Alexandra Basin Redevelopment 2

Bringing Dublin Port To 2040

Environmental Impact Assessment Report

Chapter 23 Conclusions

Volume 2



CALAFORT ÁTHA CLIATH
DUBLIN PORT

TETRA TECH

23 Conclusions

Chapter Contents

23 Conclusions 23-1
23.1 Background 23-2
23.2 Project Justification 23-3
23.3 Consultation and Scoping 23-4
23.4 Assessment of Alternatives 23-4
23.5 Project Description 23-4
23.6 Risk of Major Accidents and Disasters 23-5
23.7 Biodiversity, Flora and Fauna 23-6
23.8 Land, Soils, Geology and Hydrogeology 23-6
23.9 Water Quality and Flood Risk Assessment 23-6
23.10 Air Quality 23-7
23.11 Climate 23-7
23.12 Terrestrial Noise and Vibration 23-8
23.13 Underwater Noise and Vibration 23-9
23.14 Coastal Processes 23-9
23.15 Material Assets – Traffic and Transportation 23-10
23.16 Material Assets – Services 23-11
23.17 Cultural Heritage 23-11
23.18 Landscape and Visual 23-12
23.19 Population and Human Health 23-12
23.20 Resource and Waste 23-12
23.21 Cumulative Effects and Environmental Interactions 23-13
23.22 Mitigation Measures 23-15
23.23 Concluding Remarks 23-15

23.1 Background

This Environmental Impact Assessment Report (EIAR) has been prepared by Tetra Tech, on behalf of the applicant, Dublin Port Company (DPC), for permission in respect of the ABR2 Project. Development consent for the ABR2 Project is being sought to complete works previously consented in 2015 for the parent ABR Project for which planning has now expired.

The parent ABR Project was the first Strategic Infrastructure Development (SID) project to be brought forward for planning consent by DPC (PL29N.PA0034) from the Dublin Port Masterplan 2040. The parent ABR Project was granted permission for a period of 10 years from the 8th July 2015; however, due to several factors, including the impact of the COVID-19 pandemic, the construction phase was not fully completed in accordance with the plans and particulars submitted before the expiry of permission. An application under Section 146B of the Planning and Development Act, 2000 (as amended) (ABP-322353-25) was made on 15th April 2025 regarding the position of the uncompleted works related to the parent ABR Project. This Section 146B application altered the terms of the development to omit aspects of the permitted development related to the North Wall Quay Extension. The Decision Order of the Commission determined on 18th July 2025 that these proposed alterations would not be material and has confirmed these to the terms of the planning permission (PL29N.PA0034).

Therefore, a new planning application will be submitted for the ABR2 Project, with DPC applying for a 10-year permission to facilitate the completion of the required works.

This EIAR has been prepared to support the relevant assessments to be carried out by the respective competent authorities on all relevant applications related to development consent.

The compilation of the information necessary for the EIAR did not present any significant difficulties. In addition to published datasets, the preparation of the EIAR has drawn on the environmental monitoring programme, which is currently in place for the construction of the following SID Projects at Dublin Port:

- ABR Project, the first SID brought forward to planning from the Dublin Port Masterplan 2040, which commenced construction in 2016; and
- MP2 Project, the second SID brought forward to planning from the Dublin Port Masterplan 2040, which commenced construction in 2022.

The site-specific and up-to-date scientific data collected were used in the preparation of the EIAR for the project and serve to illustrate the depth of understanding of the environment in and around Dublin Port, including the inner Liffey channel (Dublin Harbour) and Dublin Bay, and the quality of the data on which that understanding is based.

The preparation of this EIAR was further assisted by the extensive environmental datasets collated during the preparation of the Strategic Environmental Assessment (SEA), for the purposes of the review of the Dublin Port Masterplan during 2017 and 2018.

Additional survey work has been undertaken to provide up-to-date baseline information for the environmental assessments, in addition to the site-specific information from the existing databases from official sources, as detailed within specific chapters of this EIAR.

23.2 Project Justification

The ABR2 Project is intended to complete the required elements of the parent ABR Project that were not substantially completed before the expiry of the original permission in 2025. It is therefore not a new or unrelated proposal, but rather a continuation of the redevelopment strategy established for Dublin Port through the Masterplan. The ABR2 Project comprises the completion of dredging works within Alexandra Basin West, the infilling of the basin of Berths 52/53, and the raising of existing levels around the basin to facilitate the delivery of the Unified Ferry Terminal as consented under the MP2 Project.

The justification for the Project arises from the continuing need for Dublin Port to maintain and enhance its capacity to respond to current and future demand. Dublin Port is the State's largest freight and passenger port and is a Port of National Significance within the national ports hierarchy. It forms part of the TEN-T core network and is recognised as a critical national and regional transport and logistics asset. The delivery of the ABR2 Project is integral to the strategic importance of Dublin Port for the functioning of the national economy and to Ireland's international connectivity.

In this context, the ABR2 Project is justified by the need to ensure that Dublin Port remains capable of accommodating larger vessels, increased cargo volumes and evolving operational requirements. The ABR2 Project is required to future-proof the Port, maximise the use of existing port lands and berths, and maintain the Port's competitiveness in a manner that is consistent with established policy objectives. The Project is intended to support the efficient use of the Port's existing footprint, rather than to extend development beyond the current port boundary. This is an important element of the project rationale, particularly having regard to the constrained physical and environmental context in which Dublin Port operates.

The ABR2 Project also addresses legacy contamination issues within Alexandra Basin West. These issues constrain maintenance dredging and the effective operation of the basin. In addition, the Project will assist in enabling the Unified Ferry Terminal. Therefore, the Project serves both an immediate operational purpose and a longer-term strategic function in relation to the sustainable development of the Port.

Overall, the ABR2 Project is justified by reference to the strategic role of Dublin Port within Ireland, the need to complete the objectives of the parent ABR Project, the operational requirements of the Port, and the clear alignment of the proposal with the relevant policy framework. The project is consistent with the Dublin Port Masterplan 2040 and with the broader planning, transport, marine and climate objectives applicable to the Project. It therefore provides a clear and robust rationale for the proposed development and forms an important basis for the detailed environmental assessment presented within the EIAR.

23.3 Consultation and Scoping

Chapter 3 outlines the consultation and scoping process carried out in respect of the ABR2 Project and demonstrates how the evolution of the Project has been informed by a sustained programme of strategic, project-level and public engagement.

The ABR2 Project has been shaped by extensive consultation and careful scoping, and the environmental assessment has been structured based on a clear understanding of the issues likely to arise during construction and, where relevant, operational phases. The consultation process has been meaningful, iterative and responsive, and the concerns and observations raised by statutory bodies, stakeholders and the public have been taken into account in the preparation of the EIAR. The scoping exercise has defined a comprehensive assessment framework within which all environmental topics have been addressed to support the overall assessment of the likely significant effects of the ABR2 Project.

23.4 Assessment of Alternatives

Chapter 4 presents the assessment of alternatives undertaken for the ABR2 Project at strategic, layout, design and process levels. The assessment of alternatives has been carried out in a progressive and structured manner, consistent with the requirements of the EIA Directive and relevant guidance, and it has been informed by the strategic framework established through the Dublin Port Masterplan 2040, the Post-2040 Dialogue Papers, the Masterplan review process, consultation feedback, and the more detailed feasibility and outline design evolution of the Project. This process has provided a clear basis for the selection of the preferred alternative to be taken forward for assessment in the remainder of the EIAR.

Overall, the preferred alternative for the ABR2 Project is the redevelopment of the existing Dublin Port estate in accordance with the revised Masterplan 2018 layout and through the refined project design and process options identified in the assessment. The selected approach maximises the use of existing brownfield port lands, addresses legacy contamination, supports the delivery of the Unified Ferry Terminal, and enables the Port to achieve its maximum throughput capacity by 2040. The chapter therefore provides a robust and well-evidenced rationale for the chosen development strategy and demonstrates that the preferred option represents the most feasible, reasonable and environmentally sustainable alternative available for the ABR2 Project.

23.5 Project Description

Chapter 5 outlines the Project Description for the ABR2 Project and describes the proposed development in sufficient detail to establish the nature, scale and operational context of the works for environmental assessment. The ABR2 Project comprises two principal elements: the completion of capital dredging within Alexandra Basin West to a standard depth of -10m CD, including the remediation and recovery of contaminated dredge material; and the infilling of the existing basin of Berths 52/53,

together with associated level-raising works, to facilitate delivery of the Unified Ferry Terminal and the wider port development strategy.

The ABR2 Project is the necessary completion of previously consented and partially implemented works associated with the parent ABR Project and the separately consented MP2 Project. The ABR2 Project is integrated with the existing operational port environment, including the use of existing marine infrastructure, the phased closure of the Berth 52/53 basin, and the reuse of treated material where feasible as part of a controlled recovery process.

The proposed works will involve dredging, transport of dredged sediment by barge, treatment through soil washing (where contamination levels are demonstrated to be suitably low) and stabilisation/solidification where necessary, temporary stockpiling, wastewater treatment, infilling of the basin, capping and surcharge placement, as well as demolition of redundant marine structures and decommissioning of temporary treatment infrastructure upon completion. A project design envelope was adopted for assessment purposes, which reflects the potential variability in treatment methods, material quantities and working arrangements that may arise during the construction phase of the ABR2 Project.

A key feature of the ABR2 Project is that the treatment and recovery works may be undertaken at one or more of three potential treatment compound locations, namely the North Wall Quay Extension, Berth 49, and Berth 52 West. These compound locations have been identified as part of the flexible construction methodology required to accommodate ongoing port operations.

The proposed working hours may involve dredging on a 24-hour, seven-day basis in specific dredge areas where operationally feasible, while treatment and infilling activities are more constrained and are generally intended to occur between 07:00 and 23:00, depending on location. The current Industrial Emissions (IE) licence permits treatment infrastructure to operate between 08:00 and 18:00 Monday to Friday and 08:00 to 13:00 on Saturdays, with no activity on Sundays or Bank Holidays, unless otherwise agreed. These working arrangements are an important part of the project description, as they define the operational envelope within which the environmental assessment has been carried out.

23.6 Risk of Major Accidents and Disasters

Chapter 6 has assessed the potential for major accidents and disasters relevant to the ABR2 Project, including risks arising from COMAH establishments, non-COMAH hazardous activities, dangerous goods transport by road and sea, pipelines, natural hazards, and other external events. The assessment has also considered the vulnerability of the ABR2 Project to such events, together with the potential for the Project itself to affect nearby port operations and hazardous installations.

Overall, the ABR2 Project can proceed without giving rise to unacceptable major accident or disaster risk, provided that the embedded mitigation measures and port-wide emergency arrangements are maintained and implemented. The residual risk to the Project, to nearby COMAH establishments, and to wider port operations is assessed as acceptable in the context of the EIAR, with the principal conclusions being that the Project is compatible with the surrounding hazardous environment and does not introduce any new significant major accident hazard(s).

23.7 Biodiversity, Flora and Fauna

Chapter 7 has assessed the likely significant effects of the ABR2 Project on biodiversity, flora and fauna across the terrestrial, benthic and marine environments associated with Dublin Port and the surrounding receiving waters. The assessment has been undertaken having regard to the results of targeted ecological surveys, consultation responses, the Report to Inform Screening for Appropriate Assessment (RISAA) and Natura Impact Statement (NIS) prepared for the Project, and the relevant legislative and policy framework. A source-pathway-receptor approach was applied throughout, with significance determined by reference to receptor value, sensitivity, magnitude of impact, duration, reversibility and spatial extent.

In summary, the ABR2 Project has been assessed as a development within a heavily modified and operational port environment, where ecological receptors are already subject to existing anthropogenic pressure and where the baseline ecological value of the affected areas is generally low. The assessment has identified some unavoidable localised effects associated with dredging, infilling, sediment handling and construction activity, but these are temporary or spatially limited and can be managed through the proposed mitigation measures. Where effects are permanent, they are confined to low-value habitats and do not give rise to significant adverse ecological consequences. The ABR2 Project will not result in significant adverse effects on terrestrial biodiversity, ornithology, benthic biodiversity, fisheries or marine mammals, either alone or in combination with other projects, once the mitigation set out in this EIAR and the associated RISAA/NIS is implemented. The residual effects of the Project on biodiversity, flora and fauna are not significant in EIA terms.

23.8 Land, Soils, Geology and Hydrogeology

Chapter 8 examines the existing land, soil, geology and hydrogeology conditions within the ABR2 Project study area and assesses the likely effects of the Project during the construction and operational phases. The assessment was informed by the Preliminary Risk Assessment undertaken for the ABR2 Project, previous ground investigations, groundwater monitoring data, published geological and hydrogeological mapping, and the relevant guidance and legislative framework applicable to land contamination, soil, geology, hydrogeology and water protection.

Overall, the ABR2 Project can proceed without giving rise to significant adverse effects on land, soils, geology or hydrogeology. The ABR2 Project incorporates the remediation and beneficial reuse of contaminated dredged material, resulting in an environmental improvement with respect to a historic contamination source, while the operational use of the infilled area of the basin of Berths 52/53 is not expected to cause any measurable harm to the underlying ground or groundwater environment, provided that the mitigation and monitoring measures are fully implemented and maintained.

23.9 Water Quality and Flood Risk Assessment

Chapter 9 assesses the likely effects of the ABR2 Project on water quality and flood risk during construction and operational phases with reference to the available baseline monitoring data, the

produced Water Framework Directive (WFD) Compliance Assessment Report for the ABR2 Project, assimilative capacity calculations, flood mapping data, and the relevant policy and legislative framework. The assessment has also taken account of the surrounding designated and protected receiving environment, including the Liffey Estuary Lower, Dublin Bay, associated nutrient-sensitive areas, bathing waters, and the wider hydrological and coastal context within which the ABR2 Project will occur.

The ABR2 Project is acceptable in environmental terms with respect to both water quality and flood risk. The assessment shows that the construction and operational phases can be managed so that effects remain at a level that is not significant in EIA terms, subject to the implementation of the proposed mitigation measures, monitoring provisions, and regulatory controls.

23.10 Air Quality

Chapter 10 assesses the baseline air quality environment, the relevant legislative and guidance framework, the sensitivity of nearby receptors, and the likely effects of the ABR2 Project during construction and operation. The assessment has considered dust generation, construction traffic emissions, and odour, together with the relationship between the project and nearby ecological and human receptors, including those within the wider Dublin Port area and the adjacent designated sites.

Overall, following implementation of the proposed mitigation measures, the residual effects of the ABR2 Project on air quality will be short-term, localised and not significant. The project therefore does not give rise to any likely significant adverse air quality effect that would materially affect the surrounding environment, sensitive human receptors, or designated ecological sites.

23.11 Climate

Chapter 11 assesses the climate implications of the ABR2 Project. The Project is assessed regarding its contribution to greenhouse gas emissions and regarding its vulnerability and resilience to the effects of climate change. The assessment has been carried out in accordance with the relevant EIA requirements, climate-specific guidance, and the statutory climate policy framework, including the Climate Action and Low Carbon Development Act 2015, as amended, and the most recent Climate Action Plans.

The assessment considered the ABR2 Project in the wider context of the Dublin Port Masterplan 2040 and the climate policy obligations that apply to DPC, including the requirement to perform its functions in a manner consistent with the most recent approved Climate Action Plan, long-term climate strategy, the national climate objective, and the objective of mitigating greenhouse gas emissions and adapting to climate change.

The climate change risk assessment concludes that the Project has been designed with climate resilience in mind and that the principal climate hazards have been appropriately addressed. Coastal flooding and extreme wind were identified as the most relevant risks to both construction and operational phases, but the proposed controls reduce these risks to a level that is not significant. The

key adaptation measures include raising the ground level at Berth 52/53 above predicted flood levels, using a high-density polythene cap to protect infilled material, programming lifting and exposed works around weather windows, and applying operational restrictions during adverse weather conditions. DPC's emergency management arrangements also support this resilience approach. The resultant residual climate risk is assessed as minor adverse for both the construction phase and operational phase, but not significant in EIA terms.

The ABR2 Project's direct construction emissions are mitigated through low-carbon material choices and carbon management measures, and its operational emissions are largely governed by broader port and transport policy. The residual effects identified are not significant in EIA terms, and the Project is not predicted to give rise to significant adverse climate impacts, provided the mitigation and monitoring measures set out in the chapter are fully implemented.

23.12 Terrestrial Noise and Vibration

Chapter 12 assesses the likely effects of the ABR2 Project on terrestrial noise and vibration during the construction and operational phases. The assessment considers the relevant Irish and international guidance, the baseline noise climate at the nearest sensitive receptors, the predicted construction noise levels, construction traffic noise, and the potential for construction vibration impacts.

The principal noise-related effects of the ABR2 Project arise during the construction phase. The detailed modelling undertaken demonstrates that worst-case predicted construction noise levels at the nearest noise-sensitive properties, including Clontarf, Coastguard Cottages, Poolbeg Quay Apartments, Pigeon House Road and the 3Arena, are below the most onerous Category A BS 5228 threshold limits for daytime, evening and night-time periods. On that basis, the construction noise impacts are assessed as minor in magnitude and not significant in EIA terms.

The assessment of construction traffic noise concludes that the effect will be negligible. The predicted daily HGV movements are not sufficient to cause a perceptible increase in road traffic noise, and the resulting change in traffic noise levels is below the threshold regarded as perceptible. The assessment of construction vibration concludes that no significant impacts are anticipated at the nearest sensitive properties. This reflects both the nature of the proposed works and the separation distances involved.

The Dublin City Council (DCC) Construction and Demolition Plan risk assessment indicates that the Project falls into a marginally high-risk category when assessed using the local authority's good practice framework, primarily because of the duration of the works, the proximity of sensitive receptors and the potential for some night-time working. However, this classification is precautionary and does not alter the outcome of the detailed noise assessment, which shows that predicted levels remain below relevant construction thresholds. The associated mitigation and management measures, including adherence to best practice, plant selection, screening, work sequencing, monitoring and complaint handling procedures, are considered sufficient to control any residual effects.

There are no operational phase effects associated with the ABR2 Project regarding terrestrial noise or vibration. Therefore, the ABR2 Project will not give rise to significant adverse terrestrial noise or

vibration effects at the nearest noise-sensitive properties. Residual effects following mitigation are minor adverse or lower, and therefore not significant in EIA terms.

23.13 Underwater Noise and Vibration

Chapter 13 assesses the potential for underwater noise and vibration arising from the ABR2 Project to affect the surrounding marine environment within the Dublin Port and Tolka Estuary study area. It assesses potential effects on marine mammals and fish using the current best available scientific guidance and having regard to the European Union Habitats Directive, the Wildlife Acts, and the Marine Strategy Framework Directive, all of which are relevant to the protection of marine fauna and the management of underwater noise in Irish waters.

The assessment is intentionally conservative in that it assumes incomplete closure of the basin of Berths 52/53 for modelling. **Chapter 5** establishes that a full closure is anticipated prior to demolition occurring.

Therefore, underwater noise emissions to the surrounding waters would be effectively attenuated by the constructed barrier and would be negligible from an environmental assessment perspective. In that scenario, underwater noise would not be expected to give rise to significant effects on marine mammals or fish, and the residual effect would not be significant.

23.14 Coastal Processes

Chapter 14 assesses the likely effects of the ABR2 Project on coastal processes within the Dublin Port and its wider environment, with particular regard to bathymetry, tidal elevations and currents, seabed geology and substrate, suspended sediments, and sediment transport.

The assessment identified two main pathways for potential effects on coastal processes; increased suspended sediment concentrations during capital dredging at Alexandra Basin West, and changes to tidal currents associated with the presence of the completed infrastructure, including the infilling of the Berths 52/53 basin. The study was supported by numerical modelling using the MIKE 21 modelling suite, together with site-specific hydrographic survey data, sediment sampling, turbidity monitoring and calibration work. The modelling was undertaken on a conservative basis and included the use of a worst-case approach for dredging plume dispersion, including the assumption of non-cohesive sediment behaviour and the consideration of simultaneous dredging activity where applicable.

The construction phase assessment concluded that the capital dredging works in Alexandra Basin West would result in temporary increases in suspended sediment concentrations, but that these would remain largely confined within Dublin Port. Although modelled plumes could extend beyond the dredging area, the results showed that concentrations disperse below trigger levels within a relatively short distance from the entrance of Alexandra Basin West and do not extend to designated coastal feature areas in Dublin Bay.

Embedded mitigation measures with respect to dredging operations are outlined within Chapter 14. This includes the use of an environmental dredge bucket, prohibition of overspill from the hopper vessel, and the restriction of dredging rates and operating hours as set out in the chapter. In addition, a silt curtain will be deployed to further limit sediment dispersion, supported by a dredge management protocol agreed with Port operations and the harbour master. A bubble curtain is also identified as a backup measure. With these mitigation measures in place, the predicted sediment plume extent is reduced further, and the residual effect on suspended sediment concentrations is assessed as minor/negligible and not significant.

The operational phase assessment concluded that the completed works would lead to only very small and localised changes in tidal current speeds within and around Alexandra Basin West and the infilled basin of Berths 52/53. These changes are limited in spatial extent, small in magnitude, and well within natural variation.

Overall, the ABR2 Project will not give rise to significant adverse effects on coastal processes. Following embedded and additional mitigation, the residual effects associated with dredging and changes in hydrodynamic conditions are assessed as not significant in EIA terms.

23.15 Material Assets – Traffic and Transportation

Chapter 15 assesses the likely effects of the ABR2 Project on existing traffic and transport conditions within the study area, with particular regard to the external road network serving Dublin Port, including Promenade Road, East Wall Road, Alexandra Road, the M50 / Dublin Port Tunnel route, and the associated junctions considered in the assessment.

The assessment is based on site-specific traffic surveys undertaken in February 2026, a desktop review of existing access arrangements and previous studies, and consideration of the likely construction and operational traffic generated by the Project. The assessment recognises that traffic and transport impacts associated with the ABR2 Project were considered previously as part of the original parent ABR Project, for which the transport effects were assessed as insignificant.

The construction traffic assessment concludes that the Project will generate low volumes of average hourly traffic, arising from the import of surcharge material and the export of treated material from the site. On the project design envelope basis, the total construction traffic is estimated at 79.2 vehicle movements per day, equating to 15.8 trips per hour. When compared with the surveyed baseline traffic flows, the resulting percentage impacts are all below 5%, and in most cases are well below 2%. The Project is predicted to result in insignificant impacts on the surrounding highway network during the construction phase.

The operational phase of the Project will not generate traffic effects, as it does not give rise to ongoing operational traffic generation beyond normal Port activity.

The inter-relationships with noise and air quality are limited to temporary construction-related effects from vehicle movements, and these are not expected to result in significant effects. A Construction

Traffic Management Plan will be prepared and agreed prior to commencement of the Project, and this will set out the controls, procedures and monitoring arrangements to be applied during construction, with the residual effects assessed as insignificant and not significant in EIA terms.

23.16 Material Assets – Services

Chapter 16 assesses the existing and proposed services and utilities relevant to the ABR2 Project. The assessment has considered the interaction between the ABR2 Project and the services required for its construction and operation, as well as the delivery of the services and utilities associated with the MP2 Project.

The ABR2 Project is located within a heavily serviced port environment, with existing water, wastewater, electricity and telecommunications infrastructure present within or close to the study area. Nearby infrastructure is of strategic importance to the Port and the wider Dublin city and State.

Overall, the ABR2 Project can be accommodated within the existing services and utilities context of Dublin Port, provided that the identified mitigation, design coordination, liaison with utility providers, and monitoring measures are fully implemented. With the resolution of stormwater drainage design issue, the impacts on Services are assessed as not significant in EIA terms.

23.17 Cultural Heritage

Chapter 17 assesses the likely effects of the ABR2 Project on cultural heritage, including archaeological, industrial and architectural heritage resources, both on land and in the marine environment. The assessment has been informed by desktop review, the records of archaeological monitoring undertaken during the parent ABR Project, consultation responses, and the policies and procedures set out in the Dublin Port Heritage Conservation Strategy and the Dublin Port Masterplan 2040.

The cultural heritage baseline within the Port estate has already been substantially informed by the archaeological works undertaken as part of the parent ABR Project. Those works have recorded a range of historic port structures, buried quay-building episodes, marine archaeology and associated heritage features. The results of that earlier work have been incorporated into the current assessment, together with the continued operation of the secure heritage zone within the Port estate.

Overall, the ABR2 Project is not predicted to give rise to significant residual adverse effects on cultural heritage. The only notable direct heritage interaction arises from the temporary use of the North Wall Quay Extension for the treatment facility, which can be managed through avoidance-based design, archaeological monitoring and conservation-led mitigation, with the North Wall Quay Extension returned to its current condition following the completion of temporary treatment works in this area.

23.18 Landscape and Visual

Chapter 18 assesses the landscape and visual effects associated with the ABR2 Project. The Project is located entirely within the Harbour-Based Industrial landscape character area associated with Dublin Port. This landscape character area is characterised by a robust, heavily urbanised and operationally active port environment, where change is a regular and accepted feature of the baseline. The Project has been assessed as being broadly compatible with the established character of the receiving landscape. Therefore, the Project will not result in significant landscape effects.

The visual assessment has taken into account the range of surrounding receptors with theoretical or actual visibility of the Project, including residential properties, recreational users, road users and public vantage points along the north and south sides of Dublin Bay across 12 viewpoints.

The assessment of residential receptors similarly concludes that the Project will not result in significant effects. No specific landscape or visual mitigation measures are required, as no significant effects have been identified. The assessment concludes that the existing port environment, its scale, its openness, and its operational character already provide a setting in which the Project can be accommodated without detriment to landscape character or visual amenity.

23.19 Population and Human Health

Chapter 19 assesses the likely effects of the ABR2 Project on population and human health during the construction and operational phases.

The assessment adopts a broad socio-economic model of health and considers both direct environmental determinants of health and wider contributors to wellbeing. The study area was defined with regard to the local spatial distribution of environmental effects and the wider socio-economic context of Dublin. On the basis of the baseline information reviewed, the Health Study Area is generally characterised by relatively favourable socio-economic circumstances, low levels of deprivation, comparatively high levels of educational attainment and income, and broadly good baseline health outcomes relative to Dublin and Ireland. Overall, the population sensitivity of the study area is assessed as low.

No significant adverse effects on population and human health are anticipated as a result of the Project. During construction, potential effects associated with changes in air quality, noise exposure, and transport nature and flow rate were assessed as negligible in magnitude and not significant in EIA terms. The Project will not give rise to meaningful deterioration in population health outcomes, nor will it materially affect the ability to deliver relevant health policy objectives, and the residual effects of the Project on health and well-being are not significant in EIA terms.

23.20 Resource and Waste

Chapter 20 assesses the likely significant effects associated with resource and waste effects from the ABR2 Project during the construction phase, as the operation phase was scoped out of the assessment.

The principal waste arisings associated with the Project will arise from demolition works, construction support activities, and the treatment and management of contaminated dredged sediment from Alexandra Basin West. There will be substantial volumes of dredged material, but this material will be managed as a resource rather than as a waste, through treatment, recovery and reuse within the Project and, where necessary, through off-site recovery facilities. The ABR2 Project therefore supports circular economy objectives and maximises landfill diversion.

Local and regional waste infrastructure has sufficient capacity to accommodate the non-hazardous wastes and the recovery and treatment routes required by the Project. There is no hazardous waste landfill capacity in Ireland, but the Project is not expected to rely on landfill disposal as the principal management route for hazardous material. Instead, contaminated sediments will be treated on-site in accordance with the existing IE licence and the proposed Material Management Strategy, with reuse of treated material as infill at the basin of Berths 52/53 and reuse of suitable recovered materials off-site where appropriate. Other hazardous wastes arising during construction are expected to be small in quantity and capable of being managed through authorised waste contractors and permitted facilities.

Subject to implementation of the Resource and Waste Management Plan and associated waste management procedures, the ABR2 Project will not result in significant adverse effects on resource and waste receptors. The proposed waste management hierarchy will ensure that wastes are prevented, reused, recycled or recovered wherever practicable, with landfill disposal avoided to the greatest extent possible. The treatment and reuse of dredged sediment will also reduce the need for virgin materials and support more efficient use of resources.

The ABR2 Project will not result in significant adverse resource and waste effects. The ABR2 Project is designed to maximise recovery and reuse of materials, minimise disposal to landfill, and support the circular economy approach set out in relevant national and local policy, with residual effects determined to be not significant in EIA terms.

23.21 Cumulative Effects and Environmental Interactions

Chapter 21 has examined the potential for cumulative effects arising from the ABR2 Project in combination with other existing and/or approved projects in the wider Dublin Port area, together with the potential for environmental interactions between the topics assessed within this EIAR of the ABR2 Project itself. The assessment has been undertaken in accordance with relevant European, national and industry guidance and has applied a staged approach to project identification, shortlisting, information gathering and assessment.

The cumulative assessment identified a long list of projects, which was then refined to a short list of those projects with the potential to interact with the ABR2 Project on the basis of their location, timing, scale and nature, as well as the capacity and sensitivity of the receiving environment. This process ensured that the assessment focused on the developments most likely to give rise to cumulative effects. The principal projects of relevance were those within Dublin Port and the surrounding port estate,

together with certain related infrastructure and offshore projects where a credible source-pathway-receptor linkage could be established.

The assessment demonstrates that the most relevant potential cumulative effects relate to biodiversity, water quality and climate. In particular, the 3FM Project and the MP2 Project were identified as the most important interacting schemes because of the potential for overlap in construction activities of a similar type within the immediate port environment. In the absence of mitigation, these could give rise to cumulative effects on biodiversity, water quality, underwater noise and, in the case of climate, embodied carbon and operational transport emissions. However, with the implementation of appropriate mitigation measures, including the scheduling of works, project coordination, licensing controls and the commitment by DPC to undertake only one capital or maintenance dredging campaign at any one time, are sufficient to avoid significant adverse cumulative effects in most cases. The treatment and recovery of dredged material, rather than disposal at sea, within the ABR2 Project, is a further important measure in limiting cumulative effects on water quality, coastal processes and waste. For many of the shortlisted projects, no significant cumulative effects were identified once mitigation under the ABR2 Project and respective project under consideration for cumulative effects is taken into account.

Residual cumulative adverse effects remain in relation to climate. This is principally due to the role of the ABR2 Project (and the related projects associated with the redevelopment of Dublin Port) in facilitating increased shipping and road traffic movements in support of the wider port development strategy, including the delivery of the Unified Ferry Terminal under the MP2 Project. While this creates positive cumulative effects for traffic and transportation through improved operational efficiencies and supports the strategic objectives of the Dublin Port Masterplan 2040, it gives rise to moderate adverse residual cumulative effects on climate.

The assessment also identifies a positive cumulative contribution in relation to cultural heritage and port-city integration. The Dublin Port Conservation Strategy 2024, together with the coordinated approach to heritage across the parent ABR Project, the MP2 Project, the 3FM Project and the ABR2 Project, supports a coherent heritage strategy for the port estate. The Liffey-Tolka Project similarly contributes positively to port-city integration. Subject to the protection of the North Wall Quay Extension, should treatment works occur here under the ABR2 Project and the application of the specific mitigation measures identified, the overall cumulative heritage effect is considered positive.

The assessment of environmental interactions within the ABR2 Project itself concludes that the identified interrelationships between technical topics have been appropriately addressed within the individual EIAR chapters and that no additional or modified mitigation measures are required beyond those already incorporated into the Project design and management measures. The interaction assessment confirms that the mitigation framework is sufficient to manage the combined effects arising from different environmental topics during construction and operation.

In conclusion, with the mitigation measures identified and the coordination mechanisms described, the ABR2 Project will not give rise to significant cumulative adverse environmental effects. The main residual cumulative issue relates to climate. Overall, the cumulative effects and environmental

interactions assessment supports the conclusion that the ABR2 Project can proceed without significant adverse cumulative effects, subject to the implementation of the mitigation measures and management controls set out elsewhere in the EIAR.

23.22 Mitigation Measures

All mitigation measures for the ABR2 Project resulting from the individual assessments, and the cumulative effects and environmental assessment, are listed in detail in **Chapter 22** and the Project draft Construction Environmental Management Plan (CEMP). The mitigation measures as listed in the environmental chapters will be employed during construction and/or operation.

23.23 Concluding Remarks

Overall, the authors of the EIAR believe that the ABR2 Project complies with the principles of proper planning and sustainable development, and that the EIAR has objectively demonstrated not to adversely affect the environment in all its facets, including the integrity of Natura 2000 sites.