

Road Design /Revisions

The proposed development includes the upgrade of the existing site access junction to a signalised junction. Some of the proposals on drawing 2139-2165 are unclear:

It appears that there may be a traffic signal proposed for vehicles exiting from Donnelly Coal at the corner of the junction (due to a signal head shown on the drawing) however no stop lines or access points are shown. If a signal were proposed for this location further details should be requested to facilitate the Board to assess it however at a preliminary assessment the City Council it would not be in favour of it.

The auto track analysis demonstrated on drawing 2139-2173 shows the swept path of an articulated truck encroaching onto the advanced cycle box. This is not acceptable and modifications in design should be sought to prevent this possibility.

The proposal also includes the lowering of the road under Lough Atalia Bridge. The City Council is supportive of this proposal and is currently party to a proposal under Part 8 for a similar development. It should be noted however that Volume 1A, Schedule 4 drawings 3484-1142-E and 2139-2126-A detail proposals that are different to those located elsewhere in the application (an attenuation take is shown in the green area adjacent to the road).

Cycling

It is noted that no cycle lanes are proposed for the city centre side of the junction. A cycle lanes should be provided if achievable. The proposals include an access path from the development to Renmore beach. This should include the provision of a cycle track also.

It is unclear if the cycle track is proposed to be on-road or raised adjacent based on section A-A. Regardless all cycle lanes should comply with the appropriate standards.

Rail

The Council welcome the proposals that show the construction of a rail link from the Galway Dublin line to the proposed commercial quays. Inclusion of freight transport by Rail is positive. The analysis of the capacity for use of rail is most favoured where operations can move during daylight hours. It is acknowledged that freight transferred at night could have noise implications for residential properties in close proximity to the rail line. However this should be examined further along this route to determine the impact rather than abandon this option should it be the only opportunity for use of rail.

The EIS references a proposed depot at Athenry but no details of this are provided. The EIS states that rail will only be used to transfer goods when it becomes commercially viable. This is considered to be a very undefined means of investigating use of rail and may allow for exclusive road transport by default. Consideration should be given to conditioning a minimum volume of tonnage that must be transferred via rail in order to reduce the number of HGV movements through the city. It is acknowledged that Irish Rail must be party to achieving this objective.

As the City Council are committed signatories to the Barcelona Declaration which promotes universal access to urban spaces and public buildings it is considered that the proposal should be specifically assessed strategically to ensure that such access is achieved in all public accessible areas.

Mobility Management Programme (modal shift)

The EIS submitted for the proposed extension to Galway Harbour indicates that Galway Harbour Company is committed to developing a Mobility Management Plan, this is considered to be essential. The Council accepts the general thrust of the commitments in the Mobility Management Plan to greener, cleaner, transport choices. However greater detail is required on how it is to be implemented and the targets in the plan met. Notwithstanding this it is noted that the targets contained within the EIS for modal shift by 2031 are insufficient and fall short of Galway City Councils targets for 2020. These should be changed at a minimum to reflect those set by Galway City Council for 2020, (Car 40%, Public Transport 20% & Walking/Cycling 40%).

The EIS also is somewhat out-of-date in particular where it relates to scheduled improvements in the transport network in relation to the UTMC, RTP1 and the upgrading of the N6 junctions.

The Council supports the inclusion of a Steering Group and Mobility Manager for the Mobility Management Plan, representation of a number of personnel from Galway City Council on the steering group would be required due to the critical size and location of the development.

It has been noted that here has been no reference to opportunities that might exist for “Green” transport options such as electric vehicles.

19.Environmental carrying capacity of the subject site and surrounding area, and the likely significant impact arising from the proposed development, if carried out.

The proposal is of a significant scale and is located in an area of great environmental sensitivity. The EIS as indicated previously is very comprehensive in assessing the potential environmental impacts of the proposed development. In this regard it has examined all stages including the construction where the impacts are most significant. In particular with regard to soils where there are significant volumes of dredging, consequent use in land reclamation, and also the associated infrastructure required in construction. There are environmental challenges also associated with likely odour, dust release, noise and vibration impacts, air quality impact, threat to water quality, impact on hydrodynamics, impact of sedimentation movement and potential changes to salinity. All impacts can have an affect on the capacity of the site to absorb these without environmental damage.

Both the EIS and the NIS has examined the anticipated capacity of the site and associated zone of influence to establish the impacts and consequently encompassed the mitigation measure in Chapter 15. These are specific to construction, operation and monitoring requirements. These include for the preparation of an Environmental Management Framework and consequent Plan also.

There will regardless be residual impacts on the natural environment, the NIS indicates these with respect to the Natura 2000 sites. The City Council are of the opinion that where the Board are considering a grant of permission, the obligation to carry out the mitigation measure as set out with a requirement to have a rigorous implementaion of the Environmental Management Plan in conjunction with suggested conditions would be critical.

It is already referenced that owing to the extent of reclamation there will be a significant environmental impact, as such a large quantum of open sea will be filled in. The balance of benefits economically, from an amenity and recreational viewpoint and the consequent potential such development would release for regeneration of the Inner Harbour are also acknowledged.

The mitigation measures included in the EIS are deemed to be comprehensive.

20. Part V (social and affordable housing) provisions (which may be applicable in rare cases).
Not applicable

21. Description of any public use of adjoining, abutting or adjacent lands in the applicants ownership, and the planning authority's view on any condition which may be appropriate for the purpose of conserving a public amenity on these lands.

Comments on this issue should be read in conjunction with comments made in no. 17 and no. 24.

The proposal incorporates facilities that will be available for both use by the general public and by visitors. These include the Marina facilities, promenades, landscaped parklands, nautical slipways and a sheltered area at the eastern end, which will accommodate water-based activities. These are welcome. It would be critical in view of the significant encroachment into an area traditionally open and public by nature and the extended disruption created by years of construction that there are compensatory measures that re-balance public access and amenity. It would be also essential that these facilities are brought forward and developed to a high standard as early as possible in the development. The Board's attention is drawn to the City Council's *Recreational & Amenity Needs Study (2009)* and Chapter 4 of the City Development Plan with respect to the green network in the city and the associated objectives.

It is already referenced that the qualitative standards of such areas and facilities are high and designed for maximum usage. In this regard details of how this will be achieved in design are needed to be clarified in addition to how the long-term maintenance is to be managed and financed. It is noted that there is a proposal for management company control. In this regard it should be qualified how much resources will be dedicated to maintenance and re-investment in the long term. This perhaps could be set as a percentage of dividends /profit if feasible. There may also be an opportunity to reserve part of the marina for municipal use so that this facility is not totally private/club controlled.

To render the promenade areas suitable, additional facilities are needed, as the promenades are quite long and removed from the city centre facilities. These include basic facilities such as seating, shelters, public toilets, small café/kiosk facilities etc. In addition it should be included that access to plaza points /areas will be made available for community group/ event usage.

In order to render the area described as available for water based activities at the location of the nautical slipway it would be necessary that appropriate structures including for storage, maintenance, club housing facilities, including changing, showering facilities etc are provided to allow for maximum usage.

It is noted that the ownership of the applicant extends as far as part of the gravel shore /Renmore Beach. The Board should investigate the extension of the landscape plan and consequently public access to this area in view of the attractive nature of this area noting the need also to protect the adjoining wetlands and lagoon area.

22. Planning authority view in relation to the decision to be made by the Board.

Having reviewed the proposal the City Council is of the opinion that the Board should in conjunction with all other points raised elsewhere in this report consider the following.

Current Constraints

Galway Harbour Co. currently operates a business on a site of approximately 12 ha (states as 32 acres in EIS). This includes working docks, quays, Enterprise Park and associated buildings. The existing harbour, a key aspect in the business is constrained owing to restrictions in design, tidal and gated nature, shallow channel and limitations of quay length and berthing facilities.

The City Council acknowledge that these constraints challenge the future viability of the port within the city with regard to maintaining the existing operations in relation imports exports of liquid and dry goods and as such limits expansion. It also inhibits growth into the cruise ship market and the consequent benefits that could accrue to the local economy.

The City Council values the existence of harbour facilities in the city and recognise the significant contribution and advantage such facilities make to the local and indeed the regional economy. The advantage of having harbour facilities is a critical asset to any economy and this is apparent when reviewing statistics regarding cargo movement, employment statistics, commercial fishing expanding tourism related activities and the recent success at hosting international events such as the Volvo Ocean race stopovers.

The port is recognised as an important transport facility for the city and supporting its viability reduces the need for road transportation thereby contributing to more sustainable transport models.

Policy Support

As indicated in no.'s 1 and 5 there are a wide range of policy statements in the City Plan that support the harbour and acknowledge the proposals for an extended harbour and the resultant economic and tourism benefits to Galway as a national Gateway. This policy support as previously referenced is manifest in both national and regional planning documents also.

Use of Rail

The proposal has an advantaged location adjacent to the rail line and includes for the option to directly transfer freight onto rail. This is considered a significant potential benefit to the scheme and should be acknowledged and encouraged.

Safety and Risk

The proposal will remove the requirement to discharge petroleum at the quayside in the Inner Harbour. This site is located close to the city centre in a mixed-use area, which includes residential use. The proposed development includes for alternative fill facilities to service the Topaz (Tier 1 Seveso Site), Leaside, a lower tier site is referenced as due to close. In this regard the proposal will reduce the public risk at this location as the proposal includes for a new jetty and transfer pipelines removed from this location. It also will eliminate any nuisance currently experienced by adjacent hotel/ apartment occupants generated by these activities.

Water based Activities

The proposal is designed to provide for greatly improved opportunities for water based recreational facilities which include a large marina and a sheltered area for boating, fishing, canoeing facilities. These are considered to be beneficial assets to the general public and visitors also.

Public Amenity Areas

The design of the scheme has potential to extend the green network in the city and provide for a significant enhancement of parkland, walking and cycling facilities. The location of the site at the waterfront would provide for additional seafront within the city with capacity to link in and extend the coastal routes.

Regeneration of Inner Harbour

The development would result in the re-location of industrial uses /operations to the extended harbour. In this regard the existing historic harbour would be facilitated to further develop into next generation uses with potential to use the lands more efficiently, better exploit the attractive siting of the lands, create an improve quality of environment and create better linkages with the city centre.

Tourism

The proposal creates opportunities for cruise ships to dock whereas the existing arrangement only facilitates anchorage off Mutton Island which is not satisfactory and limits the potential for the development of this type of tourist trade.

Natural Environment

The proposal includes for a significant encroachment into waters that are highly valued and currently open to public view and available for use by the general public this is a considerable impact on public realm and loss of a public asset.

The proposal too is located in an area designated for protection under the EU Habitats /Bird Directive. In this regard the impact of the development in nature and scale is likely to have a significant negative impact. This impact needs to be assessed and balanced with the economic advantages that may be accrued by the scheme for the city and the region. It is considered that this will be part of the Board's assessment as consenting authority.

Business Case

The Board should satisfy themselves that the proposal if commenced has a robust chance of completion within the construction time scheduled which is already a long period for the city to endure exposure to a construction site. In addition the Board should be satisfied that such a scheme is robust in the context of EU and national policy, likely competition, sea transportation trends. This is important as the causality of slow completion, modification or abandonment would be huge for the city particularly with regard to its image and current high quality urban environment.

This is in noting that the investment in the proposal comes with a degree of risk as it is substantially predicated on an indeterminate market. It aims to achieve a fourfold increase in

trade. It includes for two markets that are not linked - cruise ships and bulk goods im/exportation and have inherent conflicts of interest. The need for deep-sea berthage has been qualified however the extent of need for reclamation – hence scale of the proposal may need more qualification.

Traffic

It is apparent that the proposal will have an impact on the transportation network in the city; the EIS following analysis indicates this not to be a significant impact on the operation of the junctions. It is important that the Board review this analysis particularly considering the scale of specific types of traffic (HGV) and the lengthy construction period. In this regard particular attention should be given to the methods for successful implementation of the traffic management plans feasibility of controls to reduce movements at peak hour traffic time on the network. In addition it is requested that the Board examine the potential for achieving a transfer of freight transport to rail by a specific time or when a certain level of business has been reached of a nature that can be transferred to rail. It is acknowledged that this is subject to Irish Rail being in agreement and to the Irish Rail work programme.

Visual

The visual impact has been discussed in section 17. The conclusion is that there will be a negative visual impact of scale within the city centre area and the Eastern suburbs, but not so much from the Salthill promenade area. This impact encompasses the realm of protected views. It is noted that in this regard there are limited opportunities for mitigation however the Board will need to ensure that they are satisfied that the qualitative aspect of the development which will lessen the visual impact – extensive landscaping, quality finishes, lighting design, stacking limitations and delivery of the marina development are delivered. Some of these are non core features and should not be a casualty of the project should economic challenges arise in the build/operation stage.

23. Planning authority view on conditions, which should be attached in the event of the Board deciding to grant permission. (Where an IPPC or Waste licence is required, the Board cannot impose conditions relating to the control of emissions from the activity for which a license is required

The planning authority considers that any grant of permission should include for strict conditions based on the points made hereunder.

1.The EIS includes the main mitigation measures and monitoring proposals that are recommended. These are summarised in Chapter 15 of the EIS (copy attached), in appendix 2. It is considered that where applicable these should be included as specific conditions attached to any permission in addition to any other mitigation measures that are appropriate following the assessment of the NIS.

2.The proposal requires a specific *Environmental Management Plan* based on the *Environmental Management Framework* referenced in Appendix 4.2 of the EIS. This plan will encompass a wide range of details associated with the programming, standards guidelines, policies and procedures required to prevent, control and or mitigate the adverse impacts on the environment and the associated risks.

3.The EMF and EMP contents should be subject to agreement in writing with the planning authority and all other appropriate regulatory authorities. It should include for review owing to any changing circumstances /regulation and should identify the specific responsible personnel. Reporting of breaches should be included for in addition to remedial action.

The EMP should at a minimum be required to include for

- Management and Reporting Structure
- Schedule of Environmental Objectives and Targets, including objectives for the minimization of suspended solids movement to surface water systems, and effective management of all silt and settlement pond flow discharges during periods of high precipitation.
- An Environmental Management Programme.
- Corrective Action Procedures
- Awareness and Training Programme
- Communications Programme

4.The EMF should also be conditioned to be the subject of an annual review by the planning authority, following consultation with the Project Monitoring Committee. The developer should be required by condition also to modify the EMF in accordance with any reasonable requirement of the planning authority at any stage. On written request by the planning authority, the developer should be required to submit a report on any specific environmental matter on an environmental audit.

5.Monitoring results should be conditioned with respect to the protection of habitats, flora and fauna; these should be submitted to the planning authority and any other relevant regulatory authority at an agreed interval specified by the planning authority (following consultation with the Project Monitoring Committee). All results should be required to be made available for public inspection within a reasonable period from reporting.

6.The developer should be required to appoint a suitably qualified and experienced Environmental Officer for the period of the construction of the Harbour Extension. As part of his/her duties, the Environmental Officer should be required to liase with the Project Monitoring Committee in relation to implementation of the required environmental monitoring, and should be required to be responsible for reporting to that committee and the planning authority

- any malfunction of any environmental system
- any occurrence with the potential for environmental pollution
- any emergency

which could reasonably be expected to give rise to pollution of air, waters, including deterioration of bathing water quality, have an unacceptable level of impact on flora /fauna. The Environmental Officer should be required to maintain a record of any such occurrences and action taken; this record should be available for public inspection at a designated office location and on a specifically designed website.

7.Short term monitoring post construction as proposed in the EIS with respect to Salmon smolts, Seals, Otter holts, certain birds, salinity levels etc should be agreed to the satisfaction of the appropriate state agencies prior to the ceasing of the scheduled monitoring periods.

8.Any mitigation measures deemed necessary to support the protection of the swan colonies in the Galway city area during both construction and operation should be included by condition.

9. A protocol for complaint procedures should be required to be submitted to the local authority for agreement prior to the commencement of any development.

10.Conditions associated specifically with Air quality – dust emissions, odour emissions, surface water should be required. A comprehensive dust monitoring and odour monitoring and minimisation plan for the construction and operational phase should be included for and submitted to the planning authority for agreement prior to the commencement of any development.

11.Details of right of access to Galway City Council appointed staff to carry out environmental monitoring checks as required, or as requested by the Project Monitoring Committee. Costs incurred by the planning authority in carrying out any necessary monitoring, monitoring checks, inspections and environmental audits, should be required to be reimbursed by the developer.

12. A formal Project Construction and Demolition Waste Management Plan should be submitted to the planning authority for agreement, to address all wastes that may be generated by the development, and the appropriate treatment of such during the construction phase.

13. A Waste Management Plan for the operational phase should be submitted to the planning authority for agreement prior to the commencement of any development, to provide for the appropriate management of all wastes in accordance with waste legislation.

14. For the purposes of drilling, pile driving, and backhoe dredging daylight hours should be interpreted as not exceeding 9pm.

15. In addition to the conditions regarding Drilling, Blasting and Pile Driving as outlined in the mitigation measure in Chapter 15 of the EIS the following should be included. Backhoe dredging should be restricted to daylight hours in the areas close to residential developments namely the Claddagh and Mellows Park; the area of restriction based on the scheduled 24-hour operations of dredging should be defined for clarity.

16. The developer should be required to appoint a Mobility Manager during the construction phase, with a view to ensuring that the Mobility Management Plan is embedded in the development.

17. An annual report to the planning authority on the progress of the Mobility Management Plan should be a requirement.

18. The planning authority should have a number of personnel represented on the Mobility Management Plan steering group.

19. The developer should include for a bike rental station within the development for both staff and visitors.

20. The developer should include for charge points for electric vehicles within the development for both staff and visitors.

21. A VMS signs (linked to the UTMC) should be installed at key exit points from the harbour to assist with City Traffic Management.

(b) Revisions required to junction design at Bóthar na Long should be submitted to the planning authority for agreement in advance of works.

22. The developer should be required to agree the Haul Routes in advance with the planning authority and any restrictions or variances required by the planning authority during construction and operation should be required to be complied with by the developer. This should be included for in the Mobility Management Plan and should be binding on all operators. Restrictions on use of the road network during peak hour periods should apply as proposed in the EIS during both the construction and operation period.

22A The Construction Management Plan and the Traffic/Mobility Management Plan should specifically provide for a clause that allows for modification /cessation of works and or activities in the event of special circumstances or events occurring in the city, the definition of such circumstances should be at the discretion of Galway City Council or their designates.

23. The maximum number of HGV movements along the Haul Routes should be conditioned not to exceed that estimated in the Traffic Management Plan and any amendments to that plan. The developer should be obliged to keep a record of all traffic movements into and out of the sites, and a copy of this should be made available for inspection by the planning authority and the Project Monitoring Committee on request.

24. There should be provision made by condition to cover any additional costs incurred by the planning authority if the event should arise that costs in engaging transportation/environment personnel are required to monitor the Traffic Management Plan and any associated facilities and /or to monitor implementation of the Environmental Management Framework . This would be considered reasonable in view of the scale and complexity of the project.

25. Any amendment to the permitted scheme which relates to the control or impact of major accident hazards (as defined by Seveso II Directive), but which does not materially alter the

permitted development, should be subject to the notification and agreement of the planning authority, following consultation with the Health and Safety Authority. This is in view of the location of the development adjoining two sites subject to such control.

26. An obligation to pay Development Contributions in accordance with the prevailing scheme should be placed on the development. (See section 26)

27. Special Contribution conditions as outlined in section 26 should be included as conditions. (See section 26)

28. Conditions regarding Financial Bonds should be required to ensure that construction and landscaping / amenity facilities are developed to a high standard.

29. The Developer should be required to enter into an insurance arrangement that has sufficient security to indemnify against any probability of a more prolonged construction scenario than envisioned and against the risk of non-completion of construction of works including the delivery of all of the public amenity elements.

30. Consideration should also be given to requiring that an agreement under section 47 of the Planning and Development Act between the developer and the planning authority be required to be entered into as a legally binding arrangement to ensure delivery of and public access to the proposed amenity areas.

31. The extent of lands described as gravel shore /Renmore Beach in the ownership of the applicant should be included in the landscape/amenity plan and public access to this area should be secured as part of the overall public amenity area and should include for protective measures for the adjoining wetland /lagoon area.

32. Conditions should also include for

- a) All hard landscaping specifications to be agreed in advance but, regardless, to be required of a nature appropriate to achieve a high standard of public realm.
- b) On completion of the landscaping scheme a requirement for the developer to submit to the Planning Authority a certificate of completion from a suitably qualified Landscape Designer (or similar professional) confirming that the landscaping works have been satisfactorily carried out in accordance with the approved landscaping scheme.
- c) The satisfactory maintenance and/or replacement of new planting, in accordance with the Landscape Proposals as included in the EIS.
- d) Proposals to support a professional Artwork trail along the marine promenades should be included for in view of the City Development Plan policy 6.8.

- e) The amenity area in particular adjoining the Marina area should be made available for a number of public community /cultural events on reasonable demand and free of charge for events of a scale deemed acceptable under the Seveso II Directive.
- f) Provision of public toilet facilities, shelters, seating bike stands and retail kiosk/similar should be provided in conjunction with development of the promenades, in consultation with the Local Authority.
- g) On ongoing landscape/public realm maintenance plan

33. The details of the design and specification of the proposed signage should be agreed in writing with the Planning Authority and use of the Irish language/bilingual signage should be required to be incorporated within the development.

34. Details regarding revisions to the external finish and design of the two main structures proposed should be included by condition in accordance with points raised in no. 17. It might also be appropriate to require a design scheme, which controls certain design aspects of future developments such as external finishes and signage regimes and for all street furniture in the publicly accessible areas.

35. All mitigation measures associated with archaeology as defined in Chapter 15 referenced above should be included by condition and also mitigation measures associated with archaeological finds as highlighted in Section 13.2.8 (3). In addition specific conditions should be included with respect to the requirements for potential discovery of drowned or submerged ancient landscapes. Specific notification of the planning authority should apply in advance of relevant works and in the event of finds.

36. Initial monitoring of blast impacts to ensure no structural damage from the intensity of charges used and frequency of blast should be carried out at a number of points which should include for large structures in the Enterprise Park and on Mutton Island. Details should be agreed in advance with the planning authority.

37. The suggested community gain options as highlighted in No 24 of the report should be included as a condition of any grant and details of how it is to be delivered.

38. A condition should be required regarding The Emergency Plan for the Harbour, which should include for consultation with appropriate bodies including Galway City Council and should be required to co-ordinate with the prevailing Galway City Major Emergency Plan and Galway County Major Emergency Plan on an ongoing basis.

39. The requirement of Irish Water /IWTO with respect to specific arrangements for water and waste water should be included for in conditions and linked to the nature of specific supply /treatment for visiting vessels and marina usage.

40. All conditions included in the Part 8 Ref LA 7 2013 approval for works to lower the road level at Lough Atalia under the Railway Bridge a protected structure should be complied with in full.

41. Please refer to the report from the A/Chief Fire Officer and his observations, the Board should ascertain if these conditions are appropriate for inclusion in a decision under the Planning Acts or if more appropriate to be included in a Fire Safety Cert or similar.

End of suggested condition list

24.Planning authority view on community gain conditions, which may be appropriate.

The proposal as highlighted by the EIS includes for a significant encroachment into waters that are highly valued and currently open to public view and available for use by the general public. In this regard it is considered reasonable that the developer would contribute towards the cost and provision of all recreational and community facilities described hereunder.

(a) It is considered that the developer should provide the site and fund the design, application for permission and construction of facilities to support the nautical centre within the Harbour enterprise /extension area. These should at a minimum allow for storage for aqua sport club facilities; associated compounds; boat repair area; modern standard of changing/showering/locker facilities, vehicle parking areas and provide for a community building to be made available for clubs usage. These should be available for use within a reasonable time period, which shall be agreed with the Local Authority, at nominal cost. In default of this a financial contribution of equal value determined by a professional valuer should be made to the Planning Authority to provide for general amenity or similar facilities in the immediate area of the coast.

(b) Galway Harbour Company should make available a portion of land within their ownership, located in the inner harbour area, that can sustain a building of minimum size of 2000m² and ancillary requirements (on not more than three floors) and is suitably located to provide for a use accessible to the public. This site will be dedicated to the use for public /community/civic purposes associated with heritage/tourism /education./culture

(c) The reclamation of Lough Atalia & Renmore Lough as a valuable Habitat, high quality amenity space and a water-based recreational area for training on small sailing craft and kayaks should be a consideration in planning gain also This would involve providing adequate linkages to these areas and dedicating public access. Investigations in this regard should be carried out, in conjunction with NPWS in addition to screening for Appropriate Assessment, into the opportunity to redress the decline of Lough Atalia & Renmore Loughs and assist in the recovery of their lagoonal conservation status. In this regard the width of the existing channel under the Bridge could be widened (a new bridge facilitating recreational access could be designed and built) to improve the flow of water in and out of the Loughs. This development accords with Specific Objectives in Section 4.10 of the City Development Plan with respect to Lough Atalia.

This should include for habitat improvement and management plans including restoring damaged wetlands. The scheme should link into the North -South Coastal Walk.

25. Details of relevant section 48/49 development contribution scheme conditions, which should be attached in the event of a grant

It is considered that this development would attract development contributions.

The current scheme may be superseded prior to a decision. The planning authority will forward a copy of the revised development contribution scheme which has been drafted but not brought before the Council /Public yet when it has reached this stage. This scheme will take cognisance of the recent Ministerial guidelines and the setting up of Irish Water. The Draft of this scheme may be available in advance of the Oral Hearing.

26. Details of any special contribution conditions, which should be attached in the event of a grant along with detailed calculations and justification for the conditions.

Roads/Junctions

The developer should be required to upgrade the existing Lough Atalia / College Road junction. The developer will be required to make a financial contribution towards the specific design and associated works and disruption to any peripheral areas in respect of the upgrading.

Reasoning clarified in No. 18

The developer should make a financial contribution for a road-strengthening programme owing to the nature of vehicular traffic generated by the development. This would be calculated on an annual basis directly linked to the annual investment of the City Council on the relevant haul routes and linked with the axle loading of Harbour generated traffic and the associated repair, maintenance and rehabilitation of the road network arising from the construction of the development.

Reasoning clarified in No. 18

The developer should make a financial contribution to Galway City Council in order to connect the proposed site access junction to the Galway City Council UTMC, as the developer will benefit from inclusion in the UTMC.

The developer should make a financial contribution to Galway City Council towards the provision of a new Wolfe Tone Bridge, the amount and timescale to be agreed with the Local Authority. Although there is no specific costs put on this new bridge it is considered appropriate as this is traversed as part of a haul route and the scheme would benefit from rendering it viable for heavy weight loading such as that demanded from HGV's

27. Planning Authority's Considered View

The constraints of the existing harbour are recognised and appreciated by the planning authority. The need for a harbour extension is fully supported, as is manifest in City Development Plan policies. It is also acknowledged however that the characteristics of a specific project that would

achieve the objectives of Galway Harbour Company will inevitably be challenging owing to the scale of the associated works and the sensitivity of the siting. The planning authority are of the view that the Board should assess the proposal in light of the potential economic and public amenity benefits for the city and the region and balance these benefits with the capacity of the site and the city to sustain the likely environmental impacts and risks. In this regard the need to comply with environmental legislation including the EU Habitat Directives is also acknowledged.

APPENDIX 1 – Views of relevant Department/Personnel in Galway City Council

Observations from Head of Section Jim Molloy, Engineer GTU

With regard to the recently lodged planning application to An Board Pleanala by the Galway Harbour Company, the Galway Transportation Unit (GTU) would like to make the following observations:

Mobility Management

The GTU accepts the general thrust of the Mobility Management Plan, however greater detail is required on how the plan is to be implemented. Galway Harbour Company include targets for modal shift that fall short of those set by Galway City Council, these should be changed to at least match the Galway City's 2020 targets. The EIS also is somewhat out-of-date in particular where it relates to planned improvements in the transport network, UTMC, RTPI and the upgrading of the N6 junctions.

The GTU supports the inclusion of a Steering Group and Mobility Manager for the Mobility Management Plan, but would like to see Galway City Council included on the steering group, due to the critical size and location of the development.

There has been no reference to “Green” transport options such as electric vehicles.

Conclusions:

The EIS submitted for the proposed extension to Galway Harbour indicates that Galway Harbour Company is committed to developing a Mobility Management Plan.

The GTU supports the establishment of Steering Group for Mobility Management, along with the appointment of a mobility manager.

The EIS however does not adequately display how its targets are to be met.

The targets contained within in the EIS for modal shift by 2031 are insufficient and fall short of Galway City Councils targets for 2020.

Recommendations:

Galway Harbour Company should change its modal shift targets to at least those set by Galway City Council for 2020, (Car 40%, Public Transport 20% & Walking/Cycling 40%).

Galway Harbour Company should be required to appoint the Mobility Manager during the construction phase, with a view to ensuring that the Mobility Management Plan is embedded in the development.

Galway Harbour Company should issue an annual report to Galway City Council on the progress of its Mobility Management Plan.

Galway City Council should have a position on the Mobility Management Plan steering group.

Galway Harbour Company should include for a bike rental station within the development for both staff and visitors.

Galway Harbour Company should include for charge points for electric vehicles within the development for both staff and visitors.

The GTU also recommends that VMS signs (linked to the UTMC) be installed at key exit points from the harbour to assist with City Traffic Management.

**Observations from Sinéad Johnstone, Executive Engineer, on behalf of Environment Section.28th
February 2014**

I have reviewed the EIS for the Galway Harbour Extension, and in particular the following sections which related to Environment:

- Soils
- Water
- Air Quality
- Noise and Vibration
- Climatic Factors
- Safety Health and Welfare

The following observations are made, and it is recommended that they be included in the report to be prepared by Planning Section for submission to an Board Pleanala in relation to the proposed development.

Soils

The EIS detailed the assessment in relation to the release of suspended solids and contaminates into Galway Bay as a result of the dredging. While the report details mitigation measures to control and contain the dispersion of suspended solids, the EIS does not address the bathing waters, and there is a concern that there could be an impact on the bathing waters, in particular Ballyloughane Beach due to its close proximity. The developers shall address in particular the mitigation measures to ensure the water quality of Ballyloughane or Grattan Beach are not affected by the development.

The recovery and re-use of excavation dredge material may require a waste facility permit or waste licence, dependent on the total tonnage of material, in accordance with the Waste Management Act, as amended. The appropriate authorisation, where required, shall be in place prior to the commencement of any excavation works.

Prior to the commencement of development, a formal Project Construction and Demolition Waste Management Plan shall be submitted to the local authority for agreement, to address all wastes that may be generated by the development, and the appropriate treatment of such during the construction phase.

A Waste Management Plan for the operational phase shall be submitted to the local authority for agreement prior to the commencement of any development, to provide for the appropriate management of all wastes in accordance with waste legislation.

The mitigation measures as outlined in the EIS in relation to soils should be conditioned as part of any approval.

Water

The details of the proposed mitigation measures to be included in the Environmental Management Plan for the development during and post construction, to prevent pollution to waters as a result of leakages or spillages shall be submitted to the local authority for agreement prior to the commencement of any development.

No comments have been made in relation to flood issues, as this area of the report will be examined by T&I, water section.

Air Quality

A comprehensive Dust monitoring and minimisation plan for the construction phase shall be submitted to the local authority for agreement prior to the commencement of any development.

An odour management plan for the construction phase, to include odour-monitoring proposals, odour control mechanisms and odour complaint procedures shall be submitted to the local authority for agreement prior to the commencement of any development.

An Air Quality management Plan for the operational phase, to include monitoring proposals, control mechanisms and complaint procedures shall be submitted to the local authority for agreement prior to the commencement of any development.

The mitigation measures as outlined in the EIS in relation to air quality should be conditioned as part of any approval.

Noise & Vibration

Noise and vibration monitoring shall be carried out during and post construction, and a detailed noise & vibration monitoring and management programme shall be submitted to the local authority for agreement prior to the commencement of any development. The plan shall detail noise monitoring proposals, control mechanisms and noise & vibration complaint procedures for both the construction phase and the operational phase of the proposed development.

Where it is suspected at a later date that the development is the source of excessive noise at a noise sensitive location, or where circumstances have altered, the applicant shall undertake a noise monitoring survey if so directed by the Local Authority. The survey and monitoring sites used shall be agreed with the Planning Authority in advance. The results of the survey shall be submitted to the Planning Authority within 5 days of completion of the survey. If monitoring shows that excessive noise levels have been recorded, the offending process shall be decommissioned or altered and measures to restore permitted levels shall be taken.

Climatic Factors

The Environment Section has no comments in relation to this section.

Health & Safety

The Environment Section has no comments in relation to this section, as it is being addressed by the Health & Safety Officer.

General

A comprehensive Environmental management System (EMS) specific to the construction phase of the development shall be submitted to the local authority for agreement prior to the commencement of any development. The EMS shall include as a minimum the following:

- Management and Reporting structure
- Schedule of Environmental Objectives and Targets
- An Environmental Management Programme
- Corrective Action Procedures
- Awareness and Training Programme
- Communications Programme

The EMS shall be the subject of a regular review and will be updated if necessary in consultation with the relevant regulatory authorities.

A comprehensive Environmental management System (EMS) specific to the operational phase of the development shall be submitted to the local authority for agreement prior to the commencement of any development. The EMS shall include as a minimum the following:

- Management and Reporting structure
- Schedule of Environmental Objectives and Targets
- An Environmental Management Programme
- Corrective Action Procedures
- Awareness and Training Programme
- Communications Programme

The EMS shall be the subject of a regular review and will be updated if necessary in consultation with the relevant regulatory authorities.

Comments from Brian Burke, Ex.Engineer on behalf of Galway Transportation Unit. 28th February 2014.

With regard to the recently lodged planning application to An Bord Pleanala by the Galway Harbour Company, the Galway Transportation Unit (GTU) would like to make the following observations:

Rail

The GTU would generally be in favour of Rail being used to transport freight out of Galway City. However, the suggestion that freight could be transferred at night could have noise implications for residential properties in close proximity to the rail line.

The EIS references a proposed depot at Athenry but no details of this are provided.

The EIS states that rail will only be used to transfer goods when it becomes commercially viable. Consideration should be given to conditioning a minimum volume of goods that must be transferred via rail in order to reduce the number of HGV movements through the city.

Traffic

The impact of traffic generated by the proposed development was assessed using Galway City Councils SATURN traffic model. This was the most appropriate tool. Galway City Council in conjunction with the NTA, NRA and Galway County Council are currently upgrading this model in order to take into account recent changes to the road network and to use this tool in the proposals for a Galway City Outer Bypass. However, at this time, the upgraded model has not been completed and the version used by the Galway Harbour Company is the most up to date version. In general SATURN is used to compare different options and is not used as an outright representation of a road network. In this instance, the model is good for assessing the implications of harbour generated traffic on the future network as a whole but not necessarily for the assessment of individual junction performance. The SATURN model demonstrates that the proposed development will not have a significant impact on city traffic.

However, the traffic section of the EIS relies heavily on the notion that the proposed harbour will not increase existing traffic volumes by more than 5% at most junctions. While this may be correct for general traffic, it does not take into account the increase in HGV traffic. Traffic generation for the development when operational are only provided for the AM and PM peak hours, so a comparison throughout the whole day cannot be carried out.

Galway City Council carried out a traffic count on the Lough Atalia Road / College Road junction and along the Lough Atalia Road in November 2012. It was found that on an average weekday there are 376 HGV movements on Lough Atalia Road. During the AM peak hour there were 41 HGV movements through the Lough Atalia / College Road junction and during the PM peak hour there were 15 HGV movements. During the operation of the development it is expected that there will be 40 HGV movements generated during the AM peak hour and 22 HGV movements during the PM peak hour. This equates to an increase of HGV movements of 102% and 147% during the AM and PM peak hour respectively. This increase in the number of HGVs will result in the significant shortening of the lifespan of existing roads which is generally measured in the number of million standard axles (MSA) of HGVs.

The EIS did state that during Phase 1 of construction 305 HGV movements would be generated per day. This increase in the number of HGV movements through the College Road / Lough Atalia Road junction could have a significant effect on the junction. All vehicles travelling outbound on Lough Atalia road and turning right at the junction have to turn through a relatively tight right hand turn. Slow moving, laden HGVs turning can cause considerable wear on the road surface. As part of the proposed development the Harbour Company should consider upgrading this junction to realign it in order to ease HGV movements through the junction (this could be achieved by altering the junction so that vehicles exiting from Lough Atalia road are aligned with College Road towards the Moneenageisha junction).

The EIS identified a number of Operational Traffic Haul Routes (Drawing 2139-2180). One of these routes identifies the R336 via Wolfe Tone Bridge as the haul route to Bearna and Moycullen.

Galway City Council recently commissioned 2 no. reports on this bridge from Consultancy firm AECOM. The recommendations from these reports, following a structural assessment of the bridge, were that a weight restriction of 26 tonnes should be applied to the bridge in the immediate term and that the bridge should be replaced in the long term.

Galway City Council are in the process of implementing this weight restriction.

This weight restriction will have an impact on the haul route identified in the EIS and will result in all HGVs in excess of 26T generated by the Harbour to use an alternative route. When this bridge is replaced in the future, Galway Harbour Company should make a contribution to its construction.

The proposed development includes the upgrade of the existing site access junction to a signalised junction. Some of the proposals on drawing 2139-2165 are unclear:

It appears that there may be a traffic signal proposed for vehicles exiting from Donnelly Coal at the corner of the junction (due to a signal head shown on the drawing) however no stoplines or access points are shown. If a signal is proposed for this location further details are required, however it is unlikely that it would be looked upon favourably.

No cycle lanes are proposed for the town side of the junction. A cycle lanes should be provided if achievable.

It is unclear if the cycle track is proposed to be on-road or raised adjacent based on section A-A.

The autotrack analysis demonstrated on drawing 2139-2173 shows the swept path of an articulated truck encroaching onto the advanced cycle box. This will require alteration to ensure this does not happen.

The proposals include an access path from the development to Renmore beach. This should include the provision of a cycle track.

The proposal also includes the lowering of the road under Lough Atalia Bridge. The GTU are supportive of this as we currently have a Part 8 application lodged for the same proposal. However in Volume 1A, Schedule 4 drawings 3484-1142-E and 2139-2126-A detail proposals that are different to those located elsewhere in the application (an attenuation take is shown in the green area adjacent to the road). We assume that this is due to the drawings being referenced in a letter of consent and do not form part of the proposals seeking planning permission.

Conclusions:

The EIS submitted for the proposed extension to Galway Harbour demonstrates that the development would not have a significant impact on traffic on the wider Galway network, but that the network will be saturated anyway.

The EIS fails to take account of the impact HGV traffic generated will have on the lifespan of pavements on the public road network and the impact on the College Road / Lough Atalia Road junction.

The EIS did not take into account the imminent weight restriction that will be applied to the Wolfe Tone Bridge.

Recommendations:

If the Planning Application is granted permission, the final design of the site access junction must be agreed with Galway City Council.

Galway Harbour Company should be required to upgrade the existing Lough Atalia / College Road junction.

Galway Harbour Company should make a financial contribution to Galway City Council for a road strengthening programme.

Galway Harbour Company should make a financial contribution to Galway City Council in order to connect the proposed site access junction to the Galway City Council UTMC,

Galway Harbour Company should make a financial contribution to Galway City Council towards the provision of a new Wolfe Tone Bridge.

Comments from Raymond Brennan, Senior Engineer, Water Services Project Office & Transition Team.

The following are the Observations of the Transport & Infrastructure Directorate relating to Water & Wastewater Infrastructure.

Water

The proposed development's requirements regarding potable water will not create any capacity issues for Galway City Council's Terryland WTW.

Wastewater

The proposed development's requirements regarding disposal of Surface Water & Foul Drainage will not create any capacity issues for Galway City Council's Mutton Island WWTW.

Galway City Eastern Environs WWTW

In 2008, Galway City Council submitted for DECLG approval the Preliminary Report for Volume E of the Galway Sewerage Scheme Phase 3 project which was titled Galway City Eastern Environs WWTW. The Preliminary Report outlined the need for a new WWTW located in the Oranmore / Athenry area with the Outfall pipe discharging into Galway Bay to the East of Mutton Island WWTW. The projected load for this plant was estimated at 553,254pe for the year 2023 and was made up of 17% Municipal and 83% Industrial.

On examining the Galway Harbour Extension submission, it was stated, for the purposes of Outfall Dispersion Simulations, that Effluent Flows simulated were the projected future mean flows of 0.488m³/s at the Galway City Eastern Environs WWTW outfall. This figure equated to 234,240pe which equated to only 42% of the projected 2023 figure. The submission concluded that the outfall location would not be impacted by the proposed Harbour Development. I was concerned that the simulations did not take account of the proposed 2023 figure and so there was the potential for the Harbour Extension to limit the discharge volumes available to the City Eastern Environs WWTW.

Following two meetings with TOBIN, Consulting Engineers on the Harbour Project and Mr. Tony Cawley, Modelling Specialist, it was agreed that further modelling would take place which would more accurately represent the Effluent Flows from both Mutton Island WWTW and Galway City Eastern Environs WWTW. This report will be furnished to ABP at the appropriate juncture. Irish Water have, also, been made aware of the proposed Harbour Extension and impacts.

Observations from Dr. Jim Higgins, Heritage Officer in relation to Heritage Issues

Re: Harbour Extension Heritage and Related Observations

The potential impact on the contextual setting of Mutton Island Lighthouse should be considered. The structures there include a Recorded Monument and a Protected Structure and related buildings in the curtilage.

As a precaution and in the light of potential for structural vibrations due to piling and blasting, it is vital monitoring of the structures should be done to ensure that no damage is done to the Lighthouse and related structures. Tell-Tales and other monitoring devices should be considered too, for the Early Medieval Round tower at Roscam.

Swans

Consideration should be given in relation to any mitigation measure in relation to the colony of swans which frequent Swan Island on Mutton Island and the Claddagh and Nimmo's Pier areas.

Drowned and Submerged Landscapes and Deposits

The EIS did not consider the potential for the discovery of such important palae-environmental features in the course of the works. Some of the drowned landscapes have produced natural heritage material palaeobotanical and archaeological matter also.

A layer of peat and ancient peat stumps is to be found intermittently from An Spidéal to Bearna and extends well out into the foreshore. Local Fishermen have moored boats to stumps which are found well out in the sea. This sort of deposit with tree stumps is also found in the vicinity of Lough Atalia where they have been studied and dated dendrochronologically, and pollen cones have been taken by Dr. Karen Molloy and Professor Emeritus Michael O'Connell. What is most significant in relation to the present application is that there were originally similar drowned landscape material in the intervening areas as well. Some significant similar features were previously present along the coastline prior to clearance in the 1930's to 1960's. Care should be taken to protect any further prehistoric landscape (and attendant archaeological feature) which may occur in the intervening areas. Additional survey work may be required to discover such landscapes in advance and ongoing monitoring may be necessary to mitigate any interference with such features. I would cite articles by Drs. D. Michael Williams and Eamon Doyle (2014) and a recent article by Brian O'Carra, D. Michael Williams, Brian Mercer and Bill Wood (2014) as just some recent studies which give a good idea of the natural heritage palaeoecological and archaeological evidence that such submerged landscapes can turn up. (See References below).

Other Archaeology

All mitigation measures relating to the archaeological potential of the area are absolutely essential.

From the 16th century onwards it was customary for the Lynch family to salute with cannon shot or gun shot as they entered the port of Galway via the "Sea Roads" and in the vicinity of Mutton Island. This is recorded in James Hardiman's (1820) History of the town and county of the town of Galway, (Dublin, 1820). Evidence for this shooting into the Bay may be uncovered as part of

general archaeological monitoring, but whether it is or not the potential for discovering such evidence should be borne in mind.

19th and Early 20th Century Munitions. Safety and Archaeological Potential

There is historical and folklore evidence that the British Navy engaged in training and target practice in the inner reaches of Galway Bay and there is a probability that the British Air Force (or their predecessor the Royal Flying Corps) based at Carnmore did so. Some of the Royal Navy fire would have been directed from the fortifications at Na Gunnaí Móra to the rear of Claddagh and Fairhill. In addition the British Navy vessel which fired in the Maree/Oranmore direction from the sea during the 1916 Rising is said, in a strong local tradition, to have dumped excess munitions in the bay when the Rising failed.

A firm commitment to a Heritage Element. In the interest of community benefit it is vital that a physical heritage element should result from the development in the interest of community gain. A specific commitment and plan for a Maritime Museum/Cultural Centre built by the developers needs to be built into the plans at an early stage.

Suggested Preferences of Potential Use in further Evaluation of the Proposal

Williams, D. Michaels and Doyle, E. (2014). "Dates from Drowned Mid- Holocene Landscapes on the Central Western Irish Seaboard" Irish Journal of Earth Sciences 32 (2014) 1-5.

O'Carra, B, Williams, D. M. Mercer, B. and Wood, B. (2014) "Evidence of Environmental Change Since the Earliest Medieval Period from the Inter Tidal Zone of Galway Bay", Irish Naturalists Journal 2014.

Re: Lough Atalia Railway Bridge, Lough Atalia Road, Galway.

Considerable changes have been made to the fabric. Original cast iron features with open work decoration and moulding have been removed and omitted from a new "remodelling" of the bridge and instead some strips of new mouldings have been spot welded onto a new metal surface. Elsewhere beneath the bridge some stonework has been repointed. The metal work should be restored to its original form.

As regards lowering the roadway beneath the bridge I have no objection since it has been found in Ann Carey's testing that the foundations of the piers of the bridge do not project forward into the road or pathways.

Observations from Stephen Walsh Senior Executive Parks Superintendent

Galway Harbour SID EIS – Recreation & Amenity Report

Further to the request to provide comments in relation to the above mentioned in a number of specific sections I have set out the following for your information: -

Landscape & Visual

The documents contained in the EIS recognise that there will be visual intrusion as the proposal which is an industrial development will be set to to some extent within a natural context. The report refers to the industrial context of the existing harbour area (extended in the late 1990's) which although correct does not clarify that the Harbour Authorities did not comply with the natural mitigations set out in the previous EIS. The Harbour extension is a heavily scarred landscape and it must not be repeated. Instead the proposed development should aim to restore the natural environment in so much as can be done. I have concerns that the EIS states there will be negative (to varying degrees) visual impacts to various areas and that the nature of the development provides little scope for visual mitigation. They do propose some minor measures such as screen planting, light spill reduction and colour recommendations. I agree with this view and would advise that the Planting proposed should not even be referred to as screen planting. At the scale proposed and the extreme environments involved it simply will not do that. It is unfortunate therefore that this matter was not explored at the design stage prior to the EIS. If the scheme had been designed with an exoskeletal soft edge scheme incorporating artificial marine scrub, earth works and rock armour (to the non-vessel functioning areas) specifically to the shore facing Lough Atalia to Ballyloughan it could have been blended in to a higher extend than proposed. Perhaps that can still be discussed and I am available to discuss this with the Design Team.

A key concern of the scheme proposed (with respect to the screen planting and amenity areas) is the exposure and the quality of medium in which the trees and shrubs will be planted. There will be high losses given the narrow width of the linear planting swathes. The broader the planting areas with high planting densities and artificial wind control the higher the eventual take rates will be and growth levels. As it is the rates of growth shown on the cross sections will not be achieved. The salinity levels coupled with wind speed will kill large amounts of the trees and stunt many others. I am available to discuss this with the design team if required.

Land Use and Amenity

There are positives with respect to the proposals for an amenity walk within the Development and a small pocket Amenity Park. I would have concerns about the sustainability of the scheme in terms of the success of the Planting and how public access will be provided. The linkages to the external existing amenity spaces and the Coastal Walk are referred in the report but not clearly demonstrated. This could work and I am available to meet the design to clarify this when required.

The Report also refers that the part of the Bay area that will be partially enclosed by the proposed scheme will create a sheltered area between Ballyloughan Beach and Hare Island. It is stated that this could serve for water sports activities. I am not sure whether this is outside the scope of the project and whether it should remain in the report. In order for it to be substantiated matters such as agreement for such use in the designated areas would have to be agreed and the area would require marine investigations to ensure it is safe for navigation. There could be potential for such a scheme if the existing low bridge that leads into the Industrial Park was changed to either a lifting/swing bridge or if its clearance was improved. I would be very favourable to exploring this potential with the Designers given that the Applicant infers this to be a positive mitigation outcome.

Flora & Fauna

The EIS highlights the degradation of the lands occupied by the existing harbour extension. It does not mention that the previous EIS set out mitigation measures which were not undertaken and, if they were the habitat the specialists classified in the report as ED2 Spoil and Bare Ground & ED3 Recolonising Bare Ground would not exist. There is also another concern, we have noted with the quality of material used for infilling. A recent site investigation visit noted dumping of bituminous (road waste) and Gypsum waste at the edge of the reclaimed areas next to the open water. Such materials must be cleared up and not be permitted to be used in the infilling. The report clearly sets out very good measures for controlling material during construction, but how will it be controlled post the major infill works and before the site is completed and occupied.

The report refers to the history of the decline of Lough Atalia & Renmore Lough in terms of their habitat value. It does not explain why? I would have thought that to be obvious in that it is probably linked to the previous harbour extensions/constructions, which have narrowed the access to the Lough. We should be using this scheme as an opportunity to redress that decline and assist the Lough Atalia & Renmore Loughs to recover their biodiversity opportunities. In this regard perhaps the width of the existing channel under at the Bridge could be widened (a new bridge facilitating recreational access could be designed) to improve the flow of water in and out of the Loughs.

As discussed at the meetings it was queried whether we should be seeking a positive amenity contribution from the project, I believe we should and in that regard I believe there is an opportunity to reclaim Lough Atalia & Renmore Lough as a valuable Habitat, high quality amenity space and a water-based recreational area for training on small sailing craft and kayaks. This would involve providing linkages to these lands and dedicating public access. Providing habitat improvement and management plans including restoring damaged existing lands as wetlands. The east shore of the development should be similarly developed as referred earlier in this report. The scheme could also link into the North -South Coastal Walk. I am available to meet with the Designers to explore this further. The report clearly states that there will a significant hectareage of land lost to the Development which currently serves as habitat for many species. It acknowledges that as the proposal stands that impact cannot be mitigated for at least during the construction process. My proposal I believe is a way to provide sustainability to balance proposed environmental losses, halt continued habitat decline and meet our obligations with respect to

human amenities as set out the City Development Plan and the Recreation & Amenity Needs Strategy (2008).

Water.

I note the various studies issued in the context of future wave studies and flood risk. The main concern we have is the erosion to the Headlands at Kelly's Field and the continuance of the low tide causeway to Hare Island. Though not specifically mentioned we trust there will be no change in terms of the possible acceleration of erosion and that the causeway will remain a temporary tidal event. There is a reference to increased wave activity along the south face of Nimmo's pier, given this is historical edifice and is in need of restoration there is concern that we may have to undertake precautionary works to ensure it's stability and the reclaimed lands that form part of the Park and beach.

Natura Impact Statement

The report states a number of significant impacts to the habitats and species within the Natura sites, many of which are stated cannot be mitigated for. Given that for economic interests there is a need to extend existing berthing facilities, which we should do by also compensating for the negative costs to the Natural Environment. I have set out proposals above which I believe would in the long-term compensate for the loss of area of designated habitat, damage to species and halt the decline in habitat value caused by previous development. The study is appropriate in that it deals with the high level EU Designated sites such as SAC, NHA's etc. There is a problem with this form of examination which assumes a high quality habitat is self supporting, it is not. Isolation of habitats causes eventual decline. The viability of a habitat is dependent on lesser supporting habitats, there is a high degree of interdependence and a need for movement in and out along corridors to other high quality habitats.

The Galway City Habitats Inventory stressed the need for conservation and management of what are termed as habitats of local importance and their value in maintaining the viability of the high level and designated habitats. It referred to the importance of maintaining Wild Life Corridors. This principal is not within the scope of the Natural Study but is more appropriate to the Flora and Fauna report. We thus need to incorporate proposals to flank and surround the SAC, NHA & SPA with Habitats of local importance. It must be noted too that although not of national/international importance these habitats are immensely valuable locally and to those whom like to visit our City.

The report refers to legacy issues and losses previously to habitat areas through the last development. We must ensure that this proposal counters the previous negative consequences to the Natural environment and those proposed. I believe the creation of new habitat lands, sustaining and Improving Lough Atalia and Renmore Lough will also mitigate those loss to some extent also. In this regard salinity levels must be adequately protected for the salt marshes in this area.

I am available to discuss this with the Design Team if required.

Observations from Paul Duffy, A/Chief Fire Officer

Hereunder, please find the observations of Galway Fire Authority:

1. The Emergency Services access road around the entire boundary of the TOPAZ Terminal (Upper Tier COMAH DS Site) to be re-instated.
2. The TOPAZ Terminal (Upper Tier COMAH DS Site) Safety Report to be reviewed on the basis of the proximity of the railway line extension. Additional safety precautions will be necessary including, but not exclusively, additional fire fighting water monitor protection.
3. A fire water retention bund of adequate capacity in relation to an incident at the TOPAZ Terminal (Upper Tier COMAH DS Site) to be provided in the vicinity of the existing fuel storage site (*IP Model Code of Safe Practice in the Petroleum Industry, Part 19, Fire Precautions at Petroleum Refineries and Bulk Storage Installations, 2nd Edition 2007, Energy Institute, UK*).
4. Bulk Class I and Class II fuel or Ethanol storage to be prohibited within the extension area.
5. Safety management, minimum safety distances (from buildings, boundaries and passenger ferries) and fire fighting measures in relation to commercial/passenger berths to comply with *The Bulk Transfer of Dangerous Liquids and Gases Between Ship and Shore*, HSE, UK 1999 and Dangerous Substances (Oil Jetties) Regulations 1979 (SI 312/1979).
6. Adequate spill protection/response measures to be implemented at the passenger/commercial berth in order to minimise the risk of fire and explosion.
7. An explosion protection document (Safety Health and Welfare at Work Act – General Application Regulations 2007) to be provided for the oil unloading terminal.
8. The existing port sea water fire fighting main to be extended to the commercial/passenger berths and increased to a capacity of 12,000 lpm including a new additional sea water pump at the berth with an equivalent capacity.
9. Remotely controlled water/foam monitors and foam concentrate stocks to be provided at the oil unloading terminal. Number and flow rates of monitors and foam concentrate type and stocks to be agreed with the Fire Authority in advance of operation.
10. An adequate means of refuge and evacuation (other than through the extension area) to be provided at the end of the jetty.
11. A high level fire control room (with visibility on the passenger/commercial berths to be provided and manned when berths are occupied.
12. A restricted access/security system to be implemented at the entrance to the Harbour.
13. A contribution of €60,000 to be made to Galway Fire and Rescue Service in advance of operation of the proposed passenger/commercial berths in order to offset the cost to the Fire Authority in relation to additional marine fire fighting training and equipment which will be required given the new and increased risks associated with the Harbour extension.
14. The impact of works to the Lough Atalia rail bridge in relation to Fire Service mobilisation times to be assessed. Alternate routes acceptable to the Fire Authority to be provided for the duration of construction works.

All of these issues have previously been discussed with Galway Harbour Company and/or their Consultants. If any further clarification is necessary, please do not hesitate to contact this office.

APPENDIX 2 –Extract from Environmental Impact Statement (EIS) Volume 2B Chapter 15, MITIGATION MEASURES

15.1 INTRODUCTION

The mitigation measures set out in each of the EIS Chapters are summarised in this Chapter 15. In addition, an Environmental Management Framework sets out additional measures, monitoring standards, thresholds and best practice guidelines for the preparation and implementation of the Environmental Management Plan.

15.2 ENVIRONMENTAL MANAGEMENT FRAMEWORK

The Environmental Management Framework included at Appendix 4.2 forms the basis for a full Environmental Plan [EMP] for the construction of the Galway Harbour Extension. The information contained in the Environmental Management Framework and in due course the developed EMP will be supplemented by the contractor's Environmental Implementation Plan [EIP]. It will contain the specific action plans of the contractor regarding the requirements of the EMP such that the environmental issues and regulatory requirements are properly addressed.

15.3 MITIGATION BY DESIGN

- The layout and footprint of the proposed development have evolved over the course of the design processes with a view to minimising the impact on Natura 2000 sites and their qualifying interests.
- The reduction in scale of the development over the design process and the rearrangement of elements of the development has helped to reduce its visual impact.
- The layout, orientation and positioning has minimized the requirement for rock removal.
- The proposed design incorporates a beneficial re-use of dredged sediments for fill and surcharge. The design facilitates the re-use of all dredged soils for land reclamation purposes. Rock excavated within the site will be incorporated into the construction of lagoon walls and quays and access ways.
- The unsatisfactory junction arrangement at the entrance to the Galway Harbour Extension [adjacent to the Galway Harbour Hotel] will be upgraded to a signalised junction at the commencement of the project.
- Improvement works to the horizontal and vertical alignment of the road at Lough Atalia Road Rail Bridge and along by Forthill Cemetery will be undertaken as an enabling contract at commencement.
- Semi-vertical breakwaters have been proposed to mitigate seal predation on salmonids by avoiding the formation of potential new seal haul-outs adjacent to the route of salmon runs.
- Lighting plan designed to prevent uplighting, reduce sky glow and minimize lighting of water body.
- Storm water is controlled by using valved outfall lines with petrol interceptors and silt traps.
- Surface area of oil quay designed to manage spillages.
- Provision made for collection and retention of contaminated firewater.
- The use of textured construction material will enhance settlement by algae and invertebrates.

- Landscape plan largely using native species evolved to provide:-
 - screening of the central cargo area and general harbour operations
 - softening of the hard elements of the harbour extension proposal
 - greening, to reflect the landscape backdrop of the eastern environs of the City.
- The selection of neutral malt colours for the various buildings will lessen their visual impact.
- A Mobility Management Framework will be implemented to promote alternative methods of transport to the private car for employees or customers at the Galway Harbour Extension and that heavy goods vehicles avoid conflict with peak traffic.

15.4 CONSTRUCTION MITIGATION

The mitigation measures as detailed in the various Chapters of the EIS are summarised below:-

Environmental Management Framework.

- Implementation of Best Practice construction methods and Environmental Management Plan.

Drilling, Blasting and Pile Driving

- Blasting and piling will be limited to the period 1st August to 31st March inclusive to avoid the April to July principal run of Atlantic Salmon and other anadromous species.
- Trial blasting will be carried out prior to the commencement of production blasting to confirm the optimum blast ratio for the process, to test the effectiveness of the proposed mitigation measures and to provide initial monitoring data for the blasting events.

The mitigation measures proposed are based on international best practice in particular that adopted by the Canadian authorities (Anon), and the American authorities (Anon 1991), (Anon 2006) and British Standard 5607 *Code of practice for the safe use of explosives in the construction industry*.

- All drilling and blasting will require the preparation of detailed method statements by the appointed specialist contractors prior to commencement.
- All blasting will take place in daylight hours and sea state 0 to sea state 3. Where possible blasting will take place at low tide conditions.
- The maximum instantaneous charge permitted in any blast will be 10 Kg of explosive.
- All pile driving will take place in daylight hours.
- Blasting and pile driving will not be permitted if cetaceans or seals are sighted within one kilometre of the blast site; this area is defined as the exclusion area. Marine Mammal Observers will take up position before a day's blasting begins. They will be equipped with binoculars, telescopes and tripods with which to watch for the animals, and two-way radios with which to communicate with each other and the explosives engineers. Blasting will not occur if a seal or cetacean is sighted within one kilometre of the blast site, or for a period of 30 minutes after one has been sighted within the 'exclusion area'. Observers will use Mutton Island and Hare Island as watch points. A Marine Mammal Watch Plan giving full details of the methodology and standard operating procedures for the blasting watches in accordance with the NPWS "*Draft Guidance to manage the risks*

to Marine Mammals from Man-made Sound Sources” will be carried out before blasting works begin.

The IWDG runs a national strandings scheme that covers Galway Bay. The project team will arrange with IWDG to receive news of any strandings that occur in the area during the construction period. It is further proposed that:

- i. after episodes of blasting a search party will be sent out in a RIB to search the area around the blast site for dead or injured seals or cetaceans.
- ii. a public awareness campaign will be launched in which members of the public are encouraged to report dead or injured seals in the inner Galway Bay via a designated phone line.
 - The use of acoustic deterrent devices (ADDs) to deter seals from entering blast areas will be considered if seals are often present in these areas and significant disruption to blasting activities occurs.
 - Underwater noise levels will be monitored prior to commencement of development and during construction, with particular emphasis on the presence of seals and during the smolt and eel migration period.
 - A rigid inflatable boat [RIB] will be used to deter bird species from areas of blasting activity.

Dredging

- Dredging work will be limited to the period 1st August to 31st March inclusive, to avoid the April to July principal run of Atlantic Salmon and other anadromous species.
- Dredged material will be used as fill material for land reclamation, thus completely eliminating disposal at sea during construction.
- Dredging activity within 800m of the entrance to Lough Atalia will be restricted to periods of ebb tide.
- Measures and controls will be required on board dredgers to include the elimination of overflow and the avoidance of spillage from open barges and hoppers.
- The design of the proposed development includes the use of geotextiles to line the fill areas between bund walls and also incorporates the continuous gradual release of filtered dredge transport water.
- Bilge water will be collected from vessels and disposed of by licensed operators.
- Disposal of ballast waters will be regulated under International Maritime Organisation.
- Barges with ducted propellers will be fitted with mesh screens to prevent seal entry to ducts.

Use of Concrete

- Normal best construction practice with regard to the use and pouring of concrete will be adhered to. If concrete cannot be poured in dry protected areas away from water until full curing has taken place, particular attention will be paid to the quality and security of the shuttering used for pouring. Pre-cast concrete elements will be used wherever possible and these will be designed to allow for enhanced settlement of flora and fauna as reported in recent scientific papers (Fifth 2013, Chapman and Brown 2011, Martins and Thompson, 2009). Any wash water contaminated with concrete will not be allowed to enter the marine environment and will be disposed of appropriately. Contaminated equipment (*e.g.*

concrete delivery trucks, pumping equipment and tools) will be cleaned at a location where there is no possibility of the drainage of wash water to the marine environment. The mitigation by design from using sheet pile and rock armour has ensured a minimal underwater concrete requirement. While the main quays will be concrete, these will be above tide level.

Spillages

- All machinery used in the construction of the proposed development will be checked to ensure that it is well maintained and not likely to leak fuel, lubricating oils, greases etc. into the aquatic environment. Any onsite refuelling or maintenance will be carried out on securely bunded temporary hard standing areas. All oily wastes generated will be stored in leak-proof tanks for removal by a licensed operative holding a valid Waste Collection Permit. Dredgers will be re-fuelled at sea using best available practice to ensure no spillages into the designated sites.

Dust and Odour

- Transport of material to the site will be by means of trucks on the public roads. Roads within the site will be hard surfaced with a base coat of asphalt as soon as practicable to minimise haul road dust within the site. The internal roads will be maintained and cleaned on a regular basis. A self-contained mechanical wheel wash will be installed on site and relocated to appropriate locations during the construction phase. This water will be disposed of appropriately and will not be released untreated into the marine environment. If required during periods of dry weather a water bowser will be utilised to dampen the road surface.
- Where fine material is imported to site such materials will be carefully placed to minimise fugitive dust emissions. Temporary cover using materials such as coarse or damp soil, clay or geotextile cover will be used where appropriate. The exposed area of fine material will be minimised to an appropriate maximum size.
- Settlement ponds / lagoons for dredged sediments will have a wetted surface, supplemented by water sprays during dry weather and post pumping to minimize dust emissions.
- A dust and odour management plan will be implemented during the construction phase, using resident data, meteorological data and site operator knowledge to investigate any dust or odour complaints and implement remedial action.
- H₂S and methane release will be controlled by alternating lagoons and damping down surfaces. On excavation of silts, strong odours are given off by decomposing organic matter. These odours, although initially quite pungent, rapidly reduce as soil aerates. Discharge points for suction dredged materials will be established at a number of locations to facilitate the distribution of materials within the lagoons.

Archaeology

- All groundworks associated with the upgrade of the roadway, footpath and construction of the bicycle lane at Forthill Graveyard and at the entrance to the Galway Harbour Enterprise Park will be archaeologically monitored under archaeological licence issued from the National Monuments Service.

- All groundworks associated with the road reduction measures beneath the eye of Lough Atalia underbridge will be archaeologically monitored under archaeological licence issued from the National Monuments Service.
- All underwater dredging works and other excavation works from the shore area and other associated areas by land based mechanical machinery will be archaeologically monitored by experienced, licensed maritime archaeologists with a proven track record in equivalent, similar type work. The lagoons receiving the dredged sediments, when sufficiently dried, will be archaeologically tested to recover any potential archaeological artefacts in the sediment. The archaeological testing will involve a program of sieving and licensed metal detection thus maximising artefact recovery.

15.5 OPERATION MITIGATION

The mitigation measures as detailed in the various Chapters of the EIS with regard to the operational phase are summarised below:-

- Mitigation for impacts of lighting during the operational phase has been provided through the use of energy efficient lighting in a configuration designed to provide the minimum lighting level required for safety. The lights used will be of a design that casts light downwards only and the lamp standards will be positioned in such a way that they will shine directly onto newly reclaimed land only.
- The storm water from the existing Phase 1 of the Galway Harbour Park currently discharges from three discharge points. It is proposed that these three discharge points will be linked up, as part of the proposed development, so that there will be only one discharge point from the existing GHEP. This new system will divert storm water to petrol interceptors fitted with silt traps prior to its discharge to sea. In the event of an oil or other spill entering the storm water system, the discharge of contaminated water will be prevented by the use of control valves.
- A detailed spill response plan has been prepared. This will limit the negative effects of any spills. In addition, Galway Harbour Company has an Environmental management policy to ensure that there are no spillages to the sea.
- Maintenance dredging will be limited to the period of 1st August to 31st March inclusive. Spoil from maintenance dredging will be disposed of to an EPA permitted site located outside Natura 2000 sites.
- Commercial vessels approach Black Head at *ca* 12 knots and at the Outer Margaretta Buoy, have reduced this to 6 knots. Pilot transfer takes place at 3.5/4 knots and vessels enter the docks at a velocity of *ca* 3 knots.
- Ship unloading will be carried out in a manner that minimises cargo spillage. All loading/unloading will be subject to appropriate operation specific control and containment protocols. Operatives will undergo training on spillage reduction measures and emergency spill containment and clean-up measures. Such training will be documented and updated on a regular basis.
- The port will be equipped with infrastructure to support the installation of shore-side electricity for vessels using the port. This will provide essential services for the vessels and eliminate the requirement for ships engines to run continuously while in port.
- Many of the industries envisaged for the enterprise park will require licences from the Environmental Protection Agency to operate. Where a licence is not required, the Harbour

Company will require site leases to include environmental protection conditions equivalent to those required in Environmental Protection Agency licences.

15.6 MONITORING

- Intertidal annual seasonal sampling will commence pre-construction and for one year post-construction at the following locations: Ballyloughan, Lough Atalia, Renmore Lough, east and west of the causeway and at an agreed control site to record macrofaunal assemblages and sediment granulometry at High, Mid and Low water. Sampling will incorporate quadrates, cores and photography (including Sediment Profile Imagery). Post-completion, the additional 1 year's data can be reviewed to see if seasonal sampling is still required or if it can be reduced to once a year.
- Annual benthic sampling will be commenced pre-construction at the following sites: south of Ballyloughan Beach, Lough Atalia, Renmore Lough, east and west of the caseway, south of Mutton Island and at an agreed control southwest of the Margaretta using a 0.1 sqm grab and a 1 mm sieve. 3 faunal samples and 1 sediment sample will be collected and analysed using the same techniques as were used in the EIS. Sediment Profile Imagery will also be incorporated into the monitoring methodologies. The sampling will continue for at least 3 years post-completion.
- Suspended solids levels will be continuously monitored at a number of points in the vicinity of the works as part of the Environmental Management Plan.
- A site dust monitoring programme will be put in place during the construction phase with secure monitoring locations to ensure compliance with dust deposition limits. A dust management plan will be implemented during the construction phase, using resident data, meteorological data and site operator knowledge to investigate any dust complaints/potential dust complaints and implement remedial action using a developed common sense strategy.
- The acoustic tagging study of salmon smolts that was carried out as part of the EIS will be carried out again post the construction period to document changes in patterns of migration routes that the smolts undertake.
- Monitoring of common seal populations prior to, during, and for at least two years post construction, will be completed as part of ecological monitoring of the development. This will follow a similar methodology to that employed as part of the baseline surveying, using similar techniques and haul out locations to allow for comparative analysis with baseline information.
- Survey for otter holt sites will be completed immediately prior to construction phase and on two occasions annually post construction phase, following a similar methodology to that employed as part of baseline surveys. During the construction phase, observation surveys for otter activity will be made and notes from marine observers and bird surveyors will also be included as part of the dataset.
- Monitoring of bird populations prior to, during and for at least two years post construction will be completed as part of ecological monitoring of the development. This will follow a similar methodology to that employed as part of the baseline surveying, using similar techniques and point count locations to allow for comparative analysis with baseline information.

- Underwater noise levels will be monitored prior to commencement of development, with particular emphasis on the presence of seals and during the smolt and eel migration period.
- As the proposed development has the potential to alter salinity regimes in the area, *in situ* monitoring of salinity will commence prior to construction at the following sites: at the mouth and within Lough Atalia, Renmore Lough, off Ballyloughan, south of Mutton Island and southwest of the Margarettta. This monitoring will continue for at least two years post-construction.
- Appropriate measuring devices will be deployed pre-construction to measure current speeds and wave heights at the following sites: south of Ballyloughan, east of the existing shipping channel, south of Mutton Island and southwest of the Outer Margarettta buoy.
- Prior to commencement of construction, instrumentation will be installed to monitor the response of the alluvium to the construction processes. Instrumentation will include piezometers, inclinometers, settlement plates and sediment traps. Instruments will be installed within the lagoons in a grid pattern and outside lagoon bunds prior to commencement of construction works. The measurements taken will facilitate the safe construction of the works and enable a comparison between design geotechnical parameters and the actual response of the soils to the works.
- The areas adjacent to the Galway Harbour will be monitored on an on-going basis to record the occurrence of invasive non-native species. If noted, Galway Harbour Company will devise and implement measures to control the spread of such species.
- An Environmental Management System complying with ISO 14000 or equivalent will be developed for the harbour and Enterprise Park developments.
- On-going monitoring through Static Acoustic Monitoring [SAM] of small cetaceans using C-PODs will be carried out, during and after construction in accordance with the Before-After-Control-Impact [BACI] approach.

15.7 REPORTING

Monthly / quarterly environmental audit reports will be compiled as part of the Environmental Management Framework. These will provide summary information on monitoring completed with annual reports compiled for the duration of the construction phases of the development, and following two years from the completion of the project.

Reports will be submitted to the local Planning Authority and other authorities as deemed appropriate e.g. EPA etc.