An Bord Pleanála

Inspector's Report 303247-18

Development	Remedial works to existing quay walls, construction of public realm improvement works and flood defence works
Location	Morrison's Island, Cork City.
Planning Authority / Applicant	Cork City Council.
Type of Application	Application for approval under Section 177 AE of the Planning & Development Act 2000, as amended.
Observers	635, including Prescribed Bodies
Prescribed Bodies	1. Inland Fisheries Ireland. 2. Geological Society of Ireland 3. Department of Culture, Heritage and the Gaeltacht. 4. Transport Infrastructure Ireland.
Date of Site Inspection	26th April 2019.
Appendices	Report of Senior Ecologist Photographs of Site Inspection LLFRS - Supplementary Report on Groundwater Dec. 2017

Contents

1.0 Introduction

1.1. This is an application to the Board for approval for remedial works to the limestone quay walls, construction of public realm improvement works and flood defence works at Morrison's Island in Cork City Centre.

1.2. The proposal relates to a scheme at Morrison's Island on the south channel of the River Lee in Cork City, between Parliament Bridge and Parnell Bridge, along Morrison's Quay and Father Matthew Quay and a short section along Union Quay close to Trinity Footbridge at Morrison's Island. The proposal is being advanced by both Cork City Council and the OPW as a jointly funded scheme comprising a combination of public realm improvement works, remedial works to the historic limestone quay walls and flood defence measures.

1.3. The application is made pursuant to Section 177 AE (appropriate assessment of local authority development) of the Planning and Development Act, 2000, as amended. It includes a Natura Impact Statement and an Environmental Impact Assessment Screening Report. It was previously the subject of a Part 8 development which attracted over 800 submissions to the P.A. This was approved by the City Council, but the decision was quashed by the High Court due to reliance by the Developer on mitigation measures in screening out Appropriate Assessment.

1.4. The Morrison's Island project was formerly part of a larger flood defence scheme that is being progressed separately by the OPW under the Arterial Drainage Acts. This project is known as the Lower Lee (Cork City) Flood Relief Scheme (or LLFRS). It has been the subject of several stages of public exhibition and has had an EIS prepared. Morrison's Island was referred to as Phase 0 of the LLFRS. It is the stated intention of the OPW to submit the LLFRS to the Dept. of Public Expenditure and Reform in the near future.

1.5. Cork City Council issued notice of the proposed development to prescribed bodies on 12th December 2018 and published notice in the Irish Examiner newspaper on 12th December 2018. The notices advised that a Natura Impact Statement has been prepared in respect of the proposed development and that submissions / observations could be made to An Bord Pleanála up to and including 5.30 p.m. on Friday 15th February 2019. Submissions received by the Board are summarised in Section 6 below.

1.6. The application was received by the Board on 13th December 2018, and included the following:

- Cover Letter
- Description of development and design statement
- Drawings
- Public Notice
- Natura Impact Statement
- Environmental Impact Screening Report
- Environmental Report
- Photomontages
- Foreshore – Interest in Title
- Copies of letters to prescribed bodies
- Transport Assessment
- Conservation Architect's Comments

1.7. Additional Information was requested by the Board on 31st May 2019 in respect of several items. Further information was received on 11th July 2019. The further information included updated plans and drawings, a Cumulative Environmental Impact Screening Report, and further clarification and information on the Natura Impact Statement, a copy of the Underwater Archaeological Report, justification regarding the shared cycle/pedestrian path layout and revisions to layout, clarification of the proposed drainage system and an Outline Construction Environmental Management Plan. The further information was deemed to be significant and was re-advertised.

2.0 **Natural Heritage Designations**

2.1. The site is located approx. 4.7km upstream of Cork Harbour SPA (Site Code 004030) and is located approx. 9.4 km from the Great Island Channel SAC (Site Code 004219) via the River Lee.

3.0 Legislative Requirements

3.1. Section 177 AE (1) of the Act states that 'where an Appropriate Assessment is required in respect of a development by a local authority that is within the local authority's functional area, the local authority shall prepare or cause to be prepared a Natura Impact Statement'.

3.2. In accordance with subsection (3), where a Natura Impact Statement has been prepared, pursuant to subsection (1) the local authority shall apply to the Board for approval and the provisions of Part XAB shall apply to the carrying out of the Appropriate Assessment.

3.3. Section 177 AE (6) states that before making a decision in respect of the proposed development, the Board shall consider the NIS submitted by the local authority and any observations associated with it. The Board shall consider

(i) The likely impacts on the environment of the proposed development.
(ii) The likely consequence for the proper planning and sustainable development of the area.
(iii) The likely significant effects of the proposed development on a European site.

Article 6 of the EU (Environmental Impact Assessment and Habitats) (2) Regulations 2011 exempts Part 8 requirements for local authority development where there is an appropriate assessment requirement.

4.0 Site Location and Description

4.1. The River Lee flows through Cork City centre by means of two channels between the Salmon Weir near Western Road and Custom House Quay. The North Channel is the main channel and the South Channel is a later cut which travels alongside Western Road and through Morrison's Island before re-joining the main channel. Morrison's Island encompasses the northern banks of the South Channel between Parliament Bridge to the west and Parnell Bridge to the east. It is bounded to the north by South Mall and to the south by George's Quay and Union Quay.

4.2. There is a bend in the river between Father Matthew Quay and Morrison's Quay, at which point a pedestrian bridge, Trinity Bridge, links the College of Commerce to Union Quay. The area to the south of South Mall is intersected by a few small narrow streets leading to the quays. Father Matthew Quay is dominated by the iconic Holy Trinity Church, which is flanked by the Capuchin Friary and 4-storey over basement terraced Georgian houses to the west, and by RTE Cork Studios to the east. The central part of Morrison's Island is occupied principally by the imposing building of the College of Commerce and to its east, is Moore's Hotel, which was for several decades the home of the Cork School of Music before the new school was built on Union Quay opposite the College of Commerce. Moore's Hotel is now vacant and in a poor state of repair. The buildings to the east of the hotel consist of brown brick apartment blocks and a hostel with parking areas occupying the ground floors and no active frontages.

4.3. The eastern end of Morrison's Island consists of a wedge-shaped area of open space, Parnell Plaza, which is a hard-landscaped area bounded by Gardiner House (a 1960s office building) fronting South Mall and the river. The open space is accessed from South Mall via steps and from Morrison's Quay. It contains several benches and seats with a few sculptures and works of art and serves as a viewing area over the river. The western end of the 'island' is also wedged-shaped and comprises a boardwalk along the river between the Grand Parade and Parliament Bridge.

4.4. The site, with a stated area of 0.99 hectares, stretches along the northern riverbank between Parliament Bridge and Parnell Bridge and also incorporates Trinity Bridge and a small section of Union Quay on either side of the pedestrian bridge. Parliament Bridge is a hump-back bridge which is constructed of granite and has decorative columns. Parnell Bridge and Trinity Bridge are more modern structures which are made of concrete with utilitarian style metal railings. This stretch of riverbank comprises historic limestone quay walls with timber fenders, many of which are in very poor condition. Several sections include historic bollards and maritime railings together with limestone steps leading down to the river. However, the majority of the quays are defined by low metal railings erected in the 1970s which are set in concrete plinths which sit on top of the limestone quay walls.

4.5. Almost the entire length of riverfront along both Father Matthew Quay and Morrison's Quay is lined with perpendicular surface parking bays which directly abut the plinth wall and railings over the historic quay walls. The remainder of the quayside area is surfaced with tarmac and there are some very narrow concrete footpaths along the northern side of the carriageway. Father Mathew Street, Catherine Street and Fritton Street also include on-street parking and are generally used as access routes to the quays with no active ground floor uses.

5.0 **Proposed Development**

5.1. The proposed development is described in the submissions from the applicant as seeking to enhance the public realm by creating a more pedestrian friendly space and incorporating open plaza spaces at Parnell Plaza and Trinity Bridge, as well as incorporating flood defence works and much needed remedial works to the historic limestone quay walls. The need for the development is justified as follows:

- The quays are currently dominated by parking and are underutilised as a city centre river amenity. The City Council has had a long-standing objective to enhance the south-facing quays and to create a pedestrian route along the riverside between the existing boardwalks at Grand Parade and Lapps Quay.
- To improve the visual and recreational amenity of the area around Father Matthew Quay and Morrison's Quay to allow it to become a more desirable area. It is anticipated that the public realm improvement works will encourage regeneration of the area and the introduction of more active uses along the waterfront. The aim is to improve the appearance of the area, provide for riverside walkways and to improve the visual connection with the river, which is currently dominated by car parking spaces.
- To address the extensive history of flooding at Morrison's Island, which has primarily been due to high tide levels. These quays are some of the lowest lying parts of the city centre and are the primary source of flooding to the Quays, South Mall and Oliver Plunkett Street. The risk of tidal flooding will increase with time, particularly as a result of climate change which will result in higher rainfall and rising sea levels. It is proposed to raise existing ground levels and to provide a continuous flood defence along the north bank of the

South Channel. Integrated flood defence works will reduce the financial pressures on individuals and companies.

5.2. The main elements of the proposed development consist of the following:

Remedial works to quay walls – Undertake significant remedial works to the existing quay walls including cleaning, repointing, grouting and the construction of a reinforced concrete backing wall with associated 'back-of-wall' filter drainage, which will discharge to the river via weep holes. It will also be necessary to repair and/or remove some fenders attached to quay walls.

Flood defences – removal of railings and concrete bases and insertion of new 600mm high flood defence walls, set back c.150mm from river edge. The flood walls would be set into the backing wall and resting on top of the limestone coping of the original quay walls. Steel railings will be attached to the top of the flood walls with an overall height of 1.2 metres. It is further proposed to provide demountable flood gates at Trinity Bridge and Parnell Plaza, and to extend (raise) the limestone steps to facilitate continued access to the river.

Regrading of roads and footpaths - reprofiling of ground levels along both quays to reduce the relative height of the flood defence wall on the dry side to a maximum of 600mm above the new walkway level. The level changes are less than one metre.

Alterations to road layout – road layout and traffic flows will be altered for vehicles, pedestrians and cyclists. Traffic flow within Morrison's Island will be changed to one-way, clockwise only. Pedestrianisation will be introduced with new plazas, a boardwalk and a riverside walkway. The right-angled parking spaces along the quayside will be removed and replaced by parallel parking bays.

Landscaping and street furniture – it is proposed to provide high quality paving, new street furniture, public seating areas, a boardwalk, public lighting, cycle parking facilities and tree planting.

Riverside walkway – a high quality paved pedestrian riverside walkway with a minimum width of 3 metres. This will be shared with cyclists.

Trinity Bridge will be widened and redesigned as a pedestrian space with bespoke public seating and architecturally designed entrances. The north side of the bridge will be flared with a ramp access down to the bridge deck. Large benched steps will form seating at the entrance and a similar flared entrance will be provided at Union Quay.

Boardwalk – the east side of Trinity Bridge will be opened up into a 30m boardwalk which will run north along the existing footpath on Union Quay and a glazed defence wall will be provided on Union Quay.

Parnell Plaza will be reconfigured and re-landscaped as a public space. The plaza will have a central open space with a series of large stone benched steps to the north side, adjacent to South Mall. These steps will form the flood defences and will include flood gates at the central steps from South Mall. A cantilevered viewing platform will also be provided at Parnell Plaza.

New surface water drainage system – Upgrade the drainage system incorporating new gravity sewers for surface water to discharge to the river through new outfalls in the quay walls, which will have non-return valves fitted. Two pumping stations are proposed to pump surface water when excess surface water is present.

Utility services - Services and utilities will also be diverted and sealed. Overhead electricity cables will be placed under-ground and associated poles will be removed.

6.0 Written Submissions

6.1. Prescribed Bodies

6.1.1. In accordance with the provisions of Section 177 AE (4)(b), the following Prescribed Bodies were notified of the proposal and copies of the application and NIS were circulated to same.

- An Taisce
- Department of Culture, Heritage and the Gaeltacht (Development Applications Unit)

- Department of Housing, Planning and Local Government
- Department of Communication, Climate Change and Environment
- Department of Agriculture, Food and the Marine
- Fáilte Ireland
- Inland Fisheries Ireland
- An Chomhairle Ealaíon
- Irish Water
- The Heritage Council
- Southern Regional Assembly

6.1.2. Submission were received from the Department of Culture, Heritage and the Gaeltacht (Development Applications Unit), the Geological Society of Ireland, Inland Fisheries Ireland and Irish Water. The issues raised can be summarised as follows:

Department of Culture, Heritage and the Gaeltacht (Development Applications Unit).

Underwater archaeology:

Predicted impact and relevant mitigation measures set out in 10.4 and 10.5 of the Environmental Report should be carried out in full.

Nature Conservation:

Site is within tipper truck distance of Cork Harbour SPA and Great Island Channel SAC. It is therefore important that a Project Construction and Demolition Waste Management Plan is put in place.

No project waste should be used for infilling of lands within the boundary of European Sites.

Inland Fisheries Ireland

- Development in principle is welcomed as the hardship caused as a result of flooding events is acknowledged.
- The flood alleviation works must be carried out in a substantial manner where any impacts on fisheries habitat is minimised.
- The proposal will involve considerable instream works in the tidal section of the River Lee. It is therefore important that the methodologies employed during construction prevent the following:

(a) The entry of deleterious matter to waters

(b) Injury to fish or fish habitat

(c) Obstruction of fish movement

- The appointed contractor should consult with the IFI in advance to mitigate against negative impacts from the fisheries perspective.

Geological Society of Ireland

- County Geological Sites, as adopted under the National Heritage Plan, are routinely included in County Development Plans to ensure recognition and appropriate protection of geological heritage in the planning system.
- Records show that there are no County Geological Sites located within the affected area.
- There is no envisaged impact on the integrity of County Geological Sites by the proposed development.

Irish Water

Mitigation - IW is satisfied that the proposed mitigation measures (11.2.1) adequately address the impact on the sewer collection network.

Impact on IW assets - There is some concern, however, regarding the potential impact of protection works on IW assets such as combined sewer overflows (C.S.O.s). It is therefore considered that it will be necessary to provide non-return valves, adequately sized pumps (where necessary for separate surface water flows) to cater for flood conditions. It is noted that non-return valves are proposed for 2 no. C.S.O.s. but also seek further consultation with IW as part of the detailed design stage to ensure that there is no detriment to the performance of IW assets and that interface areas are manged properly.

Cork City Drainage Area Plan is currently being undertaken by IW. The purpose of the DAP is to produce a verified hydraulic model of the existing wastewater network, to idenftify risks and deficiencies associated with the existing wastewater network. The DAP model will then be used to derive solutions for the wastewater network to meet environmental compliance and growth objectives and to achieve appropriate service levels to prevent sewer flooding. There are extensive asset and flow surveys

being undertaken also. All of these matters will require extensive liaison between the Morrison's Island project team and IW.

Below ground assets – The proposed works are in close proximity to a number of IW below ground assets, such as the 250mm diameter trunk water main and the 1800mm diameter trunk sewer, both of which are on Union Quay. Site investigation is required in advance of any works commencing to establish any potential interfaces and to ensure that there is no interference with IW assets. Any proposals to divert existing water services must be submitted to IW beforehand.

Any temporary connections – to be agreed in advance.

Access for operation and maintenance – must be maintained at all times.

6.1.3. The prescribed bodies were notified that **significant further information** was submitted to the Board. Electronic copies of the further information were circulated.

6.1.4. Two responses were received, one from the Geological Society of Ireland (7/10/19) and one from the Department of Culture, Heritage and the Gaeltacht, (Development Applications Unit) dated 18/10/19. The GSI did not make any new or additional comments to those made in its original submission. The Development Applications Unit made the following comments:

Having reviewed the Underwater Archaeology Impact Assessment Report and other documentation associated with the scheme, the Department concurs with the recommendations made. It is therefore requested that the Mitigation Measures detailed at the end of the report should be carried out in full.

Should plans change regarding the need to do any dredging works or any other works that impact into the River Lee along the south channel, the developer should contact the Department with regard to what archaeological mitigation would be required.

6.1.5. The Board did not receive any other submissions from prescribed bodies during the consultation period.

6.2. Other Third-Party Submissions

6.2.1. The Board received 631 third-party submissions in relation to the proposed development.

6.2.2. The principal issues raised in the **objections** included the following

1. Procedural

Project splitting – Morrison's Island cannot be considered to be a stand-alone project and cannot be dealt with in isolation from the significant effects of the LLFRS. It is premature and would effectively result in a grant of permission for the LLFRS. It is a piecemeal approach which does not address the flood defence solution to the catchment. The splitting off of 'Phase 0' from the overall project is a blatant attempt to circumnavigate the EIA Directive and the overall scheme could be implemented without an EIAR ever being completed.

Lack of public engagement – no meaningful public consultation has been carried out. Despite 1491 submissions to the Part 8 proposal, there has been no public engagement since it was quashed and no changes to the scheme. The public information days were just box-ticking exercises. The LLFRS is strenuously opposed by the people of Cork and there would be no recourse to appeal or facility to object to it. An international independent review is therefore necessary. The process is contrary to the Aarhus Convention. Appropriate access to information on the environment was not provided.

Material alteration to scheme - Morrison's Island Project is different to the LLFRS scheme presented to the public in 2013, 2014 and 2017. In particular, the inclusion of groundwater pumping to regulate groundwater behind the walls and the widespread use of demountable barriers has materially altered the scheme from the LLFRS. This has not been subject to the public participation process. This is a Breach of Fair Procedures.

Need for an oral hearing - An oral hearing is required to examine alternatives and to let the people have their say. Alternatives such as the tidal barrier, heritage implications, exclusion of the docklands, lack of consideration of climate change, use of the Lee Dams etc. need to be explored.

Lack of impartiality – P.A. demonstrated bias in Part 8 process by distorting the nature and value of the Save Cork City submissions. The P.A. has a conflict of interest in acting as both developer and competent authority in respect of EIA.

2. Compliance with policy

Proposed Scheme is contrary to the policies and objectives of the CDP – it contravenes the Strategic Vision for the City as set out in Goal 2 as the development is neither sustainable nor does it maintain Cork's distinctive and unique form and character, or the special character of the maritime and cultural heritage of the city. The LLFRS was designed without any reference to the CDP as it fails to reflect the character of the city and would reduce its attractiveness as a place to visit, work and live in, which is enshrined in Goals 2, 3, 4 and 5.

Proposal contrary to policy and best practice on preservation of architectural heritage – the impact on the setting of listed buildings is not adequately addressed. Concreting over historic limestone walls is contrary to best international practice and to the established policy for the protection of architectural heritage.

Scheme fails to comply with EU Floods Directive - The EU Floods Directive requires a more holistic approach on a catchment-wide basis. The overly-engineered walls solution is old-fashioned and fails to explore alternatives such as allowing flood waters to utilise natural flood plains, slowing the flow of rivers, restoration of wetlands and the management of flood waters. No multi-criteria assessment was carried out and there has been no cost-benefit analysis.

3. Flood Relief Scheme

LLFRS is wrong solution for Cork – This highly controversial scheme, of which Morrison's Island forms an integral part, with its high concrete walls, will canalise the river, sever the connections with the city and its citizens both visually and physically, will destroy the heritage of the city by removing 17th and 18th century limestone quay walls, and will involve a 10-year construction programme which will bring massive disruption to the city and to city centre trade and traffic. It will have a detrimental effect on business, tourism and wildlife. The scheme will involve the introduction of over 40 pumps which will pump groundwater out during a flood. This will interfere with the ground water regime, putting the aquifer at risk of pollution and will compromise the structural stability of buildings in the vicinity of the river.

Better alternatives available – High flood walls wrong solution for city. A Tidal Barrage would be a much better solution, which would be more cost effective, less disruptive to the city and would defend significantly greater areas of Cork. The key to flood relief is in the management of the ESB Dam and in the creation of natural flood plains, not building walls, which is too costly and ineffective. The proposed development excludes the Docklands and Tivoli which will remain unprotected. The Morrison's Island Design Competition produced better solutions.

Flood Walls will Exacerbate Flooding – Will create an embankment around the city centre and act as a bath to hold the water in. They will increase flood risk elsewhere due to the concentration of water at the extremities. Flooding in Cork City Centre is from tidal waters backing up through the sewer system and from overtopping. Walls will not address flooding from groundwater or sewers or prevent overtopping. A breach in the walls would be catastrophic.

Interference with groundwater regime - Cork was built on a marsh with a complex underlying gravel aquifer, and a myriad of streams deep underground, as well as uncharted services. The groundwater regime is, therefore, highly complex and is not suitable for the proposed flood defence measures proposed. The groundwater levels ebb and flow with the tide, and the proposed 'Backing Wall', (which is a deep cut-off measure) behind the quay walls, will stop this from happening and will trap the water on the dry side of the walls. The proposal will interfere with the groundwater regime and increase the risk of flooding elsewhere, and will either flood the defended area or dry it out. This issue has not been addressed in the Morrison's Island project.

Deep cut wall will either cause structural damage or require a GW pumping system – This wall will separate the river from the ground water. The tidal range in the groundwater keeps the foundations of buildings on the quayside stable by maintaining timber piles submerged in the water, which prevents rotting and maintains the water content of the soil. The backing wall will prevent natural seepage and will dry out the soil, thereby threatening the stability of many historic buildings including several protected structures. Conversely, the wall may also trap groundwater within the defended area and as river levels rise, would result in gw flooding. The OPW has admitted (Supplementary Groundwater Report) that this is possible and have amended the LLFRS to state that it will use ground water

pumping to address this situation. However, Morrison's Island project is silent on the issue of a groundwater pumping system.

Reliance on groundwater pumping – will further interfere with natural groundwater regime by lowering the water table and threaten the stability of buildings nearby and will lead to pollution of the aquifer underlying the city. Non-return valves will exacerbate the situation further and will trap water behind the walls. Reliance on such a mechanical scheme and physical barriers puts lives and properties at risk. It will not be possible to get market-based insurance as a result. The deep excavations required to install the pumps will lead to dewatering and a further lowering of the water table.

Regrading of ground levels – raising ground levels with the fall back towards properties increases pluvial risk to properties in the area when the gullies are blocked due to lack of maintenance.

No clear plan for bridges – the walls will act as barricades which means that people will be either locked in or locked out. Reliance on mechanical barriers is subject to human error and could be catastrophic. Trinity Bridge is a structure which contributes to flooding due to its low level. It is a missed opportunity to replace this bridge with one of a higher level which would address this issue.

Climate change - Does not incorporate sea level rises. The walls will be overtopped once the sea levels rise as a result of climate change.

Inadequate protection – 1:10 year protection not set out in the documentation. The number of properties protected at 1:10 years not specified. This raises questions about the need for a wall providing 1:100 year protection.

4. <u>Natural Environment</u>

Ecological impacts – NIS surveys are inadequate. Proposed works will result in loss of habitats, biodiversity and will negatively impact on a variety of species that frequent the riverside environment.

Designated sites - Impacts on the designated sites were dismissed on the grounds of distance, but the hydrological connection with the sites was not adequately taken into account.

Inadequate surveys – no specific information is given regarding the ecological and species surveys in terms of when they were undertaken (dates and times) and by who. The question is raised regarding whether the surveys relied upon were actually undertaken as part of the LLFRS and have not been updated for the Morrison's Island Project.

Protected species - Many of the Annexe I species were not mentioned in the NIS e.g. Heron, Egret, Kingfisher. Heron is a qualifying interest of the Cork Harbour SPA.

Water pollution - The proposed construction works will result in water pollution. The proposed ground water pumping will result in pollution of the aquifer.

5. Built Environment - Cultural Heritage and Riverside Amenity

Unique and distinctive maritime character of Cork City – The quayside reflects the antique stone structures that may represent the largest Georgian riverside landscape in the world. Cork City is similar to Venice as it is a city that has been constructed on an island within the river and has a rich and unique maritime heritage as a trading centre. It is worthy of UNESCO World Heritage status. It is acknowledged that the provision of flood protection and heritage conservation are difficult aims to reconcile.

Visual amenity - The proposed replacement of limestone quay walls with 5ft high concrete walls which are ugly, will detract from the visual amenity and unique riverscape. Riverside views are integral to the maritime heritage and distinctive character of the city. The visual quality and amenity of views of several protected structures and river corridors will be destroyed. There is a need for better visual permeability through the flood defences. Connectivity with the river is clearly reduced as indicated by the need for a viewing platform. Open views will be replaced by walls, railings, bollards which is contrary to the CDP which seeks to improve visual access to the water.

River accessibility – the walls will be higher and will interfere with the traditional open accessibility of the riverside to users, which has never been restricted. Riverside amenity will be compromised. Access to the water would be severely reduced and more hazardous due to the elevated landscape, the impenetrable railings, the reduced number of points of access and loss of steps and the likelihood of faster flowing waters.

Riverside amenity - The proposed roadway, with the tarmac surfaces and altered landscape, would separate the quayside buildings from the river and exclude opportunities to attract events and maximise social interaction. This space should comprise authentic shared surfaces, conducive to spending time by the water. Such proposals were incorporated into the numerous entries submitted as part of the Morrison's Island International Design Competition. The scheme represents a missed opportunity in place making.

Adverse impact on cultural heritage – the beautiful limestone quay walls which are integral to the city's maritime heritage will be lost, destroyed and permanently damaged by the concrete walls. The development will result in the loss of elements of maritime heritage including Victorian bollards, railings, limestone steps and various river access points. The deep excavations adjacent to the quay walls will undermine the foundations of the Protected Structures on the quaysides as they will interfere with the groundwater regime and will destabilise these buildings.

Irrevocable damage to historic limestone quay walls – there will be a 600mm layer of concrete on top of the coping stone with an accompanying steel deck, which will completely obscure this section of the limestone walls. There has been no appraisal of the existing stonework or of the existing cast-iron bollards, and no measured drawings of the existing historic fabric. Removing the dressed stones of the quay walls, pouring large amounts of concrete and then facing it with original stone would undermine the function of the quay wall.

Insensitive use of materials - The concrete material to be used is not adequately specified in terms of its colour, texture and finish. The modern bollard replacements are inadequate and inappropriate in this rich historical environment. The OPW is charged with protecting the heritage of the State and has funded the Waterford City flood defence scheme which involved glass/transparent barriers. The use of imported stone, which is granite, is strongly objected to on the basis of incompatibility with the historic limestone quays and as it fails to use local stone which would be beneficial to local businesses and employment.

6. Archaeological impacts

Proposal will damage overground and underwater archaeology. Inadequate architectural and archaeological assessments carried out despite the presence of numerous R.M.P.s and Protected Structures.

Deep excavations - behind the quay walls will adversely affect the archaeology of previously buried quays. The archaeology is extensive and significant and is likely to add significant cost to the project.

Inappropriate intervention - The intervention by concrete paving, kerbing and tarmac is inappropriate and will adversely affect the overground archaeology which comprises of bollards and railings, particularly adjacent to Parliament Bridge.

Underwater archaeology - The impact on underwater archaeology has not been properly addressed in the Environmental Report.

7. **Economic development/tourism** –

Tourism value of riverside amenity - The River Lee is a priceless asset which defines the character of the city. The City Development Plan seeks to reverse the decline in the city centre by increasing its attractiveness as a living and working environment which provides for a good quality of life. The proposed scheme would destroy the tourism value of the river and its riverside amenity.

Impact on trade and business - The LLFRS will result in economic stagnation due to the widespread construction and inconvenience with traffic disruption for up to 10 years. This compares poorly with the Tidal Barrier option which would be less costly, less disruptive and would protect more of the city.

8. Traffic, Access and Parking

Traffic impact/loss of parking – the changes to traffic flow and significant loss of on-street parking will severely impact on trade in the city centre.

Traffic and Transport Impact Assessment – was not carried out in accordance with the Transport Assessment Guidelines. The data collection was carried out in June which is outside of the school term time. The TTA did not take adequate account of the devastating impact of the loss of 115 car parking spaces on the trade/commerce of the city centre. Neither did it look at alternatives to the loss of these spaces in terms of utilising the existing parking spaces within the city centre in

a more flexible way at different times of the day/week to meet demand, (i.e. flexible parking occupancy).

Loss of parking spaces – the existing parking spaces represent a significant loss of revenue to the city as they are high occupancy spaces. They are used at night and at the weekend. In the absence of a Demand Management Strategy, these spaces will simply be lost to the city and will result in considerable inconvenience and loss of trade. The conclusions of the TTA are disputed in terms of the assumptions regarding modal shift and use of existing multi-storey car parks. The applicant has not provided any improved transport options, incentives to shift mode, land-use management policies/programmes as part of the transportation demand management systems. There is a need for an integral parking plan that includes optimal combination of complementary management strategies.

Shared surface pedestrian and cycle space substandard – the shared surface proposals are unworkable and the layout of public lighting and street furniture creates pinch points which would be hazardous. This shared space should be reserved for pedestrians and cyclists only with travel allowed in both directions. The shared use path is substandard in width as the minimum width of 3.0m is further reduced by the presence of vertical infrastructure. It is unclear what the expected volume of pedestrians and cyclists will be. The TTA is focussed on the movement of vehicles only.

Cycle facilities – Cork Cycling Campaign considers the virtues of cycling as a sustainable mode of transport needs to be facilitated. Reference is made to the standards contained in the National Cycle Manual and in DMURS. It is considered that the southern aspect of the existing environment at Morrison's Island is unsuitable for cycling as it is dominated by parking, there is poor permeability, the public realm is unattractive and that the space is characterised by traffic looping around in search of a parking space. Thus, the proposed improvements are welcomed in principle, but objections are raised to the scheme as follows

- The use of 'shared facilities' should be avoided in areas where the footfall is expected to increase
- Signs and road marking are essential for success and are lacking here.
- The vertically segregated east-bound lane is unworkable.

- A shared street should include calming for vehicles.
- Raising the quay walls creates a hostile environment for cyclists and pedestrians and will impinge on views of the river, which will adversely affect the quality of the experience.
- The canalisation of the river will encourage increase vehicular speed.
- The entrances to the pedestrian/cycle bridges are complicated by reason of the walls, the ramp and the barrier. This will make it less attractive for cyclists who will have to travel further to the next bridge in order to cross the river.

- **Construction traffic -** The disruption to traffic flow during construction will ruin city centre trade and businesses.
- **Public realm improvements lack imagination –** the decision to reinstate and incorporate parking spaces into the shared surface area results in conflicts between pedestrians, cyclists and vehicle users and a reduced quality of place making.

6.3. The submissions in **<u>support</u>** of the proposed scheme include the following:

- **Flood defence** - The proposed flood relief works are welcomed and it is imperative that these are implemented as quickly as possible. Flood risk has a devastating impact on businesses and is hampering investment in city, and therefore, it needs to be addressed comprehensively. The quays are the lowest lying areas which are regularly subjected to tidal flooding. If the Morrison's Island scheme is implemented, a significant portion of the city will be protected. The city is not being surrounded by walls. The objectors show little compassion for the victims of flooding.
- **Devastating impact of flooding on city centre trade** – there is an urgent need to address the uncertainty and difficulty with obtaining insurance for businesses in the city centre. It is a long overdue and essential flood defence project
- **Need for good quality public space** - In recent years there has been a large increase in the workforce and in the residential population of the city centre. The National Planning Framework anticipates that Cork, as the Second City, will have an extra 125,000 residents and competitiveness is very important.

Morrison's Island is an invaluable space as an amenity location for workers, visitors and residents which should be linked to South Mall by means of attractively finished properties fronting onto the linkage streets.

- **Poor quality of existing environment** - The existing quality of public space at Morrison's Island is extremely poor. It has narrow and piecemeal pedestrian paving, decaying riverside railings and poor quality road and parking spaces. The only attraction of this area at present is as a city centre parking area.
- **Advantages of public realm improvements** - the proposed public realm improvements will regenerate this part of the city. The proposals to create a vibrant, attractive and high-quality environment are supported in order to secure a positive economic position for Cork City. There is huge potential to create such a space due to the south-facing quays, the maritime heritage value of the quaysides with the historic limestone walls, and the presence of historic buildings and protected structures such as Holy Trinity Church, The Friary and Parliament Bridge.
- **Remedial works to quay walls** – these remedial works are badly needed and are to be welcomed.
- **Connectivity with the river** – the proposed scheme represents a great opportunity to visually re-connect with the river.
- **Restoration of limestone steps** – the restoration of the steps providing access to the river is very welcome as these have been in a poor state of repair for decades. This will facilitate events such as the Lee Swim, rowing and canoeing by the various clubs in the city.

7.0 Further information

7.1. Further Information Request

Further information was submitted on 11th July 2019 following a request from the Board (31/05/19). The FI request required the following matters to be addressed:

1(a) Confirmation that Morrison's Island is a stand-alone project.

1(b) Assessment of Cumulative Effects – EIA Screening

1(c) Clarification of proposed modifications to drainage, including details of pumping stations, and whether it is proposed to install ground water pumping.

1(d) Justification for finishes to flood walls, consideration of alternatives and reversibility of proposed treatment.

1(e) Justification for design and layout of the proposed pedestrian/cycle path and inclusion of pinch points along the shared route.

2(a) Clarification of the ecological surveys undertaken for the project.

2(b) An assessment of the in-combination effects with other schemes in terms of Appropriate Assessment.

2(c) Clarification of mitigation measures proposed in respect of Appropriate Assessment including how they will address adverse impacts and the effectiveness of the measures.

3(a) Failure to submit Underwater Archaeological Report (omitted in error).

3(b) Additional drawing showing proposed flood defence on south side of Trinity Bridge to address anomalies in drawings.

3(c) Details of the tie-ins at Parliament Bridge.

3(d) Additional cross section at Father Matthew Quay.

7.2. Further Information Response

The response to the further information (11/07/19) may be summarised as follows:-

7.2.1. **Stand-alone project** – It was confirmed that the Morrison's Island project does not rely on any constituent element of the LLFRS to function effectively. It was further clarified that in the event that firstly, Morrison's Island does not proceed, the phasing of the LLFRS would be unaffected, and secondly, that should LLFRS proceed, there would be no need for physical modifications to the Morrison's Island project. The FI submitted to the Board incorporated the Phasing Report of the LLFRS, which included modelling of flood risk in different scenarios. Morrison's Island is described as a stand-alone project, intended to address flooding from a tidal source and that the flood risk from the fluvial source will be addressed under future schemes.

7.2.2. **Cumulative Environmental Impact EIA Screening** - The applicant has carried out an assessment of Cumulative Impact with other projects including drainage projects and permitted planning developments in the area, which has been submitted as part of the FI.

7.2.3. **Clarification of the proposed new drainage system has been provided** - It was confirmed that the proposed pumping stations are solely to pump excess surface water and that there is no ground water pumping proposed in this scheme. It was also confirmed that the back-of-wall filter drainage is not connected to the proposed pumping stations. Revised drawings showing slight changes to the layout of the pumping stations was included.

7.2.4. **Alternative Finishes/Materials/Reversibility** – justification was provided for the choice of materials and finishes and the reversibility of the proposed parapet walls.

7.2.5. **Shared pedestrian/cycle path** – justification was provided for the overall layout and a revised layout of the pedestrian/cycle shared path was submitted, which eliminated the majority of pinch points.

7.2.6. **Appropriate Assessment** – further information and clarification given regarding ecological surveys carried out and the in-combination effects with other plans and projects, as well as mitigation measures.

7.2.7. **Archaeology** – a copy of the Underwater Archaeological Report, (omitted from the application documents submitted to the Board), was provided as FI.

7.2.8. **Other matters** – revisions/additional details as requested by the Board.

7.3. Republication of notices

The Board considered that the further information contained significant additional data and asked the applicant to publish a notice in accordance with S177AE(5)(d) of the PDA 2000 (as amended). The notice advised that the information would be available for inspection from **16th September to 18th October 2019**, with the closing date for further submissions or observations on 18th October 2019.

7.4. **Further submissions**

No further submissions were received from the general public. Two submissions were received from the Geological Society of Ireland and from the Dept. of Culture, Heritage and the Gaeltacht. No objections were raised.

8.0 Planning History

8.1. **Part 8 application – Morrison's Island –** A Part 8 application was progressed by the P.A. in Feb. 2018 for public realm improvement works, a flood defence scheme and remedial works to the quay walls at Morrison's Island. A decision to approve the proposed works was granted in May 2018. This decision was challenged in the High Court in July 2018 and the decision was quashed by means of a Judicial Order in January 2019. The decision of the Court followed the CJEU case C-323/17 (People Over Wind and Peter Sweetman v. Coillte) which had highlighted issues in Screening for Appropriate Assessment, in particular, what constitutes mitigation. The Order stated that the City Council had failed to comply with Article 6 of the Habitats Directive and the associated Regulations by taking into account mitigation measures in the screening for appropriate assessment. Following this decision, the applicant decided to submit an application to the Board under Section 177AE of the Planning and Development Acts.

8.2. **ABP.300917-18 P.A. Ref. 1737530:** Permission granted s.t. conditions for the demolition of vacant commercial buildings and the construction of a 4-storey Tourist Accommodation building with a ground floor café at No. 9 Fitton Street.

8.3. **P.A. Ref. 1938740** – application to conserve, modify and refurbish 3 no. Protected Structures at No. 11, 12 and 13 Morrison's Quay and to demolish c. 2116s.m of buildings incorporating the former Moore's Hotel. The proposal seeks to establish 3 no. own-door office buildings and a new-build4-6 storey mixed-use development comprising office and hotel development including 183-bed hotel, restaurant, public bar etc. A decision on this application is pending.

9.0 Legislative Context

9.1. EU and Irish Legislation

9.1.1. EIA Directive

The EU Directive 2014/52/EU of 16th April 2014, amending Directive 2011/92/EU (The EIA Directive) on the Assessment of the Effects of Certain Public and Private Projects on the Environment, came into force on 15th May 2014. This Directive sets out the process by which the likely significant effects on the environment are assessed and prescribes a range of environmental factors that must be addressed in the EIAR. The 2014 Directive includes revised and strengthened procedures for Screening and for making a Determination on the need for EIA and draws a clear distinction between the EIA process and the requirements of an EIAR. The Directive has been transposed into Irish legislation by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

9.1.2. Guidelines for Planning Authorities and An Bord Pleanála on Carrying out EIA (2018)

The Department of Housing, Planning and Local Government issued Guidelines for Planning Authorities and An Bord Pleanála on Carrying Out EIA in August 2018 under Section 28 of the P&DA 2000 (as amended), and the Board must have regard to these guidelines. The purpose of the guidelines is stated as providing practical guidance to P.A.s and the Board (Competent Authorities) on legal and procedural issues and matters of interpretation arising from the amended Directive.

9.1.3. Birds Directive and Habitats Directive

Directives 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by Directive 2009/147/EC (Birds Directive) set out the requirements for the conservation of natural habitats and of biodiversity throughout Europe. Article 6(3) of the Habitats Directive sets out the procedures to be followed in the case of plans or projects which are not directly connected with or necessary for the management of the site,

and imposes a requirement to carry out an Appropriate Assessment of its implications for the site.

If it is found as a result of AA Screening (Stage I) that a project is likely to have a significant effect, either individually or in combination with other plans and projects, on the European Sites in view of the site's conservation objectives, then a Natura Impact Statement must be submitted and a Stage II Appropriate Assessment must be carried out by the Competent Authority. Consent for the project can only be given after having ascertained that it will not adversely affect the integrity of the European Site in view of the site's Conservation Objectives.

9.1.4. EU Floods Directive

EU Directive 2007/60/EC on the Assessment and Management of Flood Risks aims to reduce and manage the risks that floods pose to human health, the environment, infrastructure, cultural heritage, economic activity and property. The Directive was transposed into Irish law by the European Communities (Assessment and Management of Flood Risks) Regulations 2010. Member States are required to identify 'Areas for Further Assessment' (AFAs) which area areas of potential significant flood risk and to prepare Flood Risk Management Plans which should set objectives and measures for managing flood risk within the AFAs. The Commissioners of Public Works in Ireland (OPW) were designated as the Competent Authority under the Regulations.

9.1.5. Water Framework Directive

The WFD (EU Directive 2000/60/EC) establishes a framework for the protection of all waters including rivers, lakes, estuaries, coastal waters and groundwater and their dependent wildlife and habitats. The key objective of this Directive is to protect and restore water quality through a catchment management approach and to promote integrated river basin management.

9.1.6. Planning and Development Act 2000 (as amended)

Section 177AE provides that Local authority Projects that are subject to Appropriate Assessment may not be carried out unless approved by An Bord Pleanála, with or without modifications.

9.1.7. **Planning and Development Regulations 2001 (as amended) – Schedule 5**

Class 10 of Part 2 of Schedule 5 of the Regulations prescribes the following as classes of development requiring Environmental Impact Assessment

(b)(iv) Urban Development involving an area greater than 2ha in a business district and

(f)(ii) Canalisation and flood relief works, where the immediate contributing sub-catchment of the proposed works (i.e. the difference between the contributing catchments at the upper and lower extent of the works) would exceed 100 hectares or where more than 2 hectares of wetland would be affected or where the length of the river channel on which the works are proposed would be greater than 2km.

10.0 Policy context

10.1. National policy

10.1.1. National Planning Framework 2040

This high-level strategic plan for the growth and development of Ireland until 2040 provides an overarching policy and planning framework for the social, economic and cultural development of the country. Cork City and Metropolitan Area is identified as a Regional Capital City which is expected to absorb an increase in population of 125,000 (representing a 50-60% increase). It is stated that one of the greatest challenges in achieving significant growth is addressing the long-term decline of the City's urban population and to attract additional people and jobs to existing established parts of the city. Another key element identified is providing an enhanced urban environment including improved public spaces, enhanced public transport and safe and pleasant options for walking and cycling.

Section 9.3 relates to Water Resource Management and Flooding. One of the Core Objectives for Flood Risk Management is "Improving the understanding of flood-risk and ensure flood risk management in accordance with best practice."

NPO-4 seeks to create attractive, liveable, well-designed, high quality urban places.

NPO-6 seeks to regenerate and rejuvenate cities, towns etc. to accommodate changing roles and functions, increased residential population and employment activity and enhanced levels of amenity and design quality, in order to sustainably influence and support their surrounding area.

NSO-5 seeks to provide for Sustainable Mobility including enhanced public transport and a comprehensive network of safe cycling routes. In respect of Cork, it is proposed to develop a citywide public transport system – Bus Connects and to provide for safe cycling and walking areas in the metropolitan areas.

NSO-7 seeks to enhance amenities and heritage. Attractive places are influenced by a variety of factors such as vitality and diversity of use, pedestrian and cycling facilitates, as well as their character, heritage and sense of community.

NSO-9 seeks to provide for sustainable management of water and other environmental resources. This includes the improvement of storm water infrastructure and the reduction in flood risk in urban areas.

10.1.2. Planning System and Flood Risk Management Guidelines (2009)

This guidance for local authorities was published jointly by the OPW and the Dept. of Environment, Heritage and Local Government. It provides comprehensive guidance on the identification, assessment and management of flood risk within the planning process.

The National Flood Policy (2004) identified the OPW as the lead agency in co-ordinating the management of flood risk in the state. The Report by the Flood Management Review Group stated that future flood management policy would be :

> "to minimise the national level of exposure to flood damages through the identification of and management of existing, and particularly potential future, flood risks in an integrated, proactive and river basin-based manner."

10.1.3. Architectural Heritage Protection Guidelines (2011)

These Guidelines provide detailed guidance to Planning Authorities on the protection of Architectural Heritage and, in particular, in respect of structures which are of

special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest and on the preservation of the character of architectural conservation areas.

10.1.4. Design Manual for Urban Roads and Streets (2013)

These statutory guidelines focus on the role and function of streets within urban areas where vehicular traffic interacts with pedestrians and cyclists. The manual generally seeks to achieve better street design in order to encourage more people to choose to walk, cycle and use public transport by making the experience more pleasant and safer, and thereby promoting more healthy lifestyles. It outlines practical design measures to support and encourage more sustainable travel patterns in urban areas. These include guidance on materials and finishes, street planting, design and minimum width of footways (including minimum widths, verges and strips), design and location of pedestrian crossings, kerbs and corner radii and shared surfaces.

10.2. Regional policy

10.2.1. Regional Planning Guidelines for the Southwest Region 2010-2022

These guidelines provide a framework for the strategic development of the South West Region. Flood Protection is identified in Chapter 6 – environment and amenities. REAS-05 encourages the development of strategic and local flood risk assessment and preparation of plans. It is an objective of the RPG to promote the completion of CFRAM Studies across the region by 2016 which should include a review of long terms flood risk management options.

10.2.2. River Basin District – River Basin Management Plan

Cork city falls within the South West River Basin District which was first published in 2009. The purpose of this plan was to provide a framework for protecting and enhancing the benefits provided by the water environment and to achieve and maintain Good status for all water bodies by 2015.

The Government published a revised River Basin Management Plan for Ireland 2018-2021 on 17/4/18. This is based on the Second Cycle of RBD plans, which involved the merging of the SW District with the Eastern, South-Eastern, Western

and Shannon Basin Districts. It takes an integrated approach to the protection, improvement and sustainable management of the water environment. It sets out the actions that Ireland will take to improve water quality and achieve 'Good' ecological status in water bodies by 2027.

10.2.3. **CFRAM Lee Catchment Flood Risk Assessment and Management Study**

This plan sets out the strategy, including a set of proposed measures, for the cost-effective and sustainable long-term management of flood risk in the river basin. It is stated that it represents significant milestone in the implementation of Government policy on flood risk management as set out in the Report of Flood Policy Review Group 2004 and that it addresses Ireland's obligations under the European Floods Directive 2007.

The proposed measures have been developed through a range of programmes and policy initiatives. These include non-structural flood risk prevention and preparedness measures, aimed at reducing the impacts of flooding, and structural flood prevention measures proposed for communities at significant flood risk, which are aimed at reducing the likelihood and/or degree of flooding, and have been identified through the national CFRAM programme. A set of flood maps has also been produced indicating areas that are most at risk of flooding. Cork City has been identified as one of 18 communities at potentially significant risk of flooding within the Lee, Cork Harbour and Youghal Bay River Basin, where the source of flood risk is both fluvial and coastal.

The stated objective of the Flood Risk Management Plan is to manage and reduce the potential consequences of flooding, recognising other benefits and effects across a range of sectors (including human health, the environment, cultural heritage and economic activity) through viable flood protection schemes and other measures, informed by a sound understanding of the flood risk established through the preparation of flood maps.

10.3. **Local policy**

10.3.1. **Cork City Development Plan 2015-2021**

10.3.2. The Cork City Development Plan 2015-2021 is the relevant statutory Plan for the area. The following sections of the Development Plan are considered to be relevant.

Morrison's Island is located in the **Commercial Core Area Zone** and the southside of the quays form part of the **South Parish ACA**. The Zoning Objective ZO2 is to support the retention and expansion of a wide range of commercial, cultural, leisure and residential uses in the CCA (except retail comparison). There is a Strategic Pedestrian Link along Father Matthew Quay and Morrison's Quay. The following goals and objectives are of note:

Goal 2 - Achieve a higher quality of life, promote social inclusion and make the city an attractive and healthy place to live, work, visit and invest in. **Strategic Objective 3.1(a)** is to Create and maintain a unique and attractive city to attract investment and create employment, and 3.1(i) seeks to stimulate the regeneration of the city centre and promote its continuing role as the main employment location in the city.

Goal 5 – Maintain and capitalise on Cork's unique form and character. Cork City's unique character derives from a combination of plan, topography, built fabric and the setting provided by the River Lee Valley.

Goal 6 – Tackle Climate Change through reducing Energy Usage, Reducing Emissions, Adapt to climate change and Mitigate against Flood Risk.

Transport - Objective 5.10 states that the design of pedestrian/cycle infrastructure will be in accordance with the principles, approaches and standards of the National Cycle Manual, DMURS and international best practice. A high-quality public realm that provides an attractive and comfortable walking and cycling environment is a key component to encouraging an increase in the uptake of modes (5.17).

Cultural Heritage - Objective 8.3 recognises the importance of maritime heritage to the city. There are a variety of objectives such as commissioning a River Use and Management Plan to promote greater use of the recreational and commercial potential of the Upper Harbour, making the quayside amenity more accessible, ensuring physical and visual access to the water and the promotion of water-based activities. **Objective 8.4** recognises the lack of opportunity at present for people to spend their leisure time by the waterfront and the need to convert the quayside to public and facilitate waterfront development opportunities. It is therefore intended to develop a network of cultural and tourist attractions in and around the City Centre Island, supported by public realm improvements, walking trails and navigation aids. At 8.32, it is noted that public realm improvement works can be extremely beneficial

to the attraction and retention of a highly skilled and creative workforce. **Objective 8.7** seeks to identify and implement public realm improvement projects for the city's waterfront areas as part of the network to link the major cultural tourism attractions and amenity areas. The initial focus will be on the south facing quays on the South Channel.

Built Heritage - Objective 9.1 promotes the protection of the heritage of the city and seeks to ensure that development is sensitive to and reflects the historical importance and character of the city. **Objective 9.4** aims to protect, record and promote the rich archaeological heritage of the city and **Objective 9.20** aims to protect and record underwater archaeology. The P.A. aims to protect structures of built heritage interest including those on the Record of Protected Structures and on the NIAH (**Obj. 9.28**) and to preserve and enhance Architectural Conservation Areas (**Obj. 9.29**). **Objective 9.35** seeks to protect important elements of the built heritage and their settings, such as the 19th century quay walls, railings, bollards and kerbing associated with the North and South Channels.

Landscape - Objective 10.1 seeks to preserve and enhance Cork's landscape character and key landscape assets as well as Cork's views and prospects of special amenity value. **Objective 10.6** – protect and enhance views and prospects of special amenity value and special interest and contribute to the character of the city's landscape from inappropriate development. **Objective 11.18** – City Centre Recreational Infrastructure – improve city centre's public realm.

Flood Risk Management (12.38 – 12.56) – under the CFRAM programme, Areas of Further Assessment (AFAs) were identified in the Preliminary Flood Risk Assessment as areas where the flood risk is most significant. Implementation of the requirements of the EU Floods Directive is coordinated with the requirements of the EU Water Framework Directive and the River Basin Management Plans. In the case of the Lee Catchment, the **Lee CFRAMS** was undertaken jointly by the OPW, Cork City Council and Cork County Council in 2011. However, in March 2012, Cork City was identified as an AFA, requiring further study and setting out of a long-term strategy as well as defined and prioritised measures to reduce and manage the flood risk (12.46).

The **Draft Lower Lee Flood Relief Scheme** was commenced in 2013. It is described as an implementation project intended to address the flood risks identified in the LeeCFRAMS. The purpose of the project is to develop a viable, cost-effective and sustainable Flood Relief Scheme to alleviate flooding in the lower reaches of the River Lee (including the River Bride). Its contents have been incorporated into the CDP process informing the Flood Risk Assessment. The most significant proposal of the FRA is the rezoning of lands at Carrigrohane Road to 'Water Compatible Uses', namely Public Open Space and Landscape Preservation zones. The historic core did not require zoning changes as this area will be protected by structural flood defences (12.48).

Objective 12.13 Lee Catchment Management Plan/Lower Lee Flood Relief Scheme – Cork City Council will have regard to the recommendations of the Draft Lee Catchment Flood Risk Assessment and Management Plan and shall incorporate the updated hydraulic modelling, mapping data and recommendations of the South West CFRMP/ LeeCRFMP (River Catchment Framework Management Plan) and the Lower Lee Flood Relief Scheme as each plan progresses.

Objective 13.13 City Centre Public Realm Projects. A high-quality public realm makes the city centre a more desirable place in which to live, work, and visit. There are a range of public realm projects as part of the city centre movement strategy. The P.A. will seek as a priority the development of **South Facing Waterfront Amenity Areas from Customhouse Quay to Morrison's Quay** as far as South Gate Bridge and westwards through Beamish and Crawford. **Objective 13.14** seeks to create **Waterfront Amenity Areas** to provide accessible public space along the river for pedestrians and cyclists. There is a general presumption against development encroaching within 10 metres of the existing quayside apart from small-scale development within the space, which relates to the use of the river or quayside space and can ensure an adequate amenity space to facilitate passive recreation, walking or cycling. **Objective 13.15** includes a number of Public Realm Projects, including (c) Waterfront Amenity Route on the North side of the South Channel. **Objective 13.17** – Strategic Pedestrian Linkages – along the entire length of the quay. Objective 13.18 – Develop Cycling in the city Centre.

11.0 EIA Screening

11.1. Legislative provisions

There is no provision under Section 177AE of the Planning and Development Act 2000 (as amended) to require Environmental Impact Assessment or to carry out a formal EIA Screening Determination for a Local Authority Project which was submitted to the Board under this section of the Act. Notwithstanding this, it is noted that a considerable number of submissions from the public have raised the issue of the need for EIA, and the related issues of project splitting, need to examine alternatives and cumulative effects with other projects. Furthermore, the applicant has submitted an Environmental Impact Assessment Screening Report with the application (Appendix D). It is therefore considered appropriate for the Board to consider this matter.

11.2. Environmental Impact Assessment Screening

11.2.1. Requirement for EIA

The nature of the proposed development, comprising a combination of public realm improvement works, flood defence measures and remedial repairs to quay walls, does not come within any of the classes of development in Part 1 of Schedule 5 of the 2001 P&D Regulations (as amended), requiring mandatory EIA. The type of project does fall within the following classes of development set out in Schedule 5, Part 2 of the Planning and Development Regulations, 2001 (as amended).

Class 10(b)(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

Class 10(f)(ii) Canalisation and flood relief works, where the immediate contributing sub-catchment of the proposed works (i.e. the difference between the contributing catchments at the upper and lower extent of the works) which would exceed 100 hectares or where more than 2 hectares of wetland would be affected or where the length of river

channel on which works are proposed would be greater than 2 kilometres.

Class 15 Any project listed in this Part which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development, but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.

The area of the site (footprint of the scheme) is given as 0.99 hectares, and therefore falls below the threshold of 2 hectares for Class 10(b)(iv) – Urban Development in a Business District. The area of contributing catchment is given as approx. 62.7 hectares and the length of river channel as 553 metres. It therefore falls below the relevant thresholds for Canalisation and Flood Relief Works requiring EIA (Class 10(f)(ii). Given that the project is sub-threshold for EIA, it should be screened for likely significant effects on the environment in accordance with the criteria set out in Schedule 7 of the P& D Regulations, (which accord with the criteria set out in Annex III of the EIA amending Directive).

11.2.2. **Characteristics of the project**

Public realm improvement works, flood defence works and remedial works to quay walls for approx. 553 metres in length along the quays and covering an area of c. 99 hectares. The main elements of the works comprise:

- Undertake remedial works to existing quay walls including cleaning, grouting and re-pointing. Several fenders will also need to be removed, repaired or replaced. The cleaning and grouting works will necessitate some piling and instream works.
- Construction of a reinforced concrete backing wall behind the existing quay walls. This will include back-of-wall filter drainage which will discharge to the river via weep holes.
- Upgrade the surface water drainage system incorporating non-return valves on drainage outfalls and 2 no. pumping stations to manage surface water discharge during high tides.
- Demolition and removal of existing railings and concrete base walls (400mm high) and installation of new architecturally designed, 600mm high flood

defence walls, which would be set back c.150mm from the water's edge. The flood walls would be set into the backing wall and rest on top of the limestone coping of the quay walls. Steel railings would be attached to the top of the plinth walls with an overall height above ground level of 1200mm.

- Provide demountable flood gates at Trinity Bridge and Parnell Plaza and extend limestone steps to facilitate continued access to the river.
- Regrade roads and footpaths along both quays to reduce the relative height of the flood walls by up to a maximum of one metre.
- Redesign Trinity Bridge and Parnell Plaza as landscaped open spaces incorporating bespoke seating, benched steps, a boardwalk, a viewing platform, a ramped access to the bridge deck (Trinity Bridge). Some of these features double as flood defence measures.
- Alterations to road layout, change in traffic flow and changes to parking layout. Traffic flow within Morrison's Island will be changed to one-way, clockwise. The quayside areas will be redesigned as a shared use space for pedestrians, cyclists and motorists. This will involve a high quality paved riverside walkway (min. width 3m). The right-angled parking bays, which currently line the river's edge, will be removed and will be replaced by substantially fewer parallel parking bays within the redesigned shared use space.
- Provide high quality hard and soft landscaped spaces including high quality paving, new street furniture, public seating areas, a board walk, cycle parking facilities, tree planting and public lighting. Utility services will also be upgraded with overhead electricity cables placed underground and associated poles removed.

<u>Construction works</u>

- Excavation and placement of material for the construction of walls, pump stations.
- Haulage of material and importation of materials to carry out flood scheme.
- Structures – material will be required for the construction of flood walls and parapets as well as quay wall remedial works.
- Utilities and services – materials will be required for diversion of these services.
- Road works – materials will be required for sub-base and base construction and for bituminous pavement surfacing.

- Ancillary reinstatement roadworks – public lighting, signage and road marking.
- Piling works
- Geotechnical and archaeological investigations – to be carried out prior to construction works.
- Ecological constraints – to avoid bird nesting sites, the removal of vegetation/trees within the defined working area will not be carried out during the peak bird nesting season of March to August prior to the onset of works.
- Phasing – the works will be carried out over 12 months in three phases. Phase 1 – Fr. Matthew Quay (2.5 months); Phase 2 – Morrison's Quay adjacent to College of Commerce (4.0 months); Phase 3 - Morrison's Quay (5.5 months).

Characteristics of impacts

1. Physical changes to the locality (topography, land use, waterbodies) – the public realm improvements and enhanced amenity of the quaysides will result in a positive impact by making the area more attractive in which to live, work and visit. This is likely to facilitate and encourage the regeneration of the area and provide for attractive riverside amenity areas. The changes to the road layout and loss of on-street parking will have a potential impact on trade and businesses in the area, but this will be counter-balanced by the public realm improvements and likely increased footfall in the area.

   The regrading of ground levels, provision of flood defence measures and upgrading of the drainage system will reduce the risk of flooding which is a positive impact. The provision of flood defence walls with steel railings on top of the quay walls (to an overall height of 1200mm) will alter the visual relationship between the river channel and the quayside, including historically and architecturally important structures such as the quay walls and protected structures fronting the quays. The developer has sought to mitigate any negative visual impacts by means of re-profiling the ground levels, keeping the height of the walls to a max of 600mm, the selective use of material, the design of the railings, the setting back of the walls by c.150mm and the design and quality of the public realm works.

   The construction works to install the concrete backing wall will require deep excavations which will cause some disruption to city life in the area including

impacts on trade and business. However, the construction works will be phased over time (12 months) and the impacts will be temporary and will be of a relatively short duration.

The backing wall will act as a deep cut-off measure which has the potential to alter the groundwater regime. The further information submitted by the applicant (11/07/19) states that "numerical seepage modelling (based on extensive geotechnical site investigation data) has been undertaken which indicates that underground seepage will not emerge above ground level within the defended area during the design flood. Therefore, pumping of seepage/groundwater is not necessary as part of this project". Thus, the likely impact on groundwater bodies is not considered to be significant.

2. Use of natural resources (land, water, materials, energy) – the project will require the use of natural resources including stone and building materials. The main type of materials to be used are concrete, steel and granite. These materials are not in short supply. There will be no significant use of natural resources in the operational phase.

3. Substances harmful to human health or environment – the project will involve the use/handling and transport/storage of potentially harmful substances during the construction phase. These include concrete, bitumen, diesel, oils. The applicant has proposed measures to avoid and prevent any significant effects including a Draft CEMP.

4. Production of solid wastes – construction waste will be produced. A waste management plan will be implemented to ensure appropriate disposal of waste. No operational waste impacts.

5. Risks to human health – water contamination or air pollution – Dust will be produced during construction. The effects will be temporary and of short duration and will be controllable and localised. A dust minimisation plan (outline submitted with FI 11/07/19) will be implemented. No operational air impacts. No toxic, hazardous or noxious substances exceeding Air Quality Standards.

6. Noise pollution – Noise and vibration disturbance will be generated during construction which will be temporary and of short duration. Impacts will be controllable and localised. Minimisation measures will be implemented,

including monitoring during construction. No operational noise impacts. No release of light, heat energy or electromagnetic radiation.

7. Risks of contamination of land or water from release of pollutants to ground, surface waters, ground waters, coastal waters or the sea – Numerous substances used on construction sites have the potential to pollute both ground and surface waters during construction, if not properly managed and treated. There is potential for run-off of materials into the River Lee during construction phase, as well as the risk of spillages and leaks from construction vehicles. Mitigation will be required to contain run-off and instream pollution control measures, as outlined in the Draft Construction Pollution Control Plan, which was submitted with the FI on 11/07/19. Following implementation of mitigation measures, the impact is likely to be temporary and not significant. There is no risk of contamination of land or water during the operational phase.

8. Risk of accidents affecting human health or the environment – No risk of major accidents given the nature of the project.

9. Environmentally related social changes (population, lifestyle, employment) – disruption to access and trade during construction phase which would be temporary and of short duration. Long term benefits from public realm improvements and flood risk reduction is likely to have positive localised impacts on population, employment and lifestyle. Will facilitate regeneration of area, better use of riverside amenity, more sustainable transport patterns and greater certainty regarding flood risk. The impact on social infrastructure would therefore be positive.

10. Is the project part of a wider large-scale change that could result in cumulative effects on the environment? – There are a number of drainage schemes and flood relief schemes that are planned or in the pipeline within the Lower Lee Catchment. The River Bride (Blackpool) Certified Drainage Scheme is currently under review by the Department of Public Expenditure and Reform. The scheme formerly formed part of the LLFRS and has been subject to EIA. The Lower Lee Drainage Scheme is currently at design stage. It had included Morrison's Island as an initial phase of the overall plan and has been subject to EIA. This scheme is currently under review by the OPW and has not yet been

submitted to the Dept. Public Expenditure and Reform for assessment under the Arterial Drainage Acts. The applicant has confirmed in the FI (11/07/19) that the current proposed scheme for Morrison's Island is a stand-alone project and is completely independent of the LLFRS. The FI also addresses in detail the likely cumulative effects with existing and/or approved projects as part of the EIA Screening process. This will be discussed further below.

11.2.3. **Location of project**

The site is located in an established urban area in the heart of the city. The land-use is mixed with commercial, residential and community (educational) uses. It has a maritime heritage environment with important riverside landscape and elements of architectural and archaeological heritage, including Protected Structures fronting Father Matthew Quay, two Protected Views. Of particular significance are the 18th and 19th Century limestone quay walls, which are of cultural and historical significance but are not Protected Structures. However, the quaysides are dominated by tarmac-surfaced car parking with poor quality walls and railings along the water's edge and low-quality ground floor uses with a considerable degree of vacancy and dereliction. The site is not located within or close to any sensitive sites but is hydrologically linked to Cork Harbour which is c.4km downstream, and where there are several designated sites.

1. <u>Potential to impact on any designated European or National Heritage site, designated nature reserve/refuge for flora and fauna, or any place, site or feature of ecological interest, the preservation/conservation of which is an objective an adopted Plan?</u> - Morrison's Island is not within or close to any designated sites or areas of ecological interest. However, it adjoins the South Channel of the River Lee and is, therefore, hydrologically linked to the designated sites in and around Cork Harbour. Great Island Channel SAC (004219) is located c.8km downstream and Cork Harbour SPA (004030) is located c. 4km downstream to the east. The Appropriate Assessment Screening Report and the EIA Screening Report submitted with the application concluded that the impacts on the above listed European sites could be precluded on the basis of their distance from the proposed project.

Douglas River Estuary pNHA is a proposed Natural Heritage Area and is approx. 4km downstream of Morrison's Island. There are no hydrological linkages to this site. Dunkettle Shore pNHA is located approx. 4km to the northeast of Morrison's Island. It shares part of a boundary with intertidal mudflats and open shallow bay of Cork Harbour SPA. It is hydrologically linked to the River Lee Main Channel (and Morrison's Island) but is entirely within Cork Harbour SPA. The EIA Screening Report did not identify any likely significant impacts on these designated sites by reason of their distance from Morrison's Island.

The main feature of ecological interest is the River Lee. Outside of the Gearagh to the west of the County and the designated European sites to the east, the aquatic habitats of the Lee are not designated for nature conservation purposes. The river ecology is not particularly sensitive at this location. Construction impacts will require mitigation to ensure pollution control. Mitigation measures proposed in CMP. Construction impacts are temporary in nature. No operational impacts anticipated.

2. Any likely significant effects on any sensitive species of flora or fauna which use areas on or around the site? – There will be no loss of riverine habitat and no significant loss of instream habitat during the construction or operational phases. Sections of the river that correspond with Annex I habitats are located upstream of Morrison's Island and the habitats found within the study area are classified as Low Local Importance. There are no rare or protected species of flora present. There is potential for water quality related impacts on instream habitats. Mitigation measures are proposed for protection of habitats and included in the CMP.

   Faunal species that use the river/riverside area that could potentially be impacted include otters, nesting birds such as dipper and wagtail and some species of fish. Dipper and Grey Wagtail are known to occur on the river and Feeding Grey Heron occurs upstream of the site. Although no nest sites were found there is potential for nesting under bridges, in crevices/rocks and in trees. There is potential for disturbance during construction, but this would be localised, temporary and within an area already subject to a high level of disturbance. Avoidance and mitigation measures, including pre-construction

surveys, are proposed to address any potential construction impacts on birds. No operational impacts are anticipated.

Otters are known to forage and commute in the area, but no evidence of holts were found, and no breeding or resting otters are likely to be present. There will be no potential impacts on holts but there is potential for impacts on otter prey as a result of sediment runoff and pollution during construction. With appropriate mitigation in place, including pre-construction surveys, the impact on otter in terms of disturbance and water quality impact will be slight and will be temporary.

Fish identified upstream included Annex II salmon and lamprey species but no spawning potential is present around Morrison's Island. Estuarine fish were found to be present downstream and in the vicinity of Morrison's Island and flounder in the upper tidal areas. Construction works consisting of piling and column construction, involving erection of scaffolding, could potentially result in direct impact through loss of habitat, disturbance including noise, visual and vibrations which would displace fish from the works area and result in temporary impediment to fish passage, and the works could also potentially result in sediments and pollutants into the system, thereby posing a risk to fish. Proposed mitigation measures have been identified, including no works during salmon spawning season and maintenance of fish passage throughout. These will minimise the impact on fisheries from construction.

3. Features of landscape, historic, archaeological and cultural importance –

Landscape – The project will be highly visible from within Morrison's Island and the immediately surrounding area, including views from the quays and bridges. This urban city landscape includes protected views as identified in the City Development Plan. RP4 View from Parliament Bridge to Holy Trinity Church and LT4 view from Father Matthew Quay to George's Quay. There are several landmark buildings including Holy Trinity Church, School of Music, College of Commerce, Parliament Bridge. The river channel is one of the main elements of the landscape character. It is contained by the limestone quay walls and fendering, which is highly visible, and the river banks are edged with low walls and railings which allow views of the water. In terms of aesthetic quality, river

views (especially from the 3 bridges) are significant, as are landmark views. However, at present the views are severely restricted and undermined by the extensive car parking and poor-quality public realm along the waterfront.

Construction phase will have a slight to moderate impact following mitigation, but this will be temporary. The impacts on landscape and visual amenity during the operational phase will vary between positive and negative. In terms of the remedial works to the quay walls, the impact would be positive to neutral, apart from where fenders will be removed (slight negative). The flood defence walls and railings, together with the reprofiling of ground levels, will alter views of the water and of landmark buildings/protected structures along the waterfront and will have a negative impact. Measures have been incorporated into the design of scheme to mitigate these. The redesign of Parnell Plaza and the proposed board walks and viewing platforms will be a positive change and the redesign of the vehicular/pedestrian traffic environment along the quays will positively affect the visual and landscape impacts of the riverside area. It is also noted that the reprofiling of the ground levels will minimise the height of the flood walls to 600mm, which will optimise the waterside views.

Architectural and cultural heritage – Features of historic and cultural importance include the quay walls and associated fenders. Impact on the quay walls will involve localised maintenance and repair to the quay facades, the insertion of micro-piles along their foundations, the removal of existing concrete walls and railings, the installation of new concrete walls (600mm high) and railings (overall height of 1200mm) and the construction of a backing wall. There will be no removal of fabric of the limestone walls and the backing wall will be created along the inner face of the quay wall to road surface level. The flood defence walls will be set into the backing wall and will rest on top of the coping stones of the quay walls. The remedial works will result in a positive impact due to current poor condition.

The fenders are an integral part of the visual element of the quay walls. These will be retained and repaired apart from 4 no. at the location of Parnell Bridge balcony and 4 no. on the northern side of Trinity Bridge and 10 no. on the southern quay side adjacent to Trinity Bridge. It will be necessary to remove collapsing parts of fenders. A single cast-iron mooring bollard and some cast

iron railings will be removed but will be sympathetically incorporated into the streetscape on completion of works. No significant adverse impacts are anticipated to cultural heritage.

Protected Structures - The quay walls on Father Matthew and Morrison's Quays are not protected structures. Parliament Bridge and Holy Trinity Church are Protected Structures, and there are several protected structures on Father Matthew Quay – Capuchin Monastery, 4 no. townhouses, a corn store warehouse and a post box. There will be no direct impacts on any of the PS but there will be indirect impact on Parliament Bridge due to requirement for a tie-in. Three stone bollards and 1 metal-fluted one will be removed near Parliament Bridge which will result in a slight negative impact. The flood defence works will not directly impact the listed buildings and will alleviate water damage to them.

Archaeology – Archaeological desk top study and results of surveys submitted with application and Schedule 7A documentation. An Underwater Archaeological Report, which was based on underwater surveys across the river bed and bankside/quayside area including the quay walls, was omitted in error, but was submitted with the Further Information on 11th July 2019. There are no recorded archaeological sites and the site is outside of the zone of archaeological potential. Archaeological monitoring during construction with preservation in situ proposed as mitigation measures.

4. High quality or scarce resources – No such resources on or close to the site.

5. Effect on surface waters and ground waters in terms of volumes and flood risk
Surface water features include the River Lee which flows into the study area from the west. The South Channel is influenced by the tide and is a transitional waterbody. It is described in the SW River Basin District Plan (Lee Upper Estuary WMU) as having a Moderate Status (WFD), 2010-2015, and was stated as being in danger of not achieving good status. Existing surface water drainage system is by means of run-off through opes in existing concrete parapet walls and weep holes in the quay walls, (in addition to sewers). Due to re-profiling of ground levels, the surface water drainage system will be redesigned with new gravity sewers and new outfalls through the quay walls.

Potential impacts on water quality include silt-laden run-off and suspended solids entering the water as a result of site clearance and preparatory ground works, and pollution from use of contaminants such as fuels, lubricants, cement, mortar, soil and silt. Mitigation measures proposed by applicant will reduce impacts to slight negative, and will be short term, during construction.

Groundwater features – the area is underlain by a shallow gravel aquifer and a network of buried historic channels. The aquifers are classified as moderate to vulnerable to infiltration. Groundwater quality would be at risk from the use of contaminants such as fuels, cement etc. in the absence of good construction management practices. Mitigation measures are proposed to ensure that the potential for impacts on groundwater quality is negligible.

Flood risk - the area is susceptible to flooding from tidal/coastal, fluvial, pluvial and groundwater sources. Flood protection measures are included in the project. These will reduce the risk of tidal flooding as a consequence of the development, up to a 1 in 100-year tidal event. The applicant has stated in the FI response (11/07/20) that the flood defences are designed to address tidal flooding and that the defended area will remain at risk from extreme fluvial events until the completion of LLFRS.

Surface water drainage will be redesigned to ensure that existing sewers and culverts will not convey flood water from river into defended area by means of non-return valves on outfalls, 2 no. SW pumping stations and overflow manholes/drains to convey SW to pumping stations.

Several observers raised the issue of the potential impact of the flood defence measures, in particular, the deep cut-off wall, on the permeability of the aquifer and the good connectivity between aquifer and the historic channels, which could give rise to increased groundwater flooding during a flood event. However, the applicant advised that the back-of-wall drainage system will discharge to river via weep holes, modelling shows that no significant beneficial escape routes would be cut-off by the proposed project, and hence there would be no interference with gw regime or need for groundwater pumping.

6. Susceptibility to landslides, subsidence or erosion, flooding or extreme climatic conditions which could result in environmental problems – No evidence of risks

of landslides, subsidence or erosion. However, the area is susceptible to flooding, both fluvial and tidal. The proposed scheme seeks to reduce the flood risk and has taken account of climate change.

7. Key transport routes susceptible to congestion or cause environmental damage that could be affected by the project – no significant arterial routes affected or near project area. However, the proposed scheme will result in a change to the traffic layout and a loss of 115 on-street parking spaces. Access will be maintained during construction and operation. Sustainable transport, walking and cycling will be encouraged as part of the design of the public realm.

8. Existing sensitive or community facilities that could be significantly affected by the project? – College of Commerce, School of Music, RTE Studios, churches, recreational amenity of River Lee will experience disruption in terms of traffic/access, dust, noise. Access to public facilities, churches, colleges, schools etc. will be maintained throughout the construction period. Dust, noise and vibration and construction traffic will be managed by means of a traffic management plan and construction management plan. Residual impacts will be short term in duration. There will be temporary impact on amenity use of the river for boating etc. during construction. No changes to amenity are anticipated during operation. Access to river will be maintained with additional steps provided where ground levels increased.

11.2.4. **Likely significant effects of project**

The proposed scheme does not comprise a mandatory project requiring EIA as specified in either Part 1 or Part 2 of Schedule 5 of the Regulations 2001 (as amended), but does fall within subthreshold development. Although there is no legislative provision to carry out EIA screening for a project submitted under Section 177AE of the Planning and Development Act 2000 (as amended), EIA Screening has been carried out in light of the concerns raised in third party submissions to the Board. In light of this screening, it is considered that there is no potential for significant impact on the environment and that there is no requirement to undertake an Environmental Impact Assessment. It is further concluded that there is no requirement for the applicant to submit an EIAR in relation to this project.

11.3. Cumulative Impacts

11.3.1. Project splitting

A significant element of the submissions from the general public related to the assertion that the proposed development represented ‘Project Splitting’. It was submitted that splitting off ‘Phase 0’ from the overall LLFRS was a blatant attempt to circumnavigate the requirements of the EIA Directive and that the overall scheme could be implemented without an EIA ever being completed. It was further asserted that Morrison’s Island was not a ‘stand-alone’ project, as the impacts of this scheme could not be considered in isolation from the significant effects of the LLFRS. It was considered that it was a piecemeal approach to flood defence, as the flooding issues of the remainder of the catchment were not being addressed and that it was premature, given that a grant of permission for MI would effectively result in a grant of permission for the LLFRS.

‘Project splitting’ is said to occur when a developer deliberately frames a development as a series of projects, each of which would fall below the relevant threshold for EIA, thereby evading the obligations pursuant to the EIA Directive. However, this does not mean that large scale projects cannot be broken down into smaller segments, provided that each segment is subjected to appropriate screening for EIA and/or Environmental Impact Assessment in accordance with the requirements of the EIA Directive. Screening for EIA must determine whether a proposed development is likely to have significant effects on the environment, which must include an assessment of the likely cumulative impacts with other projects in terms of existing or permitted development. However, this requirement does not extend to future potential projects which have not been formally proposed, although account should be taken of any plans to extend the project, as far as is practically possible.

11.3.2. Stand-alone project or integral part of larger scheme

A key issue in determining whether ‘project splitting’ is involved is the need to consider whether the smaller project/phase forms an integral part of the overall development or can be considered to be a ‘stand-alone’ project, with no functional or legal interdependency with the overall scheme (or masterplan). It was established,

(as a result of the Apple Datacentre Judgement – Fitzpatrick v ABP[2017] IEHC 585), that where a phase of a masterplan can be carried out in such a manner that it is not reliant on the completion of any other part of the masterplan, it can be treated as a 'stand-alone' project and hence, no project splitting arises. However, it is still subject to the requirements of the EIA Directive in terms of both screening and/or assessment. It was further established in this case, that where development is carried out incrementally (in phases), and where the threshold for EIA is reached at a later date, the environmental effects of the later development can be assessed cumulatively with the effects of the earlier development, even where the earlier phase had been screened out in terms of the need for EIA.

The flood defence proposals which form part of the Morrison's Island project currently before the Board, originally formed part of an overall masterplan for the flood relief works on the Lower Lee catchment, known as the Lower Lee (Cork City) Flood Relief Scheme. The LLFRS is an Arterial Drainage Scheme which will be submitted to the Department of Public Expenditure and Reform (Competent Authority) for consent in due course. The Board should note that the LLFRS is currently in abeyance, but it has been subject to EIA (EIS prepared) and several public exhibitions. Morrison's Island was referred to in the 'Phasing Report' for that scheme as 'Phase 0'. The 'Phasing Report' was submitted to the Board as an appendix (F) to the FI (11/07/19) and has been publicly available on the LLFRS website since March 2017. The proposed development project differs from 'Phase 0', however, in that it combines the flood defence works with a new major public realm improvement scheme for this part of the city centre, the intention of which is to regenerate this riverside area.

The applicants (FI 11/07/19) state that it was always envisaged that M.I. would be an advanced phase of the LLFRS, as most regular tidal flooding in the city centre originates at this location. The Assessment section of the Phasing Report (4.4.1-4.4.3) is stated to be the equivalent of a scenario where the rest of the LLFRS did not proceed. A summary of the main relevant conclusions was provided in the FI response (11/0719), an abbreviation of which is as follows-:

- The model runs, with and without M.I. defences, indicate that the flood defences at Morrison's Island (alone) would provide significant flood alleviation benefits up to the c.1 in 100-year tidal standard. The modelled

peak flood level in the channel at M.I. in this event was c.2.9mOD, which is equivalent to peak level of the major tidal flood event in Jan. 2014.

- The hydraulic model runs carried out indicate that the Morrison's Island project alone would ensure that c.374 properties would benefit from the scheme in the 1 in 100-year tidal event, which is a significant reduction in the number of properties at tidal risk. It should be noted that these model runs were initially based on an assumption of a very significant discharge from the dam of 250m³/s, which combined with a 1:100 tidal event, would be a very unlikely scenario. Repeat runs with a dam discharge of 80m³/s were carried out which showed a significant reduction in the number of properties affected by flooding. Thus, in a scenario where the LLFRS does not proceed, MI defences would still be effective.
- Modelling results show that providing defences at Morrison's Island would protect large areas of the Central Island from tidal flooding without increasing the risk of flooding elsewhere, with only minor local impact during extreme fluvial events being addressed by means of surface water pumping (provided as part of M.I. project).
- In a scenario where the Morrison's Island project does not proceed as planned, the phasing of the LLFRS will be unaffected, as work can proceed in the fluvially dominated reach (phase 1 and 2) without impacting tidal flood risk in the city centre.
- In a scenario where both projects proceed, the flood defence walls and pumping stations constructed under the Morrison's Island scheme will not require physical modification to integrate with LLFRS.
- The flood risk at Morrison's Island is tidally driven and the project does not seek to address fluvial risk. The defended area at Morrison's Island would remain at risk from extreme fluvial flood events, until the completion of the LLFRS. However, hydraulic modelling has shown that provision of defences for M.I. would not cut off any significant beneficial escape routes for flood waters during such events.

- The Morrison's Island project does not rely on any constituent element of the LLFRS to function effectively. The scheme as submitted to the Board has been designed to be functionally independent from the LLFRS.
- Other elements of the LLFRS, which are independent of the Morrison's Island project, include the following :-
    - Alterations to the management of the ESB dams
    - Fluvial forecasting system
    - Upstream wash-lands
    - South Channel flow control structure
    - Direct flood defences elsewhere
    - Surface water pumping elsewhere

In conclusion, having regard to the foregoing, it is considered that the Morrison's Island project that is currently before the Board can be considered to be a 'stand-alone' project, which forms part of an overall masterplan, the details of which are not yet worked out, and which is functionally and legally independent of the said masterplan (LLFRS). The proposed project is sub-threshold and will be screened for EIA by the Board, and the masterplan arterial drainage scheme is the subject of EIA, which will be carried out by another Competent Authority.

It is considered, therefore, that 'project splitting' does not arise in this instance, as there is no evasion of the requirements of the EIA Directive. Furthermore, should the threshold for EIA be reached at a later stage of the overall project, the Morrison's Island project can be assessed cumulatively with the larger scheme. However, as part of the EIA Screening process, it will be necessary to assess the environmental impacts of the project cumulatively with the environmental impacts of existing and permitted development in the area and in addition, with the likely environmental impacts of the LLFRS as far as is practically possible. The applicant has addressed this issue at Item 1(b) of the FI submitted to the Board on 11/07/19.

11.3.3. **Cumulative assessment with other projects**

It is noted that in terms of other flood schemes, there is only one flood/drainage scheme along the Lower Lee and its tributaries that has been approved to date in

Cork City, namely the Douglas River Flood Scheme. Notwithstanding this, the applicant has considered a number of other drainage schemes that are currently proposed as part of the cumulative assessment of Morrison's Island, as set out below.

The schemes considered are -

The Lower Lee (Cork City) Drainage Scheme (LLFRS)

The River Bride (Blackpool) Certified Drainage Scheme

River Glashaboy (Glanmire/Sallybrook) Drainage Scheme

The Douglas River Flood Relief Scheme.

As the Douglas River project is over 3km from Morrison's Island and has no direct linkages (hydrologically or otherwise), and was noted as being due to commence construction in 2019, (meaning no overlap between the schemes), this flood scheme was not considered further in the report. The Board should note, however, that there is a current request for an EIA Screening Determination in respect of Togher Public Realm Enhancement works (ABP.306132-19) in which it is stated that the said public realm works are intended to be implemented in parallel with the Douglas Flood Relief Scheme, and as such has not yet commenced. However, it is considered that given the distances involved and the lack of evidence of any linkages between the schemes, it is appropriate to screen this project out.

In addition to drainage schemes, several permitted developments in the city centre have been considered cumulatively with the proposed project. These are as follows:

Recently completed developments/under construction

- The Capitol Shopping Centre, Grand Parade
- One Albert Quay (Docklands development)
- Navigation Square (Dockland office development)
- Amnis House Student Accommodation, Western Road
- 88 South Mall (office development)
- Maldron Hotel (South Mall)
- Horgan's Quay (Docklands office development)

- Beamish and Crawford site – student accommodation
- Penrose Quay (Docklands Development)

Planning approved (not yet constructed)

- Trinity Quarter office development, South Mall
- Sullivan's Quay Hotel (South Channel)
- Cork Events Centre, South Main Street
- Prism Site office development (next to bus station)
- Parnell Place hotels

I note that permission has also been granted recently (ABP.300917) for a four-storey tourist hostel with ground floor café on Fitton Street, which is within Morrison's Island. There is also a planning application currently before the planning authority for the redevelopment of Moore's Hotel and adjacent buildings (1938740) as a mixed-use office and hotel development which would front onto Morrison's Quay. At the time of writing this report, a decision had not been made on this application.

11.3.3.1. **Biodiversity, Flora and Fauna**

Terrestrial biodiversity – the impact on terrestrial biodiversity as a result of the proposed development has been identified as being limited to loss of trees and loss of flora on the quay walls, each of which represent habitats of local importance. I would agree with this and note that there are no rare or protected species of flora present. Any trees removed will be replaced and, as such, there will be no long-term cumulative impact. The loss of flora from the quay walls in Morrison's island due to grouting will result in a slightly negative permanent impact. The only other scheme that has the potential to have an impact on the flora of the quay walls is the LLFRS, should it be approved. However, there are no protected species present at M.I. and hence there will be no loss of such species as a result of the scheme or in combination with other schemes.

Water quality and aquatic environment – the construction phase for Morrison's Island will result in a slightly negative impact on water quality and aquatic biodiversity, but this will be temporary and will be mitigated in accordance with measures set out in the Environmental Report and the NIS in order to protect water

quality. A Construction Pollution Control Draft Plan was also submitted as part of the FI response (11/07/19), which provides further clarification on the measures proposed. There is potential for cumulative impacts on water quality from the proposed development in conjunction with other projects, if the construction phase overlaps with other construction projects. However, it will be necessary for all construction projects to comply with the relevant water quality regulations and with best practice construction measures to avoid/minimise impacts on the river and to protect water quality. It is also noted that the drainage schemes will not be carried out simultaneously and the Lower Lee Scheme is likely to be carried out in phases, which will avoid cumulative impacts on water quality. Once operational, there will be no impact on water quality.

Instream habitats – There will be no loss of habitat instream and no impediment of passage for fisheries as a result of the proposed project. Hence there is no potential for cumulative impacts on instream habitats. Any water quality impacts on instream habitats will be mitigated during construction.

Invasive species – no invasive species have been identified in Morrison's Island and thus, there is no potential for cumulative impacts in respect of invasive species.

Mammals – Although otters are known to commute and forage in the vicinity of the river in the area, no evidence was found of resting or holting sites in Morrison's Island. Construction impacts would be slightly negative, but would be temporary and would be mitigated by proposed measures to protect water quality and food sources. Thus, there would be no impact on the species at Morrison's Island. There is potential for cumulative impacts on the otter, however, in combination with other drainage schemes. It will be necessary to provide mitigation measures as part of the LLFRS to minimise disturbance and loss of habitat for Otter and may require a derogation licence for disturbance to any resting places. However, the applicant has stated that any disturbance to otter will be minimal and temporary. Although potential impacts on otter populations were identified in respect of the River Bride (Blackpool) Certified Drainage Scheme and the Glashaboy Drainage Scheme, there is no overlap in the otter populations between these schemes and Morrison's Island. As stated previously, the drainage schemes are unlikely to be carried out simultaneously and will require mitigation measures to be put in place. With

appropriate mitigation in place, it is considered that there will be no significant cumulative impact on otter.

Other developments within the city centre may have the potential to impact on otters during construction phases, which could result in cumulative impacts where these overlap with the construction of the proposed development. However, all such projects will be required to include mitigation measures to protect water quality and food sources for otter and to minimise disturbance and protect habitats of this species. The impacts will be temporary and with mitigation, will be kept to a minimum.

Birds – The construction period will result in some disturbance to birds, but the impact is likely to be localised, temporary and slight. There will be no permanent loss of nesting opportunity as a result of the works to the quay walls. In Morrison's Island, there will be no net loss of nesting opportunity as a result of loss of trees, as the trees will be replaced and the works will be carried out outside of the nesting season. However, there is potential for loss of nesting opportunities as a result of the LLFRS, Blackpool, Douglas and Glashaboy drainage schemes and it will be necessary to provide appropriate mitigation to avoid such localised impacts. There would be no cumulative impact with Morrison's Island due to the mitigation proposed there.

11.3.3.2. **Soils and Geology**

Cumulative impact on soils and geology could arise from an increased need to import material for construction and from the risk of exposure and mismanagement of contaminated land. However, mitigation measures including the appropriate management of materials, in terms of storage, use, disposal and importation, will avoid any significant cumulative impact on soils and geology.

11.3.3.3. **Water, including surface water quality, hydrogeology and hydrology**

Surface water quality – the construction phase will give rise to the potential for moderately negative impacts on surface water quality as a result of silt-laden run-off and increase in suspended solids, which will be of temporary duration. However, mitigation proposals as part of Morrison's Island project will reduce this to slight negative. There is potential for cumulative impacts from other development projects in the area and from other drainage schemes, in the absence of appropriate

mitigation. This cumulative effect is likely to be slightly negative but temporary. In addition, the drainage schemes are unlikely to be carried out in unison and the LLFRS would be phased, thereby reducing the potential for cumulative impacts on surface water quality.

Ground water quality – there is potential for polluting substances to infiltrate to ground water during construction of Morrison's Island and for cumulative impacts to arise from the overlap of construction projects in the area. However, with appropriate mitigation in place, the potential for infiltration of polluting substances is minimised and there will be no cumulative impact on groundwater quality or hydrogeology in combination with other projects.

Hydrology and flooding – The 'Phasing Report' also indicated that several runs of the LLFRS model were undertaken in respect of scenarios with a variety of discharges from Inniscarra Dam, but whereby only Morrison's Island Defences would be in place. The results were then compared with equivalent scenarios without Morrison's Island in place, in order to assess the potential for flooding elsewhere in the city during a flood event on the River Lee. The scenarios involving discharges from the dam ranged from 80m³/s (typical regular discharge) to 150m³/s (maximum discharge typically on 10 days in a year) to 250m³/s (significant flood conditions, exceeded on only one or two occasions in past decade). There was no flood increase elsewhere in the first two scenarios and only a marginal increase in the latter one. It was noted that the probability of a 1:100 tidal flood combined with the 250m³/s discharge (i.e. a fluvial and tidal flood coinciding) was very low. It was concluded that the risk of flooding elsewhere in the city was negligible.

The Morrison's Island Scheme is intended to address tidal flooding in the city centre, but not flooding from fluvial sources. The defended area will remain susceptible to fluvial flooding until the LLFRS is implemented. However, various runs of the hydraulic model, (as set out in the Phasing Report - Appendix F to FI response 11/07/19), indicate that the provision of defences at Morrison's Island would not impede any significant overland flow routes for flood waters during extreme fluvial flood events. Thus, the fluvial risk elsewhere in the city would not be increased by the proposed development. However, the implementation of LLFRS (if approved in due course) would provide for a positive cumulative impact in terms of reducing the risk of flooding. Within a wide range of fluvial and tidal flood scenarios, therefore, the

proposed scheme is unlikely to increase the incidence, extent or severity of flooding in the city.

Concerns have been raised by the third party observers, however, regarding the likelihood of the proposed flood defence works increasing the incidence of flooding from the sewerage system and from groundwater sources, particularly in light of the shallow gravel aquifer, the myriad of historic underground streams and the interconnection between the groundwater regime and the river with tidal fluctuations.

Surface water sewers - The applicant has acknowledged that due to the reprofiling of the ground levels proposed for Father Mathew Quay and Morrison's Quay, it has been necessary to design a new surface water drainage system for this area. Outside of flood events, this system will discharge to the river via outfalls in the quay walls, as standard. In flood situations, however, the design will ensure that sewers and culverts will not convey flood waters from the river into the defended area. This will be achieved by means of a combination of non-return valves (to protect against rising river levels backing up through the drainage system), overflow manholes (to be constructed on the existing sewer lines with associated side weirs to take the excess surface water that builds up in the sewer), and an overflow drainage system which will take the excess surface water to the proposed pumping stations. In addition, the deep cut-off wall will have a back of wall filter drainage system with collector drains discharging to the river via weep holes. The proposed development would not therefore increase the risk of flooding from surface water sewers. It is noted that Irish Water is generally satisfied with the proposed mitigation measures, which it considers are adequate to address the impact on the sewer collection network.

Groundwater flooding – the potential for water rising from the ground in the defended areas during a flood event has been investigated. The applicant has advised that numerical seepage modelling has been carried out, which in turn has been based on extensive geotechnical site investigation data, in order to assess the risk of seepage of water underneath the flood defences, leading to an increase in groundwater levels on the dry side, (by reason of either raised river levels around the city island and/or the presence of the proposed flood defences on the quay walls). The applicant has confirmed that the outcome of these extensive investigations and modelling is that underground seepage will not emerge above ground level within the defended area during the design flood, with the deeper gravel deposits being unaffected. It was,

therefore, concluded that there would be no need for pumping of seepage or groundwater as part of the proposed development. It follows that the potential for increased risk of flooding from groundwater sources does not arise from the proposed development.

It is acknowledged, however, that this issue is still under review, as it was first raised in the context of the LLFRS, which is currently in abeyance. It is assumed that it will have to be reviewed in the application and assessment of the LLFRS, together with any mitigation measures considered necessary, and that a cumulative assessment of the impacts of that scheme, with those of the proposed Morrison's Island scheme, may be required at that time.

11.3.3.4. **Air quality and climate**

The construction phase for Morrison's Island, in combination with other construction projects in the area, will give rise to the potential for negative impacts on air quality in the area. However, mitigation measures are proposed, including a Dust Minimisation Plan, will reduce these impacts to imperceptible negative. Similarly, the proposed development during construction, in combination with other projects in the area, will have the potential to have a short-term imperceptible impact on climate as a result of the vehicle emissions on any construction site.

The operational phase, however, would not have a negative impact on air quality or climate and may have a positive impact due to the reduction in the number of vehicles traversing the area, and the facilitation of the use of more sustainable transport modes, such as cycling and walking.

11.3.3.5. **Noise and vibration**

There is the potential for a moderately negative cumulative noise impact in the short term, if the construction period for the proposed project coincided with those of several other projects in the area. However, it is unlikely that the drainage projects would occur simultaneously and the drainage projects are to be constructed in phases. Mitigation measures are proposed for the proposed development which will minimise any cumulative impacts.

11.3.3.6. **Landscape and visual amenity**

The potential for cumulative impact of landscape and visual amenities of the project in combination with the projects listed in the FI (11/7/19) was considered by the applicant. It was considered that many of the projects are large scale and that there would not be a significant negative cumulative landscape impact or visual effect in the short or long term. Given that the drainage projects are linear in nature and are to be carried out in phases, the impacts would be localised and not visible in their entirety from any one location. However, it was acknowledged that there may be a potential temporary imperceptible to slight negative impact on visual amenity during the construction period, but that this would be temporary. In terms of cumulative landscape effects, the changes to the landscape character and fabric as a result of the proposed development, in combination with other projects, would not be significant and are anticipated to be imperceptible.

I would be in general agreement with this assessment of the cumulative impacts, and in particular, acknowledge that the temporary nature of construction works, combined with the proposals to phase the works, means that any disruption will be minimised. However, a great deal of concern has been raised by the many observers that the proposed development, in combination with the LLFRS, is likely to result in significant, adverse and irreversible change to the visual amenity of the riverside areas and in the landscape character of the city. These concerns appear to be based on the proposals put forward at various public exhibitions on the LLFRS which had included the construction of concrete walls (c.1.5m) which would be considerably higher than the proposed 600mm walls at Morrison's Island, the use of embankments and other flood defence measures which had the potential to obstruct views of the river and to restrict access to the water.

I would accept that such measures could have the potential to have significant cumulative impacts on landscape and visual amenity along the River Lee in Cork City Centre. However, it must be emphasised that the LLFRS is not an approved project, nor have the details of this project been fully worked out. Thus, the cumulative impacts of Morrison's Island with any such proposals forming part of the LLFRS, would have to be assessed when that scheme is formally proposed. At the time of writing this report, I am not aware of any current application for that project.

11.3.3.7. **Cultural heritage**

The potential for cumulative impacts on cultural heritage from the proposed development, in combination with other projects, has been assessed as being unlikely to give rise to any significant negative cumulative effects. This is mainly because of the absence of any identified impacts on the recorded archaeological resource and of any predicted significant impacts on the built heritage resources associated with the Morrison's Island scheme, together with the mitigation measures that are proposed.

It should be noted, however, that concerns were raised in the third-party objections regarding the potential impacts of the proposed scheme, and of the LLFRS, on the protected structures in the vicinity of the river, such as the protected structures fronting onto Father Matthew Quay. The identified impacts included visual impacts on the setting of these buildings by reason of the proposed concrete flood defence walls and the potential for structural damage to the foundations of these buildings due to groundwater levels drying out as a result interference with the water table by reason of the proposed deep cut-off wall.

As stated above, the applicant's position is that the upper layers of the ground water table only will be affected by the deep cut off wall (and only for a temporary period) and that below this, the groundwater regime will remain largely unaltered. It is considered that any potential for cumulative effects on cultural heritage arising from any future proposals would have to be considered as part of that project, when a formal proposal is made.

11.3.3.8. **Material Assets**

The potential impact during construction on services such as electricity, water, sewerage, gas, telecommunications, has been addressed in the Environmental Report and appropriate mitigation measures have been proposed which will result in a neutral impact. It is acknowledged that liaison will be required with the various utility providers to avoid services and to minimise the potential risk of disturbance and/or damage to such services, in order to ensure that services are maintained during construction. There will be no residual impacts on utility services as a result of the proposed project in combination with other projects in the area. The potential for a slight cumulative impact on waste services has been identified, however, should a

number of other projects proceed simultaneously. This could result in additional pressure on waste sorting/recycling services. With mitigation, it is anticipated that this would be reduced to imperceptible.

In terms of land-use, there will be a slight temporary negative cumulative impact during construction due to the siting of compounds, storage and the location of the work areas themselves. It is likely that access routes will be temporarily disrupted and on-street parking spaces will be inaccessible during this time. These impacts would be greater should several project proceed at once. However, it would be a temporary impact and the phasing of the project, together with other mitigation measures proposed, would minimise the impacts. During the operational phase, there will be long-term positive cumulative impacts from additional areas/properties protected from flooding, from the public realm improvements which would make areas adjacent to the waterside more usable for the general public. It would, however, also result in the loss of c.115 on-street parking spaces and in changes to the traffic layout. However, these impacts, which may be viewed as negative, have to be balanced against the positive impacts of improved pedestrian and cycling access and the more efficient use of the waterside area than as a public car park.

11.3.3.9. **Conclusion on Cumulative Impacts**

Having considered the likely environmental impacts of the Morrison's Island project cumulatively with the likely environmental impacts of existing permitted development in the area, and in addition, as far as was practically possible, with the likely environmental impacts of the overall masterplan for the area, the LLFRS, the details of which have not yet been finalised, it is considered that no significant cumulative effects on the environment are envisaged.

11.4. Conclusion on EIA Screening

11.4.1. The proposed development is significantly under the threshold in respect of Class 10(b)(iv) (Infrastructure – Urban Development) and Class 10(f)(ii) (Infrastructure – Canalisation and Flood relief works) of the Planning and Development Regulations 2001 (as amended). The site is located in a built-up are of the city centre which is served by public infrastructure and is outside of any sensitive locations specified in Article 109(4)(a) of the Planning and Development Regulations 2001 (as amended).

The site is, however, proximate to two European sites, (Cork Harbour SPA and Great Island Channel SAC), which are 4km and 9km, respectively, downstream of the site, with which a potential hydrological connection has been established. A Natura Impact Statement has been submitted in this respect. It is considered that the issues arising from the proximity of the site of the proposed project to these European sites can be adequately addressed under the Habitats Directive, as there is no likelihood of other significant effects on the environment. The site is also located outside of any Archaeological Protection Zone and the results of the desk top studies and investigations (including the underwater archaeological study, indicate that there is no potential for significant effects on the archaeological resource.

11.4.2. Having regard to the nature and scale of the proposed sub-threshold development, its location in an established built-up and serviced area, and its distance from any sensitive site, including an area of archaeological potential, and to the guidance set out in the Environmental Impact Assessment Guidance for Consent authorities regarding Sub-threshold development (DEHLG 2003) and the criteria set out in Schedule 7 of the Planning and Development Regulations 2001 (as amended), it is considered that the proposed development would not be likely to have significant effects on the environment and that the preparation and submission of an environmental impact assessment report is not therefore required.

12.0 **Assessment**

Under the provisions of Section 177AE (6) the Board is required to consider the following in respect of this type of application:

(i) The likely effects on the environment,

(ii) The likely consequences for the proper planning and sustainable development of the area, and

(iii) The likely impact on any European sites.

It is proposed to assess the subject proposal under these three broad headings. The Appropriate Assessment has been carried out by Dr. Maeve Flynn, Senior Ecologist and is set out in a report under Reference No. ABP.303247A.

13.0 Likely Consequences for the Proper Planning and Sustainable Development of the Area

13.1. Justification and need for development.

Need for public realm improvement works

13.1.1. It has been a long-standing objective of the City Council to carry out public realm improvements at Morrison's Island in order to improve the visual and recreational amenity of the area along the quays and to allow the area to be developed as a desirable area in which to live, work and visit. This is reflected in the Goals and Strategic Objectives of the City Development Plan which seek to achieve a higher quality of life, to regenerate the city centre as the main employment area, and to create a more attractive, vibrant city centre, whilst maintaining and capitalising on the City's unique character, within which the River Lee is a major contributing factor. Various specific objectives also seek to promote greater use of the recreational and commercial opportunities of the quayside by facilitating waterfront development and the promotion of a network of cultural and tourist attractions in and around the City Centre Island, supported by public realm improvements, with the initial focus on the south-facing quays of the South Channel.

13.1.2. Objective 13.3 seeks as a priority, the development of South Facing Waterfront Amenity Areas from Customhouse Quay to Morrison's Quay, as far as South Gate Bridge and westwards through Beamish and Crawford. Objective 13.4 seeks to create Waterfront Amenity Areas to provide accessible public space along the river for pedestrians and cyclists. Objective 13.5(c) supports a Waterfront Amenity Route on the North side of the South Channel and Objective 13.7 provides for a Strategic Pedestrian Linkage along the entire length of the quays at Morrison's Island. There is a range of objectives set out in other chapters of the Plan which support public realm improvement in this area, with an emphasis on providing more attractive and accessible public space along the waterfront with improved pedestrian and cycling facilities, including landscape and transport related objectives.

13.1.3. These Development Plan objectives are wholly consistent with national and regional policies as summarised in 10.1 above. The National Planning Framework seeks to create more attractive city centre and urban areas with a view to increasing

residential populations, employment activity and provide for enhanced amenity and recreational areas. The NPF also emphasises the need to promote more sustainable forms of transport with the provision of enhanced pedestrian and cycling facilities in combination with more attractive areas that embrace both vitality and preservation of cultural heritage resources. The Design Manual for Urban Roads and Streets seeks to achieve better street design in order to encourage more people to walk, cycle and to use public transport, by making the experience more pleasant and safer. I am satisfied that the proposed public realm improvement works, which include the creation of more pedestrian and cycle friendly spaces and an enhanced, more attractive urban environment, with greater recreational use of the waterside area, is entirely consistent with and is strongly supported by the policy framework for the area, from a national to a local level. There is also a considerable level of support for the public realm enhancement works which are welcomed by supporters of the scheme.

Need for flood defence works

13.1.4. There has been a substantial level of objection to the proposed flood defence walls, mainly on the grounds of impact on the visual amenity and character of the city and impeding access to and visibility of the River Lee. Supporters of the scheme, however, wish to see the flood defence works implemented as soon as possible in order to protect properties and businesses, to reduce the cost of insurance and provide greater certainty to business owners.

13.1.5. Morrison's Island and Cork City Centre have experienced extensive flooding in the past, which has largely been due to high tide levels. Cork Central Island, of which Morrison's Island forms a part, is associated with the highest population density and the highest commercial value in the city, and has a history of extensive flooding. According to the CFRAM report (Section 2.5), notable recent events include October 2012, January 2014 and February 2014. Approx. 13 non-residential properties flooded in 2012 due to morning and evening high tides (2.65-2.75mOD). Flooding occurred along Father Matthew Quay, Morrison's Quay, George's Quay and as far as South Mall. In January 2014, similar tide levels resulted in flooding which extended to Oliver Plunkett Street on a number of occasions between January 2nd and 6th. Coastal flooding occurred in February 2014 as a result of high tides combined with extreme winds and storm surges. On this occasion, significant

flooding was recorded throughout the city centre from the Quays through to Patrick Street with flood depths of 0.6 recorded. A flood level of 2.69mOD was recorded in Patrick Street and approx. 23 non-residential properties and over 200 residential properties were flooded.

13.1.6. Cork City was identified in the National CFRAM study as an Area of Further Assessment (AFA), which is one identified as being at potentially significant risk of flooding. Accordingly, a Flood Risk Management Plan for the Lee, Cork Harbour and Youghal Bay River Basin was developed and published in 2018. The purpose of this plan was to set out the strategy and set of measures for the cost-effective and sustainable, long-term management of flood risk in the River Basin. It was developed in accordance with the requirements of the EU Floods Directive and with the revised Government policy on flood risk management adopted in 2004 (Report of Flood Policy Review Group). The sources of flooding identified were coastal and fluvial.

13.1.7. Morrison's Island was identified early on as an area that is particularly susceptible to tidal flooding, due to the fact that the quays are some of the lowest lying areas of the city centre and constitutes one of the primary sources of flooding to the Quays, South Mall and Oliver Plunkett Street. Following considerable and extensive analysis, including hydraulic modelling, as part of the LLFRS and the CFRAM studies, it was concluded that the risk of tidal flooding would not be addressed by the implementation of Phases 1 and 2 of the LLFRS, and that the majority of the properties still at risk were located within Morrison's Island.

13.1.8. Given that the majority of tidal flooding was found to originate at Morrison's Island, combined with the fact that the City Council had a long-standing objective to regenerate this area by providing public realm improvements, it was decided that Morrison's Island would be advanced separately to the main contract for the LLFRS. The implementation of the proposed flood defence works will provide greater protection against high frequency tidal events and will raise the threshold of tidal flooding for South Mall, Oliver Plunkett Street etc. from 1:10 years to 1:100. The scheme is adaptable for future climate change, and the benefits of the scheme will be delivered by the Morrison's Island project alone.

13.1.9. It is considered that the approach taken to flood risk management for Morrison's Island is consistent with the objectives set out in the national CFRAM study

programme, the catchment-based flood risk management plan for the Lower Lee. It also accords with the EU Floods Directive which "aims to reduce and manage the risks that floods pose to human health, the environment, infrastructure, cultural heritage, economic activity and property". I am satisfied that the works can be undertaken in a co-ordinated manner with the implementation of the Water Framework Directive, which seeks to promote integrated river basin management and to protect and restore water quality through a catchment management approach.

13.1.10. The proposed scheme is also supported by national policy including the Report of the Flood Policy Review Group (2004), the Planning System and Flood Risk Management Guidelines (2009) and the National Planning Framework (as summarised in Section 10.1 above). The Regional Planning Guidelines for the South West Region encourages the development of strategic and local flood risk management assessment and preparation of plans and supports the completion of the CFRAMS studies within the region. It is considered that the proposed scheme is also in accordance with these objectives. The City Development Plan (Chapter 12) recognises the identification of the city as an AFA, requiring further study and the need for a long-term strategy and measures to reduce and manage flood risk. Objective 12.13 states that the City Council will have regard to the recommendations of the Draft Lee Catchment Flood Risk Assessment and Management Plan. It is considered that the proposed scheme is supported through this and various other objectives in the City Development Plan.

Need for remedial repairs to quay walls

13.1.11. The historic limestone quay walls, although not protected structures, form a very important part of the maritime and architectural heritage of the city. The proposals to repair and preserve these walls is consistent with national policy as set out in the Architectural Heritage Protection Guidelines (2011) and with the policies and objectives of the City Development Plan. Chapter 9 includes various policies which seek to protect the built heritage of the city and to ensure that development is sensitive to and reflects the historical importance and character of the city. Chapter 10 contains various objectives which seek to protect and enhance Cork's landscape character and assets, and in particular views and prospects of special amenity value/interest and those contributing to the city's character from inappropriate development.

13.1.12. It is noted that the repairs to the walls, the details of which are set out in 3.2.2.1 of the Environmental Report, will be carried out using traditional methods. The proposed development will replace large areas of tarmac streets parking and 20th century concrete parapets with railings with landscaped public amenity space and architecturally designed parapet walls with elegant steel railings, which will also serve as flood defence measures in combination with other measures such as the reprofiling of ground levels along the quays. I am satisfied that the proposals to carry out public realm improvement works, combined with flood defence works and remedial works to the quay walls, are consistent with and supported by national and local policy objectives for the area, which generally seek to preserve elements of built heritage in a sensitive manner and to preserve and enhance the character and visual amenity of the city.

13.2. Scheme Design and Technical Matters

13.2.1. The design of the scheme represents an engineered solution to flood risk management. It has been developed as a result of a comprehensive analysis of available data including hydraulic modelling to estimate the flood flows and floodplain extent. The flood defence element initially formed part of the Lower Lee Flood Relief Scheme, which in turn arose from the Lee Pilot CFRAM project. This was one of several pilot projects which were developed under the CFRAM programme. The LLFRS was under design in advance of the CFRAM for the River Basin. The LLFRS will come before the Dept. of Public Expenditure and Reform (as Competent Authority under the Arterial Drainage Acts), in due course. It has, however, informed the development of flood defence proposals for the Morrison's Island project, including the identification of key environmental issues.

13.2.2. The LLFRS project, which has been the subject of extensive public consultation, included an analysis of a range of viable options and incorporated both structural and non-structural elements, such as Early Flood Warning Systems, development of floodplains/washlands etc. The flood risk management methods were first screened to identify acceptability in terms of risks to society, the environment, cultural heritage and the economy, as well as consistency with the objectives of the CFRMP. The potentially viable options were then evaluated using hydraulic modelling to estimate flood extents and levels, and were assessed against the flood risk management

objectives with local weightings. The preferred option was then identified following discussion with the OPW and Steering Group.

13.2.3. Extensive analysis, including hydraulic modelling, was carried out as part of the LLFRS and the CFRAM studies. This included a range of model runs, with and without the Morrison's Island phase, to test for interdependency. Following comprehensive analysis, it was concluded that the majority of properties that would still be at risk of flooding following the completion of certain flood relief works, (referred to as Phases 1 and 2, which included a Flow Regulation Structure and a series of embankments and walls), were those at risk of tidal flooding, not fluvial. It was further established that the majority of these properties were located within Morrison's Island. It was concluded in the LLFRS Phasing Report (4.4.1) that the implementation of flood defences at Morrison's Island would result in a very significant reduction in the number of properties at flood risk and would protect large areas of Central Island from tidal flooding with only minor local impact during extreme fluvial events. At least 374 properties would benefit from the scheme in a 1:100 year tidal event.

13.2.4. The proposed flood defence measures will raise the existing ground levels and provide a continuous flood defence along the north bank of the South Channel. Re-profiling will involve regrading of roads and footpaths by up to a metre, which will reduce the required height of the flood defence walls (to 600mm) relative to the proposed ground levels on the dry side. The inclusion of demountable gates on the south side of Trinity Bridge will reduce the risk of flooding to George's Quay. The proposed flood defence measures include the installation of a reinforced concrete backing wall behind the existing quay walls, which will incorporate a back-of-wall drainage system to collect water during normal times and discharge to the River Lee via existing weep holes in the quay walls. The flood walls will be set into the backing wall and will rest on top of the coping stones, but will be set back c.150mm from edge of the limestone walls. Steel railings will be attached to the top of the flood walls with an overall height of 1.2m.

13.2.5. A new surface water drainage system will be included in the scheme design. At present, surface water is mainly overland and discharges to the river through outfalls in the quay walls. The new system will incorporate new gravity sewers to enable surface water to be collected and discharged to the river via outfalls, which will be

fitted with non-return valves. The new drainage system is designed to allow surface water to be discharged normally at all times. However, during flood events, when the river water rises higher than normal, the non-return valves will prevent the increased river water levels backing up through the drainage system. In addition, on the dry side of the flood defences, the new system seeks to avoid pluvial flooding exacerbating the flood risk during a flood event. This will be achieved by the installation of overflow manholes on the existing drainage system, each of which will be fitted with a side weir. In a sufficiently large flood, where the water level in the drainage system begins to rise, it will eventually reach the crest of the weir and will then begin discharging to the overflow drains. The overflow drainage system will then convey “excess water” to the 2 no. proposed pumping stations, which in turn will discharge to the river by pumping it directly into the Lee. It should be noted that the back-of-wall drainage system will not be connected to the pumping stations.

13.2.6. The proposed backing wall is designed to reinforce the effectiveness of the quay walls. However, there has been considerable concern expressed by third-parties that this wall would prevent the natural flow of groundwater, which currently flows back and forth between the river and the groundwater regime underneath the quays. This natural process is linked to the ebb and flow of the tidal water in the river. One of the key concerns was the risk of water levels rising from the ground in the defended area as a result of high water levels in the river (around City Island), due to seepage of water underneath the flood defence. A further related concern was the potential for the quay walls to cause groundwater from rainfall and leaking drains to back up on the dry side of the wall. The combination of measures such as the proposed reinforced concrete backing wall, together with the grouting of the quay walls and the installation of non-return valves, were considered to be likely to prevent groundwater from flowing to the River Lee, thereby resulting in flooding on the dry side of the wall. Conversely, concerns were also expressed that the ground water could dry out as a result of the measures, due to seepage from the river being impeded, which would seriously affect the stability of the foundations of nearby buildings.

13.2.7. These issues were first raised following public consultation on the LLFRS by Save Cork City and several other eminent geologists and hydrogeologists, who were deeply concerned that the proposed backing wall (and related measures) would irreversibly alter the natural ground water regime and the water table, which in turn

would have serious implications for groundwater flooding, for the quality of the groundwater and for the structural stability of buildings nearby, the foundations of which depend on a saturated groundwater regime. The concerns were investigated by the Design Team and a 'Supplementary Report on Groundwater' was issued in December 2017. (This report is available on the LLFRS website and has been referenced by many third parties in the submissions to the Board). I note that this report outlines the proposed flood defence design in respect of the LLFRS, summarises the key concerns raised and provides specific responses to these concerns, including how these risks have been assessed and addressed. It is further noted that revised mitigation measures were suggested in this report which included the prospect of introducing ground water pumping to address the issue, but that the matter was currently under review.

13.2.8. I note, from the Supplementary Report on Groundwater, that the hydrogeological features considered included the presence of deep, high permeability gravels which underlie the city, old river channels, high groundwater levels and additional recharge from leaking pipes. It was established in that report, however, that although a risk of interference with seepage was identified due to features such as the presence of a lower permeability alluvium layer, variability of the gravels and the delay in the groundwater response to river water levels (tidal lag), these features are not assumed to prevent groundwater seepage. This report also stated that the design solutions were developed as a specific response to each unique location, using an integrated multidisciplinary approach, which assessed the hydrogeology, drainage and geotechnical engineering requirements. It was further considered that proposed elements of the LLFRS such as the Flow Control Structure in the South Channel and the back-of-wall drainage system (to intercept water seepage) are crucial to the successful management of groundwater in a flood scenario. The conclusions of the Report were that, based on work carried out to date, during flood conditions, only the top 1-2 metres of the groundwater table are affected for a limited time period, and the deep water-bearing gravel deposits will remain saturated as they are normally. During the non-flood scenario, the hydrogeological regime will remain unchanged.

13.2.9. Similar concerns regarding the potential impact on the groundwater regime were made by Save Cork City and several other eminent geologists and hydrogeologists in the third-party submissions received by the Board in relation to the Morrison's

Island project. However, some of these detailed and highly technical submissions also included criticisms of the proposal to introduce ground water pumping, which it was believed would exacerbate the situation further. A general reference to the potential impacts associated with groundwater pumping was also included in numerous submissions from the general public.

13.2.10. In light of these concerns, the Board sought further information (24/05/19) in respect of the proposed modifications to the surface water and groundwater drainage systems (Item 1(c)), and specifically, whether it is proposed to introduce ground water pumping as part of the Morrison's Island development. The response from the applicant (11/07/19) included the following statement:

> "No groundwater pumping is proposed as part of the Morrison's Island project. The proposed pumping stations will only receive flows from surface water sources. Numerical seepage modelling (based on extensive geotechnical site investigation data) has been undertaken, which indicates that underground seepage will not emerge above ground level within the defended area during the design flood. Therefore, pumping of seepage/groundwater is not necessary as part of this project."

13.2.11. As mentioned previously, no further submissions were received from the general public following the re-advertisement of the receipt of significant further information. It is considered that the applicant has provided adequate clarification of the proposed modifications to the surface water and groundwater drainage systems that form part of the current proposal at Morrison's Island. It is acknowledged that there is evidence of considerable variability in the hydrogeological features along the length of the river and that it is unlikely that the proposed scheme currently before the Board will give rise to interference with groundwater seepage or result in either groundwater or surface water flooding, or to the drying out of the aquifer.

13.2.12. The hydraulic model runs have demonstrated that the benefits in terms of reduced tidal flood risk to the city centre would be achieved by the implementation of the proposed defences at Morrison's Island alone, and that they would not be dependent on any constituent element of the LLFRS project. The scheme would provide protection for c.374 properties for a 1:100 tidal event. The modelling shows that the extent of flooding would be significantly reduced. Although in one very extreme

scenario, (maximum fluvial and maximum tidal), there would be some minor local impact, but it is considered this can be addressed by the proposed overflow drainage and surface water pumping and would not result in flooding of properties. Although Morrison's Island would remain at risk of fluvial flooding until the LLFRS is implemented, the proposed scheme would provide greater protection against high frequency tidal events and will raise the threshold of tidal flooding for streets such as South Mall and Oliver Plunkett Street.

13.3. Need to consider Alternatives

13.3.1. A considerable number of third-party observations made reference to the need to have regard to alternative solutions, such as a tidal barrage. Many observers considered that there were better alternatives available and/or that alternative solutions should have been explored, assessed in terms of feasibility and costed, so that they could be compared with the current proposal. As the need for EIA has been screened out, there is no requirement to consider alternatives in respect of the current application. However, the applicant has addressed this issue at Section 2.5 of the Environmental Report submitted with the application.

13.3.2. It was advised that various alternatives were considered as part of the flood management plan for the Lower Lee Catchment (LLFRS). These were presented to the public in the Flood Risk Management Options Report, which is available on the LLFRS website (www.lowerleefrs.ie). It was further advised that as part of the design process for the flood relief scheme, various steps had been completed such as a Constraints Study, a Hydrology Study, Hydrological Modelling, Preliminary Site Investigations, Flood Risk Assessments, completion of an Options Report and selection of the preferred option, appropriate assessment screening, Cost Benefit Analysis, and environmental assessment, and that many of these reports are also available on the same website.

13.3.3. It is stated that the possible flood risk management methods were screened to identify viable options considering factors such as risks to society, the environment, cultural heritage, the economy and the objectives of the flood risk management plan for the project. The potentially viable options were then developed so that they could be evaluated in more detail, which included hydraulic modelling to consider flood levels and extents. The options were then assessed against the flood risk

management objectives with the use of local weightings and the preferred option was identified following discussion with the OPW and the Steering Group.

13.3.4. The Environment Report advised that the public consultation process on the LLFRS had resulted in a number of suggested alternative solutions for flood defence measures for the Lower Lee catchment. These included the following:

- Alternative upstream storage options
- Natural flood management measures
- Dam operation improvement
- Storage downstream of dams
- Flood forecasting system
- Early flood warning systems
- River diversions
- Dredging the river
- Flood resilience measures
- Tidal barrier

It is stated that detailed responses were provided to each of these suggested alternatives in the 'Exhibition Report' and is available on the same website. Several alternative flood risk management methods were considered in developing the flood relief scheme. These included a 'Do Nothing' scenario, a 'Do Minimum' scenario, 'Non-Structural Measures' (e.g. land-use management, modified dam operation, early warning systems etc.) and 'Structural Measures' (e.g. washland creation, direct defences, channel modification, flow regulation, bridge/weir modification, upstream storage, pumping, tidal barrage). It is stated that the criteria used for screening the various options included applicability to the area, social criteria, environmental criteria, cultural criteria and economic criteria.

13.3.5. Thus, it is considered that a variety of alternative solutions have been considered as part of the development of the masterplan for the catchment and in the selection of the preferred option for Morrison's Island. It is stated that the Morrison's Island Flood Alleviation Works will raise the threshold for tidal flooding for south Mall, Oliver Plunkett Street etc. from circa 1 in 10 years to 1 in 100 years, and that this will increase to 1 in 200 years following completion of the LLFRS. The options

considered as part of the process are likely to inform the consideration of alternatives for the LLFRS application and/or any future phases of the masterplan.

13.4. Recreational and visual amenity

13.4.1. **Landscape and visual amenity** – The concerns raised by third parties include the adverse impact that the introduction of “five foot concrete walls” would have on the unique and distinctive maritime and cultural heritage of Cork City. Many observers consider that the expansive Georgian riverside landscape, combined with the traditionally open views of the river, are integral to this historic and maritime heritage and to the cherished relationship between the city and the River Lee. Some considered that the exceptional waterside views along the river corridors are reminiscent of the open waterside environment in Venice. As such, there is considerable resistance to what is seen as an attempt to enclose the river and to break this visual connection by introducing walls, railings and bollards, which is considered to be contrary to the CDP policies to improve the visual access to and connectivity with the river. Furthermore, there is concern that the quality and amenity value of the protected views along the river corridors and of the Protected Structures along the quaysides will be irreversibly damaged. It should be noted, however, that supporters of the scheme are enthusiastic about the prospect of regenerating and rejuvenating the quays which are currently seen as car dominated with a poor-quality public realm.

13.4.2. It is considered that the historic limestone quay walls make a very positive and significant contribution to the character of this part of the city and that the character of the city is inextricably linked with the river and its associated amenities. However, I would not agree that the views of the river are currently open or unobstructed. The existing environment along the quaysides at Morrison’s Island is dominated by unbroken rows of perpendicular street parking, which directly abut the existing 20th century walls and railings. These parapet walls, which are made of concrete, are generally 400mm high and the railings are painted, tubular metal railings, are utilitarian in appearance and have been very poorly maintained. The design consists of two horizontal bars punctuated by a vertical bar which is set into the concrete parapet. They resemble the bars on scaffolding and the paint is chipped and the metal is rusted in parts. The parapet walls/railings sit on top of the limestone coping

stones and restrict views of the water. When cars are parked in the perpendicular bays, (which is for most of the business day), they obscure views of the river even further. The existing obstructions also obscure views of the limestone steps and maritime paraphernalia such as cast-iron rings, chains, bollards etc., which can only be seen from behind the parked cars.

13.4.3. The proposed development would permanently remove the parking bays from the water's edge and would substantially reduce the number of parking spaces in the quayside area (115) in the long term. This would significantly improve the visibility of the river, with relatively open vistas restored from the quaysides. This is clearly illustrated in Photomontage No. 4. The 20th century railings would be replaced by a concrete parapet wall which would be slightly higher than the existing, 600mm, with a modern, lightweight stainless-steel railing, (overall height of 1200mm). This railing would be punctuated by granite bollards which are reminiscent in shape and size of the historic cast iron bollards. The proposed scheme would also result in the re-profiling of the ground along the quaysides with increased ground levels up to a maximum of one metre. It is considered that in general, the views of the water from the quaysides would be significantly enhanced by the proposed works, particularly due to the removal of the continuous lines of waterfront parking and the greater visual permeability of the revised railing design. However, the proposed layout introduces linear blocks of parallel parking which, because of their length would also interfere somewhat with open views of the water. It is considered that these blocks should be broken up with no more than 3 parallel bays placed together in order to maximise the open waterside views.

13.4.4. It is also proposed to replace railings at Parnell Plaza and on Trinity Bridge, including the approach to the bridge (Photomontage No. 7). These existing railings comprise vertical metal bars which are relatively close together and have the effect of being less visually permeable due to their design. The new railings in these locations would have a greater transparency due to the slim nature of the steel railings and the flared entrances to Trinity Bridge. Furthermore, it is proposed to provide glazed barriers at the south side of Trinity Bridge. It is considered that the views of the river from Trinity Bridge and the adjoining quayside areas, and from Parnell Plaza, will be significantly enhanced by the replacement railings at these locations together with the flared

approaches to the bridge and the proposed viewing platform. These measures will help to restore the connectedness of the quayside areas with the river.

13.4.5. Objective 10.6 of the CDP states that there will be a presumption against development that would harm, obstruct or compromise the quality or setting of linear views of landmark buildings, panoramic views, river prospects, townscape and landscape views and approach road views. The most relevant Protected Views in the CDP, referred to as River Prospects, are RP4 (View from Parliament Bridge downstream to Holy Trinity Church, as illustrated in Photomontage No. 1), and LT4 (described in Table 4 of CDP as from George's Quay to Fr. Matthew Quay, but shown on Map 13 CDP as View from Father Matthew Quay/Street to George's Quay). PM No. 2 represents the view on Map 13, which was considered to be the correct one in the Environmental Report.

13.4.6. Significant views of landmark buildings and Protected Structures are also of relevance, such as views from George's Quay towards Holy Trinity Church, the Capuchin Priory, and adjacent buildings that are Protected Structures on Father Matthew Quay (PM No. 8). Parliament Bridge is also a Protected Structure and views to and from this location would be affected by the proposed development. It is considered that the views from Parnell Bridge and Trinity Bridge, would provide particular vantage points along the river corridor, which would be of relevance. The Southside Architectural Conservation Area is also located across the river at George's Quay, the views from which would also be sensitive.

13.4.7. It is considered that the proposed development will alter some views, including several views of significance and sensitivity. The most notable include the views of Father Matthew Quay, together with its Protected Structures and landmark buildings, from both Parliament Bridge (PM no. 1) and from George's Quay, the ACA, (PM No. 8). From these vantage points, the juxtaposition of the new parapet walls will be most noticeable. The placement of the concrete parapet directly above the limestone quay walls is likely to detract somewhat from the character and appearance of the historically and culturally important walls. However, the existing views from these vantage points are currently diminished by the large number of cars parked directly against the waterside, the poorly maintained walls, and utilitarian railings. In addition, the poor quality and unattractive public realm, together with the high level of vacancy and the absence of any vibrant or active ground floor uses along the quaysides,

contributes to a sense that the area is somewhat neglected and run down. The overall effects of the proposed scheme will address many of these issues by creating a vibrant and inviting public realm which is likely to encourage regeneration and redevelopment of the waterfront area.

13.4.8. The impact of the proposed flood defence walls would also be mitigated by the proposal to keep the walls as low as possible, by setting the walls back from the edge of the limestone walls (by 150mm) and by the provision of an architecturally designed landscaping scheme incorporating walls and railings with high quality materials, finishes and bespoke street furniture. The proposals to repair, clean and maintain the limestone walls will also mitigate the negative impacts on the visual amenity and appreciation of cultural heritage. It is considered that the negative effects would be sufficiently mitigated by the proposed measures outlined above and should also be balanced against the considerable benefit that the flood defences would provide in terms of addressing the flooding risk and facilitating the rejuvenation of the area.

13.4.9. **Riverside amenity, tourism** – A large proportion of the third-party submissions raised concerns regarding the likelihood that the proposed flood defence works would impede recreational use of waterfront, accessibility of the river for amenity reasons and would result in the loss of riverside amenity/public open spaces. Supporters of the scheme, however, were strongly in favour of the proposed public realm enhancement incorporating flood defence works. Supporters also wish to see the flood defence works implemented as soon as possible in order to protect properties and businesses, to reduce the cost of insurance and provide greater certainty to business owners. As outlined in the preceding section, it is considered that the proposed development would conversely, liberate large sections of the waterfront from on-street car parking and replace this with a pedestrian walkway and shared use cycle/pedestrian path. Access to the river will be maintained and where ground levels are raised, the existing limestone steps will be extended so that direct access to the river will be maintained.

13.4.10. Thus, it is considered that the riverside amenity will be significantly enhanced by the proposed works, which will provide direct benefits to the recreational users of the river and riverside, including residents and workers in the area. These benefits will also positively affect tourism by creating more attractive waterfront areas and public

spaces to spend leisure time by the river in the city centre. It is acknowledged that the construction period will cause some disruption to the availability of the riverside amenity, but this will be of short duration and will be phased so that each section of the riverside area will only be affected for a few months.

13.4.11. Some observers suggested that the proposed public realm improvement works were inadequate and inappropriate in this waterfront area, and that far better solutions were put forward in the international urban design competition for regeneration of the waterside area. As a result, it was felt that the current proposals represent a lost opportunity to attract events, to maximise social interaction and to create a seamless transition between the historic quayside areas and the river. Submissions included various alternative proposals which had formed part of the design competition including the winning entry.

13.4.12. It is considered, however, that the application that is before the Board seeks to address the debilitative issues facing the area in a positive way and sets out to meet a number of development objectives contained in the Development Plan and other policy documents for the area. Thus, the existence of alternative urban design solutions, which were the subject of an independent design competition, is not considered to be sufficient justification, in itself, to refuse the current proposal. It is further considered that, in due course, there is potential to alter the layout and use of public space along the waterfront as currently proposed in the future, as regeneration takes place over time and as matters evolve on the ground. Such alterations could be temporary, such as closing the quaysides to traffic for festivals or other events, or more permanent such as removal of vehicular traffic and parking from the quaysides. The potential for any such amendments would be a matter for the local authority, should such a need be identified in the future.

13.4.13. **Impact on economy/commercial role of city centre** – Objections have been raised by third parties to the potential impact on city centre business and trade. However, most of these concerns relate to disruption, noise, dust, access and parking restrictions during construction, although a sizeable proportion consider that the loss of parking spaces in the long term will negatively impact on city centre trade. As outlined in the preceding sections, it is acknowledged that the construction period will result in disruption and nuisance from noise, dust, vibrations etc. However, the mitigation measures outlined in the draft CEMP are likely to minimise such impacts

and the short duration and temporary nature of the works will also reduce the negative effects on city centre businesses.

13.4.14. In the longer term, it is considered that the greater certainty provided by the flood relief works, together with the facilitative nature of the proposed public realm improvement works is likely to result in significant benefits to trade and business in the city centre. It is likely that the enhancement of the south-facing quayside area will encourage new development and promote more active use of the ground floors of buildings, which in turn, will generate increased footfall and lead to a more vibrant and safer environment for pedestrians, with the likelihood of greater diversity of uses, including cafes and restaurants. It is considered that the regeneration of the area, which is likely to follow the proposed enhancements, would promote an extension of business hours into the night and evenings and an expansion of the retail and entertainment area of the city centre.

13.5. Archaeological, architectural and cultural heritage

13.5.1. **Remedial works to quay walls** – A considerable number of observers made references to the irrevocable damage to the limestone quay walls by reason of either being faced with concrete, or removed and replaced with concrete, or the dressed stone being removed and a concrete wall poured, with the dressed stones replaced as facing stones. Criticism was also made of the lack of any detailed appraisal of the existing stonework, the cast-iron bollards and the absence of detailed drawings of the stonework. Other concerns related to the irreversibility of the works to the quay walls, which would be permanently damaged and/or obscured by the flood defence walls. The Board should note, however, that there is no intention to remove the limestone walls or to cover them in concrete. It is, however, proposed to construct a mass concrete wall behind the quay walls. It should further be noted that these quay walls at Morrison's Island are not protected structures, although are important elements of the cultural heritage of the city.

13.5.2. The main interventions to the lower components of the quay walls involve localised maintenance and repairs of the quay facades and the insertion of micro piling along the foundations. The process will commence with the excavation of the existing backfill material behind the quay walls and the construction of the new reinforced concrete backing wall, which will be carried out in short lengths to minimise pressure

on the quay walls. A back-of wall drainage system will be incorporated. It is intended to rake out, clean and re-point all joints by hand and to clean the face of the existing quay wall with a high-pressure water jetting. Following this, the grouting of the foundation zone and quay walls will begin. It is intended that the walls be gravity grouted by means of holes drilled down through the centre of the wall. Once set, the wall and foundation zone will then be pressure grouted and galvanised reinforcement stitching bars will be installed to improve the stability of the quay walls. It is considered that these works will not have a significant impact on the quay walls, and will aid in the restoration, maintenance and cleaning of the structures, which help to conserve them and enhance their visual appearance.

13.5.3. Notwithstanding the location of the site outside of any known zone of archaeological potential and the absence of any findings of archaeological significance, there is a risk that the repair works to the quay walls could result in an adverse impact on any unrecorded archaeological features that may exist behind the walls, but the works will be subject to a pre-works method statement, supervision by a Conservation Specialist and archaeological monitoring (under licence). I am satisfied that these remedial works are necessary and, with mitigation and monitoring as proposed, are likely to result in the preservation and enhancement of these important elements of the built heritage and character of the city. It is noted that the Dept. of Culture, Heritage and the Gaeltacht has raised no objections to the methodology proposed, subject to mitigation and monitoring.

13.5.4. It should be noted that the Underwater Archaeological Impact Assessment Report, (which had initially been inadvertently omitted from the application, but was provided as part of the Further Information submitted to the Board on 11/07/19), contains detailed descriptions of the quay walls based on the desktop surveys and field work, together with elevations and sections (large scale), plans and photographs (both historic and current). Detailed information is also provided regarding various elements of maritime cultural heritage such as limestone steps, timber piles, fenders and shuttering, historic drains and wrought iron ladders, brackets, fastenings, mooring hoops and a cast-iron mooring bollard, (at the southern end of Morrison’s Quay).

13.5.5. The Under Water Archaeological Report indicates that the quay walls have been subject to consolidation works along its foundations in the past. These works include

underpinning by means of a series of close-set vertical timber piles behind which concrete has been poured and a further set of vertical timber piles which are flush with the quay walls, where rough-mix concrete has been used to infill the space between the piles. There is also evidence of modern repairs to drainage elements comprising concrete blocks and cement render. Thus, it is clear that a detailed appraisal of the limestone walls has been carried out and that there have been interventions involving non-traditional methods and use of materials in the past.

13.5.6. It is noted that the proposed works will also involve the removal of several fenders at Trinity Bridge and Parnell Plaza, due to clashes with the proposed structure. There is also the possibility that several further fenders will have to be removed due to their poor condition, many of which are in a state of partial collapse. The applicant has advised that this matter is currently under review by the local authority and that it is not clear at this stage how many fenders will need to be removed. It is considered that the removal of the …fenders as outlined in the application is acceptable as it has been established that these fenders are required to be removed due to the poor state of repair or due to the incompatibility with the design of the scheme. However, it would be inappropriate to give an open-ended approval to the removal of fenders along the entire length of the two quays in question. This matter should be subject to a future application by the Local Authority.

13.5.7. **Reversibility of works and insensitive use of materials in flood defence walls** – criticism has been made of the lack of detailed specification regarding the proposed concrete material to be used in the flood defence walls, given that they will be placed on top of the quay walls, particularly in respect of the colour, texture and finish of the proposed material. In addition, no specification has been given for the replacement bollards. Other concerns related to the irreversibility of the works to the quay walls, which would be permanently damaged and/or obscured by the flood defence walls. It was queried as to why glass barriers could not be used instead of concrete as has been achieved in other OPW flood defence schemes such as Waterford. The use of imported stone (granite) was also criticised on the basis that it is incompatible with the traditional limestone walls and is not supportive of local businesses.

13.5.8. The proposed backing wall will be introduced behind the dressed limestone walls and will not result in the removal of any of the fabric of the ashlar walls. The works will involve the creation of the backing wall to road surface level which will be bonded

to the inner face of the quay walls and the proposed flood defence walls will be set into this backing wall, not the quay walls, but will rest on top of the coping stones. However, the parapet walls will be set back from the edge by c.150mm. The applicant has advised (FI 11/07/19) that the 150mm setback is intended to ensure that the new construction is clearly differentiated from the historic structure. Such an approach is considered to be consistent with best-practice conservation principles, as set out in the Architectural Heritage Protection Guidelines. It is stated in the Environmental Report (10-10) that this intervention will be reversible without necessitating any removal of masonry units of the walls.

13.5.9. Confirmation of the reversibility of the works was provided in the Further Information submitted to the Board on 11/07/19, (item 1(d)), as follows:

> "Proposals have been developed in accordance with best-practice conservation principles, including reversibility, achieved by incorporating a separating board between the base of the proposed new wall and the top face of the historic stonework of the quay wall, (MOR-3005-P02, included in Appendix A).

It is considered that the applicant has demonstrated that the proposed above ground flood defence walls would involve reversible interventions, which is consistent with best-practice conservation advice.

13.5.10. However, some of the interventions will not be reversible, such as, the concrete backing wall, the changes to drainage outfalls (including installation of non-return valves), and the removal of several fenders. The backing wall will not be visible as it is below ground and behind the limestone walls and will not damage the integrity of the walls. The changes to the drainage outfalls are not considered to be significant. The removal of fenders is stated to be necessitated by their "parlous condition" but this issue is subject to a detailed strategy relating to the remaining fenders by the local authority. In addition, it is proposed to remove three stone bollards and one fluted metal bollard adjacent to Parliament Bridge and several sections of cast-iron railings along the quaysides. The proposed development, however, includes the sympathetic replacement of these items.

13.5.11. **Use of materials** – The Board sought clarification on the rationale for the materials to be used in the proposed flood defence walls. In response, the applicant has advised that various options were considered by the Design Team, working in close

co-operation with the P.A.'s Conservation Architect. One of the main guiding principles included consideration of materials which would provide a clear differentiation between the historic and the new elements. It was advised that "a high quality, deep, tooled ashlar stone coping, in proportion with the proposed new wall, [was chosen to be] the most prominent visual feature" and that "Granite has been chosen to affect a subtle complement to Cork limestone which is widely used throughout the quays". The granite material will be used for the proposed new bollards and for the coping stones between the concrete parapets and the steel railings. The concrete wall will be of "exposed aggregate" with the colour and texture of the aggregate specified to complement the adjacent materials. Several options were considered in terms of construction methods for the aggregate finish, including sand blasting and surface retarder. The selected option was a "bush-hammered finish".

13.5.12. It is considered that the materials to be used and the proposed colour, texture and finish has been the subject of much thought and analysis. I would have some sympathy with the view, however, that the use of an alternative material such as glass barriers could have been explored, which may have resulted in a more sympathetic solution. Notwithstanding this, it is considered that the proposed use and type of materials would achieve the objectives of differentiation from the historic materials and consistency with similar approaches taken elsewhere along the quaysides of the city centre. It is considered, therefore that the proposed use and specification of materials for the flood defence walls is appropriate and would be consistent with best-practice conservation principles.

13.6. Traffic and transport and parking

13.6.1. The third-party observers objected to changes to traffic flow and to the loss of parking spaces (115 spaces), which would be detrimental to city centre trade and commerce. It was considered that there should be some compensatory measures for the loss of so many spaces in the form of incentives to encourage a greater modal split as well as active management of the remaining parking spaces in the city centre in order to optimise the availability of parking spaces. The Traffic and Transport Impact Assessment was also criticised as not being in accordance with the

guidelines as the survey period was in June, outside of term time. Disruption to trade during the construction period was also raised.

13.6.2. Several objections related to the shared surface layout. Concerns were raised regarding the safety of the layout due to the presence of numerous pinch-points and some considered that vehicles should be excluded entirely. Several cycling interests stated that the cycling facilities should be in accordance with DMURS and the National Cycle Manual, that there was a need for better road markings/signage and for traffic calming for vehicles. Some considered that the raising of the walls and the complex entrances to the bridges would generate a hostile environment for cyclists and that the contraflow arrangement was unworkable. It should be noted that the majority of observations in support of the scheme welcomed the proposed public realm improvement works which were considered likely to rejuvenate the area and which would be in the best interests of the city centre.

13.6.3. The existing public realm and environment at Morrison's Island is recognised as being particularly poor and unattractive at present, and is car dominated. The Design Manual for Urban Roads and Streets was published in 2013 and it is mandatory for the Board and for planning authorities to have regard to this document. It is acknowledged as the design standard for urban streets and compliments policies contained in previously issued documents such as Traffic Management Guidelines (2003), the National Cycling Manual (2011), Smarter Travel (2009) and the Sustainable Residential Development in Urban Areas Guidelines (2009). A common theme in each of these planning and transport policies is to encourage more sustainable urban neighbourhoods and patterns of behaviour, comprising more compact, denser and interconnected urban areas supported by good quality public transport and facilitating walking and cycling.

13.6.4. DMURS focuses on the design of the street with the aim of creating safe, attractive and vibrant streets to encourage walking and cycling. It provides advice ranging from the macro to the micro scale and establishes a road user priority ranging from firstly, Pedestrian, to Cyclist, to Public Transport and finally to the Private Car. This is based on the concept that higher quality street environments attract more sustainable forms of transport, such as pedestrians and cyclists, which in turn create more vibrant, lively and more pleasurable places, and that self-regulating streets manage driver behaviour and calm traffic, promoting safer streets. Shared surface

spaces are desirable where movement priorities are low and pedestrian activity is high, and are encouraged on lightly trafficked, low-speed streets.

13.6.5. It is considered that the proposal to create an attractive, vibrant and safe waterfront area at Morrison's Island is wholly consistent with aims of the planning and transport policies outlined above. The removal of 115 perpendicular car parking spaces, together with the alterations to the road layout, are considered to be essential elements of this approach, which seeks to create streets that are more people-centred than car dominated. The overall approach of the proposed public realm improvements seeks to address the re-prioritisation of road users. However, it is considered that the layout as proposed, and as revised in the FI (11/07/19), fails to prioritise the pedestrian. The road layout does not make optimal use of the space available to ensure that there is a safe environment for pedestrians and cyclists, whilst not unduly compromising vehicle movement.

13.6.6. The width of the quaysides varies along their length, but in general, the proposal as submitted indicates a footpath of c.2m adjacent to the buildings, a 3.0m wide roadway centrally located and a shared pedestrian/cycleway of c.3.0m width (which increases up to c.6.0m in places), adjacent to the river. The number of parking spaces would be reduced from 148 (perpendicular) to 33 (parallel), and they would be provided in blocks/lengths of 3, 8 and 13 in the space between the vehicular carriageway and the shared cycle/pedestrian pathway. There will also be a contraflow arrangement for cyclists. It is proposed that cyclists travelling in the same direction as the one-way vehicular traffic will be expected to use the carriageway, but cyclists travelling against the one-way system will use the shared path. The proposal as originally submitted showed an effective width of the shared path as being restricted at a number of pinch-points. The Board raised this matter in the FI request (24/05/19), and also sought a review of the layout of the footpath, carriageway and shared path, including the provision, layout and design of the parking spaces, having regard to the advice in DMURS and the National Cycling Manual, in the interests of pedestrian and cyclist safety.

13.6.7. The response submitted on 11/07/19 revised the layout by eliminating all but one of the 12 pinch points identified along the length of the shared path. However, the overall distribution of space between different road users was not changed. It was stated that the design had regard to the Draft Cork Metropolitan Area Transport

Strategy 2040 and to the Cork Cycle Network Plan 2015, and extracts (CCNP) were included in Table 3 (Item 1(e)). It is noted that the CCNP considered that a 'mixed street facility' would be appropriate on these streets, but the objectives are focused on enhancing cycle facilities, and are not pedestrian-focused. It was further stated that the shared path width varies between 2.85m and 6.0m, with a general standard width of 3.05m. This effective width (3.05m) was stated to have been based on a minimum pedestrian footpath width of 1.8m (DMURS) combined with a minimum width of 1.25m for a single-file cycle lane with a 0.25m edge treatment on either side.

13.6.8. It is considered that the inclusion of a dedicated one-way carriageway road, which is to be shared with cyclists, and the use of a shared pedestrian and cyclist riverside path, does not conform to the 'self-regulating' approach to street design advocated in the DMURS guidance. This layout would result in conflict and a hazardous environment for both pedestrians and cyclists and would not necessarily calm traffic or change driver behaviour. It is considered that for the public realm improvements to be successful, the proposed layout should be centred on a 'shared surface' as defined in 4.3.4 of DMURS, with pedestrian refuges alongside the building edge and the water's edge. This specifies that the shared use space should not exceed 4.8m, but there is greater flexibility in the width of the pedestrian refuges.

13.6.9. Within the overall shared space, traffic speeds could be managed and controlled by means of strategic placement of parking bays, street trees, street furniture, seating and bicycle docking stations/parking, as advocated in the guidance provided in DMURS ('self-regulated streets'). However, linear blocks of parallel parking spaces should not exceed 3 continuous bays to optimise views from the quayside of the river. Several other measures could be used to calm traffic and create a sense of pedestrian and cyclist priority, such as the use of a variety of materials and finishes, including tactile paving, flush or low level kerb-lines, drainage lines, signage and road markings to alert drivers to the shared nature of the space and to ensure that pedestrians are prioritised at the top of the hierarchy.

13.6.10. It is considered that this shared surface approach would address the potential safety issues and conflicts between cyclists and pedestrians sharing a relatively narrow path, with a barrier on one side and a roadway on the other. It would also encourage development with active ground floor uses and would facilitate the accommodation of outdoor seating/tables and chairs associated with cafes and restaurant that may

occupy the south-facing ground floor frontages of the buildings. It is considered that it would, therefore, contribute to the creation of a vibrant, attractive and safe environment with a distinctive sense of place, which would meet the objectives of the CDP and of the various planning and transport policies for the area as outlined above.

13.6.11. It would also address most of the concerns raised in the third-party submissions, apart from those relating to the impact on trade due to the loss of parking and disruption during construction. The movement away from a car-dominated environment is consistent with the national and local policy approach of prioritising cycling, walking and use of public transport, promotion of the most efficient use of land and the reduction in greenhouse gas emissions. It is considered that the overall management of parking within the city centre is outside of the remit of the Board and is likely to be addressed by the planning authority under the Cork Metropolitan Area Transport Strategy in due course. Disruption during construction will be of limited duration and will be phased to minimise the impacts on the city centre.

13.6.12. Should the Board be minded to approve the proposed scheme, it is considered that a condition should be attached requiring the layout of the quayside areas to be revised as a ‘shared surface area’ (as specified in DMURS 4.3.4) with pedestrian refuges on either side, (adjoining the buildings and the water, respectively), and that the design of the overall space should be in accordance with the DMURS concept of ‘self-regulating streets’ (DMURS 4.1.2) in terms of incorporation of parking bays, cycle parking, street furniture and landscaping, with a maximum length of 3 parking bays.

13.7. Overall conclusion on benefits of scheme

13.7.1. The benefits of the scheme are considered to be significant in terms of reducing the severity and hardship experienced by residents and businesses as a result of tidal flooding in the area. It will also provide for necessary remedial works to the architecturally significant quay walls and provide for a much-improved public realm, which is likely to benefit the recreational and commercial amenities of the waterside area. I am satisfied that the proposed development is justified and supported by the policy framework for the area, particularly the policies and objectives of the Cork City Development Plan and that it will not give rise to significant adverse impacts on the

amenities of the area. Accordingly, I consider that the development accords with the proper planning and sustainable development of the area.

13.8. Public consultation

13.8.1. There has been considerable criticism of the level of public engagement with the process of developing a flood relief scheme for the Lower Lee Catchment and for Morrison's Island in particular. Third-Party Observers believe that there has been no meaningful engagement with the public, that the flood relief proposals contained in the Morrison's Island scheme have been foisted upon the citizens of Cork and that there has been little or no opportunity for the public to have its say on the design of the flood relief scheme. In particular, it has been stated that the public input into the choice of options was seriously deficient. Many observers also sought to have an oral hearing on Morrison's Island to enable these matters to be fully explored, and to enable a "fully independent review" of the flood relief scheme which should be carried out by the Board.

13.8.2. Public Consultation on the wider LLFRS, of which Morrison's Island flood relief works initially formed a part, was undertaken on several occasions at various stages of the design process for that scheme. A summary of the details of the public consultation exercises are set out in Section 2.6 of the Environmental Report submitted with the application. It is stated that the consultation process began at the Constraints Study stage and included public information events with questionnaires, a scoping exercise (involving national and local bodies etc.), and members of the technical design team being available to answer questions at the public information events. It is noted that the events were publicised in local and national newspapers, websites and on radio. Events were held in July 2013, July 2014, and a series of four open days in December 2016 and January 2017, which included the presentation of detailed materials including an interactive display. The events were well attended, and it is stated that 1,162 submissions were made, which are summarised in the Exhibition Report (available of LLFRS website). It is further stated that in-depth discussions and design workshops were held with various stakeholders and interest groups and that a number of presentations were made to elected members of both Cork City Council and Cork County Council as well as to members of both houses of the Oireachtas.

13.8.3. The Part 8 process for 'Morrison's Island Flood Relief Scheme with Public Realm Improvement Works' commenced with the publication of notices in February 2018. Details of the scheme were available for 8 weeks, and during this time, a true scale proto-type of the proposed wall, railing and surface finishes was constructed at City Hall, and a video fly-through was completed for the scheme. A presentation was made to key stakeholders in February 2018 and two further public information meetings were held in February and March 2018. This display was extended due to disruption caused by Storm Emma. Written submissions were invited. It is not stated how many submissions were made, but third-party observers have stated that in excess of 1500 submissions were made to the local authority. The Council's decision to grant approval for this scheme was subsequently challenged in the High Court, when the decision was quashed, following the Court decision on the People Over Wind case, whereby it was decided that the need for Appropriate Assessment (Stage 2) cannot be screened out on the basis of mitigation measures proposed.

13.8.4. Based on the foregoing, it is clear that the flood relief works that have been proposed as part of the LLFRS and more laterally, as part of the current proposal for flood relief works, combined with public realm improvement works, have been the subject of considerable public consultation, which has been meaningful and comprehensive. Subsequent to the extensive consultation processes outlined above, the current application has been the subject of further comprehensive public consultation by the Board, which resulted in 635 submissions being made. Following the receipt of further information on 11th July 2019, the Board asked the applicant to advertise the fact that significant further information had been submitted. Submissions were invited between 16th September and the 18th October 2019. The period was specifically chosen to avoid the summer holiday season. However, no further submissions were received from the general public, with just two submissions from prescribed bodies.

13.8.5. Having regard to the detailed response to the further information request by the Board and to the fact that no further objections or submissions had been received, the Board considered that the carrying out of an Oral Hearing was not necessary in this instance as there is sufficient information on file to facilitate an assessment of the proposed development. The Board directed that an oral hearing not be held.

13.8.6. It is considered that the proposed development has been the subject of considerable public scrutiny and that the flood relief works element, in particular, has been

presented to the public at various stages of the development of its design. There has been a significant level of public engagement with the process, as evidenced by the large numbers of submissions in respect of the LLFRS, the Part 8 process and now the Section 177AE application. I am satisfied that the proposed development has been the subject of a detailed and comprehensive public consultation process which has been actively engaged in by stakeholders and the general public.

14.0 Likely Effects on the Environment

The most significant potential for impacts on the environment, arising in relation to water, biodiversity, flora and fauna are discussed in detail in the appropriate assessment below. In addition to these, I consider that environmental impacts may be considered under the following headings:

Human beings, population and human health

14.1.1. Positive impacts during the construction phase would include increased local employment. There would be increased levels of disruption to the local economy, as well as to residents and visitors during construction, but this would be of short duration and would be temporary. Significant impacts could arise in terms of air emissions and noise levels from machinery, construction activity, sheet piling and movement of HGVs, in the absence of mitigation. However, it is proposed to implement a Construction Environmental Management Plan and a Dust Minimisation Plan. The proposed mitigation measures include phasing of the project, as well as measures to minimise emissions in terms of noise and dust such as use of hoardings, best practice methods for noise control and dust suppression measures. Increased construction traffic and disruption of traffic and access would be mitigated by means of a Construction Traffic Management Plan and would take account of peak business times such as Christmas. Thus, the residual construction impacts on human beings, population, tourism and amenity would be short term and slight during the 12-month construction phase of the project.

14.1.2. The operational impacts on population and human health would largely be positive, arising firstly from the public realm improvements, which include the provision of additional and enhanced public amenities such as a riverside walkway and shared use pathway, seating areas, a viewing platform and landscaped public spaces, and

secondly from the flood defence measures which will address the risk of tidal flooding at Morrison's Island and in the adjacent city centre area. Flooding poses a risk to the health and safety of the population including physical injury, illness, stress and loss of life. The proposed development would, therefore, provide long-term significant positive impacts in terms of reducing the risk of flooding. The proposed works would provide more certainty for residents and businesses which would encourage future inward investment, further employment, and a stronger local economy. The public realm enhancements would encourage more activity in proximity to the river, thereby aiding the regeneration of the area, with a long term significant positive impact on businesses and property values in the local area.

14.1.3. During the operational phase, there would be an altered visual relationship with the river and a permanent loss of a significant amount of street parking, which would give rise to a long-term moderate impact on the visual amenity of the area and a slight negative impact on transport and the local economy. However, mitigation measures include the reprofiling of the ground levels along the quays in order to minimise the height of the defence walls, the incorporation of flood defences into the hard landscaping solutions for the public spaces, the use of high-quality materials and architecturally designed flood defence measures. The proposed development would deliver further benefits in terms of more efficient use of land, (by the removal of on-street parking directly adjacent to the waterside), enhanced public amenity with improved access to the river, more sustainable modes of transport which would be beneficial to public health, and enhanced business opportunities arising from the regeneration of the area and the provision of flood defence measures.

Archaeology, architectural and cultural heritage

14.1.4. This part of Cork City saw little development until the late 18th and early 19th Centuries, when it was reclaimed as part of the expansion of the city. The area was important as a docks area in the 19th century but this role gradually declined in the 20th century. The quaysides are now tarmacked streets with car parking flanking the river's edge, which is now defined by 20th century metal railings on concrete walls, which have been built on top of the ashlar stone quay walls. This modern 20th century intervention replaced the 19th century stone bollards and chains.

14.1.5. There are no recorded archaeological sites in the vicinity of the proposed works and the site is outside of any Zone of Archaeological Potential. There are no features

within the site or in the vicinity that are listed on the Record of Monuments and Places. The RMP, RPS and NIAH do not list any of the Father Matthew Quay or Morrison's Quay walls and associated features. Nothing of archaeological significance was noted during monitoring of a geotechnical trial pit on Father Matthew Quay or in connection with recent developments in the vicinity. However, the potential exists for unrecorded archaeological features or artefacts within the footprint of the proposed works. The proposed development includes deep excavations behind the quay walls including excavation works along the inner edge of the quay walls. There is an identified need for these works to be supervised and monitored for the presence of any unrecorded archaeological features or artefacts.

14.1.6. The potential impacts on archaeology, including sub-surface archaeology, have been addressed in the submitted Archaeological Impact Assessment (Chapter 10, Environmental Report), which included an Underwater Archaeological Impact Assessment (Appendix D of FI response 11/07/19). The application was also referred to the Development Applications unit of the Department of Culture, Heritage and the Gaeltacht, and no objections have been made in relation to archaeology subject to mitigation and monitoring as proposed in the said documents.

14.1.7. Given the absence of any known features of archaeological interest and the location of the site outside of the zone of archaeological potential, I consider that archaeological supervision of all works would be sufficient to mitigate any potential impacts. I am, therefore, satisfied that issues raised in relation to archaeology can be addressed by way of condition. Should the Board be minded to approve the development I recommend that a condition is attached that requires all works to be monitored by a suitably qualified archaeologist and that provision is made for resolution of any archaeological features or deposits that may be identified during the works in consultation with the Department of Culture, Heritage and the Gaeltacht.

14.1.8. The Environment Report also addressed other matters in relation to cultural heritage. These include items considered to be 'heritage assets', which included several Protected Structures in the area (Table 10.2). No predicted impacts were identified for Protected Structures such as Parliament Bridge, although there would be a slight negative impact associated with the tie-ins with the flood defences (indirect) and the removal of quay bollards adjacent to the bridge (direct). However, the three stone bollards and one metal fluted bollard will be replaced, and it is noted that the tie-ins

will need the input of a conservation specialist during the detailed construction design. Further information in the form of an additional detailed drawing was also provided as part of the FI (11/07/19).

14.1.9. There would be no direct impacts on any other Protected Structures, such as Holy Trinity Church, the Capuchin Friary, a warehouse, the post box and the Townhouses on Father Mathew Quay. There would be indirect slight positive impacts on the Protected Structures along the quaysides by reason of reduced flood risk and alleviation of potential flood damage from flood events. Confirmation was also provided in the FI response (11/07/19) that the proposed backing wall would not alter the groundwater regime below 1-2 metres depth, and as such, it is not anticipated that there would be any significant changes in groundwater saturation levels which could potentially affect the stability of the foundations of the Protected Structures fronting the quays.

14.1.10. The potential for negative impacts by the proposed flood defence walls on the setting of the Protected Structures fronting the quays would be mitigated by a combination of the distances involved (up to 10m), the use of high quality materials/architectural design solution for the flood defence measures, the proposals to regrade the ground levels to ensure that the parapet walls would be only 200mm higher than the existing concrete parapet walls, and the removal of the 20th century walls and railings and large expanses of carparking which currently frame the setting of these buildings.

14.1.11. Although the quay walls on these particular quays are not listed as Protected Structures, it is recognised that the walls and their associated features (including limestone steps, landing areas, mooring posts, bollards, chains and timber fenders) constitute remnants of the maritime trade industry of the city and as such, are considered to be of local architectural heritage significance. No significant impacts are anticipated in terms of the localised repair, cleaning, grouting and maintenance works including the micro-piling. The flood defence walls would rest on top of the coping stones and be separated by a plate to ensure reversibility and set back 150mm to differentiate them form the historic structures. There would be a positive impact in terms of the long-term preservation of the walls and in their enhanced appearance. However, localised removal of fenders will result in minor negative direct impacts, but many of these are in very poor condition and an overall strategy is currently being devised for the longer-term future of the fenders.

Landscape and Visual Amenity

14.1.12. Morrison's Island is a relatively small area within the historic urban core of Cork City, where the River Lee forms a key element in its character. The site is located along the northern banks of the South Channel of the river, where the waterbody together with the bridges and streetscapes, with buildings of a reasonable scale and height incorporating several Protected Structures and a few landmark buildings, comprise the landscape character of the area. Further elements and features such as the limestone quay walls, steps, railings, fenders, bollards and cast-iron maritime paraphernalia add interest to this landscape character. There are no landscape designations but there are two Protected Views in the CDP. It is considered that the receiving environment comprises a modified landscape with little recreational value at present, despite the aesthetic qualities provided by the river and cityscape. The views are localised and limited to the streets, bridges at either end (Parliament and Parnell) and from the water.

14.1.13. The proposed development will create new enhanced pedestrian facilities and viewing points along the river including a new boardwalk, a significant reduction in the number of parking bays, the provision of cycling facilities and new and enhanced public amenity areas complete with new seating areas. Along the river bank, the existing concrete walls and railings with the adjacent perpendicular parking will be replaced with slightly higher concrete walls, granite bollards, stainless steel railings and a pathway, with substantially less parking spaces, which would be arranged as parallel bays, located on the far side of the riverside pathway. These works will result in views to the river being opened up and improved, and in the enhancement of the pedestrian and cycle spaces alongside the river, facilitating greater public amenity and enjoyment of the river. The proposed walls will also act as flood defence measures together with the proposed backing wall and regrading works.

14.1.14. The photomontages submitted with the application generally represent the range of localised views available during the operational phase, including two Protected Views (Viewpoints 1, 2 and 8) – Note that an anomaly was identified in respect of the direction of Protected View LT4 between the text and Map 13, and hence VPs 2 and 8 represent both directions. It is noted that each of the viewpoints were assessed as being of High Sensitivity in respect of Visual Receptors, which is due to the proximity of the viewpoints, the amenity and recreational value of the views and the

importance of the area in terms of cultural heritage and tourism. However, the magnitude of change was assessed as ranging from low to medium and the visual effects as slight to moderate, and mainly positive.

14.1.15. I would generally agree that the likely significant effects would largely be positive due to the enhanced views and public spaces with high quality landscaping and seating, particularly when viewed from within the quayside areas. However, when viewed from across the river at George's Quay and from Parliament Bridge, (which represent the Protected Views in the CDP), it is considered that the height of the flood defence wall (on the riverside) would be perceived as being of a slightly greater magnitude than that identified in the landscape and visual assessment, which is due to the regrading works on the dry side of the walls. In addition, the large blocks of uninterrupted parallel parking bays lining the riverside pathway would continue to impede views of the river, when viewed from the northern side of the quayside areas.

14.1.16. However, I would accept that the mitigation proposed in terms of setting the wall back from the edge, together with the high-quality design and materials used, would minimise the impact of the additional height and would clearly differentiate the flood defence walls from the historic quay walls. Furthermore, the removal of all of the perpendicular parking bays and utilitarian walls and railings, together with the cleaning and re-grouting of the quay walls, would mitigate the negative impact of the increased height of the walls on the riverside. It is further considered that the layout of the proposed parallel parking bays should be revised to ensure that continuous lines of more than 3 bays are not formed to enable river views through the parking spaces to be maintained.

14.1.17. I am satisfied that, subject to revisions to the layout of parking bays as suggested above, the proposed development would be successfully integrated within the historic urban context, would provide for enhanced and expanded public amenity spaces with significantly improved river views, which would restore visual connectivity with the River Lee as a key element in the landscape character of the area, and that it will not detract from the character or amenities of the area.

Ecology and biodiversity

14.1.18. The assessment of the impact of the proposed development on the conservation objectives of European Sites, pursuant to Article 6 of the Habitats Directive, is set out at Section 15.0 below. On the matter of the broader ecological considerations, it is noted that the submitted Environmental Report identified no significant loss of riverine or of instream habitats, but there is potential for water quality related impacts on instream habitats by reason of silt and concrete release. However, with mitigation, the residual impact would be minimal. It also identified potential for loss of tree-line habitats by reason of the proposal to fell trees but noted that replanting proposals will mitigate this loss resulting in a neutral impact once these replacement trees are mature.

14.1.19. Potential was also identified for Otter species, that are protected under Annex II of the EU Habitats Directive, to exist within the site. However, otter holt sites generally tend to be found in old storm culverts and these are all well below normal high tide level at Morrison's Island. There is potential for impacts on foraging for this species as otter prey would be impacted by sediment run-off and water pollution in the absence of mitigation. It is considered that the residual impact would be minimal.

14.1.20. There is potential for impacts to occur on breeding sites for Grey wagtail and Irish Dipper due to the proximity of construction works to Trinity Bridge, although no evidence of bird nesting was observed at this location. Mitigation measures will include avoidance of tree removal/vegetation clearance during the breeding season and where any nests are found, these will be safe-guarded until chicks are fully fledged. There is also potential for disturbance to foraging Grey heron. However, it is noted that the River Lee has a large food resource for foraging birds and there should be sufficient food resources for foraging birds and mammals during the construction phase, which would be of short duration and would be phased.

14.1.21. There is potential for the presence of protected fish species within the site area as the River Lee supports Atlantic Salmon as well as various Lamprey species, and is a designated Salmonid River upstream of the site. However, there are no spawning areas within the section of river at the location of Morrison's Island, but there is potential for species of fish to occur in the main channel and to use the South channel for migration. Thus, construction works comprising of scaffolding, piling and column construction could potentially result in direct impact in terms of loss of

habitat, or in disturbance due to noise, visual intrusion and vibrations, which would displace fish and result in a temporary impediment to fish passage. Further potential impacts would arise from sedimentation and water pollution during instream and bankside works. Mitigation would include minimisation of in-stream works, development of method statements and consultation with Inland Fisheries Ireland and the Project Ecologist and avoidance of the salmon spawning season. Fish passage will also be maintained at all times. Thus, the residual impact on fish within the main channel will be temporary and slight negative during the construction phase, with no operational impacts.

14.1.22. The Environmental Report concludes that mitigation measures are recommended to minimise risk to ecological receptors and that once implemented, potential impacts are considered to be of low magnitude. I am satisfied that adequate information is provided in respect of the baseline ecological conditions and potential impacts, and that subject to the proposed mitigation measures, no significant impacts are likely to occur.

Traffic and transport

14.1.23. The proposed scheme will upgrade approx. 530m of Father Matthew Quay and Morrison's Quay, which are existing two-way streets that accommodate 148 car parking spaces at present in perpendicular bays adjoining the river. There are currently c.20 cycle parking spaces, as well as a Coke -Zero Bike Share scheme with a docking station (15 cycle spaces). The pedestrian facilities in the area are very poor with no pedestrian path alongside the river and narrow non-continuous footpaths alongside the buildings on the quaysides. The area is currently used for vehicular parking and pedestrian access (via Trinity Bridge) to the city centre from Union Quay. Vehicular access to MI can be gained from South Mall via Father Matthew St, Morrison's Street and Morrison's Quay. Egress is available onto South Mall from Morrison's Street and Morrison's Quay and from Fr. Matthew Quay. Traffic can also access the area from George's Quay via Parliament Bridge, or alternatively travel north along Parliament Street to join South Mall. Given the myriad of streets providing access and egress, the availability of a considerable number of on-street parking spaces, the proximity of the quays to South Mall and the commercial/retail core of the city, it is noted that a large proportion of the traffic movements in the area relate to searches for parking spaces involving driving around in a loop(s).

14.1.24. The proposed development will alter the road layout creating a one-way street with significantly enhanced pedestrian and cycle facilities, which will necessitate the loss of 115 parking spaces. The footpath alongside the buildings will be widened and a new pathway will be provided alongside the river, which will accommodate pedestrians and contra-flow cyclists. The area between the two pedestrian areas will comprise the one-way vehicular space with bicycles travelling in the same direction expected to share the carriageway with the cars. A reduced number of parking bays (33 no.) will be incorporated into the overall space in linear blocks of parallel parking alongside the carriageway. The 20 cycle parking spaces will be replaced with 32 spaces and the Bike Share docking station will also be incorporated into the scheme.

14.1.25. Construction impact on traffic flow would not be significant as the streets concerned are used primarily to access parking spaces. Phasing of the works will be designed to ensure that traffic flow can be maintained to the remaining parking bays and that pedestrian access will be maintained at all times. The installation of a pumping station next to Trinity Bridge will require temporary road closure, but pedestrian access across the bridge will be maintained. Further road closures and diversions will be required to implement the pedestrian paving and regrading of the roads, (which will be phased), but the installation of the direct flood defences will not affect the functionality of the road. These matters, and the additional construction traffic, will be managed by means of a Construction Traffic Management Plan which will ensure minimal disruption to traffic.

14.1.26. The operational impacts in respect of traffic and transport would be largely positive, arising from the reduction in on-street parking, which is currently a major traffic generator in the area, the expansion of the pedestrian and cycle facilities and spaces along the quaysides, and the provision of enhanced streetscapes with attractively designed public open space facilities and the increased accessibility of the site by sustainable means of transport. The net loss of 115 parking spaces, which are of 2-hour duration, will result in a reduction in short-stay, high turn-over parking. However, the users of these spaces will continue to use alternative parking spaces within the city centre which include a number of multi-storey and surface car parks in the vicinity. It will also encourage modal shift away from car-based transport modes, in accordance with national and local policy objectives.

14.1.27. The TTA established that the proposed one-way system will have sufficient capacity to accommodate the predicted number of trips to and from the area and that the junctions will operate well within capacity in the Design Year. There will be a slight increase in the traffic flow on Parliament Street due to the proposed prohibition on right-turning traffic onto Father Matthew Quay. However, the removal of surface car parking together with the proposed one-way system will have the effect of reducing traffic volumes in the area.

14.1.28. As discussed at 13.5 above, it is considered that the proposed layout of road and associated pedestrian and cycle spaces, would lead to conflict between pedestrians and cyclists, and between these modes and vehicular traffic. It is considered, therefore, that the layout should be revised to ensure that there are adequate pedestrian refuges directly adjoining the buildings and the river, respectively, and that the overall space be laid out as a shared surface area in accordance with the design guidance provided in DMURS. Subject to this amendment and the implementation of proposed mitigation measures, I am satisfied that the proposed scheme would not have a significant negative effect on traffic during the construction phase and would have a permanent positive impact on the traffic flow and the pedestrian, cycle and road network in the area.

Water, air, climate, noise and vibration

14.1.29. Potential impacts which would arise during the construction phase in relation to these factors have been discussed under Human beings, population and health and Ecology and biodiversity above. It is considered that following mitigation, the residual impacts would not be significant.

15.0 Likely Significant Effects on a European Site

15.1.1. The Appropriate Assessment of the project has been carried out by Dr. Maeve Flynn, Senior Ecologist with the Board, and is set out in a separate report Ref. 303247A-18. I wish to advise that I concur with Dr. Flynn's conclusions, which may be summarised as follows:

15.1.2. **Connection with European sites** – The proposed Morrison's Island Public Realm and Flood Defence Project is not directly connected with or necessary for the

management of any European site and is therefore subject to the provisions of Article 6(3).

15.1.3. **Likely significant effects on a European site** - The project is located wholly outside of any European site. However, the Zone of Influence of the proposed development extends to two European sites that are hydrologically linked by the River Lee further downstream, namely Great Island Channel SAC and Cork Harbour SPA. Pathways were identified for potential construction related impacts which may result in negative impacts on the qualifying habitats and species, and affect the conservation objectives of, these two European sites, in the absence of appropriate mitigation measures.

15.1.4. Dr. Flynn carried out a Stage 1 Screening Assessment for Appropriate Assessment and concluded (4.8) -

> Based on my examination of the Screening for AA, NIS and supporting information, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, hydrological connection and functional relationship between the proposed works and the European sites and their conservation objectives, I would conclude that the proposed development (alone) may affect two European sites. The *significance* of these effects is uncertain and therefore, I concur with the precautionary approach taken by the applicant that Appropriate Assessment is required to determine if adverse effects on site integrity can be ruled out.
>
> I confirm that the sites *screened in* for Appropriate Assessment are the sites included in the NIS prepared by the project proponent and are as follows;
>
> - Great Island Channel SAC [004219]
> - Cork Harbour SPA [004030]

15.1.5. I concur with Dr. Flynn's conclusion that the likelihood that the project could have a significant effect on these two European sites in view of their Conservation Objectives cannot be ruled out in the absence of the application of mitigation measures. As such the project should be subject to a Stage 2 Appropriate Assessment.

Appropriate Assessment - Adequacy of information

15.1.6. Dr. Flynn carried out a review of the Natura Impact Statement submitted by the applicant and noted that it had concluded (December 2018) subject to the implementation of the recommended mitigation measures, the proposed development alone or in combination with other plans and projects would not result in adverse effects on the site integrity of Cork Harbour SPA or Great Island Channel SAC. However, it was noted that the ecological surveys undertaken (not including the habitat survey Nov. 2018), appeared to have been largely conducted as part of the Lower Lee Flood Relief Scheme, and that it was unclear as to whether the surveys were specifically related to the Morrison's Island project.

15.1.7. Dr. Flynn states (4.14) that following a request for further information, the response from the applicant (11/07/19) had provided further detail on the ecological surveys specific to the application, and that further information was also provided in relation to the in-combination effects with other plans and projects, including the LLFRS. She was, therefore, satisfied that the information contained in the various documents provide adequate information in respect of baseline conditions, uses the best scientific information available on European sites and clearly identifies the potential for adverse effects as well as details of proposed mitigation measures. Thus, it was concluded that sufficient information had been provided to enable a complete assessment of the proposed development in view of the requirements of Appropriate Assessment and to reach conclusions on the implications of the project for the integrity of the two European sites identified. I concur with this conclusion.

15.1.8. Dr. Flynn carried out an Appropriate Assessment of the implications of the proposed development for each of the two European sites. The aspects of the development of relevance to the AA are set out at 4.18-4.20. These were mainly confined to the construction phase. One of the potential impacts relates to the release of sediment and/or construction related pollution emissions such as concrete or hydrocarbons into the River Lee in an uncontrolled scenario, which could temporarily adversely affect water quality and water dependant habitats locally and downstream within both Great Island Channel SAC and Cork Harbour SPA. The second potential impact is ex-situ effects (disturbance) to bird species associated with Cork Harbour SPA, i.e. SCI bird species occurring outside of the SPA boundaries. The main conclusions were as follows:

Appropriate Assessment – Great Island Channel SAC (004219)

15.1.9. This European site is located c.9.4km downstream of the proposed development site and stretches from Little Island to Middleton. The Conservation Objectives for the water-dependant habitats are set out at 4.22 of Dr. Flynn's report and in the NPWS document attached to the report. Briefly, these include the maintenance of favourable conservation condition of *mudflats and sandflats not covered by seawater at low tide* and the restoration of favourable conservation condition of *Atlantic Salt Meadows* in the Great Island Channel SAC. It was noted that there are adjoining/overlapping designations such as the *wetlands habitats designated for Cork Harbour SPA*. The C.O. for this is to maintain the favourable conservation condition of the wetland habitat, and the target is that the permanent area occupied by the habitat is stable and not significantly less than the area of 2587ha, (other than that occurring from natural patterns of variation).

15.1.10. It was concluded that there would be no direct adverse effects in relation habitat area due to the confined nature of the works and the distance of the proposed development from the European sites.

15.1.11. Potential indirect effects on Great Island Channel SAC and the wetland habitats of Cork Harbour SPA were identified as a temporary increase in sediment loading arising from construction works for quay walls, installation of piles and instream works; and construction related pollution emissions, such as from grouting and concrete, which can affect the pH of aquatic habitats. In particular, Dr. Flynn considered that there was the potential for significant effects on *the community complex comprised of mixed sediment to sandy mud with polychaetes and oligochaetes* whereby any significant siltation event could smother the muds which would affect the macroinvertebrate in-fauna, and/or whereby a significant pollution event could adversely affect the macroinvertebrates. Such an impact could also affect the mudflats within the SPA boundary, thereby affecting prey availability.

15.1.12. However, Dr. Flynn considered that, based on the scale of the proposed development, even in the absence of mitigation, any such pollution/sedimentation incident would have to be substantial in order to generate a significant effect, given the capacity of the River Lee Estuary to dilute and disperse sediments. She further considered that it was highly unlikely that the proposed development would affect the

targets and attributes set for the C.O. for Atlantic Salt Meadows in Great Island Channel SAC, given the known and potential distribution of this habitat, even in the absence of mitigation.

15.1.13. The proposed mitigation measures are summarised at 4.30 of Dr. Flynn's report, and are described as standard best practice for the prevention of siltation and pollution of watercourses during construction. It was considered that there is no uncertainty regarding the effectiveness of these measures provided that they are implemented correctly and supervised. It was noted that the implementation of these measures will be facilitated by the integration of the Construction Pollution Control Plan and Dust Minimisation Plan into the method statement of the eventual contractor.

15.1.14. The in-combination effects with other plans and projects were examined in the NIS and in the Further Information submitted on 11/07/19. This included the LLFRS as well as other drainage projects and construction works relating to other recently developed projects and permitted developments in the vicinity. Dr. Flynn concluded that given the lack of any significant residual effects from the proposed scheme, (after mitigation), and the timing and phasing of other projects, the possibility of in-combination effects that could adversely affect the conservation objectives of Great Island Channel SAC can be ruled out.

15.1.15. Concern was raised in the third party submissions to the extent of possible sedimentation/pollution arising from the project, having regard to the findings of a study carried out on behalf of the Port of Cork in relation to a new dredging method, whereby dispersion of sedimentation was found to be much greater than had been anticipated. Dr. Flynn addressed this matter at 4.33 - 4.35 of her report and a copy of the referenced report (particle tracing study carried out by Van Oord in May 2012) is also attached to her report. It was concluded that the precautionary approach taken in the NIS was correct, given the evidence of the rapid dispersal of sediment (and hence potential polluting particles), throughout the estuary due to the tidal current and that the main depositional areas being the mudflats around Lough Mahon, Foaty Channel and Monkstown Creek. However, it was further noted from the Van Oord report that the dilution capacity of the estuary is such that any deposition levels or pollution potential would be very low, given that suspended solids can be dispersed and diluted over several square kilometres in a matter of hours, depending on the tidal conditions.

15.1.16. I would concur with Dr. Flynn's conclusion that -

> based on the scientific information available for this assessment, the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of Great Island Channel SAC in light of its conservation objectives for both mudflats and sandflats not covered by seawater at low tide and Atlantic salt meadows, and that there is no doubt as to the absence of such effects. Similarly, the proposed development would not adversely affect the conservation objective related to *wetlands* for Cork Harbour SPA.

Appropriate Assessment – Cork Harbour SPA (004030)

15.1.17. This European site is located c.4.7km downstream of the proposed development site and is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl. The Conservation Objectives for the bird species of Special Conservation Interests are set out at 4.37 of Dr. Flynn's report and in the NPWS document attached to the report. Briefly, these include firstly, the maintenance of favourable conservation condition of certain waterbirds (c. 20) including Cormorant, Grey Heron, Golden Plover, Black-tailed Godwit, Bar-tailed Godwit and Redshank. This requires the maintenance of the long-term population trend as stable or increasing, with no significant decrease in range, timing or intensity of use by birds, (other than that occurring from natural patterns or variations). Secondly, the maintenance of the favourable conservation of breeding Little Tern. This requires achieving targets of no significant decline in the breeding population abundance, productivity or distribution of breeding colonies; no significant decline in prey biomass, no barriers to connectivity; and human activities should occur at levels that do not adversely affect the breeding common tern.

15.1.18. Dr. Flynn concluded that there would be no direct disturbance of concentrations of birds which could affect the range, timing or intensity of use within the SPA due to the distance between the proposed development and the nearest point of the SPA. This seems reasonable.

15.1.19. Indirect effects were considered in respect of several of the listed water-bird species may at times use habitats situated within the immediate hinterland of the SPA, or in areas outside the SPA, but ecologically connected to it. Displacement of one or more

species and/or a reduction in numbers could arise from significant habitat changes or increased levels of disturbance during the construction phase. However, the reliance on such habitats varies from species to species. Dr. Flynn noted that the bird surveys were limited to breeding birds and were not specific to wintering birds that are SCIs for the SPA. However, she considered that the area of river channel included in the Morrison's Island project does not provide suitable habitat that would support any concentrations of foraging or roosting SCI bird species. Thus, she was satisfied with the approach taken in the NIS.

15.1.20. Dr. Flynn considered that individual birds, such as Grey Heron, Cormorant and various gull species are likely to be present occasionally. However, she stated that they would be likely to occur in low numbers at this location and that any temporary disturbance from the area due to construction activities would not have any adverse effect on the SPA population, in view of the Conservation Objectives. She further considered that there is no possibility of disturbance of breeding terns as they breed on artificial structures further downstream within the SPA, and largely forage in marine waters.

15.1.21. I would concur with Dr. Flynn's conclusions that –

> based on the size, scale and nature of the development, and the lack of any significant numbers of SCI bird species that could be present at any time at this location, there is no possibility of adverse effects on the population or distribution of any SCI of Cork Harbour SPA due to the temporary construction activities proposed at Morrisons Island, alone or in combination with any other plans or projects.

16.0 **Conclusion**

16.1.1. Further to the above, I consider it reasonable to conclude on the basis of the information available, which I consider adequate to carry out a screening and appropriate assessment, that the proposed development, individually and in combination with other plans or projects would not adversely affect the integrity of Great Island Channel SAC (European Site No. 004219) and Cork Harbour SPA (European Site No. 004030), or any other European Sites, in view of the site's conservation objectives. No scientific doubt remains as to the absence of such

effects. Further, I consider the proposal to be acceptable in respect of its likely effects on the environment and its likely consequences for the proper planning and sustainable development of the area.

17.0 Recommendation

Approve, subject to conditions, the proposed development based on the reasons and considerations set out below.

REASONS AND CONSIDERATIONS

Having regard to

(a) the EU Habitats Directive (92/43/EEC),

(b) the Birds Directive (74/409/EEC as amended by 2009/147/EC),

(c) the European Communities (Birds and Natural Habitats) Regulations 2011,

(d) the Environmental Impact Assessment Directive 2014/52/EU amending Directive 2011/92/EU

(e) the EU Water Framework Directive 2000 (2000/60/EEC),

(f) the EU Directive 2007/60/EC on the Assessment and Management of Flood Risks

(g) the document entitled “Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities issued by the Department of the Environment, Heritage and Local Government (amended 2010)

(h) the Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment issued by the Dept. of Housing and Planning (2018)

(i) the Cork City Development Plan 2015-2021,

(j) the submissions and observations received in relation to the likely effects on the environment,

(k) the report and recommendation of the reporting Inspector and Senior Ecologist

(l) the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on a European site,

17.1.1. The Board completed an Appropriate Assessment exercise in relation to the potential effects of the proposed development on the affected Natura 2000 site, namely the Great Island Channel SAC (Site Code 004219) and the Cork Harbour SPA (Site Code 004030) and in doing so took into account the nature, scale and location of the proposed development, the Natura Impact Statements submitted with the application, the further information submitted to the Board on 11th July 2019, the submissions on file, the report of Dr. Maeve Flynn Senior Ecologist and the report of the Inspector's assessment. In completing the Appropriate Assessment, the Board adopted the report of the Inspector and concluded that the proposed development would not be likely to have a significant effect individually or in combination with other plans and projects on the environment, on the amenities of the area or on the European sites referred to. The Board concluded that the proposed scheme would not have an adverse effect on the integrity of the European sites, having regard to the Conservation Objectives for the sites.

17.1.2. Having regard to the nature, scale and extent of the proposed development and to the location of the site in an established, built-up urban area in the heart of Cork City, and to the poor quality of the public realm and inefficient use of the riverside area which is dominated by traffic and parked cars, to the poor state of repair of the historic quay walls, and to the severity and hardship experienced by residents and businesses in the area, the Board considers that, subject to compliance with conditions set out below, the proposed development would deliver significant

benefits in terms of reducing the risk of tidal flooding in the area, provide for necessary remedial works to the quay walls and provide for a much improved public realm along the waterside. The proposed development would, therefore, be in accordance with the current Cork City Development Objectives for the area, would not adversely affect the environment, would not seriously injure the amenities of the area or property in the vicinity, and would be in accordance with the proper planning and sustainable development of the area.

CONDITIONS

1. The proposed development shall be carried out and completed in accordance with the plans and particulars, including the Environmental Report, the Environmental Impact Assessment Screening Report and Natural Impact Statement and other associated documentation, lodged with An Bord Pleanála on the 13th December 2018 and 11th July 2019, except as may otherwise be required in order to comply with the conditions set out below. Where any mitigation measures set out in the Environmental Report and Natural Impact Statement or any conditions of this Approval require further details to be prepared by or on behalf of the Local Authority, these details shall be placed on the file and retained as part of the public record.
   Reason: In the interest of clarity and the proper planning and sustainable development of the area and to ensure the protection of the environment.

2. The proposed development shall be amended as follows:
   (a) The road layout shall be redesigned in accordance with the 'shared surfaces' and 'self-regulated streets' criteria as set out in sections 4.3.4 and 4.1.2, respectively, of the Design Manual for Roads and Streets. Two pedestrian refuges, each with a minimum width of 2.0m, shall be provided within the shared space, one abutting the frontage of the buildings on the quaysides and the other adjoining the water's edge. Traffic shall be calmed by the strategic placement of parking bays, street trees, street

furniture, seating, bicycle docking stations etc. and a variety of materials and finishes shall be used to differentiate between different areas of the shared space.

(b) The layout of the parallel parking bays shall be revised such that no more than three parking bays shall be provided contiguously at any one location.

The revised drawings shall be placed on the file and retained as part of the public record prior to the commencement of development.

Reason: In the interests of the safety of pedestrians and cyclists and to ensure that open views of the river from the quayside areas are maintained as much as possible.

3. The mitigation measures and associated monitoring outlined in the plans and particulars submitted with the application, including the Environmental Report (December 2018) and Natural Impact Statement (December 2018), shall be carried out in full except as may otherwise be required in order to comply with other conditions. Prior to commencement of the development, details of a time schedule for implementation of the mitigation measures and associated monitoring shall be prepared by Cork City Council and placed on the file and retained as part of the public record.

   Reason: In the interest of clarity and protection of the environment and in the interest of public health.

4. Prior to the commencement of development, Cork City Council or any agent acting on its behalf shall prepare in consultation with the relevant statutory agencies, a Construction Environmental Management Plan (CEMP), that adheres to best practice environmental management. The CEMP shall include specific proposals for monitoring of the effectiveness of the environmental management measures outlined in the CEMP and shall be placed on the file and retained as part of the public record.

Reason: In the interest of protecting the environment, protection of European sites and in the interest of public health.

5. Prior to commencement of the development, details of measures to protect fisheries and the water quality of the river systems shall be outlined and placed on file. Full regard shall be had to the IFI's published updated guidelines for construction works near waterways (Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters, 2016). A programme of water quality monitoring shall be prepared in consultation with the Contractor, the Local Authority and relevant statutory agencies and the programme shall be implemented thereafter. Details of the programme shall be placed on the file and retained as part of the public record.
   Reason: In the interest of protection of receiving water quality, fisheries and aquatic habitats.

6. A suitably qualified ecologist shall be appointed by Cork City Council to oversee the site set-up and construction of the proposed development in accordance with the mitigation measures set out in the Natura Impact Statement. Upon completion of the construction stage, an audit report of the site works shall be prepared by the appointed ecologist and submitted to the local authority to be maintained on the file as part of the public record.
   Reason: To ensure the protection of the designated sites during construction.

7. During construction stage, all topsoil stripping associated with the proposed scheme shall be subject to full time archaeological monitoring by a suitably qualified archaeologist under licence from the Department of Culture, Heritage and the Gaeltacht. Provision shall be made available for the resolution of any archaeological features or deposits that may be identified.
   Reason: To conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

8. This order provides for the removal of fenders from the quay walls as set out in the plans and documents submitted to the Board on 13th December 2018 and 11th July 2019 only, and shall not be construed as a grant of permission for the removal of any additional fenders from the quay walls. The removal of any further fenders shall be the subject of a further grant of planning permission.
   Reason: In the interest of clarity and in order that the planning authority can assess the impact of the removal of any further fenders pending the outcome of the planning authority's strategic plan for the conservation of remaining fenders on the quay walls.

9. The detailed design of the proposed tie-ins between the flood defence walls and Parliament Bridge shall be the subject of a report by a Conservation Specialist prior to the commencement of works on the site, which shall be placed on the file and retained as part of the public record.
   Reason: To ensure that the detailed design respects the special interests of Parliament Bridge and associated maritime features.

10. The developer shall consult with Irish Water to ensure that there will be no detriment to or interference with Irish Water assets. Any proposals to divert services and/or for temporary connections shall be agreed with Irish Water in advance of such works and access for operational and maintenance reasons shall be maintained at all times.
    Reason: In the interests of orderly development.

Mary Kennelly
Senior Planning Inspector

10th March 2020