An Bord Pleanála

Inspector's Report ABP313738-22

Development	Grand Canal Storm Water Outfall Extension comprising of the construction of pipework, transition chambers, floating platforms and new outfall structure at Sir John Rogerson's Quay at the River Liffey including all ancillary site works.
Location	Grand Canal Docks, Grand Canal Quay, Hanover Quay and Sir John Rogerson's Quay.
Planning Authority	Dublin City Council.
Planning Authority Reg. Ref.	N/A.
Applicant	Dublin City Council.
Type of Application	Approvals sought under S.226 of the Planning and Development Act 2000 (as amended).
Planning Authority Decision	N/A.
Observers	(i) Transport Infrastructure Ireland, (ii) Environment Health Service, (iii) Department of Public Health,

	(iv) Inland Fisheries Ireland, (v) Development Applications Unit of the Department of Housing, Local Government and Heritage, (vi) Geological Survey of Ireland.
Date of Site Inspection	23rd September, 2022.
Inspector	Paul Caprani.

Contents

1.0 Introduction

1.1. ABP313738-22 relates to a planning application made under the provisions of Section 226 of the Planning and Development Act 2000 (as amended) for the approval of the Grand Canal Storm Water Outfall Extension which will reroute the exiting stormwater discharge point from the Grand Canal Dock Basin to the River Liffey. The application was made directly to the Board under the provisions of Section 226(1) the Planning and Development Act by the Applicant - Dublin City Council. An Environmental Impact Assessment Report and a Natura Impact Statement have been prepared and submitted as part of the proposed development.

1.2. A total of six submissions were received, all of which were from prescribed bodies. No other third-party observations were submitted in respect of the proposed development.

2.0 Background and Rationale for the Proposed Development

2.1. In the early 1970s it was decided that a new tunnel would be built along the northern side of the Grand Canal in order to convey sewage from the newly developed western suburbs of the city to the Ringsend Wastewater Treatment Plant. This tunnel was to provide a conduit for overflows from the existing combined foul and storm sewers and to convey storm water overflows from the Poddle and Swan Rivers thereby reducing the risk of flooding in the areas. The existing tunnel is 4.8 kilometres in length and runs along the northern side of the Grand Canal from Kilmainham to the Grand Canal Dock. It has a diameter of 3.6 metres. The tunnel is partitioned into two separate sections the smaller compartment caters for foul wastewater and the larger compartment caters for stormwater. Just south of the Grand Canal Dock the tunnel splits with the foul component of wastewater being conveyed to the Ringsend Wastewater Treatment Plant and the stormwater component being conveyed to the Grand Canal Basin via a 3.2 metre wide diameter pipe. After heavy rainfall the combined sewer overflows spilling into the stormwater component of the tunnel. As a result periodic bacteriological contamination occurs at the discharge point within the Grand Canal Basin. Due to the sheltered nature of the

of the Grand Canal Basin, there is limited water exchange and therefore limited dilution and dispersion within the Basin. Thus, bacterial contamination can pronounced in the vicinity of the outfall and this can result in the water quality within the Basin failing to meet the bathing water quality standards.

2.2. Since the early 1990s, the Office of Public Works requested that the stormwater discharge from the Grand Canal Tunnel discharging into the Grand Canal Basin be relocated elsewhere in order to improve the water quality of the Basin. A study carried out by JB Barry and Partners in 1992 identified possible alternative options for rerouting the stormwater discharge away from the Basin/ Grand Canal Docks area into the River Liffey. A preferred option was identified which included extending the pipe beneath the Basin onto Hanover Quay on the northern side of the Basin and extending the pipeline underground via Asgard Road to a new outfall at Sir John Rogerson's Quay (SJRQ). In 2008/2009 a design was prepared for Phase 2 and the Section 25 Certificate[1] was granted to the DDDA to the implement the proposed development. The project was however put on hold in 2012 due to the economic downturn. The DDDA was dissolved in 2012. In 2017 a feasibility study was completed to consider alternative pipeline routes through the Grand Canal Basin and it was concluded that the original option was deemed to be the most appropriate. As part of the original proposal, the stormwater outfall extension between Hanover Quay along the Asgard Road was put in place thus the main part of the underground pipeline (as opposed to the pipeline to run underwater within the Basin) is in situ. Thus, the current application before the Board seeks to implement and complete in full the extension of the Grand Canal Tunnel from its current outfall within the Grand Canal Basin to a new outfall at Sir John Rogerson's Quay while utilising the existing 170 metre long box culvert already constructed beneath the alignment of the Asgard Road.

3.0 **Site Location and Description**

3.1. The Grand Canal Basin is an L-shaped enclosed body of water located at the eastern end of the Grand Canal and links at its north-eastern point with the

[1] A form of planning consent unique to the Docklands Development Authority that is no longer in force.

confluence of the River Dodder and the larger River Liffey. The Basin has a depth of approximately 5 metres. The inner Basin between the Dart railway tracks and McMahon Bridge (which links Pearse Street and the Ringsend Road) has a width of approximately 93 metres and a depth between the Dart line and the bridge of approximately 250 metres.

3.2. The outer Basin between McMahon Bridge and Hanover Quay which runs along the northern boundary of Grand Canal Dock is approximately 185 metres in length. The area is completely urban in nature. Historically it accommodated largescale commercial storage buildings and Port-related commercial activity. Many of these buildings particularly on the eastern side of the dock are protected structures and have been converted into corporate offices for high-tech companies (Google etc.). Lands on the western side of the Inner Basin accommodate buildings associated with Trinity Technology and Enterprise Campus as well as other offices and commercial uses at ground floor including cafes and restaurants etc. The land uses contiguous to the outer dock area incorporate a higher level of residential apartments including the Gallery Quarter Apartments and the Waterside Apartments as well as Hanover Dock Apartments, Longboat Quay Apartments and the Waterfront Apartments along the northern side of the Grand Canal Dock. The Bord Gais Energy Theatre is also located at the north-western corner of the Canal Basin. The contiguous land uses along Asgard Road are for the most part apartment blocks 4 to 6 storeys in height with some commercial uses at ground floor level. The proposed pipe is to extend across Sir John Rogerson's Quay and discharge on the southern banks of the River Liffey at a point between Forbes Street and Bloodstoney Road on the south side and Spencer Dock and New Wapping Street on the north side of the river. The width of the river at this particular point is approximately 125 metres.

3.3. Since the rejuvenation of the area surrounding the Grand Canal Basin from the mid-1990s onwards, the area has been characterised as an important entertainment cultural and recreational area with a number of adventure water-based recreational activities now firmly in place within the Basin. The Basin also houses the Dublin offices of Waterways Ireland. This rectangular building is located within the Basin and is surrounded by berthing facilities for a number of barges and pleasure craft within the inner dock area.

3.4. The existing outfall is located in the inner dock area and protrudes beyond the embankment of the railway line which forms the southern boundary of the inner Basin. Near the Grand Canal Dock Dart Station (see photos attached).

4.0 Description of Proposed Development

4.1. The proposed development will essentially involve the rerouting and extending the section of the stormwater of the Grand Canal Tunnel from the existing discharge point at the southern end of the inner Basin (underneath the railway line) to a new discharge point into the River Liffey at Sir John Rogerson's Quay. The proposed works will involve the following:

- The construction of a transition chamber at the point of the existing stormwater outfall. This transition chamber will convey the stormwater via 5 no. 1.5 diameter pipes northwards through the inner Basin to a second transition chamber.
- The second transition chamber, located adjacent to the western bank of the Grand Canal Quay in the outer Basin just south of the “Red Sticks” promenade that extends from the Bord Gais Theatre into the outer Basin. Transition Chamber No. 2 comprises of two 2.4 metre diameter pipes. It continues northwards along the floor of the Basin, contiguous to the quay wall before reaching Hanover Quay along the northern boundary of the Basin.
- At this location it is proposed to construct Transition Chamber No. 3 to be located at the corner of Grand Canal Quay and Hanover Quay. This transition chamber comprises of the construction of a 4 metre wide and 2 metre high (internal diameter) culvert on Hanover Quay.
- This transition chamber is to link into and convey stormwater via the existing culvert that currently runs beneath the Asgard Road. The existing culvert/pipe will be extended across Sir John Rogerson's Quay to a new outfall to be positioned within the quay wall which will discharge into the River Liffey.

4.2. The total length of the pipeline is 550 metres. The proposed works involve 450 metres of development on the silt bed of the Basin and 100 metres along the existing roadway. The bed of the Basin is mostly flat with some gentle undulations. Three

temporary cofferdams will be built at each of the transition chambers during the construction phase. The route is proposed to traverse underwater through the central area of the Inner Basin (to the east of the Waterways Ireland building) under McMahon Bridge and then along the western wall of the outer Basin until reaching Hanover Quay. The capacity of the proposed culverts were modelled and based from the outputs from the Greater Dublin Strategic Drainage Study (GDSDS). Further details of the methodology to be employed in the construction of the transition chambers and the pipeline are set out in Section 2.3 of the EIAR submitted.

5.0 **Planning Application**

5.1. The application for approval was lodged with An Bord Pleanála on 7th June, 2022.

5.2. The application was accompanied by the following documentation.

- Cover letter.
- Copy of erected site notices.
- Copy of newspaper notices.
- Letters of consent from Dublin City Council, Waterways Ireland and a letter of no objection from Dublin Port Company.
- A list of prescribed bodies who have been notified of the application.
- An Environmental Impact Assessment Main Report (Volume 2) including separate volumes including non-technical summary (Volume 1) and Appendices (Volume 3).
- Also submitted was an Screening Appropriate Assessment/Natura Impact Statement.
- A Planning Statement.
- A Flood Risk Assessment.
- Detailed technical drawings and the planning application fee.

6.0 **Planning History**

6.1. It is not proposed to detail all the terrestrial planning applications which have taken place on lands contiguous to the Grand Canal Basin. It is proposed to briefly give a background to the current application before the Board. As mentioned in the introduction the Grand Canal Tunnel was developed in Dublin City Centre in the early 1970s primarily to convey foul sewage and stormwater sewage from the western suburbs of the city to the Ringsend Wastewater Treatment Plant. The tunnel separated north of the canal bridge at Northumberland Road with the foul component being conveyed to the Ringsend Wastewater Treatment Plant and the stormwater component being conveyed to the Grand Canal Basin. On foot of developments to upgrade the Grand Canal Docks and its environs the Office of Public Works requested that the stormwater discharge from the Grand Canal Tunnel be removed from the Grand Canal Basin. A study carried out in 1992 identified possible alternative options for rerouting the stormwater discharge away from the Docks/Basin Area and into the River Liffey.

6.2. A report was subsequently submitted recommending the implementation of the proposed projects outlined therein. In October 2000 Dublin Corporation instructed JB Barry and Partners to carry out a review of the extension of the Grand Canal Surface Water Outfall to the Grand Canal Docks to a new outfall on the River Liffey. The first phase of this project was completed in 2022 and saw the construction of a 170 metre long, box culvert under the Asgard Road between Hanover Quay and Sir John Rogerson's Quay. The rest of the project however was put on hold in 2012 primarily due to the economic downturn. In 2017 a feasibility study was completed to consider three more alternative pipeline routes through the Basin. It concluded that the original option was the optimum solution. The current application before the Board therefore seeks to complete this preferred option.

7.0 **Submissions**

A total of six submissions were received with the Board all of which were from prescribed bodies. The submissions are summarised below.

7.1. **Submission of behalf of the Development Applications Unit of the Department of Housing, Local Government and Heritage**

7.1.1. The Department recommends that the following conditions be attached in respect of underwater archaeology should planning permission be granted for An Bord Pleanála.

- The mitigation measures set out in Section 12.6 of the EIAR should be implemented in full.
- The services of a suitably qualified and suitably experienced underwater archaeologist shall be engaged to carry out archaeological monitoring of the works programme. Details of the method statement shall accompany any licence application to the department. Should potential archaeology be identified during the works then construction works shall be suspended in the affected location and the department be notified. Following the completion of the works reports detailing the outcome of the monitoring shall be forwarded to the department as per the conditions of archaeological licences.

7.1.2. In terms of nature conservation, it is noted that the removal of a source of pollution in the Grand Canal Basin would be considered very desirable from a nature conservation perspective. However, the NIS submitted identifies the potential of the proposed development to detrimentally impact on several downstream Natura 2000 sites in Dublin Bay and also aquatic species inhabiting the Liffey such as salmon, eel and lampreys both during its construction and operational phases. The main threat relates to potential pollution once the outfall into the Liffey becomes operational, the sewage contaminated discharge likely to occur during storm events could detrimentally affect the biota of the River Liffey reaching Dublin Bay and adversely affect European sites there. Details of the mitigation measures proposed during the construction phase are referred to in the submission. The NIS concludes that provided the mitigation measures outlined are strictly adhered to, adverse effects are not likely to occur from the works involved. The Department concurs with this assessment.

7.2. It is noted that no survey of the Grand Canal Basin for birds or protected species of mammals appears to have been made in connection with the application and the current status of certain species of conservation interest known to occur in the

vicinity of the works has therefore not been properly assessed. Reference is made to the Black Guilliemot which is known to nest in the Liffey Quay walls and is frequently observed during the breeding season in the Liffey – Dodder confluence. It is also noted that an Otter Conservation Plan is also being prepared for the Grand Canal Basin which is being commissioned by NPWS but is not yet available. A copy of the Otter Conservation Management Plan is attached to this submission for the Board's information. The report notes the use of the Grand Canal Basin area for otters. The document recommends that the site, because of its inaccessibility to humans, should be used as the location to build an artificial otter holt. An otter "couch" identified in the report, due to its proximity to the tunnel outfall, will require a licence from NPWS to derogate from the Habitats Directive in order to disturb the resting or breeding place of the otter which is the subject of strict protection under the Directive. The Department also considered that Dublin City Council and Irish Water should contribute and co-operate with the implementation of the Grand Canal Otter Conservation Plan. The storm outfall extension works should also be co-ordinated with the upgrading of the Lock area to minimise disturbance to otters and in particular to preserve passages for their movement around the locks and from the Liffey – Dodder Confluence into the Grand Canal Basin.

7.2.1. In light of the above the NPWS recommend that four conditions be attached in the event that An Bord Pleanála grant planning permission for the proposed development. These conditions are set out in the submission.

7.3. **Submission from Inland Fisheries Ireland**

7.3.1. It is noted that the Liffey represents an important salmonid system with excellent populations of Atlantic Salmon, Sea Trout and Brown Trout throughout. Both migratory and resident fish groups utilise coastal habitats in the vicinity of the proposed development at some time during the life cycle. Large numbers of eels also migrate through this area. It is noted that the scheme will result in the transfer of potentially polluting stormwater loads to the River Liffey, an important salmonid system. While the proposed development may improve water quality in the Grand Canal Dock/ Basin Area, it will potentially impact negatively on the water quality of the River Liffey. It is important to highlight the need for prioritisation of a programme to source and eliminate the potential sources of pollution in the system rather than simply transfer them to another location. IFI is aware of, and appreciates initiatives

undertaken within the GDSDS and would advocate to continue building on these through positive action in relation to the elimination of contaminated stormwater discharges.

7.3.2. While it is noted that the Liffey Estuary Lower has been awarded “good” status under the WFD which is an upgrade and improvement of the previous period. the waterbody is nevertheless classed as being at “risk” of not meeting the WFD objectives with the main pressure being urban wastewater. The proposed plan to transfer the stormwater to the Liffey would put the waterbody at further risk of not meeting the WFD objectives.

7.3.3. Should the development proceed, the IFI set out a series of measures to ensure that potential pollution is minimised. Included in these measures is the recommendation that “*the Guidelines on the Protection of Fisheries during Construction Works in and Adjacent to Waters*” (2016) would be consulted and adhered to when undertaking any works on site particularly in the vicinity of surface water features. IFI also request that it be informed that at least four to six weeks in advance of any diversion works to be carried out during channel alterations of any kind. The IFI should be consulted directly in relation to all matters concerning fisheries and surface water quality.

7.4. **Report from Department of Public Health - HSE**

7.4.1. The existing bacterial contamination which occurs on a periodic basis within the Basin due to the stormwater component of the wastewater is of concern from a public health perspective due to the risk of waterborne infections. It is of note that there are approximately 20 serviced houseboat mooring points also on the Grand Canal Basin.

7.4.2. Details of the waterborne diseases and the threat they pose to recreational users of the Basin are set out. They include shigella, salmonella, gastrointestinal illnesses and viruses from contaminated water including Hepatitis A and Norovirus. Reference to such outbreaks of viruses in the Netherlands, the UK and the USA are referred to in the submission.

7.4.3. Public Health is strongly in support of the work being undertaken in order to address this issue. They are not however in a position to comment on the technical detail of the planning proposal.

7.5. A report from **Transport Infrastructure Ireland** states that there are no observations to make in relation to the application.

7.6. **Submission from Environment Health Service**

7.6.1. The EHS considers that there has been adequate consultation within the EIA process. The EHS notes that a foreshore licence will be required for the development due to the outfall being located between the high and low water marks of the River Liffey. On completion of the proposed project, it will be included in the review of all wastewater discharge licensing for the Ringsend agglomeration which will include the upgraded treatment plant along with the numerous overflows within the agglomeration. It is also considered that the non-technical summary is satisfactory and that alternatives have been considered adequately in the document. Details of the alternatives considered are set out. The EHS has not identified any risks to public or environmental health that would be increased due to the choice of the preferred option as opposed to other options.

7.6.2. The EHS has considered Section 5 of the EIAR (Population and Human Health) and notes the following:

- The completion of the project will see an increase in the water quality and the reduction of pathogens which will be positive for health in the area.
- It is noted that the construction phase is likely to last 24 months and there are potential impacts from noise and dust and accidental spillages of hydrocarbons during this period.
- There is also potential for increased rodent activity as a result of the construction works.
- There is potential for interruptions of services that could impact on food safety.

7.6.3. The EHS has also considered the CEMP included in the EIAR and makes the following comments.

- The document highlights the need to be dynamic and change on foot of any likely impacts and mitigation required during the construction period
- The hierarchy for responsibility is clearly identified.

- Training supervision and processes are detailed in the CEMP.
- Monitoring requirements are identified and there is a commitment to external validation of environmental monitoring results.
- Corrective actions and reporting requirements and record keeping responsibilities are identified.

7.6.4. Based on the above the EHS are of the opinion that there will be adequate protection of public and environmental health during the construction phase if the mitigation measures identified are implemented in full.

7.7. Submission from the Geological Survey of Ireland

7.7.1. The geological surveys are pleased to allow the use of the bedrock, Quaternary subsoils, groundwater aquifer, vulnerability, permeability and recharge maps and data sets within the EIAR and flood risk assessment reports submitted. Should the development go ahead the Geological Survey of Ireland would much appreciate a copy of reports detailing any further site investigations carried out. This data would be added to the National Database of Site Investigation Boreholes implemented to provide a better service to the civil engineering sector.

8.0 Planning Policy Provision

8.1. European Context

8.1.1. The Water Framework Directive established a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwaters with the objective to protect and improve water quality in all quarters to achieve ‘good ecological status’ by 2015 or at the latest by December, 2027. Specifically, the Water Framework Directive aims to prevent further deterioration of and enhance the status of aquatic ecosystems and improve and protect the aquatic environment to measures such as the progressive reduction of discharge emissions into receiving waters. The key statutory instruments by which the Water Framework Directive is implemented in Ireland is through the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009), the European Communities Environment Objectives (Groundwater) Regulations 2009 (S.I. 009 of

2010), the Wastewater Discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007) and the Urban Wastewater Discharge Regulations of 2001 (S.I. 271 of 2001).

8.2. **National Context**

8.2.1. The Water Services Policy Statement 2018 to 2025 sets out the government's expectation for the delivery and development of water and wastewater services. It includes amongst its priorities, investment in urban wastewater management to support the protection of high status waters and to achieve water quality improvements in other waterbodies to support the achievement of objectives for designated shellfish and bathing waters.

8.2.2. The River Basin Management Plan for Ireland 2018 to 2021 outlines the approach that Ireland will take for the protection of waters including investment in wastewater treatment to help improve water quality and implementation of local measures to address water quality issues. The plan contains extensive lists of key actions which include the following:

- Investment in wastewater treatment by Irish Water to help improve water quality and prevent deterioration of quality in targeted waterbodies.
- Scientific assessments of waterbodies and implementation of focused local implementation measures to address water quality issues.
- The development of water and planning guidance for local authorities to help consider the risks to water quality during planning and development decision making.

8.2.3. The National Planning Framework is the principle national planning policy document for the country. The protection and enhancement of water resource and the development of green ecosystems are key focusses in the National Planning Framework and these are reflected in the following national policy objectives:

8.2.4. NPO 57 seeks to enhance water quality and resource management by:

- Ensuring flood risk management informs place making and avoiding inappropriate development in areas at risk of flooding in accordance with the planning system and flood risk management guidelines for planning authorities.

- Ensuring that river Basin Management Plan objectives are fully considered throughout the physical planning process.
- Integrating sustainable water management solutions such as sustainable urban drainage, non-porous surfacing and green roofs to create safe places.

8.2.5. NPO 59 seeks to enhance the conservation status and improve the management of protected areas and protected species by:

- Implementing relevant EU Directives and to protect Ireland's environment and wildlife.
- Integrating policies and objectives for the protection and restoration of biodiversity and statutory development plan.
- Developing and utilising licensing and consent systems to facilitate sustainable activities within Natura 2000 sites.

8.3. **Regional Context**

8.4. <u>The Regional Spatial and Economic Strategy for the Eastern and Midland Region (RSES)</u>

8.4.1. The RSES seeks the provision of infrastructure and services in a sustainable, planned and infrastructure led management to ensure sustainable management of water, waste and other environmental resources. Key regional policy objectives which relate to the proposed development include:

RPO710 to support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all waterbodies in the region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant directives, River Basin Management Plans and local authority land use plans.

RPO725 seeks to support local authorities and state agencies in the delivery of sustainable strategic greenways, blueways and peatways projects in the region. In this regard the strategy identifies to position Dublin Docklands as a significant water focussed amenity and develop the Grand Canal and Spencer Dock as urban gateways to the Grand and Royal Canals.

RPO1010 seeks to support Irish Water and the relevant local authorities in the region to eliminate untreated discharges from settlements in the short-term, while planning strategically for long-term growth in tandem with Project Ireland 2040 and increasing compliance with the requirements of the Urban Wastewater Treatment Directive from 39% to 90% by the end of 2021 and to 99% by 2027 and to 100% by 2040.

RPO1015 seeks to support the relevant local authorities (and Irish Water where relevant) in the region to improve stormwater infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban environment and in the development and the provision at a local level of sustainable urban drainage solutions.

9.0 **Local Policy**

9.1. The site is governed by the policies and objectives contained in the Dublin City Development Plan 2016-2022. The plan identifies the North Lotts and the Grand Canal Dock SDZ as the principle scheme for focussed development in the docklands where the development of recreation and leisure activities are identified as key supporting infrastructure to be delivered commensurate with housing and employment in the area.

9.2. Chapter 9 of the plan identifies that pollution of water sources, including from surface water, poses significant environmental risk. The plan includes a number of policies and objectives specifically in relation to this, including S.I.14 to 'promote and maintain the achievement of at least good status in all waterbodies in the city'.

9.3. S.I. 16 to promote the protection and improvement of the aquatic environment including through specific measures for the progressive reduction and cessation of discharges and emissions.

9.4. S.I. 06 seeks to implement the European Union Water Framework Directive through the implementation of appropriate river Basin management plan and programme measures.

9.5. S.I. 013 seeks to provide additional and improved surface water networks to both reduce pollution and allow for more sustainable development. Chapter 10 of the plan

relates to green infrastructure. Relevant policies under this section of the plan include:

GI07 to promote the city's landscape including rivers, canals and bays as a major resource for the city and form core areas of green infrastructure network.

GI017 seeks the continued improvement of water quality, bathing facilities and other recreational opportunities in coastal, estuarine and surface waters in the city and to protect the ecology and wildlife of Dublin Bay.

The draft Dublin City Development Plan is anticipated to be adopted at the end of 2022/early 2023.

Section 10.5.5 of the draft plan emphasises the importance of the City's rivers and canals as an integral part of the green infrastructure network. It highlights that the City's rivers are not achieving good ecological status as per the Water Framework Directive. A factor contributing to this includes sewer overflows and misconnections as well as urban run-off.

GI29 seeks to protect, maintain and enhance the watercourses and the river corridors in the City and to ensure that the development does not cover or encroach upon rivers and their banks. To maintain natural river banks and restore them as part of any new development. The creation and/or enhancement of river corridors will be required and river restoration opportunities where possible will be supported to help improve water quality and the ecology provide natural flood relief as well as providing amenity and leisure benefits.

The North Lotts and Grand Canal Dock Strategic Development Zone Planning Scheme 2013

This planning scheme was approved by An Bord Pleanála on 16th May, 2014. Of particular relevance is Policy Objective S.I. 13 which seeks to complete as a priority the relocation of the Grand Canal Surface Water Outfall from the Grand Canal Dock Basin to the River Liffey. The planning scheme also encourages the use of the waterfront and waterbodies for family attractions, outdoor activities, sports events and the development of waterside facilities and these are reflected in the following policy statements.

- TL1 – to promote the waterbody as part of the Docklands identity and ensure water based leisure, business, tourism and sporting activities are encouraged and supported in a sustainable manner.
- TL2 – to promote the SDZ area as a destination for cultural tourism and encouraging the use of the Grand and Royal Canals for leisure and recreational purposes.
- TL6 – to support retention of existing leisure and sports activities in the area and to encourage new facilities for the Docklands community and visitors to the area and that they meet the needs of all members of existing and future communities.
- TL9 – to promote the recreational use of water including the rowing, paddling and boating club activities in the area and to seek to ensure that any new infrastructure is provided in a manner which safeguards and protects these recreational resources.

9.6. Chapter 4.12 of the planning scheme relates to the public realm. It includes the following objectives.

PR2 – to promote water-based recreation and events.

PR10 – to support the development of flexible and movable publicly accessible leisure facilities on the water space and campshires.

10.0 **Planning Assessment**

I have read the entire contents of the file, visited the subject site and its surroundings, have had particular regard to the information contained in the EIAR and NIS as well as the submissions from prescribed bodies on file. I consider the criterial issues in determining the current application and appeal before the Board are as follows:

- Principle of Development including compliance with National and Local Policy
- Impact on Water Quality in the River Liffey
- Other Issues
- EIAR Assessment

- Appropriate Assessment Issues

Each of these issues will be assessed below.

10.1. **Principle of Development**

10.1.1. It is clear from the information contained on file that bacteriological contamination within the Basin has been a significant concern affecting water quality within the Basin for a number of decades. Failure to address the pollution issue will put the water body at risk of not being able to achieve the attainment of "good status" under the Water Framework Directive. The concern becomes particular acute during periods of rainfall where high levels of combined storm and foul sewage effluent are discharged into the southern end of the Basin. It was apparent from my site inspection that water discolouration and what appeared to be algal blooms were clearly discernible in the vicinity of the existing outfall (see Photograph No. 2 accompanying this report).

10.1.2. The issue of poor water quality within the Basin came to the fore in the early 1990s, circa 2 decades after the outfall was originally constructed to discharge stormwater and combined sewer overflow into the Inner Basin. In the early 1990s the Office of Public Works requested that the stormwater discharge from the Grand Canal tunnel be removed from the Grand Canal Basin. A preferred option was identified and a report was submitted in the 1990s recommending the implementation of the proposed project currently before the Board. On foot of this recommendation a 170 metre long 4.0m x 2.7m box culvert was constructed underneath the Asgard Road between Hanover Quay and Sir John Rogerson's Quay. However, in 2012 the project was put on hold due to the economic downturn. On foot of another feasibility study carried out in 2017 it was concluded that the original option was the most favoured option. The current option before the Board has the advantage of utilising existing culvert infrastructure which was built beneath the Asgard Road as Phase 1 of the proposed development which would prove to be advantageous in cost terms.

10.1.3. The relocation of the outfall will undoubtedly improve the amenity value of the Grand Canal Basin area through the improvement of water quality. The promotional water based amenities, recreational and tourism activities within the Grand Canal Basin. The development plan and the adopted Planning Scheme for the Grand Canal Dock Area highlights the importance of promoting and positively developing water based

recreational and tourist activities within the Basin. In this regard I refer to S.I. 3 of the SDZ which seeks to *"complete, as a priority, the relocation of the Grand Canal Surface Outfall from the Grand Canal Dock Basin to the River Liffey*".

10.1.4. Section 4.9.4.2 of the Plan seeks to encourage waterfront and water-based activities. It notes that the amenity value of the water bodies in the SDZ is still underutilised in terms of tourist offerings. The waterfront and waterbody are a distinct advantage to the Docklands in terms of responding to water based tourism. The Liffey Voyage, Sea Safari and Viking Splash tours go someway to address these shortages; however, there is ample opportunity for further innovations. The planning scheme will encourage the use of the waterfront and water bodies for family attractions, outdoor activities, sports events and the development of waterside facilities. Policy TL1 seeks to promote the water bodies as part of the Docklands identity and ensure water-based leisure, business, tourism and sporting activities are encourage and supported in a sustainable manner.

10.1.5. It is apparent therefore that the proposed development before the Board forms part of a specific and clearcut policy objective set out in the adopted SDZ to relocate the existing outfall from the inner Basin to the River Liffey. The proposed development will undoubtedly result in an improvement in the water quality in the Grand Canal Basin. Improvements in water quality support an array of stated policy objectives at European, national, regional and local level which are referred to in the previous section above. Furthermore, the relocation of the outfall will enable and encourage the use of the Grand Canal Basin area for tourism and amenity purposes which is a clear and unambiguous policy objective contained in both the Dublin City Development Plan (GIO17) and the adopted North Lotts and Grand Canal Dock Planning Scheme. The principle of the proposed development therefore in my view is acceptable and this is supported by clear and unambiguous policy statements in respect of improving water quality and improving the recreational base of the Grand Canal Basin which are set out in the various documents referred to above.

10.2. **Impact on Water Quality in the River Liffey**

10.2.1. A key consideration that the Board must consider in determining the current application before it is whether or not the relocation of the outfall from the existing point at the southern end of the inner Basin to the River Liffey will merely transfer the

potential pollution source from one water body to another water body. It is clear from the documentation submitted with the application that a key problem with the existing outfall is the long retention time and low throughput of water through the Basin which inhibits dilution and dispersion of potential pollutants within the Basin. This enables bacterial contamination and other forms of pollution including high levels of Molybdate Reactive Phosphate (MRP) and Dissolved Inorganic Nitrogen (DIN) which can contribute greatly to eutrophication within the Grand Canal Basin area which further exacerbates the deterioration of waters.

10.2.2. The River Liffey on the other hand has an extensive throughput of water particularly in the mouth of the river adjacent to Dublin Bay. The greater assimilative capacity within the receiving waters greatly assists in the dilution and dispersion of contaminants from the outfall will give greater scope contaminant diffusion so that any discharge complies with the requirements of the Water Framework Directive.

10.2.3. Chapter 7 of the EIAR specifically deals with water quality and hydrology. Section 7.6 of this chapter specifically assesses in detail, the impacts on the receiving water quality within the River Liffey. Further details of the hydrodynamic assessment are set out in Appendix 7(A) of the EIAR.

10.2.4. In order to assess and quantify the impact of the proposed development on the water quality downstream of the outfall a water quality model was run for a number of scenarios. The hydrodynamic modelling has been performed using the MIKE 3 Modelling Package which has been specifically designed for applications discharging coastal and estuarine environments. Details of the model validation settings is set out in the introductory sections of Appendix 7(A). It concludes that the validation figures used in the hydrodynamic model is able to capture the main hydrodynamic processes and salinity structure observed in the study region (i.e. the River Liffey in the vicinity of the outfall).

10.2.5. The parameters of interest for the transitional nutrient sensitive waters as per the parameters set out in the European Communities Environmental Objectives (Surface Waters) Regulations 2009 are:

- Dissolved Inorganic Nitrogen (DIN).
- Molybdate Reactive Phosphorus (MRP).

- Biochemical Oxygen Demand (BOD).
- Ecoli[2].

10.2.6. It is noted that Ecoli is not a parameter relevant to the Surface Water Regulations however has relevance in respect of Bathing Waters Regulations (SI 79 of 2008) and for this reason it was included in the assessment. Ecoli is an important indicator of sewage levels in receiving waters.

10.2.7. The key model settings included horizontal and vertical dispersion.

10.2.8. Details for existing values in the River Liffey for DIN, MRP, Dissolved Oxygen and Ecoli are presented for measurements taken at Station 40090[3]. BOD levels at this station recorded a 1.8 mg/l while values of nitrogen were 0.3 and phosphorous 0.02.

10.2.9. The Board should note that the EPA Trophic Status Assessment Scheme (TSAS) adjusts the Environmental quality Standards (EQS's) set out in the surface water regulations to include a winter and summer value which varies with salinity. The measures used in the assessment are set out below.

- For DIN the winter exceedance criteria is >0.506 mg/l (at median).
- The summer exceedance criteria is >0.442 mg/l (at the median).
- The MRP limits are winter exceedance criteria >0.044 mg/l (at median).
- Summer exceedance criteria is >0.043 mg/l (at median).
- The BOD exceedance criteria is >4 milligrams per litre (at 95 percentile flows).
- Ecoli exceedance criteria is >500 mpn/100 ml (at 95 percentile flow criteria) for good quality.

10.2.10. The modelling scenario undertaken for each of the parameters referred to are set out below.

Dissolved Inorganic Nitrogen

10.2.11. The modelling undertaken for DIN indicates that within the model domain the values are in all cases below the exceedance threshold set out in the Surface Water

[2] An important pollutant parameter in the Bathing Water Regulations.

[3] It is assumed that Station 40090 relates to a location upstream of the proposed discharge points in order to give an indication of background levels in the River Liffey. Having consulted the EPA website I can find no reference for Station 40090.

Regulations. DIN values in the historical monitoring in the area between the Samuel Beckett Bridge and the Tom Clarke Bridge (East Link Bridge) show similar ranges in the model results with values of 0.3 to 0.4 mg/l in the winte,r to 0.05 to 0.1 mg/l during the summer. These are considerably below the exceedance criteria set out above. Figures presented in the EIAR (Figure 7.10 and Figure 7.11) show that the percentage change in water quality for both the summer and winter periods are less than 1% outside the immediate mixing zone of the new discharge location. Consequently, based on the modelling undertaken there appears to be no discernible change in the water quality that could in turn affect the water quality status of the River Liffey in terms of DIN levels. The modelling therefore indicates that the impact is imperceptible.

Molybdate Reactive Phosphate

10.2.12. Background levels of MRP in the River Liffey and Dublin Bay are below the EQS thresholds set out in the Surface Water Regulations. Again, the modelling undertaken for both winter and summer show that the percentage change in water quality for the winter scenario is less than 1% outside the immediate vicinity of the new discharge location. As in the case of DIN therefore there will be no discernible change in the water framework quality status.

Biochemical Oxygen Demand

10.2.13. In terms of BOD, the level of BOD for the EQS for 95 percentile flows do not exceed the good status limit of 4.0 mg/l anywhere in the receiving waters. The main increase in the impact is confined to the mixing zone in the immediate vicinity of the outfall. However, the region of change in c.2% of BOD levels is not deemed significant. The absolute values of this change in BOD concentrations peak at 1.6 mg/l with ambient conditions at approximately 1.1 mg/l. This is considerably below the limit of 4.0 mg/l required to achieve good status as set out in the Surface Water Regulations. On this basis it is considered that the impact is slight/imperceptible.

Ecoli

10.2.14. In terms of Ecoli, as already pointed out, there are no EQS for Ecoli under the Surface Water Regulations for either transitional or coastal waters. Baseline levels of Ecoli are relatively high in the River Liffey ranging from between 3,000 and 4,000 mpn/100 ml (see figure 7.24 of EIAR). When modelled the greatest change is up to

10% increase in the immediate vicinity of the outfall. However, this dissipates rapidly with only 0.02% increase downstream. This demonstrates that the dilution and dispersion in the River Liffey is such that the impact on Ecoli is imperceptible. Thus any impact on designated bathing areas within Dublin Bay would likewise be imperceptible. The bathing water quality status of beaches in Dublin Bay range from 'excellent' (Seapoint, Sandycove Beach, 40 foot and Whiterock Beach) to 'good' (Dollymount Strand) and 'sufficient' (Sandymount Strand). It is not anticipated, having regard to the imperceptible impact on Ecoli levels as a result of the relocation of the outfall, that the proposal will have any effect whatsoever on the quality of the bathing waters in the wider area of Dublin Bay. Even the storm scenario impact results in a slight/imperceptible increase in Ecoli levels in the receiving waters with no impact predicated on the designated bathing waters within Dublin Bay.

10.2.15. I consider that the modelling undertaken in the EIAR clearly demonstrates that the River Liffey and River Liffey Estuary has ample and sufficient assimilative capacity to ensure that any relocated outfall conveying stormwater effluent into the River Liffey will not result in any discernible adverse impact on water quality. The modelling undertaken indicates that there is sufficient dilution and dispersion within the water body to adequately dilute and disperse pollutants to the extent that they will not exceed the limit values set out in the Surface Water Regulations which could jeopardise or threat the water quality status of the River Liffey or Dublin Bay which would result in a deterioration of the classification under the Water Framework Directive or result in a material deterioration of the water quality in general. I am also satisfied that the relocation of the outfall will not pose a threat to the quality of designated Bathing Waters within Dublin Bay. For reasons already outlined previously in my report, I further consider that the relocation of the outfall pipe from the Grand Canal Basin to the River Liffey will have a positive impact on the water quality of the Grand Canal Basin.

10.3. **Other Issues**

10.3.1. The last major consideration in assessing the proposed development in accordance with the proper planning and sustainable development of the area relates to whether or not the proposed development could adversely impact on the residential amenities of the area to an unacceptable extent. These impacts could arise through adverse

visual impacts, air quality impacts, noise impacts, cultural heritage impacts or traffic impacts.

10.3.2. The above impacts have been dealt with in detail in the EIAR and my assessment of the EIAR below addresses these potential impacts in more detail. But for the purpose of completeness and comprehensiveness it is proposed to briefly address these issues under the Planning Assessment herein.

Visual Impact

10.3.3. The visual impact arising from the proposed development will be negligible. The proposed works are to be located in an existing urban area which is the subject of constant dynamic change through anthropological intervention. Furthermore, the vast majority of the proposed development will be located beneath the water and with the exceptions of some pedestrian access to inspection chambers the proposed development will not be visually discernible when construction works are completed. While the construction phase will result in the provision of three construction compounds, these compounds will not look incongruous or inappropriate in the context of the existing environment and will be temporary in nature and will have no long term adverse visual impacts.

Air Pollution

10.3.4. Any potential adverse air pollution effects will be confined to the construction phase and will relate to general nuisance in respect of fugitive dust. Small or potential adverse impacts could arise from pollution associated with HGV movements. A series of mitigation measures are provided in Section 9.6 of the EIAR which will also be incorporated into the Construction and Environmental Management Plan in order to control any potential adverse impacts arising from fugitive dust. Furthermore, any impacts arising during the construction phase will be short-term in nature and will not have a significant adverse or material impact on the residential amenities of the area. Air pollution arising from construction traffic will be negligible when considered in the context of existing traffic levels in the vicinity of the site.

Noise

10.3.5. As in the case of air pollution, any potential noise effects arising from the proposed development will be confined to the construction phase only. The major noise generating activities will include the construction of the transition chambers including

the cofferdams and the outfall structure and to a lesser extent the laying of the pipework and the construction of the new culvert and outfall at Sir John Rogerson's Quay. Noise generating plant and machinery will primarily include crane hoists, generators and compressors for divers. Construction levels according to the EIAR will need to be limited to 65 dB(A) L_{Aeq} at the nearest noise sensitive locations to prevent significant impacts from occurring. The applicant has given an undertaking that noise levels will be limited to 65 dB(a) L_{Aeq} at the nearest noise sensitive location. Having regard to the nature of the activities to be undertaken and the existing urban environment where residual noise levels are likely to be relatively high due to traffic and other activities; together with the temporary nature of the construction activities, I do not consider that noise levels will give rise to significant impacts at the nearest noise sensitive receptors. It is my considered opinion that the issue of noise can adequately be addressed by way of condition.

10.3.6. One point of note however, is the fact that the EIAR has not carried out any underwater sound propagation assessment. It is likely that the works to be carried out including the laying of the pipeline could give rise to some temporary impact on aquatic fauna within the Grand Canal Basin. The EIAR notes that the Grand Canal is known for its coarse fishery and common fish species include Roach, Perch, Breem, Carp and Tench as well as Stickleback species. It is noted that coarse fish are not protected species and are not regarded as sensitive receptors. With this in mind it may not be necessary in my opinion for the Board to seek further information in this regard.

Archaeology

10.3.7. The impact of the proposed development on archaeological terms has been adequately described and assessed in the EIAR. It is acknowledged that the northern part of the site at Sir John Rogerson's Quay is located within the Dublin City Zone of Archaeological Potential and the quay itself is of historical and architectural significance. There are also a number of protected structures and architectural heritage structures in the vicinity of the subject site. While it is acknowledged that the proposed development will give rise to two direct impacts on areas of known archaeological and cultural heritage significance namely the removal of a small section of SJRQ and the removal of a section of quay wall on Hanover Quay, these impacts are considered to be modest and are in my opinion outweighed by the

planning gain to be derived from improving the water quality and opening up the recreational and tourist potential of the Canal Basin by relocating the outfall from its current position to a point on Sir John Rogerson's Quay. Any impacts on Marine Archaeology can be adequately addressed by way of condition. The proposed development will therefore in my opinion have an acceptable impact on the archaeological heritage of the area.

Traffic

The proposed development will give rise to some construction traffic. While the exact sequence of programme of works have yet to be determined by the contractor. Notwithstanding this, HGV arrivals and departures are not considered to be so significant during the construction period as to give rise to significant traffic issues from either a noise or congestion perspective. The planning report submitted with the application indicates that assuming an even distribution of deliveries throughout the construction period it is estimated that c.14 HGV trips (7 arrivals and 7 departures) will occur on a daily basis. Even under a worst case scenario total peak HGV movement is estimated to be 38 movements a day, this is not significant in the context of existing traffic volumes in the area. This impact will be temporary and will not have any significant or material impact on the road network surrounding the site having regard to the capacity of the road network and the volume of existing traffic already on the road network. Any adverse impact therefore will be modest.

11.0 Environmental Impact Assessment

11.1. Statutory Provisions

11.1.1. The European Union Directive 2014/52/EU, amending Directive 2011/92/EU, on the assessment of the effects of certain public and private projects on the environment, requires Member States to ensure that a competent authority carries out an appraisal of the environmental impacts of certain types of projects, as listed in the Directive, prior to development consent being given for the project. The EIA Directive was transposed into Irish law under the Planning and Development Regulations 2001 to 2018 (as amended). Part 1 of Schedule 5 of the 2001 Regulations, includes

a list of projects for which mandatory EIA is required. Part 2 of Schedule 5 provides a list of projects where, if specified thresholds are exceeded, an EIA is also required.

11.1.2. In the case of the subject proposal, a EIA Screening Report was carried out, which concluded that, although the project is sub-threshold under Part 2, Class 10(b) (iv) of Schedule 5 of the Planning and Development Regulations 2000 (as amended) '*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'*, it was nevertheless concluded that the proposal could have significant impacts on the environment and these include:

- Possible reduction in water quality of the River Liffey during the operational phase.
- Excavation works to be carried out within a protected structure.
- Noise, dust and vibration during the construction phase.
- Traffic disruption during the construction phase[4].

11.1.3. Directive 2014/52/EU amending the 2011 EIA Directive was transposed into Irish legislation on September 1st, 2018 under the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018. The EIAR was submitted to the Board with the application on the June 7th 2022 and is therefore assessed under the most recent Directive.

11.1.4. The EIAR submitted with the application consists of 3 separate volumes;

- Volume 1: Non-Technical summary
- Volume 2: Main text which is set out in a grouped format structure whereby each environmental factor as prescribed in the Directive is presented and assessed in an individual chapter.
- Volume 3: A series of Appendices relating to each of the chapters assessing the environmental impacts set out in Volume 2 of the main report.

[4] See Appendix 1A of the EIAR for full Screening Report undertaken.

11.2. **Compliance with legislation**

11.2.1. The impact of the proposed development is addressed under all relevant headings with respect to the environmental factors listed in Article 3(1) of the 2014 Directive, which include:

(a) population and human health

(b) biodiversity, with particular attention to the species and habitats protected under Directive 92/43EEC and Directive 2009/147/EC

(c) land, soil, water, air quality and climate

(d) material assets, cultural heritage and the landscape

(e) the interaction between the factors referred to in points (a) to (d).

11.2.2. There are also separate chapters on noise and vibration, traffic and transport and waste management. The environmental factors listed in Article 3(1) of the Directive are discussed in Chapters 5 to 9 and also Chapters 12, 14 & 15.

11.2.3. Chapter 1 provides information on the project background and the planning history relating to the site[5]. It is stated that the application is being made by J.B. Barry and Partners on behalf of Dublin City Council. The proposal is a joint venture by Dublin City Council and Irish Water.

11.2.4. The EIAR complies with Article 5 of the Directive and Schedule 6 of the Planning and Development Regulations 2001, as amended. It provides a comprehensive description of the project comprising information on the site, design, size, construction and operation of the project and other relevant features associated with the development of the project (Chapter 2). It describes the likely significant effects of the project on the relevant environmental factors (Chapters 5 -15) and it provides a description of the measures envisaged in order to avoid, prevent or reduce and, if possible offset likely significant effects on the environment.

11.2.5. The Directive requires that the description of likely significant effects should also include an assessment of cumulative impacts that may arise from the proposed development in combination with other plans or projects. Section 19 of the EIAR sets out the methodology for the cumulative assessment, where applicable, and details of

[5] This information is detailed in my main report.

other projects considered. Cumulative effects are also considered, (where applicable), under the various environmental factors in the individual chapters of the EIAR.

11.2.6. The EIAR includes a standalone Non-Technical Summary of the information referred to in Article 5 (a) to (d) and additional information specified in Annex IV. It provides an adequate description of the forecasting measures used to identify and assess the significant effects on the environment. The Non-Technical Summary is concise and comprehensive and is written in a language that can easily be understood by a lay member of the public.

11.2.7. In compliance with the provisions of Article 5(3), the EIAR tabulates the inputs and qualifications of the study team and contributors under Section 3.7.6 of the document. I am satisfied that the EIAR has been prepared by competent experts to ensure its completeness and quality. I also consider that the information contained in the EIAR is up to date and relevant to the project in question.

11.2.8. Details of the consultations entered into by the applicant as part of the application are set out in Section 3.8 of the document. It includes stakeholder consultation and consultation undertaken with prescribed bodies. Consultation also included project information on the Irish Water and Dublin City Council Websites and a press release in newspapers. A public information day webinar was arranged and invitees included an array of local organisations and business. Details of the consultations undertaken are set out in appendix 3A and 3B. I am satisfied that consultations have been undertaken and the application has been made accessible to the public by electronic and hard copy means with adequate times afforded for submissions in accordance with the requirements of Article 6 of the Directive.

11.2.9. I am satisfied that the information provided in the EIAR is reasonable and sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment.

11.3. **Alternatives**

11.3.1. Under the provisions of Article 5(1)(d) of the 2014 Directive it is a requirement that an EIAR contain:

"(d) a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment".

11.3.2. Chapter 4 of the EIAR addresses the matter of alternatives. It notes that GDSDS and its associated SEA is the fundamental strategy for the sustainable development of the drainage systems and the treatment of foul sewage in the GDA. Inherent in this strategy is the extension of the Grand Canal Tunnel (GCT) to the River Liffey. The objective to extend the GCT to the River was also included in the Dublin's Dockland Master Plan (Policy Objective - IF3).

11.3.3. A number of alternatives have been assessed under the Rathmines and Pembroke Drainage Area Plan completed as part of the GDSDS these included:

- Storm Water Separation.
- Storm Water Storage.
- Pipeline Upsizing.

4 separate options were considered in the EIAR as well as the do-nothing option. The do-nothing option was rejected on the basis that it would result in the continued pollution of the Grand Canal Dock area.

Option 1 - comprised of running the pipe along the centre of the Inner Dock/Basin, alongside the Grand Canal Square and in Hanover Quay.

Option 2 – Direct pipeline in the dock.

Option 3 – Tunnelled option and Syphon

Option 4 is a variation of Option 1 where the pipework arrangement and route within the inner dock area have been altered. The route of the pipeline has been diverted to run along the Inner Dock Quay Wall.

Section 4.4 of the EIAR details the comparison of the options including when assessed against environmental, technical and cost criteria. Option 1 emerges as the preferred option in terms of Environmental and technical criteria. Option 1 will enhance the amenity value of the Basin, retains access to more of the berthing spaces on Hanover Quay, reduces the risk of damage to quay walls in the inner

Basin and maximises the navigable area of the Outer Basin. It is also the preferred option of Waterways Ireland.

The evaluation of alternatives is robust and opting for the preferred option is logical and rational and fully in accordance with policy objectives contained in the Local Development Plan and the Adopted Planning Scheme for the area. It utilises existing drainage infrastructure beneath Asgard Road which links SJRQ with the Hanover Quay. It also maximises access to existing berthing facilities and maximises the amenity value of the Basin.

11.4. Likely Significant Effects on the Environment

This section of the EIA identifies, describes and assesses the potential direct, indirect and cumulative effects of the project under each of the environmental factors referred to in Article 3(1) of the Directive. The assessment follows the headings used in the EIAR which are as follows:

- Population and Human Health
- Biodiversity
- Water Quality and Hydrology
- Land, Soils & Geology and Hydrogeology
- Air Quality & Climate
- Noise & Vibration
- Traffic and Transport
- Archaeological and Cultural Heritage
- Waste Management
- Material Assets.
- Landscape and Visual Impact
- Interaction
- Summary of Mitigation
- Summary of Residual Impacts

- Cumulative Impacts

11.5. Population and Human Health

Profile

11.5.1. Chapter 5 of the EIAR identifies, describes and assesses the impact of the proposed development in the context of population, employment, economic activity. The site is located in South Dock ED 147. The chapter sets out details of the demographic profile of the area as well as a profile on the employment characteristics and economic activity of the area. It is noted that the area surrounding the site has a strong employment profile with almost 5 jobs per resident population. The population of the area has a higher level of third level educational attainment than the state average. The Grand Canal Dock Area, while traditionally an industrial area, it has in more recent times taken on a host of recreational activities including adventure and water based recreational activities. The employment profile has also transitioned from tradition industrial / port related activity to high-tech / service employment. There are also a number of parks and recreational activities in the area.The population density is significantly lower than the surrounding areas, there are some vacant sites in the area in the vicinity of Hanover Quay.

Potential Impacts

11.5.2. In terms of potential impacts, the EIAR notes that under a do-nothing scenario, the Basin of the Grand Canal Dock will continue to experience pollution from the existing stormwater outfall discharging foul sewage into the inner dock during periods of high rainfall.

Construction Phase

11.5.3. Construction phase impacts on the population include the temporary impact on the boat-based residents that reside in the 20 mooring locations in Grand Canal Dock who will need to be relocated during the construction phase of the development. This impact is considered to be significant short term and negative. The construction phase, increased traffic, noise, and dust in the absence of mitigation could adversely impact on all sectors of the population in the area. The

proposal will also give rise to nuisance associated with increased traffic and the disruption of all modes of transport including temporary footpath, cycle lane and road closures. Positive impacts during construction include employment generation on site amounting to some 60 persons at any one time. This constitutes a moderate positive short-term effect. The proposal is also likely to adversely impact on the recreational amenities afforded by the Dock area. Construction works will also lead to the degradation of the public realm in the vicinity of the site with the erection of construction compounds etc. Settlement patterns are unlikely to be impacted upon.

11.5.4. Construction impacts have in the absence of mitigation measures, the potential to impact on human health, through the diminution of air quality by way of dust and traffic emissions etc, excessive noise, road safety issues. However, with the employment of mitigation measures, impacts are deemed to be neutral or imperceptible localised and temporary.

Operational Phase

11.6. The proposal will result in slight alterations to berthing facilities at Sir John Rogerson's Quay and within the Grand Canal Dock (GCD) area. This is described as a 'slight long term negative effect'. Improvements in water quality will enhance the attractiveness of the GCD for amenity and recreation facilities. A number of tourist and recreational facilities are envisaged on foot of the improvements of water quality. No adverse impacts are envisaged during the operational phase in terms of air quality, climate, traffic noise. Overall, there will be a positive correlation between the proposed development, employment health and well-being.

Mitigation Measures

A suite of mitigation measures are set out mainly to reduce the potential impacts arising from the construction phase, these mitigation measures include measure to supress potential air, noise and water pollution. It is unlikely that there will be any adverse effects arising from the operational phase, thus no mitigation measures are deemed necessary during the latter phase.

Cumulative Impacts

If the construction phase were to coincide with the construction of other developments in the area, this could exacerbate problems with noise, dust and traffic etc. However, the mitigation measures proposed will alleviate this issues. Cumulative

impacts during the operational phase will not be significant.No significant residual impacts are identified.

Assessment

I consider that the information provided in the planning application documents is sufficient to allow the impacts of the proposed development to be fully assessed. I am satisfied that the impacts identified on population and human health during the construction phase can be avoided, managed or mitigated by the measures forming part of the proposed scheme. Impacts during the operational phase can generally be regarded as positive, with the improvement of water quality within the Basin which will facilitate a healthier environment on which to undertake recreational and amenity activities. I am, therefore, satisfied that the proposed development would not have any direct, indirect or cumulative significant effects on population and human health.

11.7. **Biodiversity**

Ecological features identified during aquatic surveys and from desk-based assessments were reviewed in the EIAR. Seven designated European sites have been identified to have a hydrological connection with the proposed development all of which are located downstream from the site. The site is also located at the very eastern end of the Grand Canal pNHA. The River Liffey is an important salmonid fishery and work carried out by Inland Fisheries Ireland, identified a host of other fish species in the river including lamprey, sea trout and brown trout. A separate appropriate assessment has been carried out. Aquatic benthic ecological surveys were carried out in the River Liffey and the Grand Canal Dock. Details of protected species including birds, amphibians, fish and mammals present within the 10 km grid square (O13) were collected from the National Biodiversity Centre. A common Tern nesting sites was identified at the Camden Lock structure at the outer end of the Grand Canal Basin. Otters have also been identified in the lower River Liffey. A return of 14 fish species including the protected Salmon and European Eel were recorded. Details of other species are also set out in the EIAR. Details of all non-native invasive species are also set out in a 10km grid (O13) in which the site is located.

In terms of water quality, the Grand Canal Basin has a WFD status of 'Moderate' (2013-18) which is a downgrade from 'Good' (2010-2015). The water body is at risk of not meeting WFD objective. The identified pressure is urban wastewater. The WFD status for the groundwater body is currently under review (2020).

Details of the benthic habitat derived from grab surveys for both the Grand Canal Dock Basin and the River Liffey at Sir John Rogerson's Quay (SJRQ) are set out. The surveys did not identify any protected species or habitats within the site; however European Eel are known to be present within the Basin and Grand Canal.

No terrestrial invasive species listed on the Third Schedule of the Habitats Regulations were recorded along the pipeline route. However, the non-native species Butter-bush was recorded along the wall of SJRQ, and two aquatic invasive species listed in the Third Schedule of the Habitats Regulations within the Grand Canal Basin – the Zebra Mussel and Nuttall's Waterweed.

Potential Impacts

The do-nothing scenario will see the status of the water quality within the Grand Canal Basin will continue to deteriorate and decrease the chances of the water body achieving 'good status' under the WFD.

Construction Phase

While the Grand Canal Basin is part of the pNHA, it does not support any of the ecological features associated pNHA. Therefore, impacts on the features of the pNHA are not anticipated.

There is a potential through release of pollutants during the construction phase to impact on ecological receptors such as the Common Tern population. Loss of benthic habitats and species will occur as a result of laying the pipeline which will involve some dredging. There could also a reduction of water quality as a result of construction. In the absence of mitigation, this will result in a minor short-term impact on a site of minor importance. Similar impacts can be anticipated at the works to be carried out at the quay wall. The impact will be temporary as species and habitats will in time recolonise the area.

Potential release of pollutants and sediment within the Grand Canal Basin could impact on aquatic fauna in the area including Grey Seal, Common Seal, cetaceans,

Lamprey, Eel, Salmon and Otter. The disturbance caused by the works could impact on the nesting area of the Common Tern. The unmitigated effect of the development on the species in question would result in a minor short-term impact on the species in question.

In terms of invasive non-native species, there is the potential for the increased spread of invasive species which can outcompete native species in the Grand Canal Basin habitat. There are no terrestrial invasive non-native species occurring along the pipeline route.

Operational Phase

The reduction of the pollution with the removal of the stormwater outfall in the Grand Canal Basin will have a positive effect on water quality. Stormwater with an intermittent overflow from the combined sewer will be discharged into the River Liffey and transported downstream and could indirectly impact on ecological receptors downstream. However assimilative capacity modelling suggests that the impact downstream of the new outfall will be negligible, with no discernible change in the water quality. The unmitigated effect is therefore assessed as being neutral.

Mitigation Measures

A range of mitigation measures are set out to address potential impacts during the construction phase. These include the implementation of a CEMP, measures for pollution control and spill prevention as well as silt control and sediment management, wet concrete leachate control and biosecurity measures.

Residual Impacts

The mitigation measures to be employed during the construction phase will result in an residual impact assessed as being temporary slight negative impact due to the loss of habitat within the Grand Canal Basin and Quay Wall. During the operational phase the proposed works will improve the water quality in the Canal Basin and will have an negligible impact on the water quality of the River Liffey.

Cumulative Impacts

The cumulative impacts arising from other projects in the area are set out in Table 6.11. Other projects granted planning permission in the vicinity of the site have been screened out for appropriate assessment with the conclusion that they will have no

significant adverse impact. With the implementation of mitigation measures particularly during the construction phase the potential for adverse impacts on the wider biodiversity of the area can be ruled out. A detailed summary of the impact assessment is set out in Table 6.7.5 of the EIAR. Impacts on the whole are considered to be not significant or would result in a positive impact.

Assessment of the Biodiversity Chapter

11.7.1. I consider that the potential impacts of the proposed development on the biodiversity of the site have been comprehensively assessed in the application and the surveys and assessments have been carried out in accordance with best practice and by competent experts. I consider that the nature and scope of the surveys is robust, acceptable and proportionate.

11.7.2. The information is sufficient to allow the impacts of the proposed development to be fully assessed. I am satisfied that the impacts identified on biodiversity would be avoided, managed or mitigated by the measures forming part of the proposed scheme. I am, therefore, satisfied that the proposed development would not have any direct, indirect or cumulative significant effects on the biodiversity of the area.

11.8. Water and Hydrology

This section of the EIAR presents a hydrological assessment of the proposed construction and operation phases of the Grand Canal Stormwater Outfall Extension Project. Details of the water quality hydrodynamic modelling undertaken to assess the potential impact on the water quality arising from the proposed development are also set out. For the study it was agreed that the parameters of interest were the Environmental Quality Standards (EQS) that were relevant for transitional and coastal waters namely

- Dissolved inorganic nitrogen (DIN)
- Molybdate Reactive Phosphate (MRP)
- E. Coli and
- Biochemical Oxygen Demand (BOD).

In terms of flooding, as the pipeline will be constructed underground /underwater it will not be vulnerable to flooding, however there could be some small flood risk

during the construction of the terrestrial elements of the pipeline namely the construction compounds. The terrestrial elements of the development are located outside the fluvial flood extents, and they're located in fluvial Flood Zone C where the risk of flooding is lowest. There is no historical evidence of groundwater flooding at this location.

In terms of baseline water quality, the EPA monitoring data 2013-18 has assigned a water status of ‘good’ to both the Liffey Estuary Lower and Dublin Bay. The Grand Canal Basin has been downgraded from ‘good’ to ‘moderate’ and it has also been identified as being at risk of failing to meet the WFD objectives by 2027. The Lower Liffey Estuary is under review for waterbodies at risk. Full details of the water quality status are set out in Table 7.8 of the EIAR. In terms of bathing quality, the water status of the nearest beaches to the proposed new outfall on the River Liffey are set out below:

Bathing Water	Water Status 2021	Water Status 2020	Water Status 2019	Water Status 2018
Dollymount Stand	Good	Good	Excellent	Good
Sandymount Strand	Sufficient	Sufficient	Sufficient	Poor
Seapoint	Excellent	Excellent	Excellent	Excellent

It is also noted that the River Liffey is designated as a Nutrient Sensitive Area under the 3rd schedule of the UWWT Regulations 2001.

Water Quality sampling carried out demonstrated that the primary source of pollution in waters in the Grand Canal Basin is the discharge from the surface water of the Grand Canal Tunnel. There are no other sources of pollution within the Basin and there is a gradual decline E. Coli and Enterococci the further one moves away from the outfall.

In terms of the River Liffey, samples indicate that of the locations assessed downstream of the Samuel Beckett Bridge, do not comply with the Bathing Water

Regulations[6]. Levels of E.Coli in the receiving waters greatly increase downstream of the confluence point between the Liffey and the Dodder at the north-eastern corner of the Grand Canal Basin. The E.Coli concentrations at the existing outfall within the basis at 48,392 MPN/100ml are considerably in excess of the limits set out in the Bathing Water Regulations.

Potential Impacts

The impact on the Grand Canal Basin will be positive with a reduction on the amount of polluted water being discharged into the Grand Canal Basin. There will be a change in water quality at the receiving waters in the River Liffey. Details of the various modelling scenarios set out in the EIAR. The pollutant parameters assessed for DIN, MRP, BOD and E.Coli.

In the case of DIN, existing levels of DIN range from 0.3-0.4 mg/l in the winter to 0.05-0.1 mg/l in the summer. The modelling undertaken indicated that both for the summertime and the wintertime shows that the percentage change in water quality is less than 1% outside the mixing zone of the proposed outfall. The impact therefore is not discernible.

In terms of MRP, in both winter and summer conditions MRP is below the EQS threshold. MRP levels ranges from 0.04 to 0.042 in winter and around 0.01 in summer. Again, the modelling indicates that the percentage change in water quality is less than 1% outside the mixing zone of the proposed outfall. The impact therefore is not discernible.

In terms of BOD, BOD levels within the River Liffey are below the EQS threshold with no specific exceedance of the 'good' status (4.0mg/l) in the receiving water. While the anticipated change is slightly more than the other parameters, in the order of 2%, the absolute value of this peak change at 1.6% remains well below the EQS. Thus, the impact is determined to be slight/negligible.

While there are no standards / EQS's in the E. Coli under the Surface Water Regulations, E. Coli levels are reasonably high in the receiving waters in the River Liffey. The greatest change is estimated to be up to 10% in the immediate vicinity

[6] The River Liffey is not a designated Bathing Water, however the measurements are relevant to assess the potential impact with respect to the EQS in the receiving waters.

(mixing zone) of the outfall. This dilutes rapidly to 0.02% at the downstream boundary. The increase is estimated to be less than 1% compared with the baseline.

The positive impact on the Grand Canal Dock Basin is considered to outweigh the slight imperceptible adverse impact on the River Liffey.

Mitigation

Section 7.7 of the EIAR sets out a host of mitigation measures to address potential adverse impacts on water quality during the construction phase including measures to reduce the release of suspended solids into surrounding waters through Dredging, piling and other works in laying the outfall. Other measures are put in place to reduce against contaminated soils, surface run-off and accidental spillages. Flood risk measures will also be put in place protect construction compounds. Biosecurity measures will also be put in place to address potential adverse impacts from protected species. No mitigation measures are required during the operational phase.

In terms of residual impacts, it is stated that there will be no change in the WFD Status of the River Liffey or Dublin Bay.

Cumulative Impacts

In terms of cumulative impacts, reference is made to the improvements to be carried out at the Ringsend WWTP. It is considered that the changes in water quality upstream of the WWTP as a result of the current proposal are so small that that the contribution of the proposed outfall to changes in water quality in conjunction with the discharge from the Ringsend WWTP would be imperceptible. During the operational phase the water quality will be monitored by the EPA.

Assessment of Water and Hydrology Chapter

I consider that the EIAR submitted demonstrates through the use of hydrodynamic modelling that the relocation of the outfall will improve water quality in the Grand Canal Basin without having any undue adverse impact on water quality in the River Liffey or downstream in Dublin Bay. The modeling undertaken indicates that the is adequate assimilative capacity in the River Liffey to dilute and disperse pollutants from the outfall with negligible and imperceptible consequences for the River or the Bay. Construction activity would potentially give rise to some short-term pollution of

receiving waters in the absence of mitigation. However, this the employment of mitigation measures I'm satisfied that the proposed development will not have an adverse effect on the water environment and will overall, when completed, have a positive effect on water quality, specifically in the Grand Canal Basin Area.

11.9. **Land, Soils, Geology and Hydrogeology**

The introductory sections of this chapter set out the methodology employed in preparing the assessment of these environmental factors and the various data sources used to inform the information contained in the chapter. Details of all ground investigations that have been carried out to date in the vicinity of the site are detailed in Table 8.1, they include various boreholes and trials pits in the vicinity of the site for other developments between 1989 and 2019.

The quay walls around Grand Canal Docks are approximately 4.2 to 4.5m OD and the water level within the Basin is 3.4 m OD. The average water depth within the Basin is c.4.9m. The silt bed within the Basin varies from -1.0 OD to -0.2m OD. The underlying bedrock geology comprises of dark limestone and shale from the Lucan Formation. The bedrock recorded at the site consists of a finely grained moderately weathered argillaceous limestone, locally weak to moderately strong. Bedrock was not encountered at the location of the proposed outfall at the River Liffey. Boulder Clay was found to a depth of -14.71m below ground level. No excavation or construction will take place within the bedrock. There are no karst features within 5km of the site.

In terms of Aquifer Classification, the entire route of the pipe lays above a locally important aquifer, however the fact that the site in underlain by made-ground, the aquifer is not considered suitable as a groundwater source in this area. Overall groundwater flow is to the east or towards the coast. Groundwater vulnerability is low. The GWB WFD status is 'Good' and the groundwater risk status for the region is under review. There are a total of 12 wells within a 2km buffer zone. There are no designated Geological Heritage Sites within 500m of the proposed development area.

The strata within the Basin is likely to comprise of silt (Basin deposits), glacial till (course and fine grained) and bedrock. The ground conditions at Sir John

Rogerson's Quay comprises of made ground underlain by layers of silt and gravel and stiff bounder clay and weathered limestone. The location of the outfall comprises of layers of silt clay and gravel which overlay weather limestone rock.

Potential Impacts

In terms of the construction phase, the impacts relate to excavation and dredging; there will be no excavation of bedrock. The soils at Hanover Quay and SJRQ are contaminated and will require licensed disposal. The disturbance and displacement of the silt bed of the Basin from lowering sections of the pipeline and the construction of three transition chambers will result in a redistribution and suspension of silt at the bed of the Basin. The installation of a cofferdam in the River Liffey to facilitate the construction of the outfall has the potential to mobilise silt and sediments from the riverbed. However, having regard to the dilution and dispersion effects together with the tidal flush, the impact is considered to be negligible and imperceptible. Excavations and piling have the potential to damage the existing quay walls and this could have a moderate adverse impact. Accidental spillages of concrete, hydrocarbons and other fuels and lubricants could also occur during the construction phase. Temporary dewatering will also be required for excavations below the water table Hanover Quay and SJRQ.

A suite of mitigation measures is set out in the EIAR primarily relating to the construction phase these include measures to reduce the release of suspended solids into surrounding waters through dredging, piling and other works in laying the outfall. Other measures are put in place to reduce against the potential impact arising from contaminated soils, surface run-off and accidental spillages and ground movements and damage to quay walls at both Hanover Quay and SJRQ.

Once the mitigation measures are implemented, no residual significant impact on the land, soils, geological and hydrogeological environment are expected to arise as a result of the construction and operation of the proposed development.

In terms of cumulative impacts, even in the case where works are carried out simultaneously with other projects in the area, no significant cumulative impacts are likely to arise in terms of lands, soils, geology or hydrogeology.

I consider that the information provided in the planning application documents are sufficient to allow the impacts of the proposed development to be fully assessed. I

am satisfied that the impacts identified on lands, soils and geology would be avoided, managed or mitigated by the measures forming part of the proposed scheme. I am, therefore, satisfied that the proposed development would not have any direct, indirect or cumulative significant effects on these environmental factors.

11.10. **Air Quality and Climate**

The potential direct and indirect effects of the proposed development on air quality and climate from each phase of the development are considered in Chapter 9 of the EIAR. The document sets out the background to the proposal and the relevant legislation and guidance on air quality. Reference is made to SI 180/2011 and the international agreements and national action plans on climate.

Background Air Quality levels

Construction phase traffic has the potential to impact on air quality. The proposed development is located in within Zone A in terms of EPA designated zone areas. In terms of NO_2, the Air Quality Standards an hourly limit of 200µg/m^3 is set with no more than 18 exceedances a year. The annual limit for the protection of human health is 40 µg/m^3. Continuous monitoring data from the EPA in the inner city show levels of 24 µg/m^3 to 28 µg/m^3. PM_{10} limits in the Regulations have an annual limit for the protection of human health at 40 µg/m^3. Average PM_{10} Levels within the city range from 0 to 15 µg/m^3.Continuous $PM_{2.5}$ monitoring carried out at zone A (Rathmines) showed $PM_{2.5}$ / PM_{10} showed ratios ranging from 0.60 – 0.68 over the period 2015-2019. Based on this estimate a conservative ratio of 11.2 µg/m^3 was estimated for $PM_{2.5}$. This is below the annual average limit of 25 µg/m^3.

In terms of dust deposition and dust soiling, the EIAR refers to the UK Institute of Air Quality Management (IAQM). Based on the criteria set out in these guidelines, the overall sensitivity from dust soiling impacts are considered to be medium (based on IAQM criteria) while the impact on human health is considered to be low.

Potential Impacts

In terms of potential impacts, the greatest potential impacts arise during the construction phase. The major impact relates to dust soiling within 50m of the proposed works. However, dust generation is greatly curtailed during periods of rainfall. Meteorological data indicates that rainfall occurs in the Dublin region on over

50% of the days annually. The majority of works will occur over relatively small areas with very localised emissions. It is expected that approximately 5,500 m^3 of material will be excavated and removed from the site during construction works. Having regard to the receiving environment and the relatively modest nature of the works to be carried out (less than 20,000 tonnes of material moved) it is considered that the impacts of the works would be relatively minor in terms of dust deposition. In term of vehicle emissions, under a worst-case peak construction scenario there will be 38 HGV movements per day this will likewise give rise to a low/negligible risk in terms of human health and ecological impacts. The proposal will not give rise to appreciable NO_2 or CO_2 levels. Thus, construction stage traffic has the potential for a neutral, imperceptible and short-term impact on air quality.

During the operational phase there will be no emissions to the atmosphere and therefore there will be a neutral impact in terms of air quality.

Mitigation Measures

A series of mitigation measures are set out to reduce the potential for fugitive dust emissions during the construction phase. With the implementation of the mitigation measures the impact during the construction phase is considered to be localised, negative and imperceptible. The predicted residual impact on climate is considered to be neutral short term and imperceptible. With the implementation of the mitigation measures during the construction phase, cumulative impacts with other developments in the vicinity are not predicted.

Assessment of the Air Quality and Climate Chapter

I consider that the information provided in the planning application documentation is sufficient to allow the impacts of the proposed development to be fully assessed. I am satisfied that the impacts identified in respect of air and climate would be, on the whole, modest and can be avoided, managed or mitigated by measures forming part of the proposed scheme and I am, therefore, satisfied that the proposed development would not have any unacceptable direct or indirect impacts on air quality or climate.

11.11. Noise and Vibration

The guidance used for noise level criteria during the construction phase is BS 5228-1:2009. The applicable noise limit as set out under these guidelines for Category A areas is 65 dB(A) $L_{Aeq.}$ The guidance for vibration used is BS 7385:1993 and BS5228-1 2009.

Background Noise Levels

8 measurement location for noise were selected and this are indicated in Figure 10.1 of the EIAR (p. 217). A summary of the noise levels (L_{Aeq}, L_{AFmax}, L_{AFmin} L_{AF10} L_{AF90}) for each of the survey positions are set out in tables, 10.4 to 10.11. L_{Aeq} levels range from 54 to 61 dB(A).

Potential Impacts

In terms of Potential impacts from a noise and vibration perspective, the construction activities can be subdivided into distinct activities or stages. They include:

- Construction of the transition chambers and outfall structure.
- Construction of the culvert at Hanover Quay
- Laying of the pipework
- Activity within the construction compounds.
- Additional construction traffic on public roads.

Each of these activities are set out, described and evaluated in the EIAR. There is potential for significant noise emissions during the construction phase and noise levels will have to be limited to 65 dB(A) $L_{eq.}$.

The main source of vibration is likely to be from the piling process. A bored piling method is currently proposed. HGV traffic is unlikely to give rise to vibration as the road is generally in good condition. No noise or vibration impacts are anticipated during the operational phase.

Mitigation Measures

Mitigation measures will be put in place to ensure that noise limits of 65 dB L_{Aeq} are nor exceeded. Vibration limits of 3mm/s at less than 10Hz, 3-8 mm/s at 10 to 50 Hz and 8-10mm/s at 50 to 100 Hz (and above) will not be exceeded. A host of mitigation

measures are set out, the most important of which is the production of a *Noise and Vibration Management Plan* which will deal with specific management processes and mitigation measures to remove and reduce significant noise and vibration impacts from construction works, it will also involve proactive relations with the surrounding local community. Once the mitigation measures are implemented, no significant noise or vibration impacts are envisaged. In terms of cumulative impacts it is noted that the area surrounding the site has been extensively developed over the last 5-10 years and therefore there is limited scope for extraneous construction activities to give rise to cumulative impacts.

Assessment of the Noise and Vibration Chapter

I note that this chapter does not attempt to quantify the specific noise and vibration characteristics arising from the works to be undertaken. This is on the basis that the construction programme has been established in outline form only and therefore it is not possible to accurately construction noise or vibration levels. No underwater noise or vibration propagation analysis was undertaken as part of the assessment. Notwithstanding this point, I note that any noise and vibration impacts will be short-term in duration and therefore are unlikely to have a significant impact on the surrounding environment. Furthermore, given the nature of the urban area, ambient noise levels are high and therefore any additional noise levels, will to a significant extent, by subsumed into the existing noise level environment. Therefore, over a period of longer duration, noise levels generated during the construction phase are unlikely to give rise to significant amenity proposed for sensitive receptors in the vicinity. It is in my view with the employment of appropriate mitigation, it will be possible to limit L_{Aeq} levels to within 65 d(B)A. Overall therefore, notwithstanding any perceived shortcoming in the methodology employed in assessing the noise and vibration impacts, I am nevertheless satisfied that the proposed development will not significantly impact on the amenity of the area as a result of noise and vibration.

11.12. **Traffic and Transport**

Baseline Environment

Details of the existing road network surrounding the site are set out at the outset pf the chapter. In terms of traffic surveys, it is acknowledged that the surveys carried out were somewhat skewed due to the Covid 19 pandemic. For this reason historic data was used. Some of the surveys were carried out pre covid. AADT's derived from traffic counts are set out on Table 11.1 and are set out below:

Link Road	AADT
Samuel Beckett Bridge	18,036
Macken Street	17,496
Pearse Street	17,879
Ringsend Street	18,087
Sheriff Street Upper	8,366

The analysis of the AM and PM peak hours under a do-nothing scenario for 2025 are set out below:

Junction	Highest RFC	Junction Delay	Queue Length (PCU)
AM Peak			
SJRQ- Macken Street	0.65	15.32	7.7
Pearse St (802) (GCQ – Ringsend Street)	0.91	24.20	11.9
Junction	Highest RFC	Junction Delay	Queue Length (PCU)
PM Peak			
SJRQ- Macken Street	0.65	19.66	6.6
Pearse St (802) (GCQ – Ringsend Street)	0.72	16.80	9.1

The above table indicates that both the above junctions are operating with the normal design threshold (RFC < 0.90).

The total estimated trip generated by the proposed development during the construction phase is set out below:

Element	Arrivals	Departures	Total
Earthworks	1,030	1,030	2,060
Concrete	198	198	396
Basin Pipes	844	844	1,688
Non-Bulky Loads	570	570	1,140
Total	2,642	2,642	5,284

Potential Impacts

While the exact programme of delivery has yet to be worked out, based on an even distribution, there will be an average of 7 HGV arrivals and 7 HGV departures per day. Under a worst-case scenario there will be a total of 38 HGV trips daily. The proposed HGV haul route is to be via the M50, Sherriff Street Upper, Guild Street, Sam Beckett Bridge, SJRQ, Forbes Street or Macken Street and Grand Canal Quay.

The impact of the traffic generated in the construction phase is set out below (the existing scenario for comparison purposes is set out in brackets):

Junction	Highest RFC	Junction Delay	Queue Length (PCU)
AM Peak			
SJRQ- Macken Street	0.67 (0.65)	15.98 (15.32)	8.3 (7.7)
Pearse St (802) (GCQ – Ringsend Street)	1.03 (0.91)	52.01 (24.20)	29.3 (11.9)
Junction	Highest RFC	Junction Delay	Queue Length (PCU)
PM Peak			
SJRQ- Macken Street	0.71 (0.65)	22.80 (19.66)	8.0 (6.6)
Pearse St (802) (GCQ – Ringsend Street)	0.79 (0.72)	21.52 (16.80)	10.4 (9.1)

The above table demonstrates that during the construction phase all junctions will operate within capacity during the AM and PM peak with the exception of the Pearse St (R802)- Grand Canal Quay – Ringsend Street Junction. This junction will operate slightly above capacity under both the do-nothing scenario and the proposed development. It should also be noted that this assessment is based on a worse-case scenario that whole construction will be undertaken concurrently in the final year of construction. It is anticipated that construction vehicles will utilise Pearse Street (R802)/Grand Canal Quay / Ringsend junction early in the construction program when do nothing traffic will be lower and will not utilise this junction in the final year of construction. No quantifiable changes in the operation of the SJRQ/ Macken Street junction will occur during the construction. Overall, it is clear therefore that the traffic generated by the proposed development will not result in any significant impact on the junctions surrounding the site. All impacts will be short term in duration. Temporary traffic management works will be required, and these will include lane and footpath closures. A road closure may be required on the Asgard Road however it is anticipated that theater access to the car park on Asgard Road will be maintained for the duration of the works

It is not anticipated that the proposed development will result in any trip generation during the operational phase. It is intended to reinstate streets to the pre-construction condition. Therefore, it can be concluded that the proposed development will have no impact on the operational phase.

in terms of cumulative impacts, no major future planned developments are anticipated in the immediate area. However, it was noted that a number of developments in the grand canal dock area were under construction when traffic counts were undertaken. Therefore, the traffic model perhaps overestimates vehicular traffic on the adjoining road network and provides a robust assessment of the cumulative impacts associated with adjoining developments.

Assessment of the Traffic and Transport Chapter

I consider that the information provided in the planning application documentation is sufficient to allow the impacts of the proposed development to be fully assessed in terms of the impact of the proposed development on the road network. I am satisfied

that the impacts identified in respect of traffic and transport would be modest and limited to the construction phase only. With the exception of one junction, all junctions will operate within capacity. The one junction that would operate beyond capacity would in any event operate beyond capacity under a do-nothing scenario. I am satisfied therefore that the proposed development would not have any unacceptable direct or indirect impacts on air quality or climate.

11.13. **Archaeology and Cultural Heritage**

Chapter 12 of the EIAR relates to cultural heritage. The first section of this chapter sets out of the history of the site, making reference to various cartographic sources available particularly around harbour area. It notes that works commenced on the Grand Canal in 1756 and was finally completed in 1804. There are several archaeological sites and monuments in the vicinity of the site listed in Table 12.1 of the EIAR. SJRQ is located within a zone of Archaeological Interest as defined in the development plan (DU018-020). Details of Protected Structures, features on the NIAH and the Dublin City Industrial Heritage Record in the vicinity are set out in Table 12.2. In terms of the Shipwrecks Inventory, the EIAR states that there are no known shipwrecks within the development area and no wrecks were identified within the study area during the Underwater Archaeological Assessment. Details of the list of wrecks in the vicinity are set out in Table 12.3. There is however still some limited potential for some recorded underwater artifacts to be uncovered during the construction works. Details of previous archaeological investigations are detailed on Table 12.4 of the EIAR. The Chapter also provides details of a Cartographic Review, An Aerial Photography Review (no features of archaeological interest were identified during this review). A field survey was also carried out to assess whether or not the site contained any unrecorded areas or features of historical, built heritage or archaeological significance.

Potential Impacts

During the construction phase there will be two direct impacts on sites of known archaeological and cultural heritage significance. The proposed stormwater outfall to the river Liffey will have a direct negative, moderate and permanent impact on a small section of SJRQ which is within the Dublin City Zone of Archaeological Potential. It is also a protected structure, (RPS 7542). The features of significance

includes granite ashlar walls, stone setts, mooring rings, bollards and lamp standards. The proposed outfall will necessitate the removal of a small section of granite ashlar quay wall.

The second direct impact on a site of known cultural heritage is located along the North End of the Grand Canal Docks at Hanover Quay, where the construction of the pipeline will require the removal of a small section (c.7.3m) off the quay wall. Again the impact is described in the EIAR as a direct negative moderate and permanent impact. The wall at this location consists of two courses of rough coat limestone above the water level with large capping stones above.

There was also some limited potential that construction works could directly impact on previously unknown features or deposits of an archaeological nature should they be discovered during the course of the construction workers. There will be no operational phase impacts on archaeology or cultural heritage features as a result of the proposed development as the culverts within the wall will be in-situ.

A series of mitigation measures are set out which include preconstruction measures and specific measures to be implemented during the construction period. Preconstruction mitigation measures include the employment of a conservation expert in the design, managing and monitoring of the intended works to be carried out. A detailed pre-condition survey will also be carried out and will include detailed plans and elevations of the quay wall. A detailed pre-construction survey of the location of the transitional chamber no. 3 at the junction of Grand Canal Docks and Hanover Quay will be carried out. Prior to the commencement of works, the removal of sections of wall will be agreed in writing with both the City Archaeologist and the City Conservation Officer. During the construction phase the exact positioning of the temporary construction compounds will ensure that the works will in no way adversely impact on the adjoining quay areas. Furthermore prior to groundworks/excavations, a conservation specification and methodology shall be provided for the careful lifting, protecting, and setting aside of all historic surfaces. This method statement shall be prepared by a conservation professional and submitted to the Conservation Officer for the written agreement in advance of works commencing. Archaeological monitoring it will take place in all underwater areas during the laying of the pipeline. Should any previously unknown, concealed historic fabric / archaeological feature be uncovered, the conservation officer shall be

contacted and agreement for a preferred methodology for its careful and authentic reinstatement.

In terms of cumulative impacts, no cumulative impacts are identified which could occur in respect of other developments or projects being carried out in the area, that could, in combination with the current application give rise to cumulative impacts.

Assessment of the Archaeological and Cultural Heritage Chapter

I consider that the information provided in the planning application documentation is sufficient to allow the impacts of the proposed development to be fully assessed. I am satisfied that the impacts identified on archaeology, architecture and cultural heritage would be avoided, managed or mitigated to an acceptable extent by measures forming part of the proposed scheme. While the proposal will result in the removal of part of the historic quay walls, the area affected is modest and detailed mitigation measures will be put in place to minimise any impact and to ensure that appropriate reinstatement takes place post construction. The impact on the archaeological, architectural or cultural heritage of the area will not therefore be significant.

11.14. **Waste Management**

Nature of Waste Generated

Chapter 13 of the EIAR specifically relates to waste management. The Board will note that a Resource and Waste Management Plan (RWMP- Appendix 13A) and a Construction and Environmental Management Plan – (Appendix 17A) has also been submitted as part of the EIAR. A conservative or worst-case scenario has been adopted for the assessment that all wastes are considered as being contaminated (either non-hazardous or hazardous). A geotechnical site investigation was carried out in 2002. High levels of contaminants were recorded in 3 of the boreholes (BH1, BH2 and BH3). From leachability tests, it was found that the materials analysed generally have low leaching potential. The results of the soil analysis do not indicate that the soils sampled are particularly heavily contaminated, however results are likely to be highly variable depending on the strata. There is a high probability of encountering contaminated soil during the excavation works. It is estimated that c.

5,550 m^3 of soil will be removed during the course of construction. Details of the waste to be removed is set out in the Table below:

Location	**Volume of material to be removed (m^3)**	
	Hazardous	Non-Hazardous
Hanover Quay	1,875	1,250
SJRQ	460	307
Transition Chamber 1	31	100
Transition Chamber 2	50	117
Transition Chamber 3 at Hanover Quay	375	273
Outfall Structure – River Liffey	600	100
Total	3,391	2,147

Waste will have to be classified as hazardous or non-hazardous in accordance with the EC Council Decision 2003/33/EC prior to removal off site. Waste generated from workers on site will be streamed separately where possible, recycled. All waste will be disposed of in suitably licenced facilities. Hazardous waste will be likely exported.

Potential Impacts

Potential impacts associated with the construction phase include;

- Spillage of contaminated material arising from minor dredging works and piling works in the Basin.
- Spillage of hydrocarbons and construction materials during works in the Basin.
- Spillage of contaminated materials arising from terrestrial excavations on Hanover Quay and SRRQ into the waters of the River Liffey.
- Spillage of contaminated material arising from minor dredging works and piling works in the river Liffey during the construction of the new outfall structure.

- The waste generation and transport of waste from site may cause a number of direct and indirect impacts on other environmental aspects such as air quality traffic noise water and human health.
- The use of non-permitted waste contractors are unlicensed facilities could give rise to inappropriate management of waste and result in environmental impacts/pollution.

All the above impacts are considered to be temporary moderate negative impacts.

During the operational phase standard maintenance measures will be carried out on the pipeline to remove the buildup of solid wastes and siltation. These measures will include CCTV and cleaning of pipes. A maintenance contractor will be responsible for disposing of the waste generated during cleaning in accordance with relevant legislation and regulations.

Mitigation Measures

A range of mitigation measures are proposed in order to minimise waste generation and spillage. The contractor will be responsible for ensuring compliance with statutory obligations for the collection and transport of waste. Within the Basin waste will be minimized by the redistribution of displaced soil and silts. A range of mitigation measures are set out to address potential impacts associated with contaminated material and this will include the finalization of the CEMP during the pre-construction phase. All contaminated material will be disposed of in accordance with all relevant legislation. All waste will only be removed by waste contractors authorised under the Waste Management (Collection Permit) (Amendment) Regulations 2008.

Mitigation measures and protocols will be put in place for the management and handling of fuels, waste fuels and waste materials. These will include emergency plans and bunding of fuel materials. During the operational phase maintenance of the pipeline is the only required mitigation measure.

There will be no significant cumulative impacts from the operation of the proposed development.

Assessment of the Waste Chapter

I consider that the information provided in the planning application documentation is sufficient to allow the impacts of the proposed development to be fully assessed in terms of waste generation and management. I am satisfied that any impacts identified particularly in relation to hazardous waste management in respect of contaminated soils, that mitigation measures will be put in place to minimise any impact and that waste generated (be it hazardous or non-hazardous) will be directed towards appropriate waste contracting facilities and the impact therefore will not therefore be significant.

11.15. **Material Assets**

This chapter focuses on potential impacts on:

- Commercial and residential properties
- Electricity infrastructure
- Gas Services infrastructure
- Telecommunications infrastructure
- Sewer and Drainage infrastructure

Utilities that may be impacted upon by the proposed development and their providers will be informed of the project details. Consultations have also been made with key stakeholders present in the local vicinity including community groups, statutory and non-statutory bodies, environmental groups, residents associations and local businesses.

The Grand Canal Basin is in itself a valuable amenity as a visitor attraction and for water sports (boating, paddle boarding etc). Public open spaces in the vicinity will not be impacted upon. There are also a number of cultural and recreational facilities in the area including the Bord Gais Theater, Lir Academy, Waterways Ireland Visitor Centre etc. Details of the other commercial and residential land uses within the area are set out in the EIAR. Details of transport routes in the vicinity are also set out. Utility companies such as BT, EIR, E-Net, ESB, Gas Network Ireland, IW all have services along the streets in the vicinity of the site. Within the Basin itself, the infrastructure that could be impacted upon is a large 8ft diameter trunk sewer leading

to the Ringsend WWTP which lies in the bed of the Basin underneath Mac Mahon Bridge. Details of the utilities are set out in Figures 14.1 to 14.6.

There are no geological heritage sites within or near the proposed development area.

In terms of potential impacts, the do-nothing impact will result in no disruption but also no improvement to the water quality within the Basin.

Should the development proceed the potential impacts during the construction phase include:

- Potential impact on amenity value of the Grand Canal Dock and Basin for the general public and local residents.
- Temporary reduction of amenity value of SJRQ
- Risk of reduction in water quality in the event of a potential spillage.
- Risk of damage to utilities during excavation.
- Risk of damage to Mc Mahon Bridge and the services beneath it.
- Slight adverse impact on the heritage value of the quay walls.
- The proposal will result in some traffic diversions.
- Temporary diversion of watermains may also be required.

Most of the impacts will be short-term and negative and moderate. Any impact on the 8 ft diameter City sewer underneath Mc Mahon Bridge has the potential to result in a very significant temporary impact. The impact on the historic Quays at SJRQ and Hanover Quay are described as being ‘permanent, Slight, negative’.

During the operational phase, the impact on the water quality and the amenity and recreational value of the Basin is considered to be a ‘significant, permanent and positive impact’. Due to the higher assimilative capacity of the River Liffey, the changes in water quality as a result of the relocation of the outfall is considered to be not significant.

In terms of mitigation measures, mitigation by avoidance is the main measure to be implemented ie avoiding the utilities in question. In this regard detailed method statements will be provided by the contractor and developed in consultation with the

respective utility owner. Any street furniture temporarily removed will be re-instated post construction.

No specific measures are required during the operational phase of the proposed development.

In terms of cumulative impacts, it is stated that while no impacts are predicted on built services and infrastructure, impacts from other developments in the area have the potential to generate excessive traffic disruptions, amenity impacts and excessive noise.

I consider that the information provided in the planning application documentation is sufficient to allow the impacts of the proposed development to be fully assessed. I am satisfied that the impacts identified on archaeology, architecture and cultural heritage would be avoided, managed or mitigated to an acceptable extent by measures forming part of the proposed scheme. While the proposal will result in the removal of part of the historic quay walls, the area affected is modest and detailed mitigation measures will be put in place to minimise any impact and to ensure that appropriate reinstatement takes place post construction. The impact on the archaeological, architectural or cultural heritage of the area will not therefore be significant.

Assessment of Chapter on Material Assets

I consider that the information provided in the planning application documentation is sufficient to allow the impacts of the proposed development on material assets and utilities to be fully assessed. I am satisfied that the impacts identified on existing utilities in the area can be avoided, managed or mitigated to an acceptable extent by measures forming part of the proposed scheme, most notability appropriate liaison with utility providers in designing and carrying out the construction works. The impact will not therefore be significant.

Visual Impact

Receiving Environment

Details of the methodology involved in assessing the visual impact are set out in the beginning of this chapter. Details of the site fabric and site context are set out. The site is recognised as an historic dock/port area on the eastern side of the city centre.

The historic elements of the landscape including the protected structures surrounding the Basin and the street furniture set into the roadways and campshires in the vicinity of the site. The Bord Gais Energy Theater is also noted as a prominent feature of the landscape. More modern interventions are also noted. Asgard Road is a narrow street of new medium sized residential and commercial blocks. Important views and vista are also noted in the area.

Potential Impacts

In terms of visual impact, there will be three construction compounds set up as part of the construction phase. Temporary hoardings will be put in place around the compounds. The main compound will be at the eastern end of Hanover Quay with smaller compounds at Grand Canal Quay and SJRQ. The construction phase will also involve the construction of cofferdams which will also give rise to a modest visual impact.

In terms of the operational phase, the majority of the proposal will be located either underwater or underground. The above water sections will be limited to the above water sections of the transition chambers 1&2 and the inspection chambers ie manholes on Hanover Quay and SJRQ.

Potential impacts are described in impacts on public open space receptors, residential receptors and commercial receptors in the vicinity. These are assessed in terms of (i) sensitivity, (ii) magnitude and (iii) effect. The main effects during the construction phase arise from the presence of construction machinery, cofferdams, hoarding, construction activity and traffic. While the sensitivity of the various receptors, particularly residential apartments in the area is high; the impacts is assessed as ranging from slight to high in negative terms. The impact in all cases is described as temporary and short-term.

The visual impact during the operational phase is attributed in the main to result from the two transitional chambers. Transition chamber no.1 has an above water platform area of $50m^2$, while chamber no 2 has a above water area of $30m^2$. These will result in minor visual impacts in the context of the existing built environment and the effects is described as imperceptible or neutral.

In terms of mitigation during the construction phase, the applicant will seek advice from DCC Architects and from the Conservation Officer. During the operational

phase details of the manhole covers and handrails etc. will be agreed also. Post construction no cumulative impacts are anticipated during the operational phase.

Assessment of Chapter on Visual Impact

I consider that the information provided in the planning application documentation is sufficient to allow the impacts of the proposed development in visual terms to be fully assessed. I am satisfied that the impacts identified with primarily relate to impacts during the construction phase and will therefore be short-term and temporary. The impact will not therefore be significant. The study also reasonably concludes that there will be no discernible visual impact during the operational phase.

11.16. Interactions of the Foregoing

11.16.1. Interactions between the various environmental factors are discussed in Chapter 16 of the EIAR. A matrix is provided in Table 14.6 which outlines potential interactions during the construction and operational phases.

11.16.2. The main potential for interactions which would give rise to negative effects on population and human health arise from potential effects on water quality, air quality and climate, noise and vibration, traffic and transport, waste management and visual impact.

11.16.3. With regard to biodiversity, the main potential interactions which would give rise to potential short term negative effects include effects on land soils and geology, air quality noise and vibration and long term positive effects on water quality.

11.16.4. With regard to water quality, the proposed works could have effects or impacts on population and human health and biodiversity and material assets.

11.16.5. The main potential interactions for land, soil and geology include interactions with biodiversity, water quality, noise and vibration, archaeology, waste management, material assets and visual impact.

11.16.6. With regard to air and climate, the main interactions likely to occur include potential interactions and impacts on population and human health biodiversity land, soils, geology and hydrogeology, traffic and transport in waste management.

11.16.7. In terms of noise and vibration the main interactions would include potential impacts and interactions on population and human heath, biodiversity, traffic and transport, archaeology and cultural heritage and visual impact.

11.16.8. Traffic and transport could interact with population and human health, air quality and climate, noise and vibration, waste management and material assets

11.16.9. Cultural heritage will to some extent interact with land, soils geology and hydrogeology, noise and vibration and visual impact.

11.16.10. Waste management will interact with population in human health, water quality and hydrology, land, soils, geology and hydrogeology, air quality and climate, noise and vibration, traffic and transport.

11.16.11. Material assets will interact with water quality and hydrology, land, soils geology and hydrogeology and traffic and transport.

11.16.12. Landscape and visual impact could interact with land, soils, geology and hydrogeology common noise and vibration, and archaeology and built heritage

11.16.13. All of the potential impacts on the individual environmental factors have been assessed and I am satisfied that any such impacts can be avoided, managed and mitigated by the measures which form part of the proposed development and any recommended planning conditions attached should the Board deem it appropriate to issue a grant of permission. Overall, it is determined that the proposed development will have a positive impact on water quality and the recreational amenities of the area.

11.17. Mitigation Measures

11.17.1. Chapter 17 sets out details of all the mitigation measures in tabular form. The vast majority of mitigation measures relate to the construction phase.

11.18. Residual Impacts

11.18.1. Chapter 18 sets out a summary of the residual impacts. These are assessed and being permanent and positive in terms of long-term impacts on water quality and recreation. Negative impacts primarily relate to construction impacts which are

temporary and, with the employment of mitigation measures, are considered on the whole to be slight and short-term.

11.18.2. The final chapter specifically relates to cumulative impacts, where it is concluded that the proposal is not likely to give rise significant or interactive cumulative impacts.

11.19. **Reasoned Conclusion on the Significant Effects**

Having regard to the examination of environmental information contained above in the EIAR submitted by the applicant, together with the written submissions on file, I would conclude the following in relation to significant effects:

(a) The most significant effects will be the positive impact arising in the water quality of the Grand Canal Dock and Basin. This in turn will have positive impacts on the biodiversity and the recreational potential of the Basin particularly for tourism and water sports. The relocation of the outfall to the River Liffey would have no appreciable effect on pollution levels within the river or down stream of outfall due to the assimilative capacity of the river downstream of the outfall. Hydrodynamic modelling supports this conclusion reached in the EIAR. The proposed development therefore will have a positive impact in water quality in general.

(b) The main potential adverse negative impacts will arise from the construction phase. These potential adverse impacts relate to noise and air quality, water quality traffic and visual impact. These impacts will be short term and temporary (c.24 months and will be phased throughout the construction period) but will, to some extent, negatively impact on the amenities of the area. The proposal could also give rise to traffic diversions in the area. The employment of various mitigation measure will reduce and in somes cases eradicate potential adverse impacts

(c) Approximately 5,500 tonnes of waste material will be required to be removed to cater for the new outfall. Some of this material will be contaminated soil which is hazardous in nature. This will have to be carefully removed and disposed of by a licenced contractor.

(d) In terms of archaeology and cultural heritage, the alignment of the new outfall has the potential to impact on archaeological remains of the area particularly in the Basin

area and at the proposed new outfall. This will be the subject of appropriate monitoring. The proposal will also have direct and permanent impacts with the removal of small sections of quay walls at SJRQ and Hanover Quay

(e) Cumulative impacts, in terms of other on-going and anticipated developments in the area considered and assessed in EIAR, and these impacts are assessed to be minimal.

The EIAR reasonably concludes in my opinion, having regard to the nature of the existing environment, that there will be little or no adverse impacts arising from the proposed new outfall in environmental terms. The permanent impacts will be positive in terms of improving water quality within the Grand Canal Basin. Adverse impacts will be confined to the construction phase and mitigation measures employed will greatly reduce the potential impacts during this phase.

The EIAR has considered that the main significant direct and indirect and cumulative effects of the proposed development on the environment. Following mitigation, no residual significant long-term negative impacts on the environment or sensitive receptors would remain. Positive impacts would accrue in terms of water quality. I am therefore, satisfied that the proposed development would not have any unacceptable long-term direct, indirect or cumulative effects on the environment during the construction or operational phase.

I am satisfied that the information provided is reasonable and sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment. Overall, I am satisfied that the information contained in the EIAR complies with the provisions of Article 3, 5 and Annex (IV) of EU Directive 2014/52/EU.

12.0 **Appropriate Assessment**

12.1.1. Article 6(3) of the Habitats Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in

view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

The application site is not located within or adjacent to a Natura 2000 site. The nearest Natura 2000 Sites are as follows:

- The South Dublin Bay and River Tolka Estuary SPA (Site Code 004024) and located 3.5km to the east of the subject site.
- The North Bull Island SPA (Site Code 004006), which at its closest point is located 5.9 km from the subject site.
- The North Dublin Bay SAC (Site Code 000206), which at its closest point is located 5.1 km form the subject site.
- South Dublin Bay SAC (Site Code 000210), which at its closest point (as the crow flies) is one km to the south-east of the subject site. However due presence of the south wall, the hydrological pathway is estimated to be 7km between the Basin and the Natura 2000 Site[7].

12.1.2. Notwithstanding the fact that the site is not located within or contiguous to a Natura 2000 Site, the application was accompanied by a Natura Impact Statement which included a screening for Appropriate Assessment (See chapter 3 of NIS), as each of the 3 sites referred to are hydrologically linked and located downstream of the proposed outfall. The NIS contains a description of the proposed development, the project site and the surrounding area as well as details of the baseline environment and the assessment methodology used to inform the description of the baseline environment. Section 5 of the document sets out details of other plans and projects in the area that could give rise to cumulative effects.

12.1.3. Section 6 of the document contains the Stage 2 assessment. It describes and assesses the potential sources of pollution and the potential impacts on each of the

[7] For this reason, the latter Natura 2000 site was screened out for the purposes of the assessment in the NIS. The circuitous hydrological separation distance between the outfall and the Natura 2000 site, and the nature of the qualifying interest associated with the Natura 2000 site, prompted the applicant to conclude that the relocation of the outfall would not pose a threat to the Natura 2000 site in question.

Qualifying Interests and Species of Conservation Interest associated with the Natura 2000 Sites both during the operational and construction phase. It concludes that with the incorporation of mitigation measures, the residual impacts from the proposed development will be negligible. The NIS also assesses potential impacts arising from other projects in the Grand Canal Dock area (listed in table 5-1 of the document). These projects have been screened for potential cumulative impacts and have been screened out on the basis that they will not have a significant effect, alone or in combination with other plans or projects on any of the Natura 2000 sites identified within the zone of influence.

12.1.4. Having reviewed the NIS and the supporting documentation, I am satisfied that it (a) provides adequate information in respect of the baseline conditions, (b) clearly identifies the potential impacts, (c) and uses best scientific information and knowledge to assess any potential impacts. It also provides details of mitigation measures to ensure that no adverse impacts arise in respect of Natura 2000 Sites in the vicinity. I am satisfied that the information is sufficient to allow for an independent appropriate assessment of the proposed development. This independent assessment is set out below.

Stage One - Screening

12.2. As the screening for appropriate assessment indicates, the proposed new outfall is not located within or contiguous to any Natura 2000 Sites. There is no set recommended distance from a proposal for which Natura 2000 sites should be considered for inclusion for assessment. They should be evaluated on a case-by-case basis. Often an arbitrary zone of influence of 15 km is used to assess the potential impact in which a project can potentially affect Natura 2000 sites in the vicinity.

12.2.1. The sites considered within the Stage 1 Screening and the distances from the wind farm site and the cable route are summarised below.

Site	Site Code	Distance from Development	With the zone of influence	Potential Impact?
South Dublin Bay and River Tolka Estuary SPA	004024	2km to the North. Via Hydrological Pathway 3.5 km	Potential noise and water pollution due to accidental spillage, increase sediment run-off etc during the construction phase. Potential negative effects on water quality during the operational phase.	Yes
North Bull island SPA	004006	4km north-east Via Hydrological Pathway 5.9 km	Potential noise and water pollution due to accidental spillage, increase sediment run-off etc during the construction phase. Potential negative effects on water quality during the operational phase.	Yes
South Dublin SAC	000210	1 km south east Via Hydrological Pathway 7 km (due to the presence of the south wall)	Due to the 7km long hydrological pathway, it is not anticipated that the proposal could possibly result in a water pollution level that could potentially impact on the qualifying interest of the SAC.	No
North Dublin Bay SAC	000206	4 km north east. Hydrological pathway 5.1 km	Potential water pollution due to accidental spillage, increase sediment run-off etc during the construction phase. Potential negative effects on water quality during the operational	Yes

			phase.	
Howth Head SAC	000202	9.6 km to the north -east. Via the hydrological pathway 10km	Due to the 10km long hydrological pathway, it is not anticipated that the proposal could possibly result in a water pollution level that could potentially impact on the qualifying interest of the SAC.	No
Rockabill to Dalkey Island SAC	003000	9.7 km to the east	Due to the 9.7 km long hydrological pathway, it is not anticipated that the proposal could possibly result in a water pollution level that could potentially impact on the qualifying interest of the SAC.	No
Howth Head Coast SPA	004113	12.5 km to the north-east	The SPA is a significant distance from the site and therefore the qualifying interests will not be affected.	No
Dalkey Island SPA	004172	12 km to the south east	Due to separation distance no significant impacts are anticipated.	No
Baldoyle SPA	004016	9.3 km to the north east, Via hydrological path 18km	Due to separation distance no significant impacts are anticipated.	No
Baldoyle SAC	000199	9.3 km north east. Via Hydrological pathway	Due to separation distance circuitous nature of the hydrological connection no significant impacts are anticipated.	No
Ireland's Eye SPA	004117	12.7 km to the north east. Via hydrological pathway 17km	Due to separation distance and the long circuitous hydrological connection no significant impacts are	No

		via River Liffey and Dublin Bay	anticipated.	
Irelands Eye SAC	002193	12.9 km north east Via Hydrological pathway 17km	Due to separation distance and the long circuitous hydrological connection no significant impacts are anticipated.	No

There are other Natura 2000 sites in the wider area and these sites are assessed in the AA screening report submitted by the applicant. However, they are located a further distance than the Natura 2000 Sites referred to in the Table above. I consider, that in the case of other Natura 2000 sites in the wider area, (ie in excess of 12 /13 km) that the separation distance would preclude any adverse impact on these Natura 2000 sites further afield.

Screening Determination

Based on my examination of the NIS report and supporting information, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, separation distance, the expanse of water within the Dublin Bay area and functional relationship between the proposed works and the Natura 2000 sites, I would conclude that a Stage 2 Appropriate Assessment is required for 3 of the European sites referred to above, Namely:

- The South Dublin Bay and River Tolka Estuary SPA (Site Code 004024).
- The North Bull Island SPA (Site Code 004006).
- The North Dublin Bay SAC (Site Code 000206).

The remaining sites referred to in the table above, can be screened out from further assessment because of the scale of the proposed works, the nature of the Conservation Objectives, Qualifying and Special Conservation Interests, the separation distances, assimilative capacity of the receiving waters and the lack of a substantive linkage - hydrological or otherwise - between the proposed works and the European sites. It is therefore reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening

determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on these other European Sites referred to in the table above in view of the sites' conservation objectives and a Stage 2 Appropriate Assessment is not therefore required for these sites. Thus, in my opinion the Board can restrict its deliberations in carrying out a stage 2 Appropriate Assessment to the three sites referred to above.

Stage 2 Appropriate Assessment

The three Natura 2000 Sites which are the subject of further assessment are described, and the qualifying interests associated with the Natura 2000 Sites are set out below:

South Dublin Bay and River Tolka Estuary SPA

The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern and Arctic Tern. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of the SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds. The site is an important site for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex. The South Dublin Bay and River Tolka Estuary SPA is of ornithological importance as it supports an internationally important population of Light-bellied Brent Goose and nationally important populations of a further nine wintering species. Furthermore, the site supports a nationally important colony of breeding Common Tern and is an internationally important passage/staging site for three tern species. It is of note that four of the species that regularly occur at this site are listed on Annex I of the E.U. Birds Directive, i.e. Bar-tailed Godwit, Common Tern, Arctic Tern and Roseate Tern. Sandymount Strand/Tolka Estuary is also a Ramsar Convention site.

The Qualifying Interests associated with the South Dublin Bay and River Tolka Estuary SPA are:

Light-bellied Brent Goose (Branta bernicla hrota) [A046]

Oystercatcher (Haematopus ostralegus) [A130]

Ringed Plover (Charadrius hiaticula) [A137]

Grey Plover (Pluvialis squatarola) [A141]

Knot (Calidris canutus) [A143]

Sanderling (Calidris alba) [A144]

Dunlin (Calidris alpina) [A149]

Bar-tailed Godwit (Limosa lapponica) [A157]

Redshank (Tringa totanus) [A162]

Black-headed Gull (Chroicocephalus ridibundus) [A179]

Roseate Tern (Sterna dougallii) [A192]

Common Tern (Sterna hirundo) [A193]

Arctic Tern (Sterna paradisaea) [A194]

Wetland and Waterbirds [A999]

North Bull Island SPA

This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses. Saltmarsh extends along the length of the landward side of the island and provides the main roost site for wintering birds in Dublin Bay. The island shelters two intertidal lagoons which are divided by a solid causeway. These lagoons provide the main feeding grounds for the wintering waterfowl. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. Green algal mats (Ulva spp.) are a feature of the flats during summer. These sediments have a rich macro-invertebrate fauna, with high densities of Lugworm (Arenicola marina) and

Ragworm (*Hediste diversicolor*). The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Golden Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone and Black-headed Gull. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds. The North Bull Island SPA is of international importance for waterfowl on the basis that it regularly supports in excess of 20,000 waterfowl. The site supports internationally important populations of three species, Light-bellied Brent Goose, Black-tailed Godwit and Bar-tailed Godwit. The North Bull Island SPA is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Light-bellied Brent Goose, Black-tailed Godwit and Bar-tailed Godwit that use it. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive, notably Golden Plover and Bar-tailed Godwit, but also Ruff and Short-eared Owl. North Bull Island is a Ramsar Convention site, and part of the North Bull Island SPA is a Statutory Nature Reserve and a Wildfowl Sanctuary.

The Qualifying Interests associated with the North Bull Island are as follows:

Light-bellied Brent Goose (Branta bernicla hrota) [A046]
Shelduck (Tadorna tadorna) [A048]
Teal (Anas crecca) [A052]
Pintail (Anas acuta) [A054]
Shoveler (Anas clypeata) [A056]
Oystercatcher (Haematopus ostralegus) [A130]
Golden Plover (Pluvialis apricaria) [A140]

Grey Plover (Pluvialis squatarola) [A141]

Knot (Calidris canutus) [A143]

Sanderling (Calidris alba) [A144]

Dunlin (Calidris alpina) [A149]

Black-tailed Godwit (Limosa limosa) [A156]

Bar-tailed Godwit (Limosa lapponica) [A157]

Curlew (Numenius arquata) [A160]

Redshank (Tringa totanus) [A162]

Turnstone (Arenaria interpres) [A169]

Black-headed Gull (Chroicocephalus ridibundus) [A179]

Wetland and Waterbirds [A999]

North Dublin Bay SAC

This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. A well-developed and dynamic dune system stretches along the seaward side of the island. Various types of dunes occur, from fixed dune grassland to pioneer communities on foredunes. Marram Grass (*Ammophila arenaria*) is dominant on the outer dune ridges, with Lyme-grass (*Leymus arenarius*) and Sand Couch (*Elymus farctus*) on the foredunes. Behind the first dune ridge, plant diversity increases with the appearance of such species as Wild Pansy (*Viola tricolor*), Kidney Vetch (*Anthyllis vulneraria*), Common Bird's-foot-trefoil (*Lotus corniculatus*), Common Restharrow (*Ononis repens*), Yellow-rattle (Rhinanthus minor) and Pyramidal Orchid (*Anacamptis pyramidalis*). In these grassy areas and slacks, the scarce Bee Orchid *(Ophrys apifera*) occurs. About 1 km from the tip of the island, a large dune slack with a rich flora occurs, usually referred to as the 'Alder Marsh' because of the presence of Alder trees (Alnus glutinosa). The water table is very near the surface and is only slightly brackish. Saltmarsh Rush (Juncus maritimus) is the dominant species, with Meadowsweet (*Filipendula ulmaria*) and Devil's-bit Scabious (*Succisa pratensis*) being frequent. The orchid flora is notable and includes Marsh Helleborine (*Epipactis palustris*), Common Twayblade

(*Listera ovata*), Autumn Lady's-tresses (*Spiranthes spiralis*) and Marsh Orchids (*Dactylorhiza spp*.).

The island shelters two intertidal lagoons which are divided by a solid causeway. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. The north lagoon has an area known as the "Salicornia flat", which is dominated by *Salicornia dolichostachya*, a pioneer glasswort species, and covers about 25 ha. Beaked Tasselweed *(Ruppia maritima*) occurs in this area, along with some Narrow-leaved Eelgrass (Zostera angustifolia). Dwarf Eelgrass (*Z. noltii*) also occurs in Sutton Creek. Common Cordgrass (*Spartina anglica*) occurs in places, but its growth is controlled by management. Green algal mats (*Enteromorpha spp., Ulva lactuca)* cover large areas of the flats during summer. These sediments have a rich macrofauna, with high densities of Lugworms (Arenicola marina) in parts of the north lagoon. Mussels (Mytilus edulis) occur in places, along with bivalves such as *Cerastoderma edule, Macoma balthica* and *Scrobicularia plana*. The small gastropod *Hydrobia ulvae* occurs in high densities in places, while the crustaceans *Corophium volutator* and *Carcinus maenas* are common. The sediments on the seaward side of North Bull Island are mostly sands. The site extends below the low spring tide mark to include an area of the sublittoral zone.

Three rare plant species which are legally protected under the Flora (Protection) Order, 1999 have been recorded on the North Bull Island. These are Lesser Centaury (*Centaurium pulchellum*), Red Hemp-nettle (*Galeopsis angustifolia*) and Meadow Saxifrage (*Saxifraga granulata*). Two further species listed as threatened in the Red Data Book, Wild Clary/Sage (*Salvia verbenaca*) and Spring Vetch (*Vicia lathyroides*), have also been recorded. A rare liverwort, *Petalophyllum ralfsii*, was first recorded from the North Bull Island in 1874 and has recently been confirmed as still present. This species is of high conservation value as it is listed on Annex II of the E.U. Habitats Directive. The North Bull is the only known extant site for the species in Ireland away from the western seaboard.

North Dublin Bay is of international importance for waterfowl. The invertebrates of the North Bull Island have been studied and the island has been shown to contain at

least seven species of regional or national importance in Ireland (from the Orders Diptera, Hymenoptera and Hemiptera).
This site is an excellent example of a coastal site with all the main habitats represented. The site holds good examples of nine habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with priority status. Several of the wintering bird species have populations of international importance, while some of the invertebrates are of national importance. The site contains a numbers of rare and scarce plants including some which are legally protected. Its proximity to the capital city makes North Dublin Bay an excellent site for educational studies and research.

The Qualifying Interests associated with the North Dublin Bay SAC are as follows:

Mudflats and sandflats not covered by seawater at low tide [1140]
Annual vegetation of drift lines [1210]
Salicornia and other annuals colonising mud and sand [1310]
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]
Mediterranean salt meadows (Juncetalia maritimi) [1410]
Embryonic shifting dunes [2110]
Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]
Humid dune slacks [2190]
Petalophyllum ralfsii (Petalwort) [1395].

Potential Impacts

One of the more likely potential impacts which could arise is from noise generation during the construction phase which could startle and disturb birds in the SPA's. The Board will note from the site synopsis that the breeding and foraging areas which the birds frequent within the boundary of the SPA are generally away from the built-up areas within the City. As such it is not anticipated that birds that are of Special Conservation Interest of either SPA in the vicinity will frequent the area around

where the construction works are to take place. Furthermore, the applicant has given an undertaking that the noise generated during the construction works will not exceed 65 dB(A). Having regard to the relatively high background noise levels in this urban location and the separation distance between the site and the foraging and feeding grounds within the designated SPA's, the temporary works are unlikely to result in any permanent or temporary adverse noise impacts on the birds which are of Special Conservation Interest within either SPA.

Another potential adverse impact on the Natura 2000 Site in question relates to potential water pollution through potential spillages of fuels, hydrocarbons and cement or other sediment laden water during the construction phase. This may result in the damage for loss of benthic micro-invertebrates which in turn can affect water quality and food supply of predators, including the birds that are designated as being of Special Conservation Interest associated with the SPA's. Any potential spillages that could possibly arise will dissipate quickly with the vast assimilative capacity available in Dublin Bay any therefore such spillage do not pose a threat to the water quality in the Natura 2000 sites in question. Also, any spillage is likely to be confined to the immediate areas around the construction site. The hydrodynamic modelling demonstrates the vast assimilative capacity available in the Dublin Bay area, and as such will not pollute waters within the boundaries of the Natura sites in question. As a further safeguard, a suite of mitigation measures are being put in place to restrict water quality. These are set out in the Section 6.3 of the NIS, the CEMP and in Section 6.6 and Section 7.7 of the EIAR. Potential construction impacts therefore do not pose a significant threat to the SAC's or SPA's in question.

During the operational phase, I'm satisfied (see section 10.2 of my assessment above) the hydrodynamic modelling undertaken clearly and unequivocally demonstrates that any changes in water quality resulting from the relocation of the outfall will be imperceptible immediately downstream of the outfall. Impacts further afield will be infinitesimal. Thus, concerns expressed by the NPWS which suggest that sewage contaminated discharges likely to occur during storm events could detrimentally affect the biota downstream is not in my view a valid concern, due to

the assimilative capacity of the receiving waters and the separation distances between the outfall and the Natura 2000 sites.

The NPWS submission referred to the potential impact of the development on the pair of common terns which have a nesting location at Camden Lock near the confluence point between the River Dodder, River Liffey and the Basin. It is reasonably concluded in the NIS that the birds are habituated to a high noise environment and as such any construction activity c400m away is unlikely to disturb the pair of nesting terns.

In-combination Effects

In terms of additive impacts from other developments in the wider area, I note that both the NIS assess cumulative impact arising from other planned and permitted development in the area under Section 6.5 of the document. The Alexander Basin redevelopment, The MP2 project and the Bus Connects Ringsend Project are all considered. All these projects have been subject to AA screening and assessment, and a finding of 'no significant effects' was concluded in respect of each of the projects. Thus, it is reasonable to conclude that if the current project before the Board will have no adverse effects and other projects in the vicinity will have no significant effects in AA terms, there will be no in-combination or cumulative effects overall. Other projects which are still at early stage of planning and will be subject of a separate AA assessment, it is suggested in the NIS, that where other projects have the potential to impact on Natura 2000 sites, that appropriate mitigation measures will be put in place to address potential adverse impacts. The NIS concludes, reasonably in my view that no in-combination effects will arise with other developments in the area, which are either permitted or planned.

Appropriate Assessment Conclusions

Having regard to the works proposed and the assimilative capacity of the receiving waters, the hydrological distance between the site and the Natura 2000 sites in question and subject to the implementation of best practice construction methodologies and the proposed mitigation measures, I consider that it is reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed

development, individually or in combination with other plans and projects would not adversely affect the integrity of the South Dublin Bay and River Tolka SPA (Site Code 004024), The Bull Island SPA (004006) or the North Dublin Bay SAC (Site Code 000206), or any other European site, in view of the site's Conservation Objectives.

13.0 Recommendation

13.1. Having regard to the foregoing I recommend that permission for the above described development be granted for the following reasons and considerations, subject to conditions.

Reasons and Considerations

(a) The requirements of the Water Framework Directive (2000/60/EC) which seeks to establish a framework for the protection and improvement of inland surface waters, transitional waters and coastal waters

(b) The provision of the Urban Wastewater Treatment Regulations SI 271 of 2001, which seek to ensure that urban wastewater being discharged from a collection system shall be so chosen as to minimise the adverse effects on the receiving environment.

(c) The standards and limits set out in Schedule 5 of the European Communities Environmental Objectives (Surface Water) Regulations 2009 (SI 272 of 2009).

(d) The National Policy Objectives, including National Policy Objective 63 of the National Planning Framework which seeks to ensure the efficient and sustainable use and development of water resources in a manner that supports a health society and cleaner environment.

(e) The policies and provisions contained in the Dublin City Development Plan including Policy SI 4 which seeks to promote and maintain the achievement of at least good status in all waterbodies in the city.

(f) The policies and provisions of the North Lotts and Grand Canal Dock Strategic Development Zone (SDZ), which includes specific policy objective SI3 '*To complete, as a priority, the relocation of the Grand Canal Surface Water Outfall for the Grand Canal Dock Basin to the River Liffey*'

(g) the pattern of the existing and permitted development in the area.

(h) The Environmental Impact Assessment Report submitted.

(i) The Natura Impact Statement submitted.

(j) The submissions and observations made in connection with the planning application.

(k) The report of the Inspector.

Environmental Impact Assessment

The Board completed an environmental impact assessment of the proposed development taking into account

- The nature, scale and extent of the proposed development;
- The environmental impact assessment report and associated documentation submitted in support of the application;
- The submissions from the observers in the course of the application; and
- The Inspector's report.

The Board considered that the environmental impact assessment report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development and identifies and describes adequately the direct, indirect, secondary and cumulative effects of the proposed development on the environment.

The Board agreed with the examination, set out in the Inspector's report, of the information contained in the environmental impact assessment report and associated documentation submitted by the applicant and submissions made in the course of the application.

The Board considered, and agreed with the Inspectors reasoned conclusions, that the main significant direct and indirect effects of the proposed development on the environment are as follows:

The most significant effects will be the positive impact arising in the water quality of the Grand Canal Dock and Basin. This in turn will have positive impacts on the biodiversity and the recreational potential of the Basin particularly for tourism and

water sports. The relocation of the outfall to the River Liffey would have no appreciable effect on pollution levels within the river down stream of outfall due to the assimilative capacity of the river downstream of the outfall. Hydrodynamic modelling supports this conclusion reached in the EIAR. The proposed development therefore will have a positive impact in water quality in general.

Appropriate Assessment - Stage 1

The Board considered the Screening Report for Appropriate Assessment, the Natura Impact Statement and all the other relevant submissions and carried out both an appropriate assessment screening exercise and an appropriate assessment in relation to the potential effects of the proposed development on designated European Sites. The Board agreed with and adopted the screening assessment and conclusion carried out in the Inspector's report that the only two European sites in respect of which the proposed development has the potential to have a significant effect is

- The South Dublin Bay and River Tolka Estuary SPA (Site Code 004024).
- The North Bull Island SPA (Site Code 004006).
- The North Dublin Bay SAC (Site Code 000206).

Appropriate Assessment – Stage 2

The Board considered the Natura Impact Statement and associated documentation submitted with the application, the mitigation measures contained therein, the submissions and observations on file, and the Inspector's assessment. The Board completed an appropriate assessment of the implications of the proposed development for the three European Sites, namely: The South Dublin Bay and River Tolka Estuary SPA (Site Code 004024), The North Bull Island SPA (Site Code 004006), The North Dublin Bay SAC (Site Code 000206) in view of the site's conservation objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment. In completing the appropriate assessment, the Board considered, in particular, the following:

i. the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,

ii. the mitigation measures which are included as part of the current proposal, and

iii. the conservation objectives for the European Site.

In completing the Appropriate Assessment, the Board accepted and adopted the Appropriate Assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European Sites, having regard to the sites Conservation Objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the sites' Conservation Objectives.

Proper Planning and Sustainable Development

It is considered that, subject to compliance with the conditions set out below, the proposed development would be in accordance with the provisions of the Water Framework Directive, National Planning Framework, Dublin City Development Plan 2016-2022 and the North Lotts and Grand Canal Dock Strategic Development Zone (SDZ) Planning Scheme 2013. It would

- make a positive contribution to Ireland's national strategic policy in improving the status of water quality for surface waters,
- not seriously injure the residential or visual amenities of the area,
- not adversely affect the natural heritage to any significant extent,
- not adversely impact the road network in the area, and
- be acceptable in terms of traffic safety and convenience.

The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

14.0 **Conditions**[8]

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the planning application, except as may otherwise be required in order to comply with the following conditions.

   Reason: In the interest or clarity.

2 The mitigation measures and monitoring commitments identified in the environmental impact assessment report and in particular those commitments in respect of biodiversity and other plans and particulars submitted with the application shall be implemented in full.

Reason: In the interest of clarity and the protection of the environment during the construction and operational phases of the proposed development.

3 The mitigation measures contained in the Natura Impact Statement submitted with the planning application shall be implemented in full.

Reason: In the interest of clarity and the proper planning and sustainable development of the area and to ensure the protection of European sites in the vicinity.

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[8] The current application before the Board was made under the provisions of S226 of the Act. It is my considered opinion that the limitations in respect of the 2000 Act (as amended) set out under Article 41 of the Waste Water Discharge Authorisation Regulations (SI 684 0f 2007) would apply in this instance notwithstanding the fact that the discharge in this case does not relate to a discharge from a Wastewater Treatment Plant but rather a storm water outfall. While the relocation of the outfall in question does not specifically serve a wastewater treatment plant, the works will be included in the licence review associated with the overall Ringsend agglomeration (Licence D0034-01) as such will be the subject of licencing requirements under the Waste Water Discharge Authorisation Regulations (See Section 9.3.1 of the EIAR). Thus, I would conclude that conditions for the purposes of controlling the wastewater discharges from the relocated outfall should not be included in any decision to approve issued by the Board.

4. An Invasive Species Management Plan shall be incorporated into the finalised CEMP and shall include measures to prevent the dispersal of Zebra Mussel and Nuttall's Waterweed within the Grand Canal Basin.

   Reason: In order to restrict the spread of alien species.

5. Prior to the commencement of development, the area in the vicinity of Sir John Rogerson's Quay, shall be surveyed for the presence of Black Guillemot nesting sites. In the event that nesting sites are present, appropriate measures shall be put in place to avoid any destruction or disturbance of the nesting sites.

   Reason: In the interest of protecting biodiversity.

6. The applicant shall liaise with the National Parks and Wildlife Service and Waterways Ireland to ensure that the works to be undertaken facilitates the implementation Grand Canal Basin Otter Survey and Otter Conservation Management Plan. Prepared by Triturus Environmental Ltd. For Waterways Ireland (June 2022).

   Reason: In the Interests of protecting Biodiversity.

7. The services of a suitably qualified and suitably experienced underwater archaeologist shall be engaged to carry out archaeological monitoring of the works programme. Details of the method statement shall accompany any licence application to the Department of Housing Local Government and Heritage. Should potential archaeology be identified during the works then construction works shall be suspended in the affected location and the Department be notified. Following the completion of the works reports detailing the outcome of the monitoring shall be forwarded to the Department as per the conditions of archaeological licences.

   Reason: To protect the cultural heritage of the area.

Paul Caprani,
Senior Planning Inspector.

November 8th, 2022.