

Draft Construction Environmental Management Plan (CEMP)



3FM PROJECT

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3FM Project
Draft CEMP

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1 INTRODUCTION

1.1 Objectives of the Construction Environmental Management Plan (CEMP)

This document comprises a draft Construction Environmental Management Plan (CEMP) for the 3FM Project. It is a 'live' document and will be updated as the project progresses, including incorporating the requirements of conditions attached to statutory consents granted in respect of the 3FM Project.

This draft CEMP sets out the **minimum requirements** which will be adhered to during the construction phase of the 3FM Project.

Dublin Port Company (DPC) is the promoter of the 3FM Project. DPC seeks to achieve the highest possible standards of environmental management during both the construction and operation of the proposed port infrastructure redevelopment.

The CEMP comprises two main parts:

Summary of Mitigation Measures (Chapter 2)

All mitigation measures and monitoring requirements proposed within the Environmental Impact Assessment Report (EIAR) and the Natura Impact Statement (NIS) are contained in this Section. In addition, the requirements of conditions attached to statutory consents granted in respect of the 3FM Project, will also be inserted post consent.

This part of the CEMP will form part of the Contract Documents for the construction stage to ensure that the Contractor undertakes the works required to implement the mitigation measures.

Management of Environmental Impact (Chapter 3)

The objective of this part of the CEMP is to prepare a suite of Construction Phase Management Plans which will be finalised upon the grant of development consents. The content of these Management Plans is presented in draft form in the application documentation and will be finalised through discussion and agreement of Dublin City Council.

1.2 3FM Project

The 3FM Project at Dublin Port has been designed in accordance with the Dublin Port Masterplan 2040. The proposed project focuses on the DPC-owned lands of the south port area on the Poolbeg Peninsula but also includes a bridge crossing of the Liffey and road improvements within the north port area.

The 3FM Project has evolved from the concept drawings of the Masterplan, driven by DPC's understanding of the key environmental constraints formulated by a decade of environmental monitoring, collaborative working with NGOs and Universities, and early consultation with key stakeholders.

The 3FM Project has six key elements:

1. A new public road and bridge called the **Southern Port Access Route (SPAR)** to link the North and South Port Estates.

The route will include a new bridge over the River Liffey. It will be located immediately east of Tom Clarke Bridge and north of the R131. The route will facilitate Heavy Goods Vehicles (HGVs), active travel users (pedestrians, cyclists, wheelers etc), emergency (blue light) vehicle services and public transport users moving to and from the South Port and Poolbeg Peninsula. The SPAR will allow the 3FM Project to be fully rail enabled through rapid shunting of freight by electric vehicles from the South Port Estate, across the Liffey, to rail intermodal facilities in the vicinity of the North Port Estate. The SPAR will have a direct connection to the Dublin Tunnel via the North Port Estate road system.

2. A **new Lift-on Lift-off (LoLo) container terminal** with an annual throughput capacity of 550,000 Twenty-foot Equivalent Units (TEU) or 5.34m tonnes.

The Lo-Lo container terminal will consist of two main components:

- a. Terminal located north of the ESB's Generating Station on the eastern end of Poolbeg Peninsula with 650m of deep water berthage dredged to a depth of -13.0m CD (Chart Datum), plus associated cargo handling areas (Dublin Port Masterplan Area N). This terminal will accommodate larger Lo-Lo vessels of up to 240m length, primarily from Continental Europe.
 - b. Transit container storage yard located on waterside land currently used for bulk cargo handling.
3. Replacement of the existing Lo-Lo container terminal, currently operated by Marine Terminals Limited (MTL), with a **new Roll-On Roll-Off (Ro-Ro) freight terminal** with an annual throughput capacity of 360,000 Ro-Ro units or 8.69m tonnes.

The Ro-Ro freight terminal will consist of two main components:

- a. Terminal located at existing Berths 42 – 45 including provision of two berths, each with a single tier Ro-Ro ramp, plus associated cargo handling facilities.
- b. Terminal located on Port owned land on the southern side of the Poolbeg Peninsula.

This combined terminal will accommodate larger Ro-Ro vessels of up to 240m length, primarily from Continental Europe.

4. Provision of a **325m diameter ship turning circle** in the river channel north of Pigeon House Harbour, dredged to a depth of -10.0m CD.

The ship turning circle will enable safe navigation and efficient manoeuvring of vessels up to 240m in length.

5. Maritime Village

Development of a new **Maritime Village** at Pigeon House Road and Berth 41.

This village will accommodate local rowing, sailing, and boat clubs and will provide a significantly enhanced public realm and facilities on the waterside. It will also accommodate the relocation of Port Harbour Operations from the North Port Estate.

6. Community Gain

Integrating Dublin Port with Dublin City and its people is a core objective of the Masterplan for Dublin Port. Development of proposed new public amenities on the Poolbeg Peninsula as part of the 3FM Project will provide **community gain** and contribute towards integrating the port with the city. These include:

Enhanced **recreational** amenity through:

- **7km of new or upgraded Active Travel Path** (cycle, pedestrian, wheelers etc.) **and 4.9km of new or upgraded footway** for the North Port Estate, SPAR and Poolbeg Peninsula, which will link with the 1.4km Liffey Tolka Greenway in the North Port Estate, and from there to the 4.0km Tolka Estuary Greenway currently under construction by Dublin Port. DPC will also provide Dublin City Council with a €5 million contribution for future upgrading of the existing coastal path along the southern perimeter of the Poolbeg Peninsula.
- Development of a sailing, rowing and maritime campus (Maritime Village) adjacent to the existing Poolbeg Yacht and Boat Club in conjunction with local yacht and boating clubs, including a public slipway and facilities for maritime skills training.
- Provision of Recreational Space
 - **Port Park and Wildflower Meadow** (2.5ha)
 - **Coastal Park** (1.6ha)
- Provision of 1.1ha extension to Irishtown Nature Park.

Enhanced **public realm** through:

- Development of a new public plaza as a key part of the Maritime Village.
- Extensive boundary softening works adjacent to the development sites forming part of the 3FM Project.

Community support through:

- Establishment of a new €2 million Community Benefit Fund for Education, Heritage & Maritime Training Skills projects within the Poolbeg area. The initial capital for the Fund will be administered by DPC in consultation with local stakeholders.

Heritage & Biodiversity enhancements through:

- Commissioning a new Public Access Feasibility Study regarding the Great South Wall so as to identify improved public interpretation, accessibility, facilities and conservation possibilities,
- Provision of up to €1 million funding to implement the study recommendations.
- Provision of an additional permanent marine structure (dolphin) to expand the available habitat and range of the Dublin Port Tern Colonies.

A General Arrangement Drawing illustrating the main elements of the 3FM Project is presented in Figure 1-1.

Other significant ancillary works include:

- Improvements to the existing road network, linking and providing access to the port terminals, including new signal-controlled junctions and a new roundabout on Pigeon House Road;
- Improved pedestrian access from Irishtown to the proposed Maritime Village; and
- Demolition of the existing Poolbeg Oil Jetty and Sludge Jetty.

In addition, but outside the scope of the 3FM Project, DPC is making the following provisions:

Reservation for Utilities – The provision of a 0.62ha site within Dublin Port Masterplan Area O to accommodate the infrastructure required to deliver District Heating from the Dublin Waste to Energy Scheme. The planning consent for this infrastructure will not form part of the 3FM Project and will be a matter for Dublin City Council.

Renewable Energy Infrastructure - The provision of a 1.5ha site adjacent to the proposed Turning Circle for a substation to facilitate the onshoring and transmission of Offshore Renewable Energy by Codling Wind Park. Planning permission for the development of this infrastructure will be a matter for Codling Wind Park.

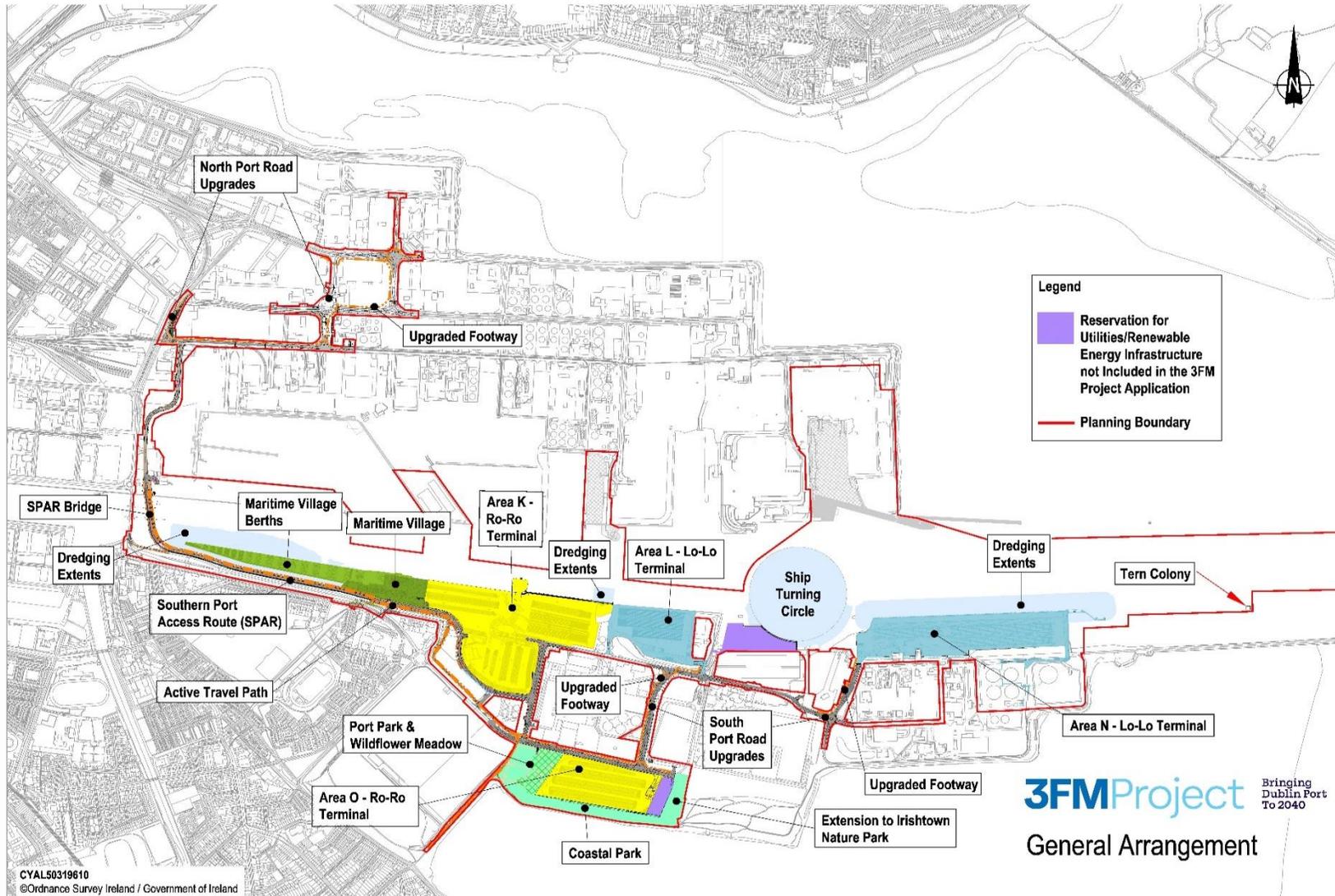


Figure 1-1 Main Elements of the 3FM Project

2 SUMMARY OF MITIGATION MEASURES

2.1 Mitigation Measures arising from the EIAR and NIS

The EIAR and NIS assesses the likely significant impacts arising from the 3FM Project. Integration of the engineering design team with the planning and environmental team from an early stage in the Project has enabled mitigation by design to be used, causing many likely significant impacts to be eliminated or reduced to an acceptable level during the preliminary design stage.

This CEMP is informed by environmental assessments for the ABR Project and MP2 Project, and experience in implementing associated mitigation and monitoring programmes. Table 2-1 summarises the potential impacts arising from the 3FM Project and the mitigation measures and monitoring required, brought forward from the EIAR and NIS.

Table 2-1 Construction Phase Mitigation measures and monitoring

Potential Impact	Summary of Proposed Mitigation
Chapter 6 RISKS OF MAJOR ACCIDENTS & DISASTERS	
Potential for loss of life or injury to employees, Contractors, visitors and local residents.	<p>The design of the 3FM Project has been informed by a COMAH land use planning assessment, the purpose of which was to examine the development in the context of the Health and Safety Authority's COMAH land use planning guidance, and to identify the types of development that may be compatible with the COMAH risk zones around the NORA (and other COMAH) establishments. Based on this conservative assessment, it is considered that the final design layout of the 3FM Project would satisfy the HSA's criteria under its land use planning guidelines. The 3FM Project will therefore not increase the risk of major accidents and disasters.</p> <p>To remain vigilant, DPC has developed a comprehensive Emergency Management Plan that caters for the range of accident and emergency events that may occur within its estate (or that may occur outside of the estate and that are likely to have a direct, knock on effect).</p> <p>In the event of an incident, DPC would activate its plan accordingly, in which case people would be directed away from the source of the hazard.</p> <p>DPC's Emergency Management Plan competencies are continuously enhanced through participation in training and exercises at different levels.</p>
Potential for damage to the environment.	
Potential for damage to the facilities, plant and equipment of DPC, its commercial partners, tenant companies and neighbours.	
Chapter 7 BIODIVERSITY, FLORA & FAUNA	
Japanese Knotweed, a regulated invasive plant species listed in the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended, has been recorded at locations on the Poolbeg peninsula in,	DPC has developed an Invasive Alien Plant Species Management Plan (2019) for all the port estate. In addition, a project specific Invasive Alien Species (IAS) Management Plan will be implemented for the duration of the proposed construction works. A draft IAS Management Plan which includes an initial IAS Assessment is presented in Section 3.5.2 of the Draft CEMP. The IAS

Potential Impact	Summary of Proposed Mitigation
<p>or adjacent to Dublin Port lands. Two other regulated invasive plant species have been detected, Sea Buckthorn and 3-cornered leek.</p> <p>A precautionary approach will be undertaken to prevent the importation and spread of Invasive Alien Species.</p>	<p>Management Plan links into the Construction Waste Management Plan and Construction Traffic Management Plan to prevent the introduction or spread of IAS. The Plan outlines containment and eradication measures to be implemented when any IAS are identified.</p> <p><u>Prevention</u></p> <p>Prevention measures will range from raising awareness of IAS and the potential for their dispersal, to ensuring best practice in relation to the movement of materials, plant and personnel into, within or out of the operations area. Measures to be implemented shall include:</p> <ul style="list-style-type: none"> • Ensuring that rock armour, gravels, sand or soils to be imported to the site are sourced from authorised/licensed quarry operators; • Specifying that such material should be free of invasive plant species and their propagules; • Implementing a waste management plan for the proper storage and controlled movement of waste materials; • Implementing a materials handling plan for the proper storage and controlled movement of materials; • Implementing a construction traffic management plan for control of vehicle and plant access and movements, including wheel wash and plant inspection at site entrance; • Ensuring that all vehicles and construction plant arriving on site are reasonably clean and free of significant deposits of mud and plant debris (particularly tyres, wheel arches, excavator buckets and tracks) that might be a vector for spread of IAS; • Cordoning off any IAS locations on site identified and mapped in the initial IAS assessment; • Washing down machinery that has operated in IAS infested areas in designated locations before moving within the site or leaving the site; • Inclusion of IAS awareness in toolbox talks using visual aids for the identification of the most likely species to be encountered prepared by the initial IAS assessment; • Notification of any suspected new occurrences of IAS to the Environmental Facilities Manager. • Compliance with the Sea Pollution (Ballast Water Management Convention) Regulations 2023 to control non-native aquatic species. <p><u>Containment / Treatment</u></p> <p>If any IAS is identified on the construction site, the management plan will contain its spread in the first instance and subsequently eradicate it, if</p>

Potential Impact	Summary of Proposed Mitigation
	<p>possible, from the site. This will include implementation of the following measures:</p> <ul style="list-style-type: none"> • Cordoning off any invasive species infestations to limit movement of people / machinery in infested area and relevant buffer zones; • Confirmation of the identification of the species concerned, and collation of relevant information; • Selection of the most appropriate best practice methods for control / treatment; • Prioritisation of treatment areas; • Undertaking physical or chemical control measures as appropriate in line with best practice guidance and in compliance with health and safety requirements; • Ensuring control measures are undertaken by suitably qualified personnel; • Handling and disposal of treated material appropriately to prevent further spread.
<p>An artificial badger sett enclosure is <3m from the site boundary. The nearest sett entrance is c. 8m from the site boundary. Increased activity during the construction (fence removal, landscaping etc.) may cause increased disturbance to badgers using the artificial sett.</p>	<p>An Ecological Exclusion Zone (EEZ) will be set up to ensure no disturbance to the artificial badger sett at Irishtown Nature Park prior to commencement of pre-site clearance and construction works.</p> <p>Temporary hi-visibility fencing will be erected 25 m from the sett. No vehicles, storage or stockpiling of materials will be allowed within the EEZ.</p> <p>This disturbance will be temporary. When the works are complete, and the new grassland habitat is vacated, there will be benefits for badger i.e., the provision of wider protective grassland buffering, as well as screening (boundary tree planting alongside the new Area O – Ro-Ro Terminal).</p>
<p>Precautionary measures will be undertaken to minimise the risk of injury or disturbance to birds in the area of operations.</p>	<p>DPC has developed a Black Guillemot Management Plan 2023-2030, and a Tern Colony Management Plan 2023-2030 to secure the conservation objectives for Black Guillemot and Tern species in Dublin Port.</p> <p>A project specific Bird Management Plan will be implemented for the duration of the proposed construction works. A draft Birds & Marine Ecology Management Plan is presented in the Section 3.5.8 of the Draft CEMP.</p> <p>The following precautionary measures will be undertaken to minimise the risk of injury or disturbance to nesting and breeding birds in the area of operations:</p> <ul style="list-style-type: none"> • The 3FM Project Black Guillemot Management Plan shall be implemented in full. • Where known Black Guillemot nesting sites are likely to be unavailable to birds in the following season due to 3FM Project construction works, they will be blocked in advance over the winter

Potential Impact	Summary of Proposed Mitigation
	<p>preceding the breeding season to prevent access and nest boxes will be deployed in the immediate vicinity.</p> <ul style="list-style-type: none"> • A programme to monitor Black Guillemots in Dublin Port shall be undertaken. This monitoring programme shall continue throughout the construction phase and for a period of two years after the completion of the works, with surveys during the breeding season from March to May. The results of this monitoring programme shall be submitted to the planning authority at 12-monthly intervals to maintain a public record. • The 3FM Project Tern Colony Management Plan shall be implemented in full. • A programme to monitor the existing Tern colonies and proposed additional Tern Colony under the 3FM Project shall be undertaken. This monitoring programme shall continue throughout the construction phase and for a period of two years after the completion of the works, with surveys undertaken within the period from April to September, under licence from NPWS. The results of this monitoring programme shall be submitted to the planning authority at 12-monthly intervals to maintain a public record. • No pre-construction site clearance or removal of vegetation in terrestrial areas shall take place during the bird breeding season (1st March – 31st August). • Planting in the shelterbelt south of Area O shall include use of native species that maximise the foraging and nesting opportunities for passerines using the area. • No rock breaking shall take place during demolition of the Sludge Jetty within 75m of tern sub-colonies at CDL or ESB Platform during May and June. • No piling shall take place within 75m of tern sub-colonies at CDL or ESB Platform during May and June. • All Capital Dredging shall take place during the winter months when Terns are not present (October – March). An additional benefit from this mitigation measure is that Terns will have migrated from Dublin Port during the periods of capital dredging. • There is evidence that Sand Martin nest in crevasses in the harbour wall of Pigeon House Harbour to the east of the Sludge Jetty. There were however no Sand Martins recorded during surveys undertaken in 2024. The 3FM Project has been designed to avoid any direct impact on the length of harbour wall where Sand Martins have previously nested. Construction works proposed in the vicinity of the

Potential Impact	Summary of Proposed Mitigation
	<p>Harbour Wall will be planned to minimise disturbance during the bird breeding season.</p> <p><u>Monitoring</u></p> <ul style="list-style-type: none"> • DPC is committed to continuing a programme to monitor Black Guillemots, Common Tern and Arctic Tern in Dublin Port throughout the construction phase of the 3FM Project and for a period of two years after the completion of such works. The results of this monitoring programme will be submitted to the planning authority at 12-monthly intervals to maintain a public record. • DPC will also continue to undertake a programme to monitor winter wetland birds in a subset of the adjacent European Sites of the South Dublin Bay and River Tolka Estuary Special Protection Area. This programme shall include the Tolka Estuary and the maritime area adjacent to the Great South Wall in the Lower Liffey Estuary. This monitoring programme will continue throughout the construction phase and for a period of two years after the completion of such works, with monthly surveys from October to March. The results of this monitoring programme will be submitted to the planning authority at 12-monthly intervals to maintain a public record. • A programme to monitor the Sand Martin colony at the entrance to Pigeon House Harbour shall be undertaken. Site visits between April and August will monitor activity to estimate apparently occupied nests. The results of this monitoring programme shall be submitted to the planning authority at 12-monthly intervals to maintain a public record.
<p>Precautionary measures will be undertaken to minimise the risk of injury or disturbance to marine ecology and fisheries in the area of operations.</p>	<p>A Birds and Marine Ecology Management Plan will be implemented for the duration of the proposed construction works, presented in Section 3.5.8 of the Draft CEMP. A Dredging Management Plan will also be implemented for the duration of the proposed construction works, presented in Section 3.5.11 of the Draft CEMP.</p> <p>The following key mitigation measures shall apply to Capital Dredging to minimise the impact of the proposed works on marine ecology:</p> <ul style="list-style-type: none"> • No over-spilling at the surface of the dredger for all dredging activities within the inner Liffey Channel will be permitted. This includes all proposed capital dredging required for the 3FM Project; • The dredger will work on one half of the channel at a time within the inner Liffey channel to prevent the formation of a silt curtain across the River Liffey; • A schedule of no-dredging windows has been prepared and will apply to specified locations in the navigation channel. The capital dredging of sediments within the navigation channel will be carried out during

Potential Impact	Summary of Proposed Mitigation
	<p>the winter months (October – March) to negate any potential impact on salmonid migration (particularly smolts) and summer bird feeding, notably terns, in the vicinity of the dredging operations. In addition, upstream of Berth 49 the no-dredging period will be extended to include the period from 15th March to 31st March.</p> <ul style="list-style-type: none"> • A trailing suction hopper dredger (TSHD) or back-hoe dredger will be used for the capital dredging works. When operating in the River Liffey Channel, the TSHD pumps will be switched off when the drag head is being lifted and returned from the bottom as the dredger turns between successive lines of dredging to minimise the risk of fish entrainment. • A maximum of 4,100m³ of sediment and entrained water will be loaded into the dredger's hopper for each loading/dumping cycle. <p>The following key mitigation measures shall apply to impact piling activities to minimise the impact of the proposed works on fisheries:</p> <ul style="list-style-type: none"> • No impact piling for construction activities for the SPAR Bridge, SPAR Viaduct, the Maritime Village and Ro-Ro Terminal will take place during March to May inclusive, the three months of the year when vulnerable smolts are likely to run in their highest numbers. • Due to the greatly reduced number of adult salmon returning in recent years, down to circa 250 individual salmon, an additional no-piling window will apply to July and August for impact piling at the Ro-Ro Terminal. • The July-August closed period for piling also applies to impact piling at the Turning Circle boundary wall and temporary works piling. • The July-August closed period for piling also applies to the Lo-Lo Terminal (Area N outer piles and dolphins).
<p>Precautionary measures will be undertaken to minimise the risk of injury or disturbance to marine mammals in the area of operations</p>	<p>A Marine Mammals Management Plan will be implemented for the duration of the proposed construction works, presented in Section 3.5.7 of the Draft CEMP.</p> <p>The following precautionary measures will be undertaken to minimise the risk of injury or disturbance to marine mammals in the area of operations in line with National Parks and Wildlife Service (NPWS) Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (2014):</p> <ul style="list-style-type: none"> • A trained and experienced Marine Mammal Observer (MMO) will be put in place during piling, dredging, demolition and dumping operations. The MMO will scan the surrounding area to ensure no marine mammals are in a pre-determined exclusion zone in the 30-

Potential Impact	Summary of Proposed Mitigation
	<p>minute period prior to operations. The NPWS exclusion zone is 500m for dredging and demolition works and 1,000m for piling activities.</p> <ul style="list-style-type: none"> • Noise-producing activities will only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring is not possible, the sound-producing activities will be postponed until effective visual monitoring is possible. Visual scanning for marine mammals (in particular harbour porpoise) will only be effective during daylight hours and if the sea state is WMO Sea State 4 (≈Beaufort Force 4 conditions) or less. • For piling activities, where the output peak sound pressure level (in water) exceeds 170 dB re: 1µPa @ 1m, a ramp-up procedure will be employed following the pre-start monitoring. Underwater acoustic energy output will commence from a lower energy start-up and thereafter be allowed to gradually build up to the necessary maximum output over a period of 20-40 minutes. • If there is a break in piling / dredging including dredging & piling plant activity for a period greater than 30 minutes then all pre-activity monitoring measures and ramp-up (where this is possible) will recommence as for start-up. • Once normal operations commence (including appropriate ramp-up procedures), there is no requirement to halt or discontinue the activity at night-time, nor if weather or visibility conditions deteriorate, nor if marine mammals occur within a radial distance of the sound source that is 500m for dredging and demolition works, and 1,000m for piling activities. • Once normal dredging operations commence there is no requirement to halt or discontinue the activity at night-time, nor if weather or visibility conditions deteriorate, nor if marine mammals occur within a radial distance of the sound source that is 500m for dredging and demolition works. Notwithstanding this, MMOs will implement additional best-practice mitigation where feasible by directing operations to areas where marine mammals are absent, or requesting delays to activities to provide animals an opportunity to disperse. • Any approach by marine mammals into the immediate (<50m) works area will be reported to the National Parks and Wildlife Service. • Non-piling windows, and implementation of piling controls when marine mammals occur in specified monitoring zones have been set for impact piling.

Potential Impact	Summary of Proposed Mitigation
	<ul style="list-style-type: none"> • Piling is restricted to 0700h and 1900h (Monday to Friday), 0800h to 1300h (Saturday) and no piling will take place on Sundays or Bank Holidays. Therefore, during piling periods, active piling operations will only occur for a maximum of about 38% of that period, allowing extensive unimpeded use of the harbour area by marine mammals throughout project construction. • An extended monitoring zone will be implemented for harbour porpoise during piling at Area N and Area K. This zone will include all areas within the Bull Walls, and no piling will be permitted if harbour porpoise are present in this area during a pre-watch. A minimum of two MMOs are required to effectively monitor this extended zone. • The MMO will keep a record of the monitoring and log all relevant events using standardised data forms available from NPWS and submit to the NPWS on completion of the works. • In line with international best practice, a combination of visual and acoustic mitigation techniques will be used to ensure there are no significant impacts on all Annex II marine species, including harbour porpoise, grey seal and harbour seal. Static Acoustic Monitoring (SAM) through the deployment of FPODS will be used. SAM monitoring sites will be established and maintained throughout the project and for two years post-construction. This technique is to complement and not replace visual techniques. • The deployment of a SAM system will complement and extend the extensive database currently being collected as part of the ABR and MP2 Project environmental monitoring programmes. • The deployment of a Passive Acoustic Monitoring (PAM) system at North Bank Light in the inner Liffey channel will continue for the duration of the construction phase. The PAM system uses a hydrophone to detect the presence of marine mammals in real time.
Chapter 8 Land, SOILS, GEOLOGY, HYDROGEOLOGY	
<p>The potential risk to construction workers from contaminants during the earthworks is low with the exception of identified asbestos fibres at identified locations.</p>	<p>The risk to construction workers via the inhalation of asbestos fibres during earth works / ground disturbance shall be mitigated through the appropriate use of PPE / RPE.</p>

Potential Impact	Summary of Proposed Mitigation
<p>There is potential for ground gas within Area O which was formally a landfill site operated by DCC.</p>	<p>A venting system is recommended in order to allow a steady release of ground gases during the construction phase. This will mitigate the risk of off-site ground gas migration. The type and specifications for the venting system will be determined at detailed design stage of the project.</p> <p>The construction phase will include the installation of ground gas protection measures within buildings in Area O. To achieve the appropriate level of protection, consideration has been given to BS8485:2015+A1:2019 'Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings'.</p>
<p>Chapter 9 WATER QUALITY and FLOOD RISK</p>	
<p>Mobilised suspended sediment and cement release through construction and demolition activities are the principal potential sources of water quality impact during the construction phase of the works.</p>	<p>A Water Quality Management Plan will be implemented for the duration of the proposed construction works, presented in Section 3.5.10 of the Draft CEMP. The following precautionary measures shall be undertaken to minimise the risk of impacting on water quality within the receiving environment:</p> <ul style="list-style-type: none"> • sound design principles will be followed to adhere to relevant Irish guidelines and recognised international guidelines for best practice; • appropriate erosion and sediment controls during construction to prevent sediment pollution will be implemented; • Where preferential surface flow paths occur, silt fencing or other suitable barriers will be used to ensure silt laden or contaminated surface runoff from the site does not discharge directly to a water body or surface water drain. • In the event that dewatering of foundations or drainage trenches is required during construction and/or discharge of surface water from sumps, a treatment system prior to the discharge will be used; silt traps, settlement skips etc. This measure will allow additional settlement of any suspended solids within storm water arising from the construction areas. • Management and auditing procedures, including tool-box talks to personnel will be put in place to ensure that any works which have the potential to impact on the aquatic environment are being carried out in accordance with required permits, licences, certificates and planning permissions. • Existing and proposed surface water drainage and discharge points will be mapped on the Drainage layout. These will be noted on construction site plans and protected accordingly to ensure water

Potential Impact	Summary of Proposed Mitigation
	<p>bodies are not impacted from sediment and other pollutants using measures to intercept the pathway for such pollutants.</p> <ul style="list-style-type: none"> • A project specific Pollution Incident Response Plan has been prepared and suitable training will be provided to relevant personnel detailed within the Pollution Incident Response Plan (see Section 3.5.12 of the Draft CEMP).
<p>Capital Dredging and Spoil Disposal</p>	<p>A Dredging Management Plan will be implemented for the capital dredging proposed as part of the 3FM Project. The mitigation for dredging operations in the 3FM Project has been informed by the MP2 Project and the ABR Project monitoring and experience working in the same locations. The following key relevant mitigation measures will apply to each dredging campaign in the 3FM Project:</p> <ul style="list-style-type: none"> • Loading will be carried out by a back-hoe dredger or trailing suction hopper dredger (TSHD). • The capital dredging activity will be carried out during the winter months (October – March) to negate any potential impact on salmonid migration (particularly smolts) and summer bird feeding, notably terns, in the vicinity of the dredging operations. • No over-spilling from the vessel will be permitted while the dredging activity is being carried out within the inner Liffey Channel. • The TSHD pumps will be switched off while the drag head is being lifted and returned to the bottom as the dredger turns between successive lines of dredging to minimise the risk of fish entrainment. • The dredger’s hopper will be filled to a maximum of 4,100 cubic metres (including entrained water) to control suspended solids released at the dumping site. This is equivalent to a maximum quantity per trip of 2,030 tonnes (wet weight). • Full time monitoring of marine mammals within 500m of loading and dumping operations will be undertaken in accordance with the measures contained in the Guidance to Manage the Risk to Marine Mammals from Man-Made Sound Sources in Irish Waters (NPWS 2014). • A documented Accident Prevention Procedure will be put in place prior to commencement. • A documented Emergency Response Procedure will be put in place prior to commencement. • A full record of loading and dumping tracks and record of the material being dumped will be maintained for each trip. • Dumping will be carried out through the vessel's hull.

Potential Impact	Summary of Proposed Mitigation
	<ul style="list-style-type: none"> The dredger will work on one half of the channel at a time within the inner Liffey channel to prevent the formation of a silt curtain across the River Liffey. <p>When any dredging is scheduled to take place within a 500m radius of power station intakes, the relevant stakeholders will be notified so that precautionary measures can be taken if deemed necessary.</p>
<p>Accidental release of highly alkaline contaminants from concrete and cement may arise during the demolition of buildings and structures and the construction of hardstand areas, waterside berths, quay walls, jetties, bridging structures, etc.</p> <p>Concrete and cement pollution may give rise to significant impacts on water quality in the absence of mitigation.</p>	<p>The following precautionary measures shall be undertaken to minimise the risk of impacting on water quality within the receiving environment:</p> <ul style="list-style-type: none"> Breaking of concrete (associated with structure demolition) has the potential to emit alkaline dust into the receiving environment. Where necessary a barrier between the dust source and the sensitive receptor (the water body in this case) will be erected to limit the possibility of dust contacting the receptor; Concrete use and production shall adhere to control measures outlined in Guidance for Pollution Prevention (GPP5): Works and maintenance in or near water (2017). Any on-site concrete production will have the following mitigation measures: bunded designated concrete washout area; closed circuit wheel wash; and initial siting of any concrete mixing facilities such that there is no production within a minimum of 10m from the aquatic zone; The use of wet concrete and cement in or close to any water body will be carefully controlled so as to minimise the risk of any material entering the water, particularly from shuttered structures or the washing of equipment. Where concrete is to be placed under water or in tidal conditions, specific fast-setting mix is required to limit segregation and washout of fine material/cement. This will normally be achieved by having either a higher than normal fines content, a higher cement content or the use of chemical admixtures.
<p>General water quality impacts may arise associated with works machinery, infrastructure and on-land operations including the temporary storage of construction materials, oils, fuels and chemicals.</p> <p>There is the potential for spillage or release of fuel oil and other dangerous substances to result in moderate to significant impacts on water quality in the absence of mitigation.</p>	<p>The following precautionary measures shall be undertaken to minimise the risk of impacting on water quality within the receiving environment:</p> <ul style="list-style-type: none"> The risk of water quality impacts associated with works machinery, infrastructure and on-land operations (for example leakages/spillages of fuels, oils, other chemicals and waste water) will be controlled through good site management and the adherence to codes and practices, Management and auditing procedures, including tool box talks to personnel, will be put in place to ensure that any works which have the potential to impact on the aquatic environment are being carried

Potential Impact	Summary of Proposed Mitigation
	<p>out in accordance with required permits, licences, certificates and planning permissions;</p> <ul style="list-style-type: none"> • Existing and proposed surface water drainage and discharge points will be mapped on the Drainage layout. These will be noted on construction site plans and protected accordingly to ensure water bodies are not impacted from sediment and other pollutants using measures to intercept the pathway for such pollutants, • Fuel, oil and chemical storage will be sited on an impervious base within a bund and secured. The base and bund walls must be impermeable to the material stored and of adequate capacity. The control measures in GPP2: Above Ground Oil Storage Tanks and GPP26 “Safe storage – drums and intermediate bulk containers” shall be implemented to ensure safe storage of oils and chemicals; • The safe operation of refuelling activities shall be in accordance with GPP 7 “Safe Storage – The safe operation of refuelling facilities”.
Monitoring Measures	<p>A water quality monitoring system has been designed to ensure robust protection of the marine environment and for users of the inner Liffey channel during the construction phase of the 3FM Project.</p> <p>It is proposed to maintain the four water quality monitoring stations already in position for the ABR Project and MP2 Project.</p> <p>The specification is based on 24/7 real time monitoring with water quality monitoring sensors giving high resolution data with respect to the following parameters</p> <ul style="list-style-type: none"> • Turbidity • Dissolved Oxygen • Temperature • Salinity • pH (additional proposed parameter) • Water level is also measured at one monitoring station to provide information on tidal state. Turbidity is measured as a surrogate for suspended solids. Site specific tests have previously been undertaken by the ABR Project to define the relationship between Turbidity and suspended solids, • A data acquisition and transfer system is being used to enable the transmission of high resolution data at approximately 15 minute intervals. • Trigger levels that will prompt investigation are proposed for Dissolved Oxygen and Peak Suspended Solids based on Turbidity

Potential Impact	Summary of Proposed Mitigation
	<p>records in the Water Quality Management Plan (see Section 3.5.10 of the Draft CEMP).</p> <ul style="list-style-type: none"> • The Dissolved Oxygen trigger level has been selected to safeguard fish-life. • The monitoring network infrastructure has been in place since 2016 and will continue for the duration of the construction phase of the 3FM Project. • This monitoring system has already generated a robust water quality baseline within the inner Liffey channel with the ability to identify water quality trends. The continuation of the monitoring system will serve to further strengthen the knowledge of water quality trends, a key indicator of the health of the marine environment. • The water quality data currently being collected is circulated to Dublin City Council on a monthly basis. It is proposed that this transfer of information continues for the duration of the construction phase of the 3FM Project. • The data collected is also being shared with research organisations (e.g. Dublin City University, Maynooth University and University College Cork).
Chapter 10 AIR QUALITY	
<p>Construction works have the potential to result in local impacts through dust nuisance at the nearest sensitive receptors and also to sensitive ecosystems.</p>	<p>A draft Dust & Odour Management Plan has been prepared based upon the industry guidelines in the Building Research Establishment document entitled 'Control of Dust from Construction and Demolition Activities' (see Section 3.5.6 of the Draft CEMP).</p> <p>The following precautionary measures shall be undertaken to minimise the potential nuisance caused by dust at the nearest sensitive receptors and on sensitive ecosystems:</p> <ul style="list-style-type: none"> • Site roads will be regularly cleaned and maintained as appropriate. Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential traffic only; • Any site roads with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions (also applies to vehicles delivering material with dust potential); • All HGVs and other site vehicles exiting the site will make use of a wheel wash facility prior to entering onto Dublin Port estate roads and public roads, to ensure mud and other wastes are not tracked onto the roads.

Potential Impact	Summary of Proposed Mitigation
	<ul style="list-style-type: none"> • Wheel washes will be self-contained systems that do not require discharge of the wastewater to water bodies; • Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary; • Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind; • Water misting, or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods; • All vehicles which present a risk of spillage of materials, while either delivering or removing materials, will be loaded in such a way as to prevent spillage on the public road; • It will be required that all vehicles are suitably maintained to ensure that emissions of engine generated pollutants are kept to a minimum; • Monthly monitoring of dust deposition levels will be undertaken for the duration of construction for comparison with the guideline of 350mg/m²/day (for non-hazardous dusts). This monitoring will be carried out at a minimum of four locations at sensitive receptors around the proposed works. Where dust levels are measured to be above this guideline, the mitigation measures in the area will be reviewed as part of a Dust Minimisation Plan.
<p>The potential exists for odour generation and nuisance to occur during the construction phase.</p>	<p>A draft Dust & Odour Management Plan has been prepared and follows the guidance presented in the Environment Agency of England and Wales “Odour Management Guidance” (H4 Guidance, 2011) (see Section 3.5.6 of the Draft CEMP). The odour monitoring and investigation aspects of the OMP will follow the EPA “Odour Impact Assessment Guidance for EPA Licenced Sites”. The OMP will achieve the following:</p> <ul style="list-style-type: none"> • Employ appropriate methods, including monitoring and contingencies, to control and minimise odour pollution; • Prevent unacceptable odour releasing incidents or accidents by anticipating them and planning accordingly. <ul style="list-style-type: none"> • The plan considers sources, releases and impacts of odour and uses these to identify opportunities for odour management. The OMP will also include a periodic odour audit of the facility by a suitably qualified expert to identify all sources on site together with nature and scale of the odour release and associated construction details. In addition, the plan includes for complaint recording and investigation to ensure that all complaints received at the site are suitably addressed.

Potential Impact	Summary of Proposed Mitigation
CHAPTER 11 CLIMATE	
<p>Emissions of construction generated Green House Gases (GHG) will arise from embodied emissions in site material, direct emissions from plant machinery/equipment as well as emissions from vehicles delivering material and personnel to the construction site.</p>	<p>It is proposed to develop a Project Carbon Management Plan (PCMP) for the project. This PCMP will be aligned with the principles of PAS2080:2023 – a global standard for managing whole-life (embodied and operational) carbon in the built environment and infrastructure. The development of the carbon life cycle assessment presented in the EIAR is the first phase of the PCMP and this plan will be formally developed at detailed design stage by the design team to facilitate handover to the Contractor for construction stage as a contractual obligation for a cap on the levels of embodied and operational carbon. Post construction the PCMP will be handed back to DPC to facilitate the operational management of carbon for the project.</p> <p>The PCMP will minimise the carbon footprint of the construction phase through requiring low emission plant; reducing embodied carbon by specifying low-carbon concrete mixes when possible; re-using/re-cycling material; limiting use of carbon-intensive materials; incorporating sustainable design principles; implementing efficient energy management systems and identifying energy saving opportunities; promoting use of carbon-neutral biofuels and renewable energy if possible.</p> <p>Embodied carbon in the materials employed in the construction phase dominate the climate impact and to mitigate these impacts, sustainable material choices have been made during the engineering design to reduce embodied carbon from the construction of the proposed development by 30%. The construction stage of the Project therefore complies with existing policy requirements and, in particular, the target in Chapter 13 of CAP24, which sets a target to decrease embodied carbon in construction materials produced and used in Ireland by at least 30% by 2030. The mitigation in the proposed development achieves this target in reducing the total embodied carbon in the construction materials for the 3FM Project by 30%.</p> <p>DPC will revisit this mix during detailed design to achieve greater embodied reductions where possible based on industry practices and innovative materials available at the time of construction.</p> <p>In addition to the above mitigation regarding material choices, there are a series of additional construction mitigation measures that will also be adopted as follows:</p> <ul style="list-style-type: none"> • The use of non-concrete assets shall be optimised in the design, e.g. gravel footpaths, grassed drains etc. to minimise the need for concrete. • All aggregates required for pavement materials shall be secondary aggregates. Virgin aggregates shall only be employed where it is demonstrated that secondary aggregates are unsuitable for structural reasons and/or they are unavailable.

Potential Impact	Summary of Proposed Mitigation
	<ul style="list-style-type: none"> • Wherever available, the Contractor shall secure construction materials from local/regional sources or sources within the State to minimise material transport emissions and reduce life cycle carbon emissions associated with the construction materials. • For electricity generation at the construction compounds, hydrogen generators or electrified plant shall be utilised over traditional diesel generators. This shall also apply to lower powered mobile plant, as appropriate. • A regular maintenance schedule for all construction plant machinery shall be undertaken to maintain optimum machinery efficiency. • Sustainable timber post fencing will be specified over steel in boundary treatments where possible. • Engines will be turned off when machinery is not in use. • The use of private vehicles by construction staff to access the site will be minimised through the encouragement of use of public transport, encouragement of car sharing, and maximising use of local labour to reduce transport emissions. To implement this, the Contractor shall prepare a Mobility Management Plan for site staff.
Chapter 12 NOISE & VIBRATION	
<p>There is the potential for noise impacts associated with the construction phase of the proposed development at the nearest noise sensitive receptors in the absence of mitigation.</p>	<p>A Noise & Vibration Management Plan (NVMP) will be implemented for the duration of the proposed construction works. A draft NVMP is presented in Section 3.5.5 of the Draft CEMP. This document will be reviewed and updated throughout the construction phase.</p> <p>A temporary 4m noise barrier will be installed between the construction works and the nearest properties at Pigeon House Road and the Coastguard Cottages throughout the duration of construction works in this area. This will ensure that the relevant BS5228 noise threshold limits will not be exceeded at these properties.</p> <p><i>British Standard BS5228:2009+A1:2014 – Noise and vibration control on construction and open sites: Part 1 - Noise</i> outlines a range of measures that shall be used to reduce noise impacts at the nearest noise sensitive receptors. The measures, which will be applied, include:</p> <ul style="list-style-type: none"> • Ensuring that mechanical plant and equipment used for the purpose of the works are fitted with effective exhaust silencers and are maintained in good working order, • Careful selection of quiet plant and machinery to undertake the required work where available, • All major compressors will be 'sound reduced' models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use,

Potential Impact	Summary of Proposed Mitigation
	<ul style="list-style-type: none"> • Any ancillary pneumatic percussive tools will be fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use, • Any ancillary pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers, • Machines in intermittent use will be shut down in the intervening periods between work, • Ancillary plant such as generators, compressors and pumps will be placed behind existing physical barriers, and the direction of noise emissions from plant including exhausts or engines will be placed away from sensitive locations, in order to cause minimum noise disturbance, • Handling of all materials will take place in a manner which minimises noise emissions, • Audible warning systems will be switched to the minimum setting required by the Health and Safety Authority, • A complaints procedure will be operated by the Contractor throughout the construction phase and all efforts will be made to address any noise issues at the nearest noise sensitive properties.
<p>There is the potential for vibration impacts associated with the construction phase of the proposed development at the nearest sensitive receptors and sites of cultural heritage significance in the absence of mitigation.</p>	<p>Vibration monitoring will be undertaken throughout the construction phase where vibration generating activities have the potential to generate significant vibration impacts at the nearest sensitive properties.</p> <p>Chapter 16 Cultural Heritage provides details and the management plans that will be in place to control construction activities in close proximity to sites of cultural significance. As part of these management plans, vibration monitoring will be undertaken at these sites where there is potential for vibration-generating activities to impact upon these sites.</p>
<p>There is potential for underwater noise as a result of piling activities in the absence of mitigation.</p>	<p>The use of vibratory piles for a substantial portion of the piling requirements will reduce the amount of impact driving and underwater noise generation.</p> <p>Pile driving activity will be carried out as efficiently as possible to reduce the duration of the piling activity. Piling will only take place for a portion of each working day and will not be carried out at night.</p> <p>Seasonal constraints on pile driving will be implemented through mandatory non-piling windows for specific construction activities. Non-piling windows vary from two to five months in duration.</p> <p>All piling, dredging and demolition works will be undertaken in accordance with NPWS Guidance (2014) at set out under Chapter 7 Biodiversity, Flora and Fauna.</p>

Potential Impact	Summary of Proposed Mitigation
<p>Monitoring Measures</p>	<p>Continuous terrestrial noise monitoring will be undertaken for the duration of the construction works in accordance with BS7445: Description and Measurement of Environmental Noise.</p> <p>All measurements will be made using Type 1 precision digital sound levels meters and associated hardware. The following parameters will be recorded as a minimum: LAeq, LMax, LAmin, LA10 & LA90.</p> <p>The number and location of noise meters will be agreed with Dublin City Council (DCC). These will operate for the entire duration of the construction phase.</p> <p>A permanent secure noise monitoring station has previously been established at the marina adjacent to Pigeon House Road as part of the ABR Project. It is representative of nearest sensitive noise receptors and may prove to be an appropriate location for key elements of the 3FM Project subject to approval of DCC.</p> <p>Noise monitoring stations are also currently in operation at East Wall Road, and at Clontarf, representative of nearest sensitive noise receptors to the north and west of the 3FM Project site. It is proposed that these two monitoring stations will be maintained for the duration of the 3FM Project construction phase.</p> <p>An additional noise monitoring station is proposed towards Sandymount, sited to be representative of nearest sensitive noise receptors to the south of the 3FM Project site.</p> <p>All data will be collected and analysed on a weekly basis and the analysed data will be fed back to DPC and the Contractors with a view to reviewing the compliance of construction phase activities in the context of any relevant conditions in planning approval if granted, and the thresholds/requirements included in the draft Noise & Vibration Management Plan. This will also include any liaison requirement with DCC in this regard.</p> <p>Any noise nuisance issues associated with the construction phase activities will be immediately assessed and analysed in relation to the recorded noise levels and all correspondence with DPC, the Contractor, DCC and the residents will be conducted with the appropriate level of urgency. This will include the appropriate liaison with DPC and the Contractor to control activities to ensure that the construction phase activities are in line with any relevant planning conditions and the CEMP.</p> <p>Interim synoptic reports will be produced on a regular basis, usually calendar months, and submitted to DCC and the project liaison group.</p> <p>Summary data and graphical outputs for each year of the construction phase will form part of an Annual Environmental Report. The data will be prepared in an analytical output that will aim to provide a concise representation of the</p>

Potential Impact	Summary of Proposed Mitigation
	<p>construction phase noise levels from the port and will aim to avoid presentation of lengthy datasets.</p> <p>Underwater noise surveys will be undertaken during the construction phase of the works:</p> <p>The underwater noise surveys will complement the existing underwater noise level measurements which have been recorded during the impact piling carried out inside Alexandra Basin West and in the Liffey channel for the ABR and MP2 Projects. This will provide additional validation of the underwater noise modelling and to ensure the underwater noise levels are contained within the operations area of the port,</p> <p>Underwater noise surveys will be undertaken during the construction period at locations upriver and downstream of the works in the navigation channel. Monitoring will be carried out within two months following commencement of the piling activity.</p>
Chapter 13 MATERIAL ASSETS - COASTAL PROCESSES	
<p>Potential influence of proposed structures upon coastal processes could have negative environmental impacts.</p>	<p>Modelling of tidal currents and the movement of sediments has informed the final open piled design of the proposed Lo-Lo Terminal at Area N and bridge / viaduct spans to mitigate any impact on riverine and coastal environments, nearby European sites, and existing structures including the Great South Wall.</p> <p>This mitigation by design has reduced the potential impact of the 3FM Project on coastal processes to an imperceptible level.</p>
Chapter 14 MATERIAL ASSETS - TRAFFIC & TRANSPORTATION	
<p>Construction traffic during the construction phase of the 3FM Project will be offset by the phased closure of existing operations as the construction sequence progresses to refunction Port lands.</p>	<p>A Construction Traffic Management Plan will be implemented for the duration of the proposed construction works. A draft Construction Traffic Management Plan is presented in Section 3.5.1 of the Draft CEMP. The following mitigation measures shall be applied:</p> <ul style="list-style-type: none"> • Adhering to the Dublin City Council HGV Management Strategy; • A pre-defined haulage route will be agreed with DCC to avoid construction traffic through sensitive road networks at critical times; • Temporary warning signage will be installed, as necessary, • Wheel washing, roadside cleaning, load checking and general maintenance of larger vehicles will be in place, • Appropriate parking facilities for site operatives and visitors within the site will be provided with all parking areas clearly signed and monitored. • The use of private vehicles by construction staff to access the site will be minimised through the encouragement of use of public transport, encouragement of car sharing, and maximising use of local

Potential Impact	Summary of Proposed Mitigation
	labour to reduce transport emissions. To implement this, the Contractor shall prepare a Mobility Management Plan for site staff
Chapter 15 MATERIAL ASSETS - SERVICES	
<p>The 3FM Project has the potential to impact on existing and proposed utilities within the Poolbeg Peninsula and in the vicinity of proposed roadworks within the North Port Estate.</p>	<p>The 3FM Project has been designed to avoid any significant impact on existing and proposed utilities. The utilities include:</p> <ul style="list-style-type: none"> • NORA facilities at Ringsend and Poolbeg, • Uisce Éireann Ringsend Waste Water Treatment Plant; • Encyclis Waste to Energy Plant; • ESB Power Generation; • ESB Power Supply Networks; • Proposed Codling Wind Park Onshore Substation; and • Proposed Dublin City Council District Heating Scheme. <p>No mitigation measures are therefore required.</p>
<p>The 3FM Project requires services - Water Supply, Wastewater and Electricity Supply.</p>	<p>Water Supply - The appraisal has shown that, subject to agreement with Uisce Éireann via the Pre-Connection Enquiry system, the level of demand associated with the 3FM Project will be more than capable of being supplied by the existing Uisce Éireann infrastructure within the subject area.</p> <p>Waste Water - The appraisal has shown that, subject to agreement with Uisce Éireann via the Pre-Connection Enquiry system, the level of demand associated with the 3FM Project will be more than capable of being supplied by the existing Uisce Éireann infrastructure within the subject area.</p> <p>Electricity Supply - The appraisal has shown that the current electricity supply to the port is sufficient to meet the existing demands of the Dublin Port Estate. However short-term issues have been identified in ESB Power Networks ability to cater for project demands in the area, not just for Dublin Port but for all other local customers. DPC intend to liaise closely with ESB to ensure the 3FM Project's Electrical Load Requirements are met in line with the operational timeframes envisaged for the 3FM Project. This will be greatly assisted by the proximity of the 3FM Project to a major hub of electricity generation.</p> <p>The required level of capacity will be met by feeding the proposed sub-stations from the existing network, with MV cables uprated locally where required.</p>
Chapter 16 CULTURAL HERITAGE (including Industrial & Archaeological)	
<p>There is a need for an overarching Archaeology and Cultural Heritage Management Plan to be implemented during the construction phase</p>	<p>DPC has developed a Dublin Port Heritage Conservation Strategy in relation to heritage issues throughout the port estate and this shall apply to the 3FM Project.</p>

Potential Impact	Summary of Proposed Mitigation
	<p>A project specific Archaeology and Cultural Heritage Management Plan will be implemented for the duration of the proposed construction works, presented in Section 3.5.9 of the Draft CEMP.</p> <p>Notification obligations relating to underwater archaeological heritage pursuant to Part 5 of the Historic and Archaeological Heritage Act 2023 will be adhered to.</p>
<p>Ground disturbance activities have the potential to expose elements of the Great South Wall.</p>	<p>Archaeological monitoring licensed by the National Monument Service will be conducted of all ground disturbance activities, including site investigations, with the proviso to resolve fully any archaeological material observed at that point.</p> <p>Laser scan surveys of the Pigeon House Harbour area and the Great South Wall have been undertaken to record these structures in advance of any construction works.</p>
<p>The extension of capital dredging into the south side of the localised channel widening area and ship turning circle represents direct and permanent impacts on what appears to be previously un-dredged locations. It is an area of high archaeological potential and the recovery of shipping debris and/or shipwreck must be anticipated.</p>	<p>Archaeological monitoring licensed by the National Monument Service will be conducted of all seabed disturbances that might take place prior to construction, including site investigation, with the proviso to resolve fully any archaeological material observed at that point.</p> <p>Archaeological monitoring of all dredging activities and associated seabed disturbance activities conducted within the berth pockets and the localised channel widening area will be carried out, with the proviso to resolve full any material of archaeological significance observed at that point.</p>
<p>Monitoring Measures</p>	<p>Retaining an Archaeologist:</p> <ul style="list-style-type: none"> • An archaeologist experienced in maritime archaeology will be retained for the duration of the relevant works. <p>Retaining a Heritage Architect:</p> <ul style="list-style-type: none"> • A heritage architect experienced in maritime and industrial heritage will be retained for the duration of the relevant works, to advise specifically in relation to works associated with the Great South Wall. <p>Archaeological licences will be required to conduct the on-site archaeological works. Licence applications require the inclusion of detailed method statements, which outline the rationale for the works, and the means by which the works will be resolved.</p> <p>Monitoring will be carried out by suitably qualified and experienced maritime archaeological personnel licensed by the Department of Culture, Heritage and the Gaeltacht. Archaeological monitoring will be conducted during all terrestrial, inter-tidal/foreshore and seabed disturbances associated with the development.</p>

Potential Impact	Summary of Proposed Mitigation
	<p>The monitoring will be undertaken in a safe working environment that will facilitate archaeological observations and the retrieval of objects that may be observed and that require consideration during the course of works.</p> <p>The monitoring will include a finds retrieval strategy that is in compliance with the requirements of the National Museum of Ireland.</p> <p>Any appropriate archaeological discoveries shall be notified to the Minister pursuant to section 139 of the Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023.</p> <p>The time scale for the construction phase will be made available to the archaeologist, with information on where and when ground disturbances will take place.</p> <p>In the event of archaeologically significant features or material being uncovered during the construction phase, machine works will cease in the immediate area to allow the archaeologist/s to inspect any such material.</p> <p>Once the presence of archaeologically significant material is established, full archaeological recording of such material will be recommended. If it is not possible for the construction works to avoid the material, full excavation will be recommended. The extent and duration of excavation will be a matter for discussion between DPC and the licensing authorities.</p> <p>It is recommended that the core of a suitable archaeological team be on standby to deal with any such rescue excavation. This would be complimented in the event of a full excavation.</p> <p>It is recommended that an archaeological dive team is retained on standby for the duration of any in-water disturbance works on the basis of a twenty-four or forty-eight hour call-out response schedule, to deal with any archaeologically significant/potential material that is identified in the course of the seabed disturbance activities.</p> <p>A site office and facilities will be provided by DPC on site for use by archaeologists.</p> <p>Secure wet storage facilities will be provided on site by DPC to facilitate the temporary storage of artefacts that may be recorded during the course of the site work.</p> <p>Buoying/fencing of any such areas of discovery will be necessary if discovered and during excavation.</p> <p>Machinery traffic during construction will be restricted to avoid any identified archaeological site/s and their environs.</p> <p>Spoil will not be dumped on any of the selected sites or their environs.</p> <p>It is a condition of archaeological licensing that a detailed project report is lodged with the DCHG within 12 months of completion of site works. The report should be to publication standard and should include a full account, suitably</p>

Potential Impact	Summary of Proposed Mitigation
	illustrated, of all archaeological features, finds and stratigraphy, along with a discussion and specialist reports. Artefacts recovered during the works need to meet the requirements of the National Museum of Ireland.
Chapter 17 LANDSCAPE & VISUAL	
Due to distance and the broad scale of the landscape within which the works are located, the change in landscape and visual resource will be negligible and, therefore, the significance of landscape and visual effects during the construction stage will be minor adverse. No significant visual effects are therefore predicted at the construction stage.	Landscape mitigation measures are those taken to help remedy, reduce or compensate for significant landscape and visual impacts created by the development. No significant landscape or visual impacts are predicted for the 3FM Project during the construction phase. There is therefore no requirement for specific landscape mitigation measures to address significant impacts.
Chapter 18 POPULATION & HUMAN HEALTH	
Embedded mitigation measures	<p>Monitoring of dust, odour and noise during the construction phase will act as precursors to any health impact, thereby enabling a monitoring regime that enables intervention before any manifest adverse health outcome.</p> <p>As part of annual reporting, DPC already monitors numbers of employees and several financial Key Performance Indicators (KPIs) (such as turnover, profit, tax contributions) to measure year-on-year progress. The continued measurement of these will ensure that financial socio-economic benefits of the 3FM Project construction phase are captured.</p>
Chapter 19 WASTE	
Waste materials will be generated during the demolition and site clearance phase of the works	<p><u>Main Works Contractor</u></p> <ul style="list-style-type: none"> A Main Works Contractor (MWC) will be appointed. DPC and its appointed MWC will ensure that demolition wastes will be collected by an appropriately licensed waste management Contractor and that all management routes comply with the European Union waste hierarchy of prevention, preparing for reuse, recycling, and recovery with disposal being the last and final option and with other legal requirements. All waste materials leaving the site will be transported and disposed or recovered through licenced operators and in accordance with national waste legislation. <p><u>Demolition Survey</u></p> <ul style="list-style-type: none"> The demolition works will be constructed in a phased manor. A Demolition Survey is required prior to any demolition work commencing in order to facilitate and maximise recovery of resources from demolition for beneficial reuse and recycling. The

Potential Impact	Summary of Proposed Mitigation
	<p>Demolition Survey will set out all high value waste materials, such as metals, that will be removed from buildings and segregated for possible onward reuse or recycling to maximise recovery. As per the best practice guidelines¹ this will be informed by EU Guidelines for the waste audits before demolition and renovation works of buildings (May 2018). A number of asbestos surveys have been undertaken as summarised in Chapter 19 of the EIAR. Any asbestos present in the buildings required to be demolished shall be removed offsite prior to demolition.</p> <p><u>Segregation & Storage of demolition materials</u></p> <p>Demolition debris will be separated into five waste streams on-site:</p> <ul style="list-style-type: none"> • Construction debris (i.e. ceramics, tiles, plasterboard), • Masonry materials (i.e. brick, concrete blocks) • Metals, • Timber, • Universal waste (i.e. fluorescent bulbs, ballast and mercury containing switches). <p>On-site segregation of all hazardous waste materials into appropriate categories will be undertaken:</p> <ul style="list-style-type: none"> • Waste oils and fuels; • Paints, glues, adhesives and other known hazardous substances. <p>Wastes will be covered where required and stored in stockpiles, dedicated skips or secure containers for hazardous materials. Signage will be required to ensure waste is sorted into the appropriate categories on-site. Appropriate measures to prevent environmental impacts such as run-off, will be implemented as needed. The storage and reuse of demolition or excavation wastes on site may be subject to a number of waste licensing requirements. If these wastes are to be stored on site, prior to potential reuse or recovery during construction, this activity will be subject to a Waste Management Licence Exemption with a limited tonnage of material permitted to be stored on site. Storage will take place in a secure area on-site and the Contractor will monitor the amount of waste stored to ensure that the permitted limits of the Exemption are not exceeded. DPC and its appointed Contractor will consult with the EPA prior to construction to ensure that the appropriate Waste Management Licence or Exemption is in place.</p> <p><u>Reuse of demolished material on-site</u></p>

¹ <https://www.epa.ie/publications/circular-economy/resources/CDWasteGuidelines.pdf>

Potential Impact	Summary of Proposed Mitigation
	<p>In order to divert waste from being reuse/recycled off site or landfilled, possibilities for reuse of inert demolition material as fill on site will be considered, following appropriate testing to ensure materials are suitable for their proposed end purpose. If suitable engineered fill material or suitable CDW arising material is identified in the construction phase/sequencing then this material will be used as infill. Suitable CDW arising material will be used in the following construction activities:</p> <ul style="list-style-type: none"> • It is proposed to raise the ground level of the Maritime Village site by an average in excess of 1.5m which will require an estimated 30,200m³ of imported fill material or suitable engineered fill material/suitable CDW arisings. • Turning Circle (north-east corner of Masterplan Area M) 26,500m³ • Area O 32,250m³ • Area L 6,900 m³ <p>The existing surfacing, concrete and underlying gravel infill at Area K will be removed or reused if suitable.</p> <p>This will be reviewed on an ongoing basis.</p> <p>DPC and its appointed MWC will consult with the EPA prior to construction to ensure that the appropriate licences, permits and exemptions are in place prior to initiation, for example, crushing concrete on site will require a waste facility permit.</p> <p>The existing 100 berth floating marina, and the dedicated rowing pontoons at the Maritime Village site will also be removed together with their anchor block mooring systems and access walkways. Where possible elements will be reused in the proposed new facilities.</p> <p>Under section 3(1) of the Waste Management Act 1996, as amended the requirements do not apply to the following materials, which hence are not considered 'waste'²:</p> <ul style="list-style-type: none"> • Land (in-situ) including unexcavated contaminated soil and buildings permanently connected with land – relates to land and buildings prior to any construction or demolition where material remains untouched. Once it has been excavated or otherwise removed, the material may enter into the control regime set down by the Waste Management Acts. • Uncontaminated soil and other naturally occurring material excavated in the course of construction activities where it is certain

² Best practice for the preparation of resource & waste management plans for construction & demolition projects EPA 2021

Potential Impact	Summary of Proposed Mitigation
	<p>that the material will be used for the purposes of construction in its natural state on the site from which it was excavated.</p> <p>In addition, the following provisions within the European Union (Waste Directive) Regulations 2011–2020 allow for the classification of resources out of the waste regime as follows:</p> <ul style="list-style-type: none"> Article 27 allows for the notification of a material as a by-product rather than a waste where certain criteria can be demonstrated by the legal person (i.e. further use is certain, no need for further processing, produced as part of a process and further use is lawful). <p>Article 28 sets out the grounds by which a material, which is recovered or recycled from waste, can be deemed to be no longer a waste and complies with a set of end-of-waste criteria (substance/ object to be used for specific purposes, a market or demand exists, fulfils technical requirements and no overall adverse impact to human health or the environment).</p>
<p>There is likely to be an increase in the amount of waste produced during the construction phase of the works.</p>	<p><u>Duty of Care in relation to correct waste authorisations</u></p> <p>Contractors working on site during the works will be responsible for the collection, control and disposal of all wastes generated by the works. DPC and its appointed MWC will ensure that waste is handled only by a body authorised under the Waste Management Acts to manage it. This duty implies, at the very least, checking to see that the required authorisation is in place, has not expired and is appropriate for the waste types that are to be handled. DPC and its appointed MWC will ensure that all waste materials leaving the site will be transported via a licensed carrier and disposed or recovered through licenced operators and in accordance with national waste legislation. Monitoring and updating of records will be implemented.</p> <p><u>On-site waste management</u></p> <p>Project design will incorporate adequate dedicated space for a Waste Storage Area(s) to cater for the segregation and storage of all various waste streams during construction. This waste storage compound will be fully enclosed within the development and will allow for waste sorting, segregation, handling activities such as bailing of cardboard and plastic and sufficient waste storage.</p> <p>Site compounds are identified in Chapter 5 of this EIAR. Separate compounds will be used for different phases of the works. Each compound is located in or immediately adjacent to the relevant works phase, such as to cause minimal interference to general port operations. Wastes will be covered where required and stored in stockpiles, dedicated skips or other suitable receptacles and secure containers for hazardous materials. Signage will be required to ensure waste is sorted into the appropriate categories on-site. Appropriate measures to prevent environmental impacts such as run-off, will be implemented as needed. The waste storage area(s) will be assigned and all construction staff provided with training regarding the waste management</p>

Potential Impact	Summary of Proposed Mitigation
	<p>procedures on commencement of the project. The Contractor will ensure adequate security measures are put in place.</p> <p><u>Segregation of Materials</u></p> <p>Construction waste materials shall be sorted and segregated on-site for recycling into appropriate categories on-site, for example:</p> <ul style="list-style-type: none"> • Wood/Timber • Metals • Cardboard & paper • Glass • Plastics • Rubble • General waste <p><u>Reuse of demolished material on site</u></p> <p>In order to divert waste from landfill, possibilities for reuse of inert demolition material as fill on site will be considered, following appropriate testing to ensure materials are suitable for their proposed end purpose.</p> <p>Currently there is no proposed areas to be infilled using engineered fill material and suitable CDW arising from demolition works within the footprint of the development. However this will be reviewed on an ongoing basis. DPC and its appointed MWC will consult with the EPA prior to construction to ensure that the appropriate licences, permits and exemptions are in place prior to initiation.</p> <p>Under section 3(1) of the Waste Management Act 1996, as amended the requirements do not apply to the following materials, which hence are not considered 'waste'³:</p> <ul style="list-style-type: none"> • Land (in-situ) including unexcavated contaminated soil and buildings permanently connected with land – relates to land and buildings prior to any construction or demolition where material remains untouched. Once it has been excavated or otherwise removed, the material may enter into the control regime set down by the Waste Management Acts. • Uncontaminated soil and other naturally occurring material excavated in the course of construction activities where it is certain that the material will be used for the purposes of construction in its natural state on the site from which it was excavated.

³ Best practice for the preparation of resource & waste management plans for construction & demolition projects EPA 2021

Potential Impact	Summary of Proposed Mitigation
	<p>In addition the following provisions within the European Union (Waste Directive) Regulations 2011–2020 allow for the classification of resources out of the waste regime as follows:</p> <ul style="list-style-type: none"> Article 27 allows for the notification of a material as a by-product rather than a waste where certain criteria can be demonstrated by the legal person (i.e. further use is certain, no need for further processing, produced as part of a process and further use is lawful). <p>Article 28 sets out the grounds by which a material, which is recovered or recycled from waste, can be deemed to be no longer a waste and complies with a set of end-of-waste criteria (substance/ object to be used for specific purposes, a market or demand exists, fulfils technical requirements and no overall adverse impact to human health or the environment).</p> <p><u>Construction Waste Management Plan (CWMP)</u></p> <p>Construction waste will be managed as part of the CWMP contained in the CEMP, which will be implemented by the appointed Contractor for the duration of the construction works. As demonstrated in the draft CEMP, the CEMP will contain procedures for the management of waste and related pollution control measures. The CEMP will be a live document and will be subject to revision throughout the course of the construction phase but will contain all measures outlined in the draft CEMP appended to the EIAR. Specific waste management requirements include:</p> <ul style="list-style-type: none"> Identify how the waste will be dealt with (i.e. disposal, re-use on/off site etc.). Building materials should be chosen with an aim to ‘design out waste.’ Identify potential end markets e.g. reuse, recycling facilities, waste treatment facilities and disposal sites. All waste leaving site will be recycled, recovered or reused where possible, with the exception of those waste streams for which appropriate facilities are currently not available. On-site segregation of non-hazardous waste materials into appropriate categories, where possible, including any excavated soils, concrete, bricks, tiles, ceramics and plasterboard, metals and timber. On-site segregation of all hazardous waste materials into appropriate categories including contaminated soils, waste oil and fuels and paints, glues, adhesives and other known hazardous substances. Control measures and attention to materials quantity requirements to avoid over-ordering and generation of waste materials.

Potential Impact	Summary of Proposed Mitigation
	<ul style="list-style-type: none"> • Agreements with materials suppliers to reduce the amount of packaging or to participate in a packaging take-back Scheme. • Implement a 'just in time' materials delivery systems to avoid materials being stockpiled, which increases the risk of the damage and disposal as waste. • Segregation of waste at source where practical. • All waste materials will be stored in skips or other suitable receptacles in designated areas of the site. The waste storage area(s) will be assigned and all construction staff provided with training regarding the waste management procedures on commencement of the project. • Measures to ensure appropriate staff training and levels of awareness in relation to waste management. • Waste streams will be collected by an appropriately licensed and permitted private waste Contractor, appointed by the Contractor for recycling, recovery or disposal at suitably licensed facilities. • Provide a method to calculate the difference between expected waste quantities prior to commencement of the project and actual waste quantities after the project is complete. • The appointed Contractors for the site preparation, piling, earthworks and construction phases of the works will be contractually obliged to follow the CEMP and all relevant legislation. <p><u>Project Resource and Waste Management Plan (RWMP)</u></p> <p>A Project RWMP will be prepared in accordance with 'BEST PRACTICE GUIDELINES for the preparation of resource & waste management plans for construction & demolition projects.' A preliminary draft plan has been incorporated into the CEMP to ensure effective waste management and recycling of waste generated during the works.</p> <p>The Plan will be implemented from the outset of the project and throughout the duration of the project taking into consideration the waste management hierarchy to encourage sustainable development, environmental protection and optimum use of resources. The appointed Contractors for the site preparation, earthworks and construction phases of the works will be contractually obliged to follow the Project RWMP and all relevant legislation.</p> <p><u>Waste Arising from Wash Down Facility</u></p> <p>Solid waste in the form of sediments will arise from the wheel wash unit settlement tank. The unit will be inspected daily (for example, to check automated features are working and settlement content) and emptied in accordance with manufacturer's instructions. The solid residues will be</p>

Potential Impact	Summary of Proposed Mitigation
	<p>analysed and the disposal route appropriately selected based on the results of this analysis. A gully emptier tanker will be used to remove settlement tank waste which will be disposed of at an approved waste disposal site.</p> <p><u>Fuels and hydraulic oils/lubricants</u></p> <p>Contractors will ensure all plant is inspected and serviced in accordance with its schedule. A bunded disposal area will be provided. Contractors will provide staff training on the waste management strategy. Disposal/recovery under licence.</p>
<p>Monitoring Requirements</p>	<p>All waste types and amounts generated will be recorded and reviewed at regular intervals, to allow for continuous analysis and review of procedures that will be made to reduce waste to landfill, increase the percentage of recycling and reduce waste overall as much as possible.</p> <p>Waste storage will take place in a secure area on-site and the appointed Contractor will monitor the amount of waste stored to ensure that the permitted limits of any exemption are not exceeded. The CEMP will set out measures and procedures to monitor waste flows on site and update records.</p> <p>The appointed Contractor will be required to appoint a Resource Manager (RM) throughout the construction stage of the proposed development. The RM will be trained in how to set up and maintain a record keeping system, how to perform, audit and how to establish targets for waste management on site. They will also be trained in the best method for sorting, segregation and storage of recyclable materials, have information on the materials that can be reused on-site and implement the Project C&D Waste Management</p> <p>Training of staff on site will be coordinated by the RM and as such, a waste training programme will be organised. A basic awareness course will be held for all Contractor site personnel to outline the RWMP and to detail the sorting and segregation of waste at source. This may be incorporated with other training needs (e.g. general site induction, safety training etc.). This basic course will describe the materials to be sorted and segregated, the storage methods and the location of waste storage areas. A subsection on hazardous wastes will be incorporated and the particular dangers of each hazardous waste will be explained.</p> <p>Records will be kept for each waste material which leaves the site, whether for reuse on another site, recovery, recycling or disposal.</p> <p>A system will be put in place to record the waste arising on site during demolition and construction phases. The RM will have responsibility to maintain and record the following:</p>

Potential Impact	Summary of Proposed Mitigation
	<ul style="list-style-type: none"> • List of up-to-date authorised waste collection permit NWCPO numbers and destination facilities permit/waste licence/PPC numbers being used • Provide when required letter on headed paper signed by relevant competent person from the destination facilities confirming acceptance of the material and tonnages agree specifically referencing the site • Waste Classification undertaken were required (Laboratory testing and Haz Waste Online results) • Waste taken off-site for reuse • Waste taken off-site for recovery • Waste taken off-site for recycling • Waste taken off-site for disposal <p>For each movement of waste off-site a signed waste collection docket will be obtained by the RM from the licensed waste Contractor. This will be carried out for each material type. This system will also be linked with the delivery records. A signed waste acceptance docket will be issued for each movement of waste on-site. The RM will ensure that the waste docket used are specific to the authorised waste collector that collected the waste. If waste movements are not accounted for, the reasons for this should be established in order to see if and why the record keeping system has not been maintained. Each material type will be examined in order to see where the largest percentage waste generation is occurring. The waste management methods for each material type will be reviewed in order to highlight how waste can be minimized.</p> <p>The appointed RM will be responsible for conducting a waste audit at the site during the C&D phase of the development. A review of all records for waste generated and transported off-site, should be undertaken mid-way through the C&D phase.</p> <p>Upon completion of the C&D phase a final report will be prepared summarising the outcomes of waste management processes adopted and the total recycling / reuse / recovery figures for the proposed development.</p>

Mitigation by avoidance has also been used, where possible. A summary of the Closed Periods identified by the mitigation measures are set out below:

Capital Dredging

Mitigation by avoidance includes restricting capital dredging to the winter seasons (October to March) to avoid disturbance of nesting terns. The proposed capital dredging Closed Periods are set out in Figure 2-1.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
All Capital Dredging												
Upstream of Berth 49 includes the period 15th to 31st March												

Figure 2-1 Capital Dredging Closed Periods (denoted by orange coloured cells)

Piling Activity

Riverside impact piling activity is also restricted to avoid disturbance of migrating salmon. The proposed Closed Periods for riverside impact piling are set out in Figure 2-2.

- The period March to May represents the peak smolt run (river to sea)
- The period July to August represents the peak adult salmon return (sea to river).

Vibratory piling is allowable during these periods.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SPAR bridge												
SPAR Viaduct												
Marina (pontoon piles)												
Area K Berth 45												
Area K Ro-Ro ramp locating piles												
Turning circle and temporary works piling												
Area N outer piles x 5 rigs												
Area N inner piles x 5 rigs												
Oil Terminal dolphin												

Figure 2-2 Impact Piling Closed Periods (denoted by orange coloured cells)

Impact piling activity within 75m of Dublin Port’s tern colonies is also restricted to avoid disturbance. The proposed closed periods for impact piling proximate to the tern colonies are set out in Figure 2-3. These closed periods coincide with the restrictions for salmon impacts mitigation at Area K and Area N.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Impact Piling within 75m of the Tern Colonies												

Figure 2-3 Impact Piling Closed Periods within 75m of Dublin Port’s Tern Colonies (denoted by orange coloured cells)

2.2 Conditions on Planning as Specified by An Bord Pleanála

Planning Permission conditions set by An Bord Pleanála (ABP) will be inserted here should ABP decide to grant planning consent for the 3FM Project, and will form an integral part of the CEMP.

2.3 Conditions on Dumping at Sea as Specified by the EPA

Dumping at Sea Permit conditions set by the EPA will be inserted here should the EPA decide to grant Dumping at Sea consent for the 3FM Project.

3 MANAGEMENT OF ENVIRONMENTAL IMPACT

3.1 Roles and Responsibilities

DPC intends to appoint a Contractor to undertake each phase of the works. Mitigation measures set out in the CEMP will form part of the Contract Documents for the construction stage to ensure that the Contractor undertakes the works required to implement the mitigation measures.

DPC has an established liaison group for the ABR Project and MP2 Project which includes representatives of DPC, the Contractor, Dublin City Council (DCC) and until recently The Department of Housing, Planning and Local Government (DHPLG) Foreshore Unit. A representative of the Maritime Area Regulatory Authority (MARA) will be invited to sit on the group. The group meets at quarterly intervals each year with an agenda and minutes taken of the meetings. It is proposed that this liaison group will also provide environmental oversight of the construction phase of the 3FM Project.

DPC will appoint a suitably qualified person to the role of Environmental Facilities Manager (Environmental Clerk of Works) to monitor the 3FM Project construction works. The Environmental Facilities Manager will provide monthly reports to the members of the liaison group. The Environmental Facilities Manager will work closely with the Contractor's site supervisors to monitor activities and ensure that all relevant environmental legislation is complied with and that the requirements of the CEMP are implemented. The Environmental Facilities Manager will have the authority to review method statements, oversee works and instruct action, as appropriate, including the authority to require the temporary cessation of works, where necessary.

3.2 Hours of Working

Where construction activity takes place for the development in the vicinity of residential properties, the activities will operate between the hours of 07:00 and 19:00 on Monday to Fridays, between 08:00 and 13:00 on Saturdays and there will be no activity on Sundays or Bank Holidays.

Where additional or alternative working hours are required, a request for derogations to work outside the permitted working hours will be submitted to Dublin City Council at least five working days in advance. The request will be supported by a detailed case including an Engineering report explaining the requirement to work outside the permitted working hours and listing proposed dates with commencement and finishing times.

All affected residents and stakeholders shall be notified on receipt of any approved derogations including the rationale for the extended working hours.

Capital Dredging works which are remote from residential properties are proposed to be undertaken on a 24 hour / 7 days per week basis.

3.3 Environmental Management System

3.3.1 Background

In order to safeguard local amenities and protect the environment, the 3FM Project will be operated and managed in accordance with a comprehensive Environmental Management System (EMS).

The delivery of Masterplan 2040, including the 3FM Project, is underpinned by DPC's commitment to understanding, appreciating and managing environmental sensitivities associated with the ongoing developments. Rigorous and detailed studies are undertaken in advance of projects to allow appropriate determination of how best to manage and mitigate any potential environmental impacts as a result of the developments. It is a key requirement of the Dublin Port Masterplan 2040, reviewed 2018, that all future DPC activities (including capital projects) are undertaken in accordance with the requirements of the company's certified EMS.

3.3.2 Existing EMS Certification

DPC is a member of the EcoPorts network since 2008, the main environmental initiative of the European port sector. It was initiated by a number of proactive ports in 1997 and has been fully integrated into the European Sea Ports Organisation (ESPO) since 2011. The overarching principle of EcoPorts is to raise awareness on environmental protection through cooperation and sharing of knowledge between ports and improve environmental management.

Membership of EcoPorts requires identification of the port's environmental risks using a diagnostic checklist and facilitates certification under the Port Environmental Review System (PERS).

PERS is the only port specific environmental management standard. It incorporates the main general requirements of recognised environmental management standards (e.g. ISO 14001), but also takes into account the specificities of ports. PERS builds upon the policy recommendations of ESPO and gives ports clear objectives to aim for. Its implementation is independently reviewed by LRQA, a leading global assurance provider. An EMS Manager oversees the implementation of the PERS system.

The EMS is comprised of the following elements:

- DPC Environmental Policy: a statement of intent to improve and sustain environmental performance;
- Planning: identification of environmental risks, aspects, legal requirements, objectives and targets and establishment of management programme;
- Implementation and operation: training of appropriate personnel, record keeping and establishment of emergency planning;
- Checking and Corrective action: auditing EMS, and implementing corrective actions;
- Management review: assessment of EMS (i.e. objectives and targets) relevant to operations and defined policy, conformity review of environmental performance and legal requirements.

3.3.3 EMS Purpose

The EcoPorts PERS certified Environmental Management System operated by DPC provides a comprehensive framework within which DPC carries out its operations and activities to the highest environmental standards and in a sustainable manner. It is a systematic framework to manage the immediate and long-term environmental impacts of DPC's activities, products, services and processes. Its ongoing implementation ensures that DPC's environmental footprint is minimised, the risk of pollution incidents is diminished, and ensures compliance with relevant environmental legislation.

EMS Documentation describes in detail how the EMS identifies and manages significant environmental issues associated with DPC's activities, and will include the 3FM Project, and consequently how it applies environmental awareness and responsible decision making in all its procedures. The documentation is intended to facilitate effective and efficient management of the environmental aspects and any potential impacts of the Dublin Port operations. DPC is committed to maintaining and implementing EcoPorts PERS certification in relation to all its activities so as to prevent any significant adverse environmental effects.

3.3.4 Environmental Facilities Manager

DPC will appoint an Environmental Facilities Manager (Environmental Clerk of Works) to monitor and to assess the environmental implications of all construction works associated with the 3FM Project. The Environmental Facilities Manager will work closely with the Contractors' site supervisors to monitor activities and ensure that all relevant environmental legislation and EMS protocols are complied with, and that the requirements of the CEMP are implemented. The Environmental Facilities Manager will review method statements, oversee works and instruct action, as appropriate, and has the authority to require the temporary cessation of works, where necessary.

3.3.5 3FM Project - EMS Implementation

The DPC EMS Manager will provide EMS induction to the Environmental Facilities Manager once appointed. Relevant EMS documentation will be provided and will be reviewed by the Environmental Facilities Manager in the context of the 3FM Project. This review will identify any further new environmental considerations to be considered arising from the 3FM Project. The objective is to identify additional aspects and controls for inclusion in the Environmental Aspects register, and to ensure comprehensive coverage of the 3FM Project scope of work. The environmental legal register will be reviewed and any additional legislative instruments germane to the 3FM Project identified.

As part of the ongoing implementation of the EMS in relation to the 3FM Project, the Environmental Facilities Manager will participate in DPC's audit programme and will fully implement the EMS and engage in all EMS procedures and protocols as required.

3.3.6 EMS Scope

The EMS specifically includes management, maintenance and development of port infrastructure: including roads, ramps, drainage system, selected utilities under the roads alignment (mains water supply), buildings, piles, hydrographical surveys and dredging.

Key relevant provisions of the Environmental Management System include:

- the requirement for all Contractors to be assessed/audited at procurement stage and throughout the construction phase of the 3FM Project with respect to environmental performance;
- awareness raising in relation to 3FM Project specific environmental issues to be provided to Contractors during the construction phase of the 3FM Project;
- ongoing auditing and monitoring as required in the EMS and CEMP;
- identification and documentation of environmental non-conformances and corrective actions/preventative actions;
- data storage and reporting as required by the EMS and CEMP.

3.3.7 EMS Implementation and Operation

EMS documentation sets out the overall structure for implementation and defines the roles and responsibilities of personnel in relation to the EMS.

The 3FM Project will be supported by its own dedicated Environmental Management Team. Additional expertise will be available as required when phased project elements come on-stream over the lifetime of the project.

The Environmental Facilities Manager will be the designated point of contact with the EMS Management Team throughout all stages in the process of environmental planning, assessment and reporting for 3FM Project construction activities. This includes the process of environmental management plan development and approval, the audit and inspection schedule roles, and reporting mechanisms. All Contractors will be made aware of DPC's environmental policy, the EMS and DPC environmental point of contacts. This information will be made available within tender documentation. The Environmental Facilities Manager will provide reports to the competent authorities, and to specified stakeholders at the agreed frequency.

3.3.8 EMS Documentation

EMS specific documentation is maintained by the EMS Manager. This documentation is subject to periodic review and amendments to reflect new operations or activities carried out by DPC, changes in legal requirements and development of the system. Such a review process will be undertaken at the beginning of the 3FM Project and will be ongoing throughout the life of the project.

DPC uses a document control system to manage the preparation, revision and issue of documents related to the EMS. It is a key requirement of the Dublin Port Masterplan 2040, reviewed 2018, that all future DPC activities (including the 3FM Project) are undertaken in accordance with the requirements of the company's certified EMS.

3.3.9 EDEN

DPC are registered on the Environmental Data Exchange Network (EDEN) portal. All correspondence and reporting in relation to the requirements of the Dumping at Sea Permit will be made to the EPA via the EDEN System. DPC are aware that all information submitted via the EDEN system can be viewed by members of the public on request at any EPA office. Some information such as environmental reporting is made available on the EPA licensing web page.

3.4 Approach to Community Engagement

This section sets out DPC's approach to community engagement with respect to the 3FM Project.

3.4.1 Arrangements to Engage with Neighbouring Communities

Community Engagement on the 3FM Project will consist of consulting with several groups around the Port on a regular basis. These include:

- Ringsend Community Services Forum (RCSF) representing 75 groups in the Ringsend area;
- This City Works which includes Government Organisations, Local Businesses and Local Communities;
- The River Users Group made up of eight groups.
- Dublin Bay Biosphere Partnership made up of Dublin City Council, Dun Laoghaire Rathdown County Council, Fingal County Council, National Parks Wildlife and Fáilte Ireland.

DPC has consulted with all these groups on the 3FM Project since 2021 and prior to that on developing the Dublin Port Masterplan Plan 2040 in 2011-12 and during the Masterplan Review in 2017-18.

DPC will also give regular updates to local Residents Association and Dublin Bay Watch.

This will be coordinated by DPC's Community Engagement Manager.

3.4.2 3FM Project Liaison Group

DPC has an established liaison group for the ABR Project and MP2 Project which will be extended to also cover the 3FM Project. It comprises the following representatives:

- DPC;
- Dublin City Council;
- Foreshore Unit, DHLGH / MARA;
- Main Contractor;
- Environmental Facilities Manager; and
- DPC Environment, Health & Safety Manager.

The objective of the liaison group is to provide a forum to discuss the progress of the construction works, programme and any issues arising.

The group meets quarterly with an agenda and minutes taken of the meetings.

Port users are kept informed of the outcome of the meetings through established lines of communication within the port.

3.4.3 Dublin Port Website

The existing Dublin Port Website will be used to keep local communities informed of construction progress and programme, highlighting the extent of the works scheduled over a three-month rolling period.

3.5 Environmental Management Plans

A suite of initial Construction Environmental Management Plans (CEMP) has been prepared for the construction phase of the 3FM Project and are presented below. They set out the minimum requirements that must be met in relation to management of the environmental aspects listed. These CEMPs will be finalised as required prior to the commencement of development and will incorporate the mitigation measures outlined in the documentation submitted with the application for permission and will include any additional requirements pursuant to conditions attached to statutory consents. In addition, regular audits of the CEMP will be undertaken during the construction phase of the works by the Environmental Facilities Manager.

A suite of 13 Environmental Management Plans is presented in this section of the Draft CEMP as sign-posted in Table 3-1. A summary Table is also presented in Section 5.

Table 3-1 List of Initial Environmental Management Plans and their Location within the Draft CEMP

Management Plan	Section
Construction Traffic Management Plan	Section 3.5.1
Invasive Alien Species Management Plan	Section 3.5.2
Construction Waste Management Plan	Section 3.5.3
Resource & Waste Management Plan	Section 3.5.4
Noise & Vibration Management Plan	Section 3.5.5
Dust and Odour Management Plan	Section 3.5.6
Marine Mammals Management Plan	Section 3.5.7
Birds and Marine Ecology Management Plan	Section 3.5.8
Archaeology and Cultural Heritage Management Plan	Section 3.5.9
Water Quality Management Plan	Section 3.5.10
Dredging Management Plan	Section 3.5.11
Pollution Incident Response Plan	Section 3.5.12
Project Carbon Management Plan	Section 3.5.13

3.5.1 Construction Traffic Management Plan (CTMP)

This Construction Traffic Management Plan (CTMP) outlines minimum requirements for safe management of pedestrians and vehicular movements to, from and within the 3FM Project sites during construction. The traffic management plan will ensure uninterrupted access to essential DPC facilities, and will also ensure compliance with obligations set out in the following legislation:

- Guidelines for Working on Roads Guide to the Safety, Health And Welfare at Work (Construction) (Amendment) (No. 2) Regulations 2008 (S.I. No. 423 Of 2008)
- S.I. No. 366 of 2008 of the Road Traffic (Construction and Use of Vehicles) (Amendment) Regulations 2008

- Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013) as amended by
 - [S.I. No. 129/2019 - Safety, Health and Welfare at Work \(Construction\) \(Amendment\) Regulations 2019.](#)
 - [S.I. No. 102/2020 - Safety, Health and Welfare at Work \(Construction\) \(Amendment\) Regulations 2020.](#)

When finalising this CTMP a design specific risk assessment will be carried out by a Chartered Engineer with extensive experience in the design of traffic management system and works within a port environment.

Existing environment

Dublin Port operates on a 24 hour, 7 days per week basis, 365 days per year. The 3FM Project site is an area of the port that is extremely busy between the hours of 05:00 and 23:00. The main access to the site will be via Dublin Tunnel and East Wall Road, Tom Clarke Bridge and the R131.

Dublin Port operates at Security Level 1 as per International Ship and Port Facility Security (ISPS) Code and national statutory requirements. The 3FM Project site is adjacent to a number of Seveso sites.

The CTMP should be read in conjunction with the other Construction Management Plans. Implementation of this plan will require engagement with relevant stakeholders and operators in the Port during the 3FM Project construction phases. Project construction stages will be assessed to identify possible constraints and allow mitigation to be identified.

Resources

Sufficient resources will be allocated to deliver the traffic management plan. These will include a Traffic Manager Design Engineer, Traffic Manager Coordinator, Gateman to control site access and egress, and Traffic Management Operatives as required.

Plant required will include self-contained wheel wash facilities, lifting gate access barriers, road-sweeper, and signage as necessary.

Standards

The Construction Traffic Management Plan will ensure compliance with the following reference documents:

- Dublin City Council's HGV Management Strategy;
- HSA Code of Practice for Health and safety in Dock Work
- HSA Hazard in Port and Dock Operations Information Sheet
- Guidance for the Control and Management of Traffic at Road Works, 2010
- Traffic Signs Manual – Chapter 8, Department of Transport August 2019
- Construction Site Traffic Management Plan (CSTMP) Guidance (hsa.ie)
- Temporary Traffic Management Design Guidance, Department of Transport August 2019
- Temporary Traffic Management Operations Guidance, Department of Transport August 2019

CTMP Key Requirements

A project specific construction phase traffic management plan will be compiled by the Traffic Manager Design Engineer in accordance with the standards set out above and all additional requirements under conditions imposed by An Bord Pleanála (ABP) should the Board decide to grant development consent for the 3FM Project.

A Traffic Management Coordinator will oversee and maintain all traffic management on the site. Traffic access and layout will be detailed in technical drawings that take into consideration the coordination of works activities with the ongoing port operations including sailing schedules. The layout will be based on a detailed risk assessment prepared by the Traffic Manager Design Engineer in accordance with Chapter 8 of the Traffic Signs Manual. The traffic management plan drawings will show the key site access points and storage areas, visitor and operative access routes and parking areas, welfare, workshops and storage areas.

The traffic management and access layout plan will be kept under constant review. The Traffic Management Coordinator and site management will collate feedback from all stakeholders in the port and externally from Dublin City Council, Traffic Infrastructure Ireland and Dublin Tunnel as part of the review process. A Construction Traffic Management Strategy for the Dublin Tunnel will be prepared for the duration of the works which will include details in relation to the timing and routing of construction traffic to and from the construction sites and associated directional signage.

The Traffic Management Coordinator will liaise closely with Port Operations and relevant stakeholders to ensure that the CTMP remains current and reflects the evolving needs of the project and the port. The CTMP will be included in regular toolbox talks to ensure personnel are kept up to date with any changes.

All drivers will receive a site induction on the traffic management plan. All drivers will receive a toolbox talk on the use of the Dublin Tunnel and the requirement to cover loads. All drivers will receive a toolbox talk on cleaning of trucks as they leave the site.

The CTMP will consider scheduling management of construction traffic regarding availability of access routes and peak traffic volumes. This will include measures for the staggering of various shift start and finish times to

take account of the main ship arrival and departure times, movement of all construction plant, particularly large plant and wide loads requiring specialised transport. Large deliveries will be subject to a task specific risk assessment and method statement. Lift plans will be prepared for key lifting operations as per Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2020.

Coordination of all such activities will take place with stakeholders through the Traffic Management Coordinator and site management.

All efforts will be made to limit the number of vehicle movements associated with the 3FM Project to and from the port. Where economically viable and more environmentally sustainable than transport by land, materials for the project will be delivered by sea to minimise truck movements on and off site and to ensure the port activities are not hindered.

As part of the project enabling works, secure fencing will be erected to clearly separate the construction works and general port activities, allowing that port access to the site will be required. This fencing will be reviewed at commencement and supplemented where necessary. The site boundary will be adequately maintained through safety audits. Specific details of fencing will be provided in the final CTMP.

In order to prevent nuisance and possible safety issues a self-contained wheel wash facility will be provided at the site exit. All loads to and from the site will be appropriately covered. Trailers will also be inspected prior to use to ensure trailer boards create a good quality seal. Trailers will not be overloaded. Site access roads will be kept clean and road sweeps will ensure dirt or debris arising from the site are promptly removed as necessary.

The car park and access ways to site welfare and works areas will be clearly delineated, sign posted and lit. All cars and passengers will be required to sign in and out at gate security. Gate security will also monitor the use of the parking areas.

Strategic contingencies will be prepared to deal with any unscheduled closures of the Dublin Tunnel or congestion or disruption of local road networks. Strategic options will be reviewed on a case-by-case basis taking into consideration the likely duration of any closures and the current construction programme.

The CTMP will prevent the introduction or dispersal of invasive alien species in accordance with the 3FM Project Construction Invasive Alien Species Management Plan. All construction material imports to the site will be from an approved supplier's database and sourced from quality-controlled environments that are consistently screened for the presence of invasives. All plant arriving to the site will be washed off site prior to entering the site. The site security attendant will check all plant at the gate and turn away unwashed plant. All plant exiting the site will be wheel washed and debris free.

Should invasive species be identified within the site the mitigation listed in the invasive species management plan will be enacted. This will include such measures as physical separation of the area, treatment by chemical treatment or excavation as appropriate.

The CTMP will take cognisance of other construction activities that may be active within the Port Estate in relation to the rolling out of the Dublin Port Masterplan 2040, revised 2018 and other construction works being undertaken within the Poolbeg Peninsula by third parties.

3.5.2 Invasive Alien Species Management Plan

3.5.2.1 Introduction

This Invasive Alien Species Management Plan (IASMP) sets out measures that will be implemented during the construction phase of the 3FM Project to control the introduction or dispersal of invasive alien species (IAS), including early detection so that effective management may be applied.

IAS are taken to mean all species and the vectors implicated in their dispersal, as set out in the Third Schedule (Non-native species subject to restrictions under Regulations 49 and 50) to S.I. No. 477/2011 - The European Communities (Birds and Natural Habitats) Regulations 2011.

DPC is very aware of the fundamental importance of biodiversity in maintaining robust and sustainable ecosystems. In recent years the widespread occurrence and continual dispersal of invasive alien species poses a growing threat to native flora and fauna and the ecosystems that support them. Species of concern are listed in the Third Schedule of the Birds and Natural Habitats Regulations 2011 (Non-native species subject to restrictions under Regulations 49 and 50) which prohibits their introduction and dispersal.

The importance of the threat posed by Invasive Alien Species (IAS) is reflected in a suite of international, European and national policy and legislation. These include:

- Convention on Biological Diversity
- EU Biodiversity Strategy 2030
- Regulation of the European Parliament and of the Council on the prevention and management of the introduction and spread of invasive alien species (No. 1143/2014)
- Ireland's 4th National Biodiversity Action Plan 2023-2027
- European Communities (Birds and Natural Habitats) Regulations 2011, as amended
- Dublin City Biodiversity Action Plan 2021-2025
- Dublin City Invasive Species Action Plan 2016-2020

IAS can negatively impact on native species, can transform habitats and threaten whole ecosystems causing serious problems to the environment and the economy. They can be extremely difficult and costly to control and eradicate. In some instances, the latter may be impossible and adverse effects are irreversible. Early detection of IAS and preventing new introductions are effective management strategies.

Negative impacts of IAS on biodiversity can occur through a range of mechanisms such as competition, herbivory, predation, alteration of habitats and food webs, introduction of parasites and pathogens and through the dilution of native gene pools. In Ireland the most prominent negative impact appears to be direct competition with native biota, whilst alteration to habitats and the influence of parasites and pathogens are also important. A range of specific habitat types, and a variety of native species are currently under threat, including freshwater rivers and lakes; coastal floodplains, saltmarsh and sand dunes; tidal mudflats and sandflats.

The total number of alien animal and plant species on the island of Ireland has been estimated at over 1,200. Not all of these are 'invasive' or have an impact, that is, given to vigorous dispersal and displacement of natives. A group of 163 of the worst IAS threatening biodiversity in Europe has been compiled and Ireland has over 40 of this group.

Key Irish legislation with provision for control of invasive species is the Wildlife Acts and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011), both of which prohibit the spreading of invasive species. Specifically, Regulation 49(2) of S.I. No. 477/2011 makes it an offence to plant, disperse, allow or cause to disperse, spread or otherwise cause to grow in any place specified plants listed in the Third Schedule save in accordance with a licence. Regulation 49(3) allows proof that the accused took all reasonable steps and exercised all due diligence to avoid committing the offence as a defence.

The schedule also refers to vector materials that may occasion the dispersal of IAS. For the 3FM Project particular relevance is attached to 'soil or spoil taken from places infested with Japanese knotweed (*Fallopia japonica*), giant knotweed (*Fallopia sachalinensis*) or their hybrid Bohemian knotweed (*Fallopia xbohemica*)'.

The species and vectors for their dispersal as set out in the Third Schedule to S.I. No. 477/2011 are listed in Table 3-2 and Table 3-3 along with an assessment of the risk posed for introduction or dispersal through the 3FM Project.

Three distinct types of measures are envisaged, which follow an internationally agreed hierarchical approach to combating IAS (European Union Regulation (EU) NO 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species). These include:

- **Prevention:** a number of robust measures aimed at preventing the intentional or unintentional introduction of IAS of Union concern into the 3FM Project Site.
- **Early detection and rapid eradication:** a surveillance system will be put in place to detect the presence of IAS of concern as early as possible to allow rapid eradication measures to be implemented where possible to prevent them from establishing.
- **Management:** some IAS may already be established. In this case concerted management action will be taken to prevent them from spreading any further and to minimize the harm they may cause.

The measures identified in this Invasive Alien Species Management Plan will be implemented for the duration of the proposed construction works.

IAS Management in Dublin Port

An Invasive Alien Plant Species Management Plan: Dublin Port (2019) has been prepared and includes the area proposed for development in the 3FM Project. This plan will inform the project specific IASMP presented in the CEMP and also link into the Construction Waste Management Plan and Construction Traffic Management Plan to prevent the introduction or spread of IAS.

This management strategy is informed by best practice guidance, advice on mitigation methods, and aids to identification provided in a range of sources including:

- National Roads Authority (2010). Guidelines on The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads Revision 1, December 2010
- Invasive Species Ireland Project (2009). Field Guide to Invasive Species in Ireland. 2nd Edition.
- Invasive Species Ireland website: <http://invasivespeciesireland.com>
- GB Non-Native Species Secretariat website: www.nonnativespecies.org

3.5.2.2 Initial IAS Risk Assessment

The implementation of biosecurity measures in relation to IAS must be based on a risk-based approach. To inform this approach an initial IAS risk assessment has been undertaken to identify those IAS that are likely to be relevant and present risks of introduction or dispersal during the 3FM Project. This initial risk assessment will facilitate implementation of appropriate mitigation measures, including preparation of guides to aid species identification for use by Contractors. The IAS risk assessment will be repeated prior to commencement of 3FM works.

Not all non-native or alien species are invasive. Some species may only be invasive in certain contexts. This risk assessment considers all species, and the vectors implicated in their dispersal, as set out in the Third Schedule (Non-native species subject to restrictions under Regulations 49 and 50) to The Birds and Natural Habitats Regulations (S.I. No. 477/2011). The assessment also considers individual IAS as set out in the Draft Invasive Species Action Plan for Dublin City 2016 - 2020 prepared by Dublin City Council, and the invasive non-native species listed in *Ireland's invasive and non-native species – trends in introductions* (O'Flynn, C., Kelly, J. and Lysaght, L. (2014) National Biodiversity Data Centre Series No. 2. Ireland).

The risk assessment includes:

- an appraisal of the key IAS that are most likely to pose a threat based on
 - habitat availability at the construction site
 - known occurrence of IAS in the likely region of influence
 - available pathways for dispersal to and within the construction site
 - extent of risk presented by an individual IAS (considering potential economic, operational, and environmental impacts, and presence of resident vulnerable or threatened native species)
- a visual survey of the construction site for the presence IAS
- mapping and photographic record of any IAS detected
- compilation of visual identification aids for shortlisted key IAS

Method

The National Biodiversity Data Centre (NBDC) IAS dataset has been used to support a preliminary assessment of invasive species issues when considering the 3FM Project. All invasive species records at the 3FM Project site and in proximity to the site were extracted to compile a list of IAS in an area of approximately 60 km² centred on the 3FM Project site. Several recent surveys have also been undertaken in support of other projects and planning applications. These include a preliminary ecological appraisal of areas within the 3FM Project site carried out in July 2018 at Berth 47A (RPS Berth 47A Environmental Report, 2018), which included a search for invasive flora species. RPS also carried out an assessment of IAS at Roadstone Yard on the Poolbeg peninsula (Roadstone Yard IAS Survey, RPS April 2019), and survey and mapping of IAS was undertaken during preparation of Invasive Alien Plant Species Management Plan: Dublin Port (2019).

The risk assessment is based on the presence or absence of species at the 3FM Project site, the distribution of the species in the surrounding region, and the availability of suitable habitats at the 3FM Project site. Consideration is also given to available pathways for dispersal and the impact/invasiveness of the species in question.

Site Characteristics

The 3FM Project site lies in the Dublin Port Estate on the Poolbeg peninsula. It is comprised largely of artificial surfaces (BL3⁴), sea walls, piers and jetties (CC1) some areas of which support patches of ruderal plant communities recolonising bare ground (ED3).

Some small, planted areas of ornamental/non-native shrubs (WS3) and mixed broadleaved/conifer woodland (WD2) are present, and small patches of scrub (WS1) also occur.

Areas of amenity grassland (GA2) occur along road networks and dry meadows and grassy verges (GS2) are represented on some embankments and neglected land areas.

No freshwater habitats exist within the curtilage of the site. The River Liffey estuary forms the northern boundary of the site, and Dodder River estuary joins the Liffey a short distance upstream of the site.

IAS Occurrence On-Site

The proposed 3FM Project site is quite extensive and not all areas are readily accessible. Therefore the detection of IAS here can only be taken as a minimum. Detailed surveys of each location must be undertaken before commencement of 3FM Project works.

Three regulated invasive alien species were recorded on site. These were Sea Buckthorn *Hippophae rhamnoides*, Three-cornered Leek *Allium triquetrum* and Japanese knotweed *Fallopia japonica*. Japanese knotweed has been recorded at some 22 locations on the Poolbeg peninsula in or adjacent to Dublin Port lands. These patches varied from 0.25m² to 720m² in extent. Japanese knotweed is a 'High Impact' species listed in SI. 477 Part 1 - Non-native species subject to restrictions under Regulations 49 and 50 European Communities (Birds and Natural Habitats) Regulations 2011.

The following non-regulated 'medium impact species' listed in O'Flynn, C. et al (2014) and NBDC were recorded on site:

- Butterfly Bush *Buddleja davidii*
- Narrow-leaved Ragwort *Senecio inaequidens*
- Canadian Fleabane *Conyza canadensis*
- Sycamore *Acer pseudoplatanus*
- Traveller's-joy *Clematis vitalba*

Risk Assessment

The risk assessment undertaken here relates to the 3FM Project site only. An assessment of the overall risk of future introduction or dispersal associated with all species in the Third Schedule is provided in Table 3-2 and Table 3-3. Overall risk is based on a combination of species presence on the 3FM Project site, occurrence locally i.e. recorded in the approximate 60km² area searched on the NBDC mapping portal, and suitable habitat availability at the construction site. Consideration is also given to available pathways for dispersal and the

⁴ Habitat categories are as in Fossitt, 2000, A Guide to the Habitats of Ireland. The Heritage Council.

impact/invasiveness of the species in question. Where an IAS risk assessment has been published, the overall potential impact is considered and may result in downgrading risk as computed (e.g. Three-cornered Leek and Spanish Bluebell). Also where 3FM Project activities do not provide likely pathways for introduction or dispersal the risk has been reduced (mammals such as the grey squirrel). Finally, where species are not considered highly invasive in this geographical region (e.g. Giant Rhubarb species), the risk has also been reduced.

Due to their presence in the surrounding region and site area, the availability of dispersal pathways, and suitable habitat at the construction site, four species of flowering plants are considered to pose a high risk of introduction and/or future dispersal. These are Japanese Knotweed, Three-cornered Leek, Sea Buckthorn and Giant Hogweed. In particular, Japanese Knotweed is present at locations on the Poolbeg peninsula and poses a high risk of dispersal.

A further two plant species are ranked as medium risk. These are the Giant Rhubarb, and Spanish Bluebell. Spanish Bluebell is a garden escape (horticultural pathways) with relatively less impact.

One mammal (Grey Squirrel) and one insect (Harlequin Ladybird) have been assigned medium risk. These species have been recorded in the surrounding area. They are well established and are considered 'high impact' invasive species. However, they are highly mobile species and it is considered unlikely that operations of the 3FM Project will provide any additional significant pathways for introduction or dispersal.

Soil contaminated with knotweed material (in particular stem fragments, or rhizomes) is also identified as a high risk vector for these invasive species.

Table 3-2 Risk Assessment for Third Schedule IAS in relation to the 3FM Project site

Common name	Scientific name	IAS Detected on 3FM Project Site (Y/N)	IAS Occurs Locally (NBDC records) (Y/N)	Suitable habitat present	Overall Risk
Note: Overall risk is presented as high (red), medium (amber) or low (green).					
American skunk-cabbage	<i>Lysichiton americanus</i>	N	N	-	Low
A red alga	<i>Grateloupia doryphora</i>	N	N	-	Low
Brazilian giant-rhubarb	<i>Gunnera manicata</i>	N	N	-	Low
Broad-leaved rush	<i>Juncus planifolius</i>	N	N	-	Low
Canadian Waterweed	<i>Elodea canadensis</i>	N	Y	N	Low
Cape pondweed	<i>Aponogeton distachyos</i>	N	N	-	Low
Cord-grasses	<i>Spartina</i> (all species and hybrids)	N	N	-	Low
Curly waterweed	<i>Lagarosiphon major</i>	N	N	-	Low
Dwarf eel-grass	<i>Zostera japonica</i>	N	N	-	Low
Fanwort	<i>Cabomba caroliniana</i>	N	N	-	Low
Floating pennywort	<i>Hydrocotyle ranunculoides</i>	N	N	-	Low
Fringed water-lily	<i>Nymphaoides peltata</i>	N	N	-	Low
Giant hogweed	<i>Heracleum mantegazzianum</i>	N	Y	Y	High
Giant knotweed	<i>Fallopia sachalinensis</i>	N	N	-	Low
Giant-rhubarb	<i>Gunnera tinctoria</i>	N	Y	Y	Medium
Giant salvinia	<i>Salvinia molesta</i>	N	N	-	Low
Himalayan/Indian balsam	<i>Impatiens glandulifera</i>	N	N	-	Low

Common name	Scientific name	IAS Detected on 3FM Project Site (Y/N)	IAS Occurs Locally (NBDC records) (Y/N)	Suitable habitat present	Overall Risk
Note: Overall risk is presented as high (red), medium (amber) or low (green).					
Himalayan knotweed	<i>Persicaria wallichii</i>	N	N	-	Low
Hottentot-fig	<i>Carpobrotus edulis</i>	N	N	-	Low
Japanese knotweed	<i>Fallopia japonica</i>	Y	Y	Y	High
Large-flowered waterweed	<i>Egeria densa</i>	N	N	-	Low
Mile-a-minute weed	<i>Persicaria perfoliata</i>	N	N	-	Low
New Zealand pigmyweed	<i>Crassula helmsii</i>	N	N	-	Low
Nuttall's Waterweed	<i>Elodea nutalli</i>	N	Y	N	Low
Parrots feather	<i>Myriophyllum aquaticum</i>	N	N	-	Low
Rhododendron	<i>Rhododendron ponticum</i>	N	N	-	Low
Salmonberry	<i>Rubus spectabilis</i>	N	N	-	Low
Sea-buckthorn	<i>Hippophae rhamnoides</i>	Y	Y	Y/N	High
Spanish bluebell	<i>Hyacinthoides hispanica</i>	N	Y	Y	Medium
Three-cornered leek	<i>Allium triquetrum</i>	Y	Y	Y	High
Wakame	<i>Undaria pinnatifida</i>	N	N	-	Low
Water chestnut	<i>Trapa natans</i>	N	N	-	Low
Water fern	<i>Azolla filiculoides</i>	N	N	-	Low
Water lettuce	<i>Pistia stratiotes</i>	N	N	-	Low
Water-primrose	<i>Ludwigia</i> (all species)	N	N	-	Low
Wireweed	<i>Sargassum muticum</i>	N	N	-	Low
A colonial sea squirt	<i>Didemnum spp.</i>	N	N	-	Low
A colonial sea squirt	<i>Perophora japonica</i>	N	N	-	Low
All freshwater crayfish species except the white-clawed crayfish	<i>All freshwater crayfish species except Austropotamobius pallipes</i>	N	N	-	Low
American bullfrog	<i>Rana catesbeiana</i>	N	N	-	Low
American mink	<i>Neovison vison</i>	N	N	-	Low
American oyster drill	<i>Urosalpinx cinerea</i>	N	N	-	Low
Asian oyster drill	<i>Ceratostoma inornatum</i>	N	N	-	Low
Asian rapa whelk	<i>Rapana venosa</i>	N	N	-	Low
Asian river clam	<i>Corbicula fluminea</i>	N	N	-	Low
Bay barnacle	<i>Balanus improvisus</i>	N	N	-	Low
Black rat	<i>Rattus rattus*</i>	N/A			
Brown hare	<i>Lepus europaeus</i>	N	N	-	Low
Brown rat	<i>Rattus norvegicus*</i>	N/A			
Canada goose	<i>Branta canadensis</i>	N	N	-	Low
Carp	<i>Cyprinus carpio</i>	N	N	-	Low
Chinese mitten crab	<i>Eriocheir sinensis</i>	N	N	-	Low
Chinese water deer	<i>Hydropotes inermis</i>	N	N	-	Low
Chub	<i>Leuciscus cephalus</i>	N	N	-	Low
Common toad	<i>Bufo</i>	N	N	-	Low
Coypu	<i>Myocastor coypus</i>	N	N	-	Low
Dace	<i>Leuciscus</i>	N	N	-	Low
Freshwater shrimp	<i>Dikerogammarus villosus</i>	N	N	-	Low
Fox	<i>Vulpes vulpes*</i>	N/A			
Grey squirrel	<i>Sciurus carolinensis</i>	N	Y	Y	Medium

Common name	Scientific name	IAS Detected on 3FM Project Site (Y/N)	IAS Occurs Locally (NBDC records) (Y/N)	Suitable habitat present	Overall Risk
Note: Overall risk is presented as high (red), medium (amber) or low (green).					
Greylag goose	<i>Anser</i>	N	N	-	Low
Harlequin Ladybird	<i>Harmonia axyridis</i>	N	Y	Y	High
Hedgehog	<i>Erinaceus europaeus*</i>	N/A			Low
Irish stoat	<i>Mustela erminea hibernicus*</i>	N/A			Low
Japanese skeleton shrimp	<i>Caprella mutica</i>	N	N	-	Low
Muntjac deer	<i>Muntiacus reevesi</i>	N	N	-	Low
Muskrat	<i>Ondatra zibethicus</i>	N	N	-	Low
Quagga Mussel	<i>Dreissena rostriformis</i>	N	N	-	Low
Roach	<i>Rutilus</i>	N	N	-	Low
Roe deer	<i>Capreolus</i>	N	N	-	Low
Ruddy duck	<i>Oxyura jamaicensis</i>	N	N	-	Low
Siberian chipmunk	<i>Tamias sibiricus</i>	N	N	-	Low
Slipper limpet	<i>Crepidula fornicata</i>	N	N	-	Low
Stalked sea squirt	<i>Styela clava</i>	N	N	-	Low
Tawny owl	<i>Strix aluco</i>	N	N	-	Low
Wild boar	<i>Sus scrofa</i>	N	N	-	Low
Zebra mussel	<i>Dreissena polymorpha</i>	N	N	-	Low
Fallow deer	<i>Dama</i>	N	N	-	Low
Sika deer	<i>Cervus nippon</i>	N	N	-	Low

Table 3-3 Vectors for IAS dispersion considered at 3FM Project Site

Vector material	Species referred to	IAS Present on 3FM Project Site	IAS Occurs Locally (48km ²)	Suitable habitat present	Overall Risk
<i>Note: Overall risk is presented as high (red), medium (amber) or low (green).</i>					
Blue mussel (<i>Mytilus edulis</i>) seed for aquaculture taken from places (including places outside the State) where there are established populations of the slipper limpet (<i>Crepidula fornicata</i>) or from places within 50 km. of such places	Mussel (<i>Mytilus edulis</i>) Slipper limpet (<i>Crepidula fornicata</i>)	N/A			
Soil or spoil taken from places infested with Japanese knotweed (<i>Fallopia japonica</i>), giant knotweed (<i>Fallopia sachalinensis</i>) or their hybrid Bohemian knotweed (<i>Fallopia xbohemica</i>)	Japanese knotweed (<i>Fallopia japonica</i>) Giant knotweed (<i>Fallopia sachalinensis</i>) Bohemian knotweed (<i>Fallopia x bohemica</i>)	N	Y	Y	

Mitigation Measures

Biosecurity measures are a series of precautionary steps designed to reduce the risk of dispersal / introduction of IAS. The management approach taken will prioritise prevention of IAS introduction to, or dispersal from Dublin Port. Mitigation measures will be implemented if required to contain, eradicate or control as appropriate any IAS found to be present in the areas of project operations.

3.5.2.3 Prevention

Prevention measures will range from raising awareness of IAS and the potential for their dispersal, to ensuring best practice in relation to the movement of personnel and materials into, within or out of the operations area. Measures which will be implemented include:

- Ensuring that rock armour, gravels, sand or soils to be imported to the site are sourced from authorised/licensed quarry operators
- Specifying that such material should be free of invasive plant species and their propagules
- Implementing a waste management plan for the proper storage and controlled movement of waste materials
- Implementing a materials handling plan for the proper storage and controlled movement of materials
- Implementing a construction traffic management plan for control of vehicle and plant access and movements, including wheel wash and plant inspection at site entrance
- Cordoning off any IAS locations on site identified and mapped in the initial IAS assessment
- Notification of any suspected new occurrences of IAS to the Environmental Facilities Manager
- Washing down machinery that has operated in IAS infested areas in designated locations before moving within the site or leaving the site

- Ensuring that all vehicles and construction plant arriving on site are reasonably clean and free of significant deposits of mud and plant debris (particularly tyres, wheel arches, excavator buckets and tracks) that might be a vector for spread of IAS
- Inclusion of IAS awareness in toolbox talks using visual aids to identification for the most likely species to be encountered based on the initial IAS risk assessment

Early detection and rapid eradication

A surveillance system will be put in place to detect the presence of IAS of concern as early as possible to allow rapid eradication measures to be implemented where possible to prevent them from establishing. The Environmental Facilities Manager will undertake regular inspections of the site to detect any new IAS occurrences or colonies. Measures which will be implemented will include:

- Ongoing monitoring of the 3FM Project site for IAS and updating the Initial IAS Assessment as necessary
- mapping of distribution of existing and new IAS colonies and occurrences throughout the 3FM Project site
- confirmation of identification of any IAS and collation of relevant best practice management and eradication methods
- cordoning off of IAS infested area to limit movement of people / machinery in the area and relevant buffer zones, and appropriate signage
- Implementation of recommended control/eradication measures by qualified and experienced personnel
- monitoring of treated area to determine effectiveness of measures or need for further actions
- Handling and disposal of treated material appropriately to prevent further spread.

3.5.2.4 Management - Containment / Treatment

If any established IAS is identified on the construction site, the management plan will aim to contain its spread in the first instance and subsequently eradicate it if possible from the site. This will include implementation of the following measures:

- Cordoning off any invasive species infestations to limit movement of people / machinery in infested area and relevant buffer zones, and appropriate signage
- Confirmation of the identification of the species concerned, and collation of relevant best practice management and eradication information
- Selection of the most appropriate best practice methods for control / treatment
- Prioritisation of treatment areas
- Undertaking physical or chemical control measures as appropriate in line with best practice guidance and in compliance with health and safety requirements
- Ensuring control measures are undertaken by suitably qualified personnel
- Handling and disposal of treated material appropriately to prevent further spread.

The Environmental Facilities Manager will be responsible for ensuring that appropriate mitigation is in place as part of the Construction Environmental Management Plan during the implementation of the 3FM Project.

3.5.3 Construction Waste Management Plan

3.5.3.1 Introduction

This Construction Waste Management Plan (CWMP) provides an assessment of the potential impacts arising from the generation of waste materials during demolition and construction of the 3FM Project and measures for ensuring that all construction and demolition wastes associated with the 3FM Project are managed and controlled to prevent the risk of environmental pollution or ecological damage.

The CWMP will be finalised in the event that development consent is obtained, in order to incorporate additional requirements pursuant to conditions attached to statutory consents, and methods and plant in use by the appointed Contractor.

3.5.3.2 Objectives of the CWMP

In line with the objectives of the Waste Framework directive (WFD) (2008/98/EC) of 19th November 2008, this document prescribes a proactive approach to the management of construction and demolition waste during the 3FM Project and promotes sustainable development, environmental protection and optimum use of resources. The CWMP is based on the fundamental waste management prioritisation principles i.e. prevent, reduce, reuse, recycle. The following definitions are given in the WFD:

- Prevention – means measures taken before a substance, material or product has become waste, that reduce:
 - The quantity of waste, including through the re-use of products or the extension of the life span of products;
 - The adverse impacts of the generated waste on the environment and human health; or
 - The content of harmful substances in materials and products.
- Preparing for re-use – means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing.
- Recycling - means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations.
- Other recovery e.g. energy recovery - means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy. Annex II (to the WFD) sets out a non-exhaustive list of recovery operations.
- Disposal - means any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy. Annex I sets out a non-exhaustive list of disposal operations.

This waste management hierarchy will be applied wherever possible as part of this waste management process.

The objectives of this CWMP are as follows:

- Compliance with requirements for waste management during all works.
- Minimisation of the risk of environmental pollution or ecological damage during the works.
- Application of best environmental practices in relation to waste management on site.

3.5.3.3 Definition of Waste

Waste is defined as ‘any substance or object the holder discards, intends to discard or is required to discard’ under the Waste Framework Directive (European Directive 2006/12/EC as amended by Directive 2008/98/EC). Materials become wastes when deemed surplus to the needs of a development project and are about to be discarded. Once a substance has become waste it will remain waste until it has been fully recovered and no longer poses a potential risk to the environment or human health. From that moment onwards, the material ceases to be waste.

This applies to waste used as aggregate or construction material in civil engineering applications and to excess top-soils and sub-soils which need to be moved off-site.

Waste recovery can be achieved when such waste is incorporated into a road, building or other infrastructure works, or in the case of inert waste, after processing if such a process is conducted following the criteria specified in the relevant quality protocols⁵. All wastes must be handled by permitted collectors and brought to authorised facilities.

All wastes are either inert, non-hazardous or hazardous. Laboratory testing of representative samples is required to characterise waste materials. The waste acceptance criteria test is established and reliable, the results providing certainty of treatment. The ultimate classification of material dictates the destination facility where waste materials can be sent.

3.5.3.4 Anticipated Waste

The proposed works will generate construction and demolition (C&D) waste through removal of existing buildings, jetties and roads to create additional terminal and berthing facilities. Waste may also arise from construction works to be undertaken as part of the 3FM Project, including general waste from the various construction activities. Detailed estimates of all predicted waste generation will be produced before commencement of the construction phase. These estimates will indicate the type and the predicted quantities of wastes classified by EWC Code. The waste generation document will be a live document and updated throughout the project.

⁵ Quality Protocols have been developed by Waste and Resources Action Programme (WRAP) and the Environment Agency (EA) to encourage the recovery of waste materials while at the same time increasing confidence in quality of products made from waste.

3.5.3.5 Main Works Contractor Roles & Responsibilities

A Main Works Contractor (MWC) Environmental Co-ordinator/Waste Manager will be appointed to ensure commitment, operational efficiency and accountability during the construction and demolition phase with regard to waste management, including the procedures that will be followed for ensuring implementation of the CWMP through the onsite management structure but also across all members of the construction team.

Record Keeping

The Environmental Co-ordinator/Waste Manager will obtain and maintain hard copies of:

- all waste collection permits, waste facility permits, waste licences, industrial emission licences and certificates of registration for all facilities to be used throughout the project.
- all waste classification tests carried out on materials, where applicable
- sign-off all Waste Transfer Forms for empty/full skips
- maintain a Waste Tracking Register for all hazardous and non-hazardous waste movements off-site
- All waste types and amounts generated will be recorded and reviewed at regular intervals, to allow for continuous analysis and review of procedures that will be made to reduce waste to landfill, increase the percentage of recycling and reduce waste overall as much as possible.

Records will be kept for all waste material that leaves the site, whether for reuse on another site, recovery, recycling or disposal. A system will be put in place to record the construction waste arising on site. The MWC Environmental Co-ordinator/Waste Manager or delegate will record the following:

- Waste taken off-site for reuse
- Waste taken off-site for recovery
- Waste taken off-site for recycling
- Waste taken off-site for disposal

For each movement of waste off-site a signed waste collection docket will be obtained by the MWC Environmental Co-ordinator/Waste Manager from the Contractor. This will be carried out for each material type. This system will also be linked with the delivery records. A signed waste acceptance docket will be issued for each movement of waste on-site.

Monitoring

The appointed MWC Environmental Co-ordinator/Waste Manager will be responsible for conducting waste audits and checks during the C&D phase of the development and monitoring CWMP implementation including:

- regular waste audits to ensure full adherence to this waste management plan and agreed procedures
- confirming that each waste facility being used during the project is operating in accordance with its licence or permit conditions and is managing waste in accordance with the agreed method set out at the start of the project

- ensuring that all non-hazardous waste materials being placed in skips/other receptacles are being fully de-labelled
- Requesting skip/bin exchanges from the non-hazardous waste Contractor and acting as spotter when the collection vehicle is on site.

A review of all records for the waste generated and transported off-site, will be undertaken mid-way through the C&D phase.

Storage/Reuse of Demolition/Excavation Wastes

The storage and reuse of demolition or excavation wastes on site may be subject to a number of waste licensing requirements. If these wastes are to be stored on site, prior to potential reuse or recovery during construction, this activity will be subject to a Waste Management Licence Exemption with a limited tonnage of material permitted to be stored on site. Storage will take place in a secure area on-site and the MWC Environmental Co-ordinator/Waste Manager will monitor the amount of waste stored to ensure that the permitted limits of the Exemption are not exceeded. DPC and its appointed Contractor will consult with the EPA prior to construction to ensure that the appropriate Waste Management Licence or Exemption is in place.

Under certain circumstances and in order that uncontaminated excavated soil and stone is beneficially used on-site, DPC and its MWC may decide in accordance with the conditions of article 27 of the European Communities (Waste Directive) Regulations 2011, S.I. No. 126 of 2011 that such material is a by-product and not a waste and will notify the Environmental Protection Agency for a determination.

Corrective Actions

If waste movements are not accounted for, the reasons for this will be established in order to see if and why the record keeping system has not been maintained. Each material type will be examined in order to see where the largest percentage of waste generation is occurring. The waste management methods for each material type will be reviewed in order to highlight how the targets can be achieved.

Reporting

Upon completion of the C&D phase a final report will be prepared summarising the outcomes of the waste management processes adopted and the total recycling / reuse / recovery figures for the development. To that end a method to calculate the difference between expected waste quantities prior to commencement of the project and actual waste quantities after project completion will be provided.

Training

The MWC Environmental Co-ordinator/Waste Manager will be given responsibility and authority to select a waste team if required i.e. members of the site crew that will aid them in the organisation, operation and recording the waste management system implemented on-site.

The MWC Environmental Co-ordinator/Waste Manager will have overall responsibility to oversee records and provide feedback to DPC on everyday waste management on the site. Authority will be given to MWC Environmental Co-ordinator/Waste Manager to delegate responsibility to sub-Contractors where necessary and to co-ordinate with suppliers, service providers and sub-Contractors to prioritise waste prevention and salvage.

The MWC Environmental Co-ordinator/Waste Manager will be trained in how to set up and maintain a record keeping system, how to perform, audit and how to establish targets for waste management on site. The Environmental Co-ordinator/Waste Manager will also be trained in the best method for segregation and storage of recyclable materials, have information on the materials that can be reused on-site and implement the CWMP.

Training of staff on site is the responsibility of the MWC Environmental Co-ordinator/Waste Manager and as such, a waste training programme will be organised. A basic awareness course will be held for all crew to outline the CWMP and to detail the segregation of waste at source. This may be incorporated with other training needs (e.g. general site induction, safety training etc.). This basic course will describe the materials to be segregated, the storage methods and the location of waste storage areas. A subsection on hazardous wastes will be incorporated and the particular dangers of each hazardous waste will be explained.

The Environmental Co-ordinator/Waste Manager will provide daily support to the site crews on waste segregation, storage and decontamination, and provide weekly input at toolbox talks on waste related subjects.

3.5.3.6 Environmental Mitigation Measures

Construction waste will be managed in line with the requirements of this CWMP which will be implemented by the appointed Contractor for the duration of the construction works. The CWMP identifies how waste will be dealt with (i.e. disposal, re-use on/off site etc.). The Contractor will also choose building materials to 'design out waste' to the maximum extent possible. This will include agreements with materials suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme. The Contractor will implement 'just in time' materials delivery systems where possible to avoid materials being stockpiled, which increases the risk of the damage and disposal as waste.

Table 3-4 below summarises the potential impacts identified, and the mitigation measures required, where necessary.

Table 3-4 Proposed Mitigation Measures

Potential Impact (Waste Management)	Summary of Proposed Mitigation (Waste Management)
<p>Demolition Phase</p> <p>Waste materials will be generated as a result of the demolition of various structures including jetties and buildings.</p> <ul style="list-style-type: none"> Quantities of C&D waste from demolition works will be estimated prior to project implementation. Poor management of demolition waste could lead to the potential for quantities of materials to be deposited in landfill sites rather than reused or recycled. 	<p>A MWC will be appointed. Contractors working on site during the works will have a duty of care and be responsible for the collection, control and disposal of all wastes generated by the works. DPC and their appointed MWC will ensure that all waste materials leaving the site will be transported via a licensed carrier and disposed or recovered through licenced operators and in accordance with national waste legislation. The Contractor will ensure that all proposed waste management routes comply with the European waste hierarchy of prevention, preparing for reuse, recycling, and recovery with disposal being the last and final option. Monitoring and updating of records will be implemented under Duty of Care requirements.</p>

Potential Impact (Waste Management)	Summary of Proposed Mitigation (Waste Management)
	<p>A Demolition Survey is required prior to any demolition work undertaken. The Demolition Survey will set out all high value waste materials, such as metals, that will be removed from buildings and segregated for possible onward reuse or recycling to maximise recovery.</p> <p>In order to divert waste from landfill, possibilities for reuse of inert demolition material as fill on site will be considered, following appropriate testing to ensure materials are suitable for their proposed end purpose.</p> <p>C&D waste may be subject to treatment at the site prior to recovery. Mobile plant may be installed to crush and screen suitable CDW. A permit for the recovery operation will be required.</p> <p>Storage of demolition or excavation wastes onsite for reuse will take place in a secure area on-site and the Contractor will monitor the amount of waste stored to ensure that the permitted limits of any Exemption are not exceeded.</p> <p>Materials of industrial heritage importance will be carefully removed and salvaged for relocation elsewhere on site for future heritage gain projects.</p> <p>Correct segregation, storage, handling and transport of all waste will be required to ensure there are no adverse effects on human health and that litter is not generated.</p> <p>Demolition debris will be separated into five waste streams on-site:</p> <ul style="list-style-type: none"> • Construction debris (i.e. ceramics, tiles, plasterboard) • Masonry materials (i.e. brick, concrete blocks) • Metals • Timber • Universal waste (i.e. fluorescent bulbs, ballast and mercury containing switches) <p>On-site segregation of all hazardous waste materials into appropriate categories:</p>

Potential Impact (Waste Management)	Summary of Proposed Mitigation (Waste Management)
	<ul style="list-style-type: none"> Waste oils and fuels; Paints, glues, adhesives and other known hazardous substances <p>The storage and reuse of demolition or excavation wastes on site may be subject to a number of waste licensing requirements. DPC and their appointed MWC will consult with the EPA prior to construction to ensure that the appropriate licences, permits and exemptions are in place prior to initiation.</p>
<p>Demolition waste can also contain hazardous substances such as Asbestos Containing Materials (ACMs) that are present in buildings when demolished or renovated.</p>	<p>The Demolition Survey will include intrusive surveying with sampling which will identify the exact extent and location of any ACMs in the building. Removal offsite of any ACMs from the buildings to be demolished will be required prior to demolition.</p> <p>The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 as amended (S.I. No. 386 of 2006) and The Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013) provides the legislative backdrop to all aspects of asbestos control in construction. Any actions related to ACMs must be in accordance with these regulations.</p>
<p>Construction Phase</p> <p>There is the potential for quantities of materials to be deposited in landfill sites rather than reused or recycled.</p> <p>Waste materials will arise from site management practices during the construction phase, for example, excess materials and packaging, over-ordering materials, off-cuts, damaged materials and poor storage during the construction phase.</p> <p>Waste materials generated as a result of excavations, typically consisting of materials, for example, soil, made ground and existing foundations removed as a function of design or from excavations for new construction. Depending upon the previous use of the site, this may, or may not be contaminated.</p> <p>Fuels and hydraulic oils/lubricants that will be used during the construction phase are classed as hazardous.</p>	<p>Contractors working on site during the works will have a duty of care and be responsible for the collection, control and disposal of all wastes generated by the works. DPC and their appointed MMC will ensure that all waste materials leaving the site will be transported via a licensed carrier and disposed or recovered through licenced operators and in accordance with national waste legislation. The Contractor will ensure that all proposed waste management routes comply with the European waste hierarchy of prevention, preparing for reuse, recycling, and recovery with disposal being the last and final option. Monitoring and updating of records will be implemented under Duty of Care requirements.</p> <p>Every effort will be made in the management of the site to minimise the oversupply of construction materials.</p> <p>Correct segregation, storage, handling and transport of all waste will be required to ensure there are no adverse effects on human health and that litter is not generated.</p>

Potential Impact (Waste Management)	Summary of Proposed Mitigation (Waste Management)
<p>There will be fuel stores on site for machinery and construction vehicles along with oils and lubricants. Should any spillages, waste or surplus liquids be disposed of incorrectly it could cause serious harm to the surrounding environment.</p>	<p>Construction waste materials shall be segregated on-site for recycling into the following categories:</p> <ul style="list-style-type: none"> ▪ Timber ▪ Metal ▪ Cardboard & paper ▪ Glass ▪ Rubble ▪ General waste <p>Waste gypsum can be recycled therefore a skip will be provided for the separate collection of waste plasterboard and collected as necessary.</p> <p>Cardboard packaging will be flattened and placed in a covered skip to prevent it getting wet prior to collection by a waste Contractor.</p> <p>Plastic will be segregated at source and kept as clean as possible and stored in a dedicated skip prior to collection by a waste Contractor.</p> <p>Project design will incorporate adequate dedicated space to cater for the segregation and storage of all various waste streams during construction. The waste storage compound will be fully enclosed within the development and will allow for waste segregation and handling activities.</p> <p>All waste materials will be stored in skips or other suitable receptacles in designated areas of the site. The waste storage area(s) will be assigned and all construction staff provided with training regarding the waste management procedures on commencement of the project. Adequate security measures will be put in place.</p> <p>A bunded disposal area will be provided for all waste fuels and hydraulic oils/lubricants.</p>
<p>The use of non-permitted waste Contractors or unlicensed facilities could give rise to inappropriate management of waste and result in environmental impacts/pollution.</p>	<p>Contractors working on site during the works will have a duty of care and be responsible for the collection, control and disposal of all wastes generated by the works. DPC and their appointed MWC will ensure that all waste materials leaving the site will be transported via a licensed carrier and disposed or</p>

Potential Impact (Waste Management)	Summary of Proposed Mitigation (Waste Management)
	recovered through licenced operators and in accordance with national waste legislation. Monitoring and updating of records will be implemented under Duty of Care requirements.
Waste arising from wash down facility	Solid waste in the form of sediments will arise from the wheel wash unit settlement tank. The unit will be inspected regularly (for example, to check automated features are working and settlement content) and emptied in accordance with manufacturer's instructions. The solid residues will be analysed and the disposal route appropriately selected based on the results of this analysis. A gully emptier tanker will be used to remove settlement tank waste which will be disposed of at an approved waste disposal site.
If asbestos materials are not correctly identified, segregated and appropriately managed, there may be incorrect handling of the material which could have negative impacts on workers as well as environments both onsite and offsite.	The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 as amended (S.I. No. 386 of 2006) and The Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013) provides the legislative backdrop to all aspects of asbestos control in construction. Any actions related to ACMs must be in accordance with these regulations.
Waste will be arising from the construction compound.	Recyclable waste such as paper, cardboard packaging and canteen waste will be segregated on site in covered skips for recycling. Regular housekeeping of the temporary canteen, office and construction compound will be carried out by a permitted waste Contractor.
Sewage from the temporary site toilets will be emptied under contract for disposal at an appropriate facility.	Any temporary W/C utilities used on site during the construction phase will be maintained by an approved and permitted Contractor.

3.5.3.7 Guidance

The requirements for best practice and adherence to the following relevant Irish policies, strategies, legislation, and guidelines, or recognised international guidelines where Irish guidelines are not available will be required:

National and Regional Policies and Strategies

- Changing Our Ways; A Policy Statement on Waste Management, Department of Environment, Heritage and Local Government, 1998;

- Preventing and Recycling Waste – Delivering Change, Department of Environment, Heritage and Local Government, 2002;
- Taking Stock and Moving Forward, Department of Environment, Heritage and Local Government, 2004;
- National Strategy on Biodegradable Waste, Department of Environment, Heritage and Local Government, 2006;
- A Resource Opportunity – Waste Management Policy in Ireland, Department of the Environment, Community and Local Government (DECLG), 2012;
- National Hazardous Waste Management Plan 2014 – 2020, EPA, 2014;
- The Eastern-Midlands Region Waste Management Plan 2015-2021, Twelve Local Authorities including Dublin City Council., 2015

National and European Legislation

- Waste Framework Directive (2008/98/EC).
- Waste Management Act 1996 (as amended);
- Waste Management (Facility Permit and Registration) Regulations, S.I No. 821 of 2007 (as amended);
- Waste Management (Collection Permit) Regulations (as amended) 2008 (S.I. No 87 of 2008);
- Waste Management (Packaging) Regulations 2003 (as amended) (S.I. No. 61 of 2003);
- Waste Management (Planning) Regulations 1997 (S.I. 137 of 1997);
- Waste Management (Hazardous Waste) Regulations 1998 (S.I. 163 of 1998);
- Waste Management (Landfill Levy) Regulations 2011 (S.I. No. 434 of 2011) as amended 2012 (S.I. No. 221 of 2012);
- European Communities (Waste Electrical Electronic Equipment) Regulations 2011;
- Waste Management (Food Waste) Regulations 2009 (S.I. No. 508 of 2009);
- Local Government Act 1994 (and Amendments) and Regulations (S.I. No. 8 of 1994);
- Litter Pollution Act 1997 (S.I. No. 12 of 1997);
- Protection of the Environment Act 2003 (No. 27 of 2003);
- Industrial Emissions Directive (2010/75/EU);
- European Communities (Waste Directive) Regulations, 2011;

Waste Management Requirements at Port Facilities

- EU Directive 2000/59/EC on port reception facilities for ship generated wastes and cargo residues
- S.I. No. 117 of 2003: European Communities (Port Reception Facilities for Ship-Generated Waste and Cargo Residues) Regulations 2003

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- Directive 2002/84/EC amending the Directives on maritime safety and the prevention of pollution from ships
 - S.I. No. 659 of 2003: European Communities (Port Reception Facilities for Ship-Generated Waste and Cargo Residues) (Amendment) Regulations 2003
 - Commission Directive 2007/71/EC of 13 December 2007 amending Annex II of Directive 2000/59/EC of the European Parliament and the Council on port reception facilities for ship-generated waste and cargo residues
 - S.I. No. 376 of 2009: European Communities (Port Reception Facilities for Ship-Generated Waste and Cargo Residues) (Amendment) Regulations 2009
 - Commission Directive (EU) 2015/2087 amending Annex II to Directive 2000/59/EC on port reception facilities for ship-generated waste and cargo residues
 - S.I. No. 550 of 2016: European Communities (Port Reception Facilities for Ship-Generated Waste and Cargo Residues) (Amendment) Regulations 2016
 - Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements
 - Directive 2009/123/EC amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements
 - S.I. No. 542 of 2010: European Communities (Ship-Source Pollution) Regulations 2010
 - MARPOL 73/78, International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
 - A guide to good practice – IMO Consolidated Guidance for port Reception Facility Providers and Users 2018.

3.5.4 Resource & Waste Management Plan

3.5.4.1 Overview of the purpose of the RWMP

This outline Resource & Waste Management Plan (RWMP) has been prepared to accompany the 3FM Project planning application to provide information necessary to ensure that the management of resources and waste at the site, from design to construction, is undertaken in accordance with best practice and relevant legislation.

The RWMP has been prepared in line with Best Practice guidelines for the preparation of Resource & Waste Management Plans for construction & demolition projects, EPA 2021. As per the guidance this RWMP will be regularly revisited throughout a project’s lifecycle so that opportunities to maximise waste reduction/ efficiencies are exploited throughout, and that data is collected on an ongoing basis so that it is as accurate as possible.

This RWMP will be required to be updated by the Main Contractor(s) following procurement and prior to the commencement of works on site.

The project life cycle of RWMP is presented in Figure 3-1

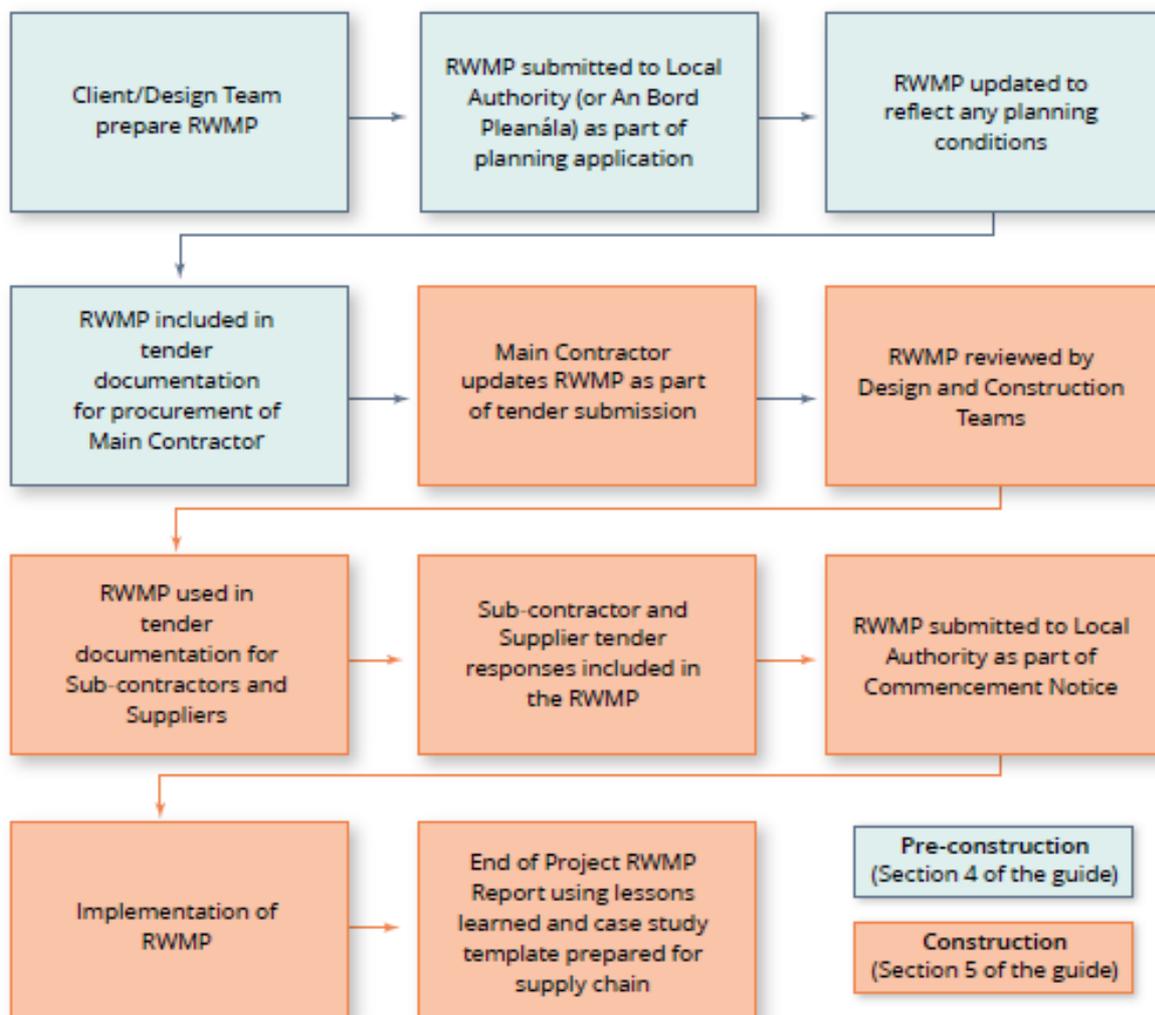


Figure 3-1 Project Life Cycle of RWMP (taken from EPA Guidance, 2021)

In accordance with the Guidance the requirement of the RWMP is dependent on the scale and complexity of the project. Thresholds are provided for Tier 1: Smaller scale projects. Developments above these thresholds are classed as Tier-2 projects. Tier-2 projects require a bespoke RWMP which should follow the requirements set out in the guidelines and meet the minimum content requirements.

3.5.4.2 Commitment to adherence to these guidelines

DPC are committed to adhering to the EPA Guidance, 2021 for the 3FM Project.

3.5.4.3 Environment and waste policy of the client

The EcoPorts PERS certified Environmental Management System operated by DPC provides a comprehensive framework within which DPC carries out its operations and activities to the highest environmental standards and in a sustainable manner. It is a systematic framework to manage the immediate and long term environmental impacts of DPC's products, services and processes. Its ongoing implementation ensures that DPC's environmental footprint is minimised, the risk of pollution incidents is diminished, and ensures compliance with relevant environmental legislation.

It is a key requirement of the Dublin Port Masterplan 2040, reviewed 2018, that all future DPC activities (including capital projects) are undertaken in accordance with the requirements of the company's certified EMS.

For major capital projects a suite of Construction Environmental Management Plans (CEMP) are prepared for the construction phase. They set out the minimum requirements that must be met in relation to management of the environmental aspects listed. These CEMPs incorporate the mitigation measures outlined in the documentation submitted with the application for permission and will include any additional requirements pursuant to conditions attached to statutory consents. In addition, regular audits of the CEMP are undertaken during the construction phase of the works to ensure the measures required are being implemented in full.

3.5.4.4 Relevant EU, national and local waste policy and legislation

The EU Waste Framework Directive (Directive 2008/98/EC) as amended set the basic concepts and definitions related to waste management, such as definitions of waste, recycling and recovery. It also includes definitions for when waste ceases to be waste and becomes a secondary raw material (end-of-waste criteria) and how to distinguish between waste and by-product.

National Policies, Plans, Strategies and Key Legislation which are relevant are:

- Draft National Waste Management Plan For A Circular Economy 2023;
- 2020 Programme for Government;
- The Climate Action Plan 2023;
- The Whole of Government Circular Economy Strategy 2022 - 2023;
- The Waste Action Plan for a Circular Economy – Ireland's National Waste Policy 2020 – 2025 ;
- The National Food Waste Prevention Roadmap 2023-2025;
- The National Policy Statement on the Bioeconomy 2018;

- National Hazardous Waste Management Plan 2021 – 2027, EPA, 2021;
- National Wastewater Sludge Management Plan, 2016-2021;
- Waste Management Act 1996 (as amended);
- Circular Economy and Miscellaneous Provisions Act 2022;
- By-Products (Article 27);
- End-of-Waste (Article 28);
- Planning guidelines for future developments published by the DECLG.

There is extensive legislation governing waste management in Ireland and primary legislative instruments are listed in Table 3-5.

Table 3-5 National Waste Legislation (As per National Waste Management Plan for a Circular Economy - Supporting Documentation Appendix 5)

National Waste Legislation
S.I. No. 471/2023 - Waste Management (Facility Permit and Registration) (Amendment) Regulations 2023
S.I. No. 406/2023 - Circular Economy (Waste Recovery Levy) Regulations 2023
S.I. No. 398/2023 - Waste Management (Landfill Levy) (Amendment) Regulations 2023
S.I. No. 394/2023 - Statistics (Waste Generation and Treatment Survey) Order 2023
S.I. No. 345/2023 - Circular Economy and Miscellaneous Provisions Act 2022 (Commencement of Certain Provisions) (No. 3) Order 2023
S.I. No. 344/2023 - Circular Economy and Miscellaneous Provisions Act 2022 (Commencement of Certain Provisions) (No. 2) Order 2023
S.I. No. 343/2023 - Circular Economy (Environmental Levy) (Plastic Bag) Regulations 2023
S.I. No. 104/2023 - Waste Management (Collection Permit) (Amendment) (No. 2) Regulations 2023
S.I. No. 63/2023 - Waste Management (Collection Permit) (Amendment) Regulations 2023
S.I. No. 49/2023 - Circular Economy and Miscellaneous Provisions Act 2022 (Commencement of Certain Provisions) Order 2023
S.I. No. 16/2023 - Waste Management (Prohibition of Waste Disposal by Burning) (Amendment) Regulations 2023
Act No. 26/2022 - Circular Economy and Miscellaneous Provisions Act 2022
S.I. No. 612/2022 - European Union (Extended Producer Responsibility) (Fishing Gear Containing Plastic) Regulations 2022
S.I. No. 611/2022 - European Union (Extended Producer Responsibility) (Balloons) Regulations 2022
S.I. No. 610/2022 - European Union (Extended Producer Responsibility) (Wet Wipes) Regulations 2022
S.I. No. 609/2022 - European Union (Extended Producer Responsibility) (Tobacco Filters Containing Plastic) Regulations 2022
S.I. No. 420/2022 - Circular Economy and Miscellaneous Provisions Act 2022 (Commencement of Certain Provisions) Order 2022
S.I. No. 351/2022 - European Union (Port Reception Facilities for the Delivery of Waste From Ships) Regulations 2022
S.I. No. 191/2022 - European Union (Restriction of Certain Hazardous Substances in Electrical and Electronic Equipment) (Amendment) Regulations 2022

National Waste Legislation
S.I. No. 51/2022 - Waste Management (Prohibition of Waste Disposal by Burning) (Amendment) Regulations 2022
S.I. No. 296/2021 - European Union (Port Reception Facilities for the Delivery of Waste from Ships) Regulations 2021
S.I. No. 323/2020 - European Union (Waste Directive) Regulations 2020
S.I. No. 322/2020 - European Union (Packaging) Regulations 2020
S.I. No. 82/2020 - European Union (End-of-Life Vehicles) (Amendment) Regulations 2020
S.I. No. 130/2020 - European Union (Waste Management) (Environmental Impact Assessment) Regulations 2020
S.I. No. 321/2020 - European Union (Landfill) Regulations 2020
S.I. No. 233/2019 - European Union (Waste Electrical and Electronic Equipment) (Amendment) Regulations 2019
S.I. No. 182/2019 - Waste Management (Landfill Levy) (Amendment) Regulations 2019
S.I. No. 250/2019 - Waste Management (Facility Permit and Registration) (Amendment) Regulations 2019
S.I. No. 618/2019 - European Union (Waste Licensing) (Amendment) Regulations 2019
S.I. No. 183/2018 - European Union (End of Life Vehicles) (Amendment) Regulations 2018
S.I. No. 96/2018 - Waste Management (Tyres and Waste Tyres) (Amendment) Regulations 2018
S.I. No. 598/2017 - Waste Management (Tyres and Waste Tyres) (Amendment) Regulations 2017
S.I. No. 400/2017 - Waste Management (Tyres and Waste Tyres) Regulations 2017.
S.I. No. 265/2017 - European Communities (Marine Strategy Framework) (Amendment) Regulations 2017
S.I. No. 396/2017 - Waste Management (Farm Plastics) (Amendment) Regulations 2017.
S.I. No. 315/2016 - European Union (Waste Directive) (Amendment) Regulations 2016.
S.I. No. 566/2016 - European Union (End of Life Vehicles) (Amendment) Regulations 2016.
S.I. No. 24/2016 - Waste Management (Collection Permit) (Amendment) Regulations 2016.
S.I. No. 346/2016 - Waste Management (Collection Permit) (Amendment) (No. 2) Regulations 2016.
S.I. No. 189/2015 - Waste Management (Landfill Levy) Regulations 2015
S.I. No. 355/2015 - European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015
S.I. No. 430/2015 - European Union (Household Food Waste and Bio-waste) Regulations 2015.
S.I. No. 197/2015 - Waste Management (Collection Permit) (Amendment) Regulations 2015.
S.I. No. 198/2015 - Waste Management (Facility Permit and Registration) (Amendment) Regulations 2015.
S.I. No. 320 of 2014 - Waste Management (Facility Permit and Registration)(Amendment) Regulations 2014
S.I. No. 546 of 2014 - Waste Management (Facility Permit and Registration)(Amendment) Regulations 2014
S.I. No. 149/2014 - European Union (Waste Electrical and Electronic Equipment) Regulations, 2014
S.I. No. 281/2014 - European Union (End-of-Life Vehicles) Regulations, 2014
S.I. No. 282/2014 - European Union (Packaging) Regulations, 2014
S.I. No. 283/2014 - European Union (Batteries and Accumulators) Regulations, 2014
S.I. No. 349/2014 - European Union (Batteries and Accumulators) (Amendment) Regulations 2014.
S.I. No. 187/2014 - European Union (Animal By-Products) Regulations 2014.
S.I. No. 134/2014 - European Union (Good Agricultural Practice for Protection of Waters) (Amendment) Regulations 2014.
S.I. No. 148/2013 - European Union (Waste Incineration Plants & Waste Co-Incineration Plants) Regulation 2013

National Waste Legislation
S.I. No. 137/2013 - Environmental Protection Agency (Industrial Emissions) (Licensing) Regulations, 2013
S.I. No. 251/2013 - European Union (Household Food Waste and BioWaste) (Amendment) Regulations, 2013
S.I. No. 504/2013 - Waste Management (Prohibition of Waste Disposal by Burning) (Amendment) Regulations, 2013
S.I. No. 72/2013 - European Communities (Metallic Mercury Waste) Regulations 2013.
S.I. No. 513/2012 European Union (Restriction of Certain Hazardous Substances in Electrical and Electronic Equipment) Regulations, 2012
S.I. No. 564/2012 - European Union (Paints, Varnishes, Vehicle Refinishing Products and Activities) Regulations 2012
S.I. No. 324/2011 - European Communities (Shipment of Hazardous Waste exclusively within Ireland) Regulations, 2011
S.I. No. 323/2011 - European Communities (Waste Directive) (No. 2) Regulations, 2011
S.I. No. 126/2011 - European Communities (Waste Directive) Regulations, 2011
Act No. 20/2011 - Environment (Miscellaneous Provisions) Act 2011
S.I. No. 32/2010 - Waste Management (Registration of Sewage Sludge Facility) Regulations, 2010
S.I. No. 350/2010 - Waste Management (Licensing) (Amendment) Regulations, 2010
S.I. No. 235/2010 - Persistent Organic Pollutant Regulations, 2010
S.I. No. 286/2009 - Waste Management (Prohibition of Waste Disposal by Burning) Regulations, 2009
S.I. No. 508/2009 - Waste Management (Food Waste) Regulations, 2009
S.I. No. 566/2009 - Waste Management (Management of Waste from the Extractive Industries) Regulations, 2009
S.I. No. 86/2008 - Waste Management (Facility Permit and Registration) (Amendment) Regulations, 2008
S.I. No. 87/2008 - Waste Management (Collection Permit) (Amendment) Regulations, 2008
S.I. No. 113/2008 - Waste Management (Registration of Brokers and Dealers) Regulations, 2008
S.I. No. 524/2008 - Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008
S.I. No. 62/2007 - Waste Management (Environmental Levy) (Plastic Bag) Order, 2007
S.I. No. 167/2007 - Waste Management (Environmental Levy) (Plastic Bag) (Amendment) (No. 2) Regulations, 2007
S.I. No. 419/2007 - Waste Management (Shipments of Waste) Regulations, 2007
S.I. No. 664/2007 - Waste Management (Tyres and Waste Tyres) Regulations, 2007
S.I. No. 820/2007 - Waste Management (Collection Permit) Regulations 2007
S.I. No. 821/2007 - Waste Management (Facility Permit and Registration) Regulations, 2007
S.I. No. 395/2004 - Waste Management (Licensing) Regulations, 2004
S.I. No. 478/2003 - Waste Management (Environment Fund) (Prescribed Payments) Regulations 2003
Act No. 27/2003 - Protection of the Environment Act 2003
S.I. No. 61/2003 - Waste Management (Packaging) Regulations, 2003
S.I. No. 267/2001 - Waste Management (Use of Sewage Sludge in Agriculture) (Amendment) Regulations, 2001
S.I. No. 341/2001 - Waste Management (Farm Plastics) Regulations, 2001
S.I. No. 605/2001 - Waste Management (Environmental Levy) (Plastic Bag) Regulations, 2001
Act No. 36/2001 - Waste Management (Amendment) Act, 2001
S.I. No. 73/2000 - Waste Management (Hazardous Waste) (Amendment) Regulations, 2000

National Waste Legislation
S.I. No. 185/2000 - Waste Management (Licensing) Regulations, 2000
S.I. No. 146/1998 - Waste Management (Amendment of Waste Management Act, 1996) Regulations, 1998
S.I. No. 148/1998 - Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998
S.I. No. 164/1998 - Waste Management (Miscellaneous Provisions) Regulations, 1998
S.I. No. 166/1998 - European Communities (Amendment of Waste Management Act, 1996) Regulations, 1998
S.I. No. 137/1997 - Waste Management (Planning) Regulations, 1997
S.I. No. 192/1996 - Waste Management Act, 1996 (Commencement) Order, 1996.
Act No. 10/1996 - Waste Management Act, 1996

3.5.4.5 Project-specific resource targets

During the detailed design stage project-specific resource targets will be set by DPC for the Contractor(s) (Table 3-6). As per Guidance Typical Key Performance Indicators (KPIs) that may be used to set targets may include:

- Weight (tonnes) or Volume (m³) of waste generated per construction value.
- Weight (tonnes) or Volume (m³) of waste generated per construction floor area (m²).
- Fraction of resource reused on site.
- Fraction of resource notified as by-product.
- Fraction of resource used which was recycled material.
- Fraction of waste segregated at source before being sent off-site for recycling/recovery; and
- Fraction of waste recovered, fraction of waste recycled or fraction of waste disposed

Table 3-6 Project Specific Resource Targets

Waste Stream	LoW Code	Management Option	Management Destination	%, weight or volume
<i>To be completed at detailed design stage</i>				

3.5.4.6 Complementary documents

As previously stated for all major capital projects a suite of Construction Environmental Management Plans (CEMP) are prepared for the construction phase. They set out the minimum requirements that must be met in relation to management of the environmental aspects listed. These CEMPs incorporate the mitigation measures outlined in the documentation submitted with the application for permission and will include any additional requirements pursuant to conditions attached to statutory consents. In addition, regular audits of the CEMP are

undertaken during the construction phase of the works to ensure the measures required are being implemented in full.

A list of complementary documents to date for this project is provided in Table 3-7.

Table 3-7 Summary of Complementary Documents

Documents
<i>3FM Project Construction Environmental Management Plan(CEMP)</i>
<i>DPC Environmental Policy</i>
<i>DPC Health and Safety Policy</i>
<i>To be completed at detailed design stage</i>

3.5.4.7 Project Description and Wastes Arising

A detailed description of the 3FM Project is presented in Chapter 5 of the EIAR.

3.5.4.8 Construction and Demolition waste (CDW)

Construction and Demolition waste (CDW) will arise from the demolition works to be undertaken under the 3FM Project. The following elements are to be demolished (Table 3-8).

Table 3-8 Summary of Proposed Demolition Works

Element Surveyed	Description
Existing dolphins at Tom Clarke Bridge	2 nr piled dolphin structures
Maritime Village	Stella Maris Rowing Club (2 nr building) Poolbeg Yacht & Boat Club (1nr building)
MTL Terminal	MTL Container Terminal Buildings & Warehouses - 3nr warehouses and Various combinations of portcabins and mobile offices Existing Pier (nib structure) Existing Ramp 3 Caisson Structures
Sludge Jetty	Access Viaduct, Jetty Head, Walkway and Mooring Dolphins
ESB Jetties	Access Viaduct/Approach Bridge, Jetty Head/ T-Head, Walkway/Footbridge, Intermediate Footbridge supports, Breasting Dolphins, Mooring Dolphins

Element Surveyed	Description
	Miscellaneous Quay Furniture
ESB Weir	Walkway structure
Area L	Office Building: 2 storey Large and small garage Silo Building Sub-station Large Wall as part of the coal yard
Port Park	Office Building: 2 storey

Pre demolition surveys as per Table 3-9 will be carried out during the detailed design stage and RWMP updated accordingly.

Table 3-9 Pre demolition surveys carried out

Element Surveyed	Survey Report
Existing dolphins at Tom Clarke Bridge	<i>To be completed at detailed design stage</i>
Maritime Village	<i>To be completed at detailed design stage</i>
MTL Terminal	<i>To be completed at detailed design stage</i>
Sludge Jetty	<i>To be completed at detailed design stage</i>
ESB Jetties	<i>To be completed at detailed design stage</i>
ESB Weir	<i>To be completed at detailed design stage</i>
Area L	<i>To be completed at detailed design stage</i>
Port Park	<i>To be completed at detailed design stage</i>

3.5.4.9 Site clearance and other excavations to enable works

The estimated volumes for site clearance and excavations to enable works are provided in Table 3-10.

Table 3-10 Summary of the site excavation/site clearance

Element	Description	Estimated Volume (m ³)Of Excavations Based on Site Investigation to Date
Roads required for 3FM project	Excavations works are required to facilitate the new road networks.	Concrete 3,693 m ³ Bituminous 5,539 m ³ Made ground 52,165m ³

Element	Description	Estimated Volume (m ³)Of Excavations Based on Site Investigation to Date
Area L	Excavations works are required to facilitate development	Concrete 18,145m ³ Asphalt 1,680m ³ Gravel 13,121m ³
Turning circle -	Excavations works are required to facilitate the turning circle. Construction and Demolition Wastes (including excavated soil from contaminated sites), Chapter 17 05 04: Soil and Stones other than those mentioned in 17 05 03	Soil and Stones 10,000m ³
Area N - ESB Jetties	Excavations works are required to facilitate the access from Plot N onto the ESB jetty	Made ground 1,300 m ³
Area N	Excavations works are required to facilitate the access from Plot N onto the ESB jetty and installation of new pipework based on preliminary design.	Made ground 2,760m ³
Area O	Site clearance works are required to facilitate new surfacing	Concrete/Hardstanding 8,000m ³
MTL Terminal K Area K	Excavation for surfacing, drainage interceptors, linkspan recess and demolition of nib structure.	Concrete 24,874m ³ Gravel Fill 73,191m ³ Bitmac 7,493m ³
Port Park	Excavations works are required to facilitate development of Port Park & Wildflower Meadow	Concrete 7,500 m ³ Made Ground/Waste 8,000 m ³

3.5.4.10 Cut/fill requirements for development

A summary of the anticipated site excavation/site clearance is provided in Table 3-10. In order to divert waste from being reuse/recycled off site or landfilled, possibilities for reuse of inert demolition material as fill on site will be considered, following appropriate testing to ensure materials are suitable for their proposed end purpose. If suitable engineered fill material or suitable CDW arising material is identified in the construction phase/sequencing then this material will be used as infill. Suitable CDW arising material will be used in the following construction activities provided in Table 3-11.

Table 3-11 Construction Activities

Element	Volume m ³
Maritime Village	30,200m ³ of imported fill material or suitable engineered fill material/suitable CDW arisings.
Area L	6,900m ³
Turning circle	26,500m ³
Area O	32,250m ³

Element	Volume m ³
Area K	The existing surfacing, concrete and underlying gravel infill at Area K will be removed or reused if suitable

3.5.4.11 Asbestos Surveys

A number of asbestos surveys have been undertaken are summarised in Table 3-12. The principal Contractor procured by the Client is responsible for ensuring that hazardous waste such as asbestos is handled by competent persons with appropriate training and expertise.

Table 3-12 Asbestos Surveys

Element Surveyed	Confirmed Asbestos	Presumed/Strongly Presumed Asbestos
Kilsaran Concrete Plant	No asbestos containing materials identified.	-
Maritime Village	No asbestos containing materials identified	-
MTL Depot	Asbestos containing materials identified at one location.	Presumed/Strongly Presumed Asbestos identified at two locations
Sludge & ESB Jetties	Asbestos containing materials identified at seven locations.	Presumed/Strongly Presumed Asbestos identified at three locations
P&O Ferries RDAS_170918	Asbestos containing materials identified at one location.	Presumed/Strongly Presumed Asbestos identified at six locations
Old ESB Building_180423	Asbestos containing materials identified at 12 locations.	Presumed/Strongly Presumed Asbestos identified at twenty six locations
Hammond Lane (Multiple building/structure)	No visible asbestos containing materials identified.	Presumed/Strongly Presumed Asbestos identified at seven locations

3.5.4.12 Ground Investigations

A desk top study and a number of ground investigation have been undertaken as presented in Chapter 8 of the EIAR. The Preliminary Risk Assessment (PRA) undertaken for the 3FM Project identified a history of landfilled waste within the vicinity of the former Irish Glass Bottling factory which lies outside the 3FM Project boundary.

Soil samples were analysed for a number of parameters including asbestos and details are provided in Chapter 8 of the EIAR. The investigation identified that the site is underlain by made ground, sands, gravels, clay and mudstone and limestone bedrock.

All contaminants returned concentrations below their respective screening values for a commercial end use, with the exception of Benzo(a)pyrene which is on the threshold for commercial end use in one soil sample from Area L. A number of soil samples had concentrations exceeding the screening criteria for Public Open Space Near Residential.

3.5.4.13 Remediation strategies /ground improvement

Asbestos fibres were noted at one borehole location within the proposed Port Park & Wildflower Meadow. The implementation of a clean cover barrier system of at least 600mm of clean imported soils will be required for all soft landscaping areas in Port Park & Wildflower Meadow,

Ground levels at Area O will be raised on average 500mm (with a maximum of 900mm) above the existing ground level across the site. Normal surface applied ground treatment techniques will be applied to improve ground conditions for geotechnical purposes and mitigate the risk of settlement in the upper soils.

A venting trench will be constructed around the perimeter of Area O to facilitate venting of any ground gases during the ground improvement works.

The construction phase will include the installation of ground gas protection measures within buildings in Area O and L.

3.5.4.14 Roles and Responsibilities

Description of the Role of DPC and Key Personnel

DPC will be responsible for the financing of the project and ensuring that RWMP is implemented and is managed throughout the difference stages of the project. DPC will be responsible for the following in accordance with the guidance:

- Establishing the ambition and the performance targets for the project;
- Set out these commitments and targets in relation to prevention and minimisation in the project brief, tendering documentation including pre-qualification requirements, invitation to tender, etc.
- Require the preparation and submission of an RWMP as part of the design and planning submission;
- Require the preparation and submission of an updated RWMP as part of the construction tendering process;
- Ensure that the RWMP is agreed and submitted to the local authority prior to commencement of works on site; and
- Request the end-of-project RWMP from the Contractor.

The key personnel from DPC involved in the project is provided in Table 3-13.

Table 3-13 DPC Key Personnel

Title	Role	Project Stage
Head of Programme Management Office	Appointment of Design Team	Feasibility, Design, Constructon

Overview of the Design Team

Pre-Construction Phase

The Design team will be responsible for reducing the quantity of waste likely to arise from the proposed development through the design process including the following in accordance with the guidance:

- Drafting and maintaining the RWMP through the design, planning and procurement phases of the project.
- Appointing a Resource Manager (RM) to track and document the design process, inform the Design Team and prepare the RWMP.
- Include details and estimated quantities of all projected waste streams.
- Incorporate relevant conditions imposed in the planning permission into the RWMP.
- Handover of the RWMP to the Contractor at commencement of construction for the development of the RWMP in a similar fashion to how the safety file is handed over to the Contractor; and
- Work with the Contractor as required to meet the performance targets for the project.

Outline design team details are provided in Table 3-14.

Table 3-14 3FM Design Team

Title	Role	Project Stage
Outline Design		
Project Manager Marine RPS	Design and planning	Feasibility, Outline Design
Project Manager Roads/Bridges RPS	Design and planning	Feasibility, Outline Design
Detailed Design		
<i>To be completed at detailed design stage</i>		

Description of the Future Role of the Contractor

The Contractor will be responsible for the following in accordance with the guidance:

- Preparing, implementing and reviewing the RWMP through construction (including the management of all suppliers and sub-Contractors) as per the requirements of these guidelines.
- Identifying a designated and suitably qualified Resource Manager (RM) who will be responsible for implementing the RWMP.
- Identifying all hauliers to be engaged to transport each of the resources / wastes off-site. Note that any resource that is legally a ‘waste’ must only be transported by a haulier with a valid Waste Collection Permit.
- [Please note that the movement of hazardous waste material off-site falls under the European Communities (Shipments of Hazardous Waste exclusively within Ireland) Regulations 2011. Each shipment of hazardous waste material off-site is to be legally accompanied by a Waste Transfer Form. Hazardous waste such as asbestos should only be handled by competent persons with appropriate training and expertise. More information on handling of asbestos-containing material is available from the Health and Safety Authority.]
- Identifying all destinations for resources taken off-site. As above, any resource that is legally a ‘waste’ must only be transported to an authorised waste facility.

- End-of-waste and by-product notifications addressed with EPA where required.
- Clarification of any other statutory waste management obligations, which could include on-site processing.
- Full records of all resources (both wastes and other resources) should be maintained for the duration of the project.
- Preparing a RWMP Implementation Review Report at project handover.

3.5.4.15 Design Approach

The EPA guidance sets out guidelines to designing out waste. These guidelines address the best practice approach for all phases of a project from prior to construction (design, planning and procurement) through to the construction works on site.

3.5.4.16 Design for Reuse and Recycling

Where possible re-use has been considered by DPC and the design team. For example, the existing quay structures have been retained and used in the works where they meet the functional requirements of the development, for example at Area K and Area L.

The refurbishment and reuse of buildings was considered but they were not appropriate to meet the needs of the new facilities required for the 3FM Project and as such are to be demolished.

Reuse the Site

A desk top study and a number of ground investigation have been undertaken and are included in Chapter 8 of the EIAR. There are no remediation strategies/ground improvement proposed for the 3FM Project.

The reuse of the site in its current form has been considered by DPC and the design team during the planning design stage. For example, excavation at Area O has been avoided and site levels have been raised to avoid excavation into the existing filled area. Suitable excavated materials such as concrete will be processed for re-use subject to detailed design.

Excavation Works

Minimising the need for excavation has been considered by DPC and the design team during the planning design stage.

The re-use of dredge material from the turning circle dredging was considered at feasibility stage but it was not considered practical within the constraints of the marine construction works.

An estimated 70,000m³ of Dredge Material from Poolbeg Marina will require recovery/disposal. This waste will be recovered by infilling to Berth 52/53 under a revised IE licence subject to availability of receptor capacity.

To address the unavoidable loss of small sections of the Great South Wall due to the 3FM proposals, salvaged stone from the demolished sections will be reintegrated into the landscape design and special totems.

If suitable engineered fill material or suitable CDW arising material is identified in the construction phase/sequencing then this material will be used as infill. Suitable CDW arising material will be used in a number of construction activities as listed provided in Table 3-11.

Demolition Work

Asbestos surveys for all building to be demolished have been undertaken. Pre-demolition audits will be undertaken prior to any demolition work commencing in order to facilitate and maximise recovery of resources from demolition for beneficial reuse and recycling.

3.5.4.17 Designing for Green Procurement

As per EPA guidance green procurement facilitates using tender specifications, selection and award criteria and contract conditions principles will be used to procure products and services that prevent and reduce waste. This will be included in the detailed design, procurement stage and construction phases.

DPC is committed to achieving high standards of environmental management. This is reflected in the company's commitment to its existing ESPO's EcoPorts; Ports Environmental Review System (PERS), a port specific Environmental Management System (EMS). Under this EMS, DPC operates a series of Standard Operating Procedures (SOPs) including a Waste Management Plan targeted towards 100% reuse / recycling of its operational waste. DPC is committed to aligning its existing EMS with the objectives of the Circular Economy.

Green procurement principles have not yet been incorporated into DPC's procurement policies and documentation. DPC has in place a Standard Operating Procedure (SOP) relating to Energy Management in Design and Procurement.

DPC incorporates quality criteria in tender documentation that takes account of environmental impact e.g. Environmental Management, Collection & Disposal Methodology and Supply Chain Transparency.

Green procurement principles will be applied to the 3FM project.

3.5.4.18 Other Design Approaches

The EPA guidance sets out further details on designing out waste including,

- Design for Off-Site Construction
- Design for Materials Optimisation, and
- Design for Flexibility and Deconstruction.

These will be reviewed and incorporated into the RWMP during the detailed design stage. These principles will be integrated into future design workshops and review processes to identify and evaluate resource reduction measures and their impact on cost, time, quality, buildability, second life and management post demolition as per the guidance.

3.5.4.19 Key Materials, Quantities

Project specific resource targets will be set by DPC for the Contractors(s) during the detailed design stage.

Description of each residual resource stream predicted and List of Waste (LoW) Code

The List of Waste (LoW) Code for typical waste materials that may possibly be generated during the construction phase are outlined in Table 3-15. This will updated /completed at detailed design stage.

Table 3-15 List of Waste (LoW) Code

Description	LoW
Waste hydraulic oils *	13 01
Wastes of liquid fuels *	13 07
Packaging (including separately collected municipal packaging waste)	15 01
Concrete	17 01 01
Bricks	17 01 02
Tiles and ceramics	17 01 03
Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing hazardous substances	17 06 01*
Wood	17 02 01
Glass	17 02 02
Plastics	17 02 03
Glass, plastic and wood containing or contaminated with hazardous substances	17 02 04*
Bituminous mixtures, coal tar and products	17 03 01
Bituminous mixtures containing other than those mentioned in 17 03 01	17 03 02
Iron and steel	17 04 05
Metals	17 04 07
Metal waste contaminated with hazardous substances	17 04 09*
Soil and stones containing hazardous substances	17 05 03*
Stone and soil other than that mentioned in 17 05 03*	17 05 04
Dredging spoil other than that mentioned in 17 05 05*	17 05 06
Insulation materials and asbestos containing construction materials	17 06 01* 17 06 03* 17 06 04 17 06 05*
Gypsum based construction materials	17 08 02
Mixed Construction and Demolition Waste other than those mentioned in 17 09 01, 17 09 02, 17 09 03	17 09 04
Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	20 01 36
Other municipal waste	20 03

The predicted quantity of material generated

Waste materials will be generated as a result of the proposed demolition of existing buildings. Waste arising from the proposed demolition phase will consist of several sub-waste streams, which are often mixed,

depending on the amount of selective demolition and separate collection that will take place. A Demolition Survey will be required prior to any demolition work commencing in order to facilitate and maximise recovery of resources from demolition for beneficial reuse and recycling. Estimated tonnage of main waste components are provided in Table 3-16.

Table 3-16 Estimated tonnage Demolition Phase

Elements	Description	Estimated Tonnage of Main Components
Turning Circle - Sludge Jetty	Access Viaduct, Jetty Head, Walkway and Mooring Dolphins	Concrete – 1,328 tonnes Steel – 799 tonnes
Area L	Office Building: 2 storey Large and small garage Silo Building Pump House Sub-station Large Wall as part of the coal yard	Bricks/Blocks - 3,706 tonnes Steel - 2,766 tonnes Insulation - 3 tonnes
Maritime Village	Stella Maris Rowing Club (two buildings) Poolbeg Yacht & Boat Club (one building)	Concrete /Bricks - 14,435 tonnes Timber - 2,932 tonnes Slate – 1,804 tonnes Asphalt, Tar and Tar products – 1,353 tonnes Plasterboard – 902 tonnes Glass – 677 tonnes Metals – 451 tonnes
Area N - ESB Jetties	Access Viaduct/Approach Bridge, Jetty Head/ T-Head, Walkway/Footbridge, Intermediate Footbridge supports, Breasting Dolphins, Mooring Dolphins Miscellaneous Quay Furniture	Concrete – 3,956 tonnes Carbon steel pipeline, stainless steel pipeline, Galvanized steel pipe. 899 tonnes
Area N - ESB Weir	Walkway structure	Concrete – 364 tonnes
Existing dolphins at Tom Clarke Bridge	Two piled dolphin structures	Concrete – 485 tonnes Steel - 87 tonnes
Area K MTL Terminal	MTL Container Terminal Buildings & Warehouses - three warehouses and Various combinations of portacabins and mobile offices	Concrete /Bricks – 9,177 tonnes Timber – 1,864 tonnes Slate – 1,147 tonnes

Elements	Description	Estimated Tonnage of Main Components
	Assume portacabins and mobile offices will be reused on site	Asphalt, Tar and Tar products – 860 tonnes Plasterboard – 574 tonnes Glass – 430 tonnes Metals – 287 tonnes
	Existing Pier (nib structure) Existing Ramp 3 Caisson Structures	Concrete – 2,024 tonnes Steel - 11,718 tonnes
Port Park	Warehouse Building: 2 storey	Bricks/Blocks – 1,543 tonnes Steel – 952 tonnes

Estimated volume of main waste components for excavation and site clearance are provided in Table 3-17.

Table 3-17 Estimated Volume Excavation Phase

Element	Description	Estimated Volume (m ³) Of Excavations Based on Site Investigation to Date
Roads required for 3FM project	Excavations works are required to facilitate the new road networks.	Concrete 3,693 m ³ Bituminous 5,539 m ³ Made ground 52,165 m ³
Area L	Excavations works are required to facilitate development	Concrete 18,145 m ³ Asphalt 1,680 m ³ Gravel 13,121 m ³
Turning circle -	Excavations works are required to facilitate the turning circle. Construction and Demolition Wastes (including excavated soil from contaminated sites), Chapter 17 05 04: Soil and Stones other than those mentioned in 17 05 03	Soil and Stones 10,000 m ³
Area N - ESB Jetties	Excavations works are required to facilitate the access from Plot N onto the ESB jetty	Made ground 1,300 m ³
Area N	Excavations works are required to facilitate the access from Plot N onto the ESB jetty and installation of new pipework based on preliminary design.	Made ground 2,760 m ³
Area O	Site clearance works are required to facilitate new surfacing	Concrete/Hardstanding 8,000 m ³

Element	Description	Estimated Volume (m ³) Of Excavations Based on Site Investigation to Date
MTL Terminal Area K	Excavation for surfacing, drainage interceptors, linkspan recess and demolition of nib structure.	Concrete 24,874 m ³ Gravel Fill 73,191 m ³ Bitmac 7,493 m ³
Port Park	Excavations works are required to facilitate development of Port Park & Wildflower Meadow	Concrete 7,500 m ³ Made Ground/Waste 8,000 m ³

The identified resource management route options from prevention, reuse, recycling, recovery and disposal for each material

The proposed resource management routes for typical waste materials arising that may possibly be generated during the construction phase are outlined in Table 3-18. This will updated /completed at detailed design stage.

Table 3-18 Potential Materials Management during Construction Phase

Description	LoW	Management Option	Management Destination
Waste hydraulic oils *	13 01	Recycled or reused off site	Offsite to specialist Contractor
Wastes of liquid fuels *	13 07	Recycled or reused off site	Offsite to specialist Contractor
Packaging (including separately collected municipal packaging waste)	15 01	Recycled or reused offsite	Offsite to specialist Contractor
Concrete	17 01 01	Crushed and reused on site if possible or recovery off site as a secondary aggregate	Onsite reuse/Off site recovery End of Waste Decision
Bricks	17 01 02	Crushed and reused on site if possible or recovery off site as a secondary aggregate	Onsite reuse/Off site recovery End of Waste Decision
Tiles and ceramics	17 01 03	Recycled or reused off site	Off site to specialist Contractor
Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing hazardous substances	17 06 01*	Recycled or reused off site	Off site to specialist Contractor
Wood	17 02 01	Recycled or reused off site	Off site to specialist Contractor
Glass	17 02 02	Recycled or reused off site	Off site to specialist Contractor
Plastics	17 02 03	Recycled or reused off site	Off site to specialist Contractor
Glass, plastic and wood containing or contaminated with hazardous substances	17 02 04*	Recycled or reused off site	Off site to specialist Contractor
Bituminous mixtures, coal tar and products	17 03 01	Recycled or reused off site	Off site to specialist Contractor
Bituminous mixtures containing other than those mentioned in 17 03 01	17 03 02	Recycled or reused off site	Off site to specialist Contractor
Iron and steel	17 04 05	Recycled or reused off site	Offsite to specialist Contractor
Metals	17 04 07	Recycled or reused off site	Off site to specialist Contractor
Metal waste contaminated with hazardous substances	17 04 09*	Recycled or reused off site	Off site to specialist Contractor
Soil and stones containing hazardous substances	17 05 03*	Recycled or reused off site	Off site to specialist Contractor

Description	LoW	Management Option	Management Destination
Stone and soil other than that mentioned in 17 05 03*	17 05 04	Materials deemed unsuitable or not required for reuse on site and require management offsite	Off site to specialist Contractor
Dredging spoil other than that mentioned in 17 05 05*	17 05 06	Materials deemed unsuitable or not required for reuse on site and require management offsite	Off site to specialist Contractor
Insulation materials and asbestos containing construction materials	17 06 01* 17 06 03* 17 06 04 17 06 05*	Asbestos containing materials require careful removal and segregation and will be disposed of at a specialist hazardous waste landfill	Off site to specialist Contractor Disposal at a licensed specialist hazardous waste landfill
Gypsum based construction materials	17 08 02	Materials deemed unsuitable for reuse or recycling and require disposal to suitably licensed landfill	Off site to specialist Contractor Disposal at licensed landfill
Mixed Construction and Demolition Waste other than those mentioned in 17 09 01, 17 09 02, 17 09 03	17 09 04	Materials deemed unsuitable for reuse or recycling and require disposal to suitably licensed landfill	Off site to specialist Contractor Disposal at licensed landfill
Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	20 01 36	Recycled or reused offsite	Offsite to specialist Contractor
Other municipal waste	20 03	Recycled or reused offsite	Off site to specialist Contractor

The estimated cost of resource management

Following detailed design a post design resource and waste inventory of all residual resources in line with Table(s) below will be updated. These tables identify the proposed resource/waste volumes that will be subject to reuse, recycling, energy recovery, backfilling or other recovery and disposal. The required information will be collected in a format similar to Tables 3-19 and 3-20 at detailed design stage for each phase of the project.

Table 3-19 Predicted Demolition/Excavation Resource and Waste Inventory

LoW Code	Description	Volume Generated (tonnes)	Prevention (tonnes) (non-waste)	Reused (tonnes) (non-waste)	Recycled (tonnes) (waste)	Recovered (tonnes) (waste)	Disposed (tonnes) (waste)
17 01 01	Concrete						
17 01 02	Bricks						
17 01 03	Tiles and Ceramics						
17 02 01	Wood						
17 02 02	Glass						
17 02 03	Plastic						
17 03 02	Bituminous Mixtures						
17 04 01	Copper, Bronze, Brass						
17 04 02	Aluminium						
17 04 03	Lead						
17 04 04	Zinc						
17 04 05	Iron and Steel						
17 04 06	Tin						
17 04 07	Mixed Metals						
17 04 11	Cables						
17 05 04	Soil and Stone						
17 06 04	Insulation Material						
17 08 02	Gypsum						
17 09 04	Mixed C&D Waste						
17 01 06*	Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing hazardous substances						
17 02 04*	Glass, plastic and wood containing or contaminated with hazardous substances						

LoW Code	Description	Volume Generated (tonnes)	Prevention (tonnes) (non-waste)	Reused (tonnes) (non-waste)	Recycled (tonnes) (waste)	Recovered (tonnes) (waste)	Disposed (tonnes) (waste)
17 03 01*	Bituminous mixtures containing coal tar						
17 04 09*	Metal waste contaminated with hazardous substances						
17 05 03*	Soil and stones containing hazardous substances						
17 06 05*	Construction materials containing asbestos						
	Other resources (non- waste materials) (specify as needed)						
	Other wastes (specify as needed)						

Table 3-20 Predicted Construction Resource and Waste Inventory

LoW Code	Description	Volume Generated (tonnes)	Prevention (tonnes) (non-waste)	Reused (tonnes) (non-waste)	Recycled (tonnes) (waste)	Recovered (tonnes) (waste)	Disposed (tonnes) (waste)
17 01 01	Concrete						
17 01 02	Bricks						
17 01 03	Tiles and Ceramics						
17 02 01	Wood						
17 02 02	Glass						
17 02 03	Plastic						
17 03 02	Bituminous Mixtures						
17 04 01	Copper, Bronze, Brass						
17 04 02	Aluminium						
17 04 03	Lead						
17 04 04	Zinc						
17 04 05	Iron and Steel						
17 04 06	Tin						
17 04 07	Mixed Metals						
17 04 11	Cables						
17 05 04	Soil and Stone						
17 06 04	Insulation Material						
17 08 02	Gypsum						
17 09 04	Mixed C&D Waste						
17 01 06*	Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing hazardous substances						
17 02 04*	Glass, plastic and wood containing or contaminated with hazardous substances						

LoW Code	Description	Volume Generated (tonnes)	Prevention (tonnes) (non-waste)	Reused (tonnes) (non-waste)	Recycled (tonnes) (waste)	Recovered (tonnes) (waste)	Disposed (tonnes) (waste)
17 03 01*	Bituminous mixtures containing coal tar						
17 04 09*	Metal waste contaminated with hazardous substances						
17 05 03*	Soil and stones containing hazardous substances						
17 06 05*	Construction materials containing asbestos						
	Other resources (non- waste materials) (specify as needed)						
	Other wastes (specify as needed)						

Site Management

The Appointed Contractor will be responsible for the management of resources and waste on the 3FM project. The Contract between DPC and the Appointed Contractor will allocate responsibility for compliance with the RWMP during the construction phase of the Project. The appointed Contractor will;

- Work closely with the Project Manager to monitor activities and ensure that all relevant environmental legislation is complied with and that the requirements of the RWMP are implemented.
- Agree and revise as necessary any commitments or targets included in the RWMP developed at design/planning with the Client for acceptance and adoption in the RWMP for construction.
- Allocate responsibility for resource management to one or more individuals of sufficient seniority to put the relevant procedures into practice.
- Develop procedures for the identifying suitably authorised waste collection operators and waste destination sites, for record keeping and reporting of all on site resource uses, for record keeping and reporting of all off-site export of resources and for audits and inspections.
- Nominate a suitably qualified Resource Manager (RM) with expertise in waste and resource management to implement the RWMP.
- The RM will be required to update the plan as required to reflect new resource streams, work practices, suppliers or resource management options as required.
- The RM will be responsible for delivery of all training and induction in relation to resource management.
- The RM will be responsible for ensuring site infrastructure is supplied and maintained as fit for purpose.
- The RM will be responsible for conducting all internal site audits including audits of sub-Contractor operations.
- The RM will be available as required for any Local Authority or other audits undertaken.
- The RM will be responsible for maintaining site records for waste and resources exported off-site and ensuring these are undertaken by suitably authorised operators to suitably authorised sites.
- The RM will be engaged with relevant individuals who have access to ordering and stock-control records to ensure supply chain initiatives have been adopted.

3.5.4.20 Site Infrastructure

The Appointed Contractor will be responsible for the provision of site infrastructure for the handling and management of resources and waste on the 3FM project. The appointed Contractor will;

- Provide Waste Storage Areas (WSAs). Prior to construction, the site layout should be reviewed to ensure that the proposed WSAs have adequate space for storage and handling.
- All WSAs will be assessed as fit for purpose and will be suitably contained, bunded or defined as required. This will include dedicated skips, hazardous materials storage, and stockpile management as a minimum.

- Temporary storage of waste at the site where it was produced in accordance with Waste Management Act 1996, as amended is limited to a six-month duration. Storage shall not exceed this limit. Appropriate measures to prevent environmental impact, e.g. run-off, should be implemented as needed.
- The WSA should be set out to reduce any potential for impact on sensitive human (e.g. residential) or natural (water courses, ecological sites, etc.) and a suitable buffer, e.g., receptor should be applied to mitigate any impact.
- Labelling and signage shall be used on site to inform personnel of key WSA requirements and restrictions, with clear signage provided on all WSAs.
- Signage is also required to provide information to assist good resource practice across the site.

3.5.5 Noise & Vibration Management Plan

3.5.5.1 Introduction

This Noise and Vibration Management Plan (NVMP) details the environmental monitoring and noise/vibration mitigation measures that will be implemented during the works to minimise the effects of the site operations on environmental receptors. The NVMP will be finalised in the event that development consent is obtained, in order to incorporate additional requirements pursuant to conditions attached to statutory consents, and methods and plant in use by the appointed Contractor.

This NVMP will be fully in accordance with the following documents:

- 3FM Project EIAR Terrestrial Noise & Vibration chapter and mitigation measures therein;
- British Standard BS5228:2009+A1:2014 Noise & vibration control on construction and open sites;
- NRA Guidelines for the Treatment of Noise and Vibration in National Road Schemes (2004);
- NRA Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (2014)

The purpose and aims of the NVMP are to:

- Establish noise and vibration guidance criteria to be used;
- Detailed outline of monitoring programme to be adopted including information on instrumentation, monitoring locations, monitoring procedure/methodology;
- Detailed outline of all proposed mitigation measures to control and minimise noise and vibration from all phases and areas of construction activity;
- Outline of management procedures for ensuring that the appropriate mitigation measures are appropriately managed;
- Outline of procedures for liaising with the public and Dublin City Council.

The proposals for noise/vibration monitoring and noise/vibration mitigation measures included in this document relate to the entire duration of construction works associated with the 3FM Project.

The NVMP will be finalised when Contractors are appointed, and liaison with Dublin City Council has taken place with regard to approval of the updated NVMP. The updated NVMP will detail the specific roles and responsibilities of personnel related to the implementation of the NVMP.

3.5.5.2 Mitigation Measures

Mitigation measures will include the requirements for best practice and adherence to the following relevant Irish policies, strategies, legislation, and guidelines, or recognised international guidelines where Irish guidelines are not available:

(a) The construction noise and vibration levels arising from the proposed development shall not exceed Noise and Vibration Threshold Limits in NRA Guidelines (2004) and BS5228:2009+A1:2014 (Parts 1 & 2), set out in Table 3-21.

(b) Mitigation measures included in the EIAR, shall be adhered to, in compliance with British Standard BS5228:2009+A1:2014 – Noise and vibration control on construction and open sites. In relation to noise (Part 1), such mitigation includes:

- Ensuring that mechanical plant and equipment used for the purpose of the works are fitted with effective exhaust silencers and are maintained in good working order;
- Careful selection of quiet plant and machinery to undertake the required work where available;
- All major compressors will be ‘sound reduced’ models fitted with properly lined and sealed acoustic covers which should be kept closed whenever the machines are in use;
- Any ancillary pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers;
- Machines in intermittent use will be shut down in the intervening periods between work;
- Ancillary plant such as generators, compressors and pumps will be placed behind existing physical barriers, and the direction of noise emissions from plant including exhausts or engines will be placed away from sensitive locations, in order to cause minimum noise disturbance. Where possible, in potentially sensitive areas, acoustic barriers or enclosures will be utilised around noisy plant and equipment.
- Handling of all materials will take place in a manner which minimises noise emissions;
- Audible warning systems will be switched to the minimum setting required by the Health & Safety Authority.

The Terrestrial Noise & Vibration Chapter for the 3FM Project details the requirement for temporary noise barriers in the vicinity of Pigeon House Road and the Coastguard Cottages during the construction phase. The exact nature of these barriers will be reviewed on a continual basis as works progress in this area in consultation with Dublin City Council and this will be reviewed and updated within the NVMP.

Part 2 of BS5228:2009+A1:2014 provides recommendations for basic methods of vibration control on construction sites. Section 7 of the guidance document outlines advice in relation to project supervision, particularly in relation to works preparation and execution of works. Section 8 details aspects such as the control

of vibration at source, controlling the spread of vibration, vibration control targets and practical measures to reduce vibrations from piling sites. Section 9 provides guidance on the measurement of vibration.

A complaints procedure shall be operated by DPC throughout the construction phase and the Contractor will be instructed to make all efforts to address any noise and vibration issues at the nearest sensitive properties.

DPC will engage in a neighbour notification exercise prior to the commencement of the construction phase. The extent of residents to be notified of construction activities will be determined by a noise modelling exercise which will determine what residents are likely to hear the construction phase activities.

Table 3-21 Noise Threshold Limits at Nearest Sensitive Receptors for Construction Activities

	Threshold Limits [dB(A)]		
	Category A	Category B	Category C
Night-time (23:00 - 07:00)	45	50	55
Evening and Weekends (19:00 - 23:00 Weekdays, 13:00-23:00 Saturdays, 07:00-23:00 Sundays)	55	60	65
Weekday daytime (07:00-19:00) and Saturdays (07:00-13:00)	65	70	75

Limits of transient vibration, above which cosmetic damage could occur, are given numerically in Table 3-22 (Ref: BS5228-2:2009+A1:2014). Minor damage is possible at vibration magnitudes which are greater than twice those given in Table 3-22, and major damage to a building structure can occur at values greater than four times the tabulated values (definitions of the damage categories are presented in BS7385-1:1990, 9.9).

Table 3-22 Transient Vibration Guide Values for Cosmetic Damage (Ref BS5228-2:2009+A1:2014)

Type of Building	Peak Particle Velocity (PPV) (mm/s) in Frequency Range of Predominant Pulse	
	4 Hz to 15 Hz	15 Hz and above
Reinforced or framed structures. Industrial and heavy commercial buildings.	50 mm/s at 4 Hz and above	50 mm/s at 4 Hz and above
Unreinforced or light framed structures. Residential or light commercial buildings.	15 mm/s at 4 Hz increasing to 20 mm/S at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above.

3.5.5.3 Noise and Vibration Monitoring Programme

Noise surveys will be conducted in accordance with BS7445: Description and Measurement of Environmental Noise. All measurements will be made using Type 1 precision digital sound levels meters and associated hardware, which will conform to BS EN 60804. Sound level meters will be periodically calibrated in accordance with BS7580: Sound Level Meter Verification. The following parameters will be recorded as a minimum: LAeq, LAmax, LAmin, LA10 and LA90.

The existing noise monitoring stations that have been in place to monitor noise levels associated with the ABR and MP2 Projects will be maintained throughout the duration of the 3FM Project. In addition to this, there will be a requirement for continuous noise monitoring to be completed in the vicinity of the properties on York Road / Pigeon House Road / Coastguard Cottages during the construction phase. The exact noise monitoring location will change throughout the construction process to be representative of the nearest properties to the proposed works at that particular stage of the works in this area.

Vibration monitoring will be conducted at the nearest properties on Pigeon House Road to the proposed piling works for the SPAR as a verification measure to ensure that no unusual sub-strata features generate unanticipated vibration effects at these properties. Vibration monitoring will also be conducted at sensitive site of cultural heritage value where construction works take place in close proximity to these sites, to ensure that there will be no structural damage to these sites.

All data will be collected and analysed on a weekly basis and the analysed data will be fed back to DPC and the Contractors on a weekly basis with a view to reviewing the compliance of construction phase activities in the context of any relevant conditions in planning approval if granted, and the thresholds/requirements included in this CEMP. This will also include any liaison requirement with Dublin City Council in this regard.

Any noise/vibration nuisance issues associated with the construction phase activities will be immediately assessed and analysed in relation to the recorded noise levels and all correspondence with DPC, the Contractor, Dublin City Council and the residents will be conducted with the appropriate level of urgency. This will include the appropriate liaison with DPC and the Contractor to control activities to ensure that the construction phase activities are in line with any relevant planning conditions and the CEMP.

3.5.5.4 Reporting

Interim synoptic reports will be produced on a regular basis, usually calendar months, and submitted to Dublin City Council and the project liaison group.

Summary data and graphical outputs for each year of the construction phase will form part of an Annual Environmental Report. The data will be prepared in an analytical output that will aim to provide a concise representation of the construction phase noise and vibration levels from the port and will aim to avoid presentation of lengthy datasets.

3.5.5.5 Equipment

The number and location of noise meters will be agreed with Dublin City Council. These will operate for the entire duration of the construction phase. Permanent secure noise monitoring stations have previously been established at the marina adjacent to Pigeon House Road, at East Wall Road, and at Clontarf as part of the

ABR and MP2 Projects' Noise Management Plans for nearby sensitive noise receptors. An additional noise monitoring station will be arranged as detailed in the 'Noise & Vibration Monitoring Programme' section above.

The noise meters used will conform to the description of a Type 1 precision digital sound level meters as described in the relevant noise guidance documentation. All equipment will be calibrated at regular intervals.

3.5.6 Dust & Odour Management Plan

3.5.6.1 Dust Minimisation Plan

Dust emissions from the proposed works have the potential to impact on neighbouring areas in the absence of mitigation. This section outlines the mitigation measures that will be employed to reduce the dust impact on sensitive receptors. These measures are the minimum required and will form the basis of a detailed Dust Management Plan to be prepared by the Contractor when appointed.

The Dust Minimisation Plan is based upon the industry guidelines in the Building Research Establishment document entitled 'Control of Dust from Construction and Demolition Activities' (BRE 2003). In order to ensure that any dust nuisance is minimised, a series of mitigation measures have been listed below, which will be implemented in the event that development consent is granted:

- Any construction compound will be located as far as practicable from sensitive receptors such as residential dwellings but also at a sufficient distance from ecological receptors.
- Site roads will be regularly cleaned and maintained as appropriate. Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic only.
- Any site roads with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions (also applies to vehicles delivering material with dust potential).
- All HGVs and other site vehicles exiting the site will make use of a wheel wash facility prior to entering onto Dublin Port estate roads and public roads, to ensure mud and other wastes are not tracked onto the roads. Wheel washes will be self-contained systems that do not require discharge of the wastewater to water bodies.
- Public roads outside the site will be regularly inspected for cleanliness, and cleaned as necessary.
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind.
- Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods.
- Site traffic will be restricted to 20km/hr to minimise dust re-suspension.

The level of mitigation (water misting, use of bowsers, etc.) will be dictated by the monitoring results and the levels of rainfall experienced in a given period. This will prevent the excessive use of water for dust suppression on site when not required to minimise secondary drainage impacts.

As part of a broader audit of the works under the CEMP, the application of the above measures will be assessed and recorded. Where required, corrective actions will be identified and presented to the Contractor to fully implement the above measures to minimise dust.

DPC's environmental consultants will monitor dust deposition levels independently of the Contractor each month for the duration of construction. The monitoring procedure employed will be the German Standard Method VDI 2119 (Measurement of Dustfall, Determination of Dustfall using Bergerhoff Instrument (Standard Method) German Institute). The dust deposition rate will be measured by positioning a series of Bergerhoff Dust Deposit Gauges at strategic locations at key receptor points which will be tested on a monthly basis. The selection of sampling point locations will be completed after consideration of the requirements of VDI 2119 with respect to the location of the samplers relative to buildings and other obstructions, height above ground and sample collection and analysis procedures. The locations will be proposed to Dublin City Council for approval and will be based on the potential risk to sensitive receptors in the area.

The results of the monitoring will be compared against the guideline of 350mg/m²/day. This is the standard German TA Luft guideline which is widely applied in Ireland to determine dust nuisance.

This guideline will be used as a trigger to determine dust nuisance. Where any monthly dust level exceeds the trigger value the Environmental Facilities Manager will carry out an investigation to determine the cause. Recent operations within the site, possible external dust sources and meteorological data will be considered to determine the potential cause of any exceedance. Where the works are identified as the cause the Contractor will be obliged to increase mitigation, modify the proposed works or provide alternative means of dust minimisation measures. All exceedances of the trigger value and subsequent investigations will be recorded and available for review.

Monthly dust monitoring using the methods above has been carried out at Poolbeg Marina Pigeon House Road, the location of the nearest sensitive receptors to the 3FM Project site, since July 2016 as part of the ABR Project. The mean dust deposition level over the 81 month period to March 2023 is 98mg/m²/d. This is well below the nuisance dust level of 350mg/m²/d and establishes a background level for dust deposition in this area. The nearest sensitive dust receptors to the north of the 3FM Project site are in Clontarf, and along Strand Road, approximately 1km distant from the 3FM Project site.

3.5.6.2 Odour Management Plan

This Odour Management Plan (OMP) has been prepared in accordance with the following guidance documents:

- Odour Management Plans for Waste Handling Facilities (Environment Agency, 2011)
- Odour Management Guidance" (Environment Agency, 2011).
- Odour Impact Assessment Guidance for EPA Licensed Sites" (EPA Guidance Note AG5, 2010).

The OMP has been designed to:

- Employ appropriate methods, including monitoring and contingencies, to control and minimise odour pollution;
- Prevent unacceptable odour pollution at all times; and
- Reduce the risk of odour releasing incidents or accidents by anticipating them and planning accordingly.

Odour Risk

The risk of odour from the proposed work has been assessed based on the standard source-pathway-receptor model. Each area is outlined in the following section to provide an assessment of overall risk.

Source

The potential sources of odour during the construction works relate to the dredging operation where decayed organic material has the potential to release sulphurous compounds (such as hydrogen sulphide) or where solvent contamination is uncovered.

Hydrogen sulphide (H₂S) is partially water soluble so a portion of any H₂S released during dredging will dissolve in the water to form sulphuric acid at trace concentrations which will rapidly dilute and disperse in the water column. Previous dredging operations in the same area have released no hydrogen sulphide to the atmosphere.

Very low levels of organic solvents have been recorded in the dredge material in some areas of the channel equating to less than 0.02% of the total material. Volumes of any solvent vapour released during dredging are therefore likely to be extremely low and will quickly condense into the liquid phase and either dissolve in the water (e.g. water soluble solvents such as alcohols) or form a residue on the water surface if not water soluble (such as aromatics).

Pathway

In the event that any odours become airborne the odours will dilute and disperse in the air. The direction of dispersion and extent of dilution is largely dictated by the wind speed and direction. Higher winds will lead to greater dilution than lower winds, and calm days (such as temperature inversion) will restrict dilution/dispersion and increase odour risk. Wind direction in the Dublin area is predominately westerly-south westerly (circa 60% of the year) which will direct odours away from the nearest residential areas which are to the south and west. Northerly and north easterly winds in the direction of these residential areas are very infrequent (circa 10%) as are calms (2.2% of the time).

Receptor

The nearest sensitive residential receptors to the proposed dredging operation are the residential dwellings on York Road, Pigeon House Road, Ringsend Park and Pembroke Cottages. Further north there are a number of residential areas along Clontarf Road which lie over 1.5km to the north of the proposed dredging operations, and along Strand Road which is about 1km to the south.

The nearest commercial receptors to the proposed development include the various operations along Alexandra Road predominantly to the northwest of the site. In addition the 3Arena Theatre and the Gibson Hotel are the closest operations to the west of the site. To the south of the site there are a number of office developments on York Road and Thorncastle Road.

Ecological receptors can be affected by deposition of air pollutants such as nitrogen oxides and sulphur dioxide. The nearest sensitive ecological sites to the proposed development are the Grand Canal pNHA (Site Code 2104), the Royal Canal pNHA (Site Code 2103) and South Dublin Bay and River Tolka Estuary SPA (Site Code 4024). Ecological receptors are less sensitive to odours than human receptors.

Monitoring and Audit

Odour audits of the 3FM Project construction operations will be undertaken by a suitably qualified expert as required in response to complaints or as directed by regulatory authorities. Any such audits will consider the odour sources listed above coupled with the identification of any new sources and will follow the procedures presented in the EPA “Odour Impact Assessment Guidance for EPA Licensed Sites” (Guidance Note AG5, 2010).

The results of monitoring events and audits will be communicated to the construction manager so that any changes required to working practices or additional abatement measures to mitigate odour risk may be implemented.

Complaint Investigation

As part of the plan, DPC will put in place a system to efficiently manage, record and respond to odour complaints. The relevant information to be recorded includes:

- Date and time of complaint
- Name of complainant
- Location of complainant
- Duration of odour
- Where and when odour was detected
- How strong the odour was/is (Intensity on a scale of 0 to 5 where 0 is not perceptible, 1 is very weak, 2 is weak, 3 is distinct, 4 is strong and 5 is very strong)?
- What did the odour smell like - A number of random descriptors should be proposed by the facility representative or offered by the resident (saying that the odour smells bad is not sufficient).
- Details of the responses made to the complainant.
- Details of the meteorological conditions existing at the time, in particular wind speed. Meteorological data is available on: <http://www.met.ie/latest/reports.asp>

Where possible, the location of the complainant will be visited immediately to verify the nature of the odour. Where the source is confirmed to relate to the works, the construction manager will be contacted immediately to cease or modify the operation causing the odour until suitable mitigation measures are devised.

3.5.7 Marine Mammals Management Plan

The following precautionary measures will be undertaken to minimise the risk of injury or disturbance to marine mammals in the area of operations in line with National Parks and Wildlife Service (NPWS) Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters (2014):

- A trained and experienced Marine Mammal Observer (MMO) will be put in place during piling, dredging, demolition and dumping operations. The MMO will scan the surrounding area to ensure no marine mammals are in a pre-determined exclusion zone in the 30-minute period prior to operations. The NPWS exclusion zone is 500m for dredging and demolition works and 1,000m for piling activities.
- Noise-producing activities will only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring is not possible, the sound-producing activities will be postponed until effective visual monitoring is possible. Visual scanning for marine mammals (in particular harbour porpoise) will only be effective during daylight hours and if the sea state is WMO Sea State 4 (\approx Beaufort Force 4 conditions) or less.
- For piling activities, where the output peak sound pressure level (in water) exceeds 170 dB re: 1 μ Pa @ 1m, a ramp-up procedure will be employed following the pre-start monitoring. Underwater acoustic energy output will commence from a lower energy start-up and thereafter be allowed to gradually build up to the necessary maximum output over a period of 20-40 minutes.
- If there is a break in piling / dredging activity for a period greater than 30 minutes then all pre-activity monitoring measures and ramp-up (where this is possible) will recommence as for start-up.
- Once normal operations commence (including appropriate ramp-up procedures), there is no requirement to halt or discontinue the activity at night-time, nor if weather or visibility conditions deteriorate, nor if marine mammals occur within a radial distance of the sound source that is 500m for dredging and demolition works, and 1,000m for piling activities.
- Once normal dredging operations commence there is no requirement to halt or discontinue the activity at night-time, nor if weather or visibility conditions deteriorate, nor if marine mammals occur within a radial distance of the sound source that is 500m for dredging and demolition works. Notwithstanding this, MMOs will implement additional best-practice mitigation where feasible by directing operations to areas where marine mammals are absent, or requesting delays to activities to provide animals an opportunity to disperse.
- Any approach by marine mammals into the immediate (<50m) works area will be reported to the National Parks and Wildlife Service.
- Non-piling windows, and implementation of piling controls when marine mammals occur in specified monitoring zones have been set for impact piling.
- Piling is restricted to 0700h and 1900h (Monday to Friday), 0800h to 1300h (Saturday) and no piling will take place on Sundays or Bank Holidays. Therefore, during piling periods, active piling operations will only occur for a maximum of about 38% of that period, allowing extensive unimpeded use of the harbour area by marine mammals throughout project construction.
- An extended monitoring zone will be implemented for harbour porpoise during piling at Area N and Area K. This zone will include all areas within the Bull Walls, and no piling will be permitted if harbour porpoise are

present in this area during a pre-watch. A minimum of two MMOs are required to effectively monitor this extended zone.

- The MMO will keep a record of the monitoring and log all relevant events using standardised data forms available from NPWS and submit to the NPWS on completion of the works.
- In line with best international practice, a combination of visual and acoustic mitigation techniques will be used to ensure there are no significant impacts on all Annex II marine species, including harbour porpoise, grey seal and harbour seal. Static Acoustic Monitoring (SAM) through the deployment of FPODS will be used. SAM monitoring sites will be established and maintained throughout the project and for two years post-construction. This technique is to complement and not replace visual techniques.
- The deployment of a SAM system will complement and extend the extensive database currently being collected as part of the ABR and MP2 Project environmental monitoring programmes.
- The deployment of a Passive Acoustic Monitoring (PAM) system at North Bank Light in the inner Liffey channel will continue for the duration of the construction phase. The PAM system uses a hydrophone to detect the presence of marine mammals in real time.

The MMO will keep a record of the monitoring and log all relevant events using standardised data forms available from NPWS and submit to the NPWS on completion of the works.

In line with best international practice a combination of visual and acoustic mitigation techniques will be used to ensure there are no significant impacts on all Annex II species, including harbour porpoise, grey seal and harbour seal. Static Acoustic Monitoring (SAM) through the deployment of F-PODS, and Passive Acoustic Monitoring (PAM) through the deployment of LIDO will be used. SAM and PAM monitoring sites will be established and maintained throughout the project and for two years post-construction. Acoustic techniques are to complement and not replace visual techniques. F-PODS will be deployed using anchor clumps and acoustic release mechanisms on the hydrophone moorings. The anchor clumps will be recovered after use. LIDO will be installed at the Northbank Light providing real-time access to acoustic monitoring.

The deployment of SAM and PAM systems will complement and extend the extensive database currently being collected as part of the ABR and MP2 Projects environmental monitoring programmes. DPC and RPS have also sponsored a PhD project in the Atlantic Technology University to provide detailed analysis of the underwater soundscape in Dublin Bay using Soundtrap instruments. This will add considerable value to data collected and provide a profile of the soundscape of Dublin Bay.

3.5.7.1 Static Acoustic Monitoring (SAM)

In order to validate the long-term effectiveness of mitigation measures for harbour porpoises a static acoustic monitoring programme (SAM) will be established using F-PODS. The F-POD is a fully automated, static acoustic monitoring system which can detect porpoises, dolphins and other toothed whales by recognising the trains of echolocation clicks these species make in order to detect their prey, orientate themselves and interact with one another. These units are accompanied by click train recognition software which produces fully automated, accurate data on the behaviour and identification of cetacean species (see www.chelonia.co.uk).

Previously C-POD units were deployed in the SAM monitoring programme for the ABR project. C-PODs have now been superseded by F-PODs with improved technology. A period of simultaneous deployment of C-PODs and F-PODs in the post-ABR and pre-MP2 monitoring allowed continuity of monitoring data to be assessed.

Once deployed at sea, F-PODs operate in a passive mode and are constantly listening for tonal clicks within a frequency range of 20kHz to 160kHz. When a tonal click is detected, the F-POD records the time of occurrence, centre frequency, intensity, duration, bandwidth and frequency of the click. Internally, the F-POD is equipped with a Secure Digital (SD) flash card, and all data are stored on this card. Dedicated software, FPOD.exe, provided by the manufacturer, is used to process the data from the SD card when connected to a PC via a card-reader. This allows for the extraction of data files under pre-determined parameters as set by the user. Additionally, the F-POD also records temperature over its deployment duration. It must be noted that the F-POD does not record actual sound files, only information about the tonal clicks it detects.

Static acoustic monitoring is independent of weather conditions once deployed and thus ensures high quality data is collected but only at a small spatial scale, typically around 800m radius for dolphins and 250m for porpoise (O'Brien et al. 2013). They can be deployed on a mooring for four to six months before recovery and downloading of data. Data will be recovered and analysed three times a year. This data will be analysed as detection positive minutes (DPM) to generate an acoustic index of activity. This technique provides large datasets to enable changes in activity to be identified at high resolutions.

O'Brien et al. (2013) recommended a minimum of four units should be deployed in small inshore study areas to ensure that statistically robust data can be collected. The number of F-PODs required should reflect the parameters to be tested (e.g. fine scale diel or larger scales such as seasonal trends). Using an even number design for replication purposes can allow for parameters such as inshore and offshore trends to be explored in larger areas. The more units that can be deployed in an area, the more an informed evaluation of a site and successful monitoring indices will be generated.

A total of ten F-POD units have already been procured during the MP2 Project to enable individual units to be swapped on the moorings and downloaded and maintained ashore between deployments. In line with best practice, a field calibration trial will be carried out in the Shannon Estuary during one month to test the use of the F-PODs for diel/tidal traffic, and to assess any differences in sensitivity. Field calibrations are necessary when introducing new units to an existing study, and calibrations are carried out at the beginning and end of project.

Four SAM stations will be used for the environmental monitoring programme. These stations will be monitored pre-construction, during construction and for a minimum of two years post-construction. This monitoring will determine whether displacement of harbour porpoises has occurred and whether activity returns to pre-construction levels when construction is completed. This monitoring will provide information to ensure the requirements of the Habitats Directive have been met i.e. to avoid significant disturbance from preferred habitats, and inform future similar developments. This is in line with best international practice. F-PODs will be recovered every four months and analysed for Detection Positive Minutes (DPMs) providing high quality data on seasonal, diel and tidal occurrence. Data will be compared across sites, before during and after construction following the BACI type design similar to Carstensen et al. (2006). This will provide opportunities for adaptive project management through regular feedback to environmental managers and Contractors.

3.5.7.2 Passive Acoustic Monitoring (PAM)

The PAM system will provide information on the presence of marine mammals during periods when visual mitigation is constrained. The system to be used will be LIDO equipment supplied by Laboratory of Applied Bioacoustics (LAB-UPC) in Barcelona and consists of a SMID digital hydrophone connected to an embedded SBC (computer system) that stores data for transfer via Ethernet. Noise measurements are centred in the third-octave bands at 63 and 125 Hz as required under the Marine Strategy Framework Directive, as well as short tonal signals between 2,500 and 20,000 Hz. Vessel movements in the harbour can be monitored using their VHF automatic identification system (AIS), and this will facilitate an assessment of the effects of vessel activity on marine mammals. LIDO will be deployed at the Northbank Light in the inner Liffey channel. The signal will be streamed through the LIDO worldwide system available through UPC and provide near to real time acoustic monitoring.

3.5.7.3 Seal Survey

Monthly monitoring of seal haul-out sites at the North Bull Island has been carried out as part of the ABR and MP2 Projects since May 2016 (see Figure 3-2). These surveys have established typical seal numbers and seasonal occupancy of the site. Monitoring of seal haul out sites is ongoing and will be continued during the 3FM Project and after construction for a minimum of two years in line with international best practice. The haul out site at Bull Island will be surveyed two hours either side of low water from the same vantage points following the recommended technique by London et al. (2012). Known and suspected haul out sites will be surveyed during low water to record species, maturity stage (relative size), behaviour and vigilance.

In addition to these formal monthly surveys, counts of seals at their haul out site will be carried out regularly as time allows. In addition, if any new haul out sites in the zone of influence of the 3FM Project are discovered or reported, regular counts will be carried out to explore the numbers and use of these sites.



Figure 3-2 Examples of different neck patterns of individuals on Bull Island

There are no known haul-out sites for seals in the immediate proximity of the proposed works but a small group of resident harbour and grey seals haul-out on the North Bull Island around 6km to the northeast, on Lambay Island 15km to the north and Dalkey Island 12km to the south. These sites are considered far enough away from the construction activity to have no negative effect, especially as sensitivity of seals to disturbance is less when hauled out.

The waters surrounding haul-out sites are a critical habitat for feeding and/or for navigation to more offshore foraging areas. Seals often haul-out on man-made structures and tolerate considerable human activity, which may lead to chronic exposure to man-made noise. In areas with repeated exposure, mammals may become habituated with a decline in avoidance responses and thus become less sensitive to noise and disturbance (Richardson et al. 1995). Besides the local seals from the Howth peninsula, it is likely that Bull Island is also visited by seals from nearby Skerries, Lambay Island, Ireland's Eye, Dalkey islands and possibly further afield. The 3FM Project poses little risk of impact or disturbance to these animals and is unlikely to cause detectable impacts on seals at the population level. However, in order to estimate the wider seal populations, a survey of the area of Dublin Bay and the adjacent Dublin coastal areas between Skerries and Dalkey Island, covering important haul-out and pupping sites, was carried out between July 2023 and January 2024. This survey identified a new important haul-out site for harbour seals at Rush Head, and confirmed that both seal species are widespread and numbers are consistent with previous surveys. The survey confirmed North Bull Island as an important haul-out site for grey seals in particular. It also documented an increase in harbour seals using North Bull Island as a haul-out site. Grey seals were much more abundant than harbour seals with maximum counts of 326 in October and 300 in July and a minimum of 167 in November. Harbour seal numbers ranged from 117 to 5, with a peak in July. Pup production was as high as previous estimates suggesting that populations of both seal species are healthy.

3.5.7.4 Reporting

Daily MMO reports will issue during dredging campaigns. These will detail the number and nature of watches undertaken, the number and locations of any marine mammals observed, and the nature of any mitigation implemented. The reports will be circulated daily to the dredging management group and the dredging Contractor.

Comprehensive reporting of SAM and PAM data and seal haul out surveys will be on an annual basis as part of the 3FM Project Annual Environmental Report. Short reports on specific aspects will be prepared for circulation as required, and to inform the implementation programme as necessary.

3.5.8 Birds and Marine Ecology Management Plan

3.5.8.1 Birds

The following precautionary measures will be undertaken to minimise the risk of injury or disturbance to birds in the area of operations:

- Black Guillemots – nest-boxes and other artificial nest sites will be provided prior to construction to mitigate any loss of nesting sites. A possible 6 additional nest boxes will be provided beneath the open piled wharf at area N as part of the 3FM Project in line with Dublin Port Company’s Black Guillemot Management Plan 2023-2030.
- Breeding Terns – the capital dredging scheme will be confined to the winter months (October – March) when the terns have migrated from the site.
- Additional nesting habitat will be provided for breeding terns by construction of a fixed nesting structure in line with DPC’s Tern Colony Management Plan 2023-2030.
- Impact Piling Closed Periods – Terns. Impact piling will not take place within 75m of the tern colony (Area K and Area N) in May and June.

3.5.8.2 Monitoring

DPC is committed to continuing a programme to monitor the movement of breeding Black Guillemots, Common Tern and Arctic Tern in Dublin Port throughout the construction phase of the 3FM Project and for a period of two years after the completion of such works. The results of this monitoring programme will be submitted to Dublin City Council at 12-monthly intervals to maintain a public record.

DPC will also continue to undertake a programme to monitor winter wetland birds in the adjacent European Site at the South Dublin Bay and River Tolka Estuary Special Protection Area. This monitoring programme will continue throughout the construction phase and for a period of two years after the completion of such works, with monthly surveys from October to March. The results of this monitoring programme will be submitted to Dublin City Council at 12-monthly intervals to maintain a public record.

3.5.8.3 Black Guillemot Monitoring Programme

Location: Black Guillemots are seabirds that nest in crevices within the quays and other structures of Dublin Port between Poolbeg and Butt Bridge on the River Liffey.

Methods: The population of Black Guillemots nesting within Dublin Port will be monitored on an annual basis. This will be carried out following the methods of Mitchell et al. (2004)⁶. Two surveyors will carry out the census between 26th March and 15th May and between 05:00 and 09:00 (BST), in winds no stronger than Beaufort force 4 and in calm sea conditions. The census will be conducted from a boat by two surveyors who will visit and

⁶ Mitchell, P.I., Newton, S.F., Ratcliffe, N. and Dunn, T.E. 2004. *Seabird Populations of Britain and Ireland*. Poyser. London.

survey all quaysides within the port on two separate dates in this period. The count unit will be the number of adult Black Guillemots visible on land or on the sea within 300m of the shore. Any Apparently Occupied Sites (AOS) will be mapped and Black Guillemots associated with such sites will be recorded separately.

Monitoring will include information on the location of actual breeding holes. It will inform the Black Guillemot Management Plan and indicate where new artificial nesting sites (including nestboxes) may be located within the port area.

3.5.8.4 Common Tern and Arctic Tern Monitoring Programme

Location: Common Terns and Arctic Terns are seabirds that nest on permanent structures and floating pontoons within Dublin Port.

Methods: The population of Common Terns and Arctic Terns nesting within Dublin Port will be monitored on an annual basis. The monitoring will be limited to a census of Apparently Occupied Nests (AON) on each of these structures following the methods of Mitchell et al. (2004). Two surveyors will carry out walked transects through each subsite of the colony recording the number of egg clutches of each species present (one clutch of eggs is treated as one Apparently Occupied Nest). Access to each of the subsites will be by boat.

Where access to a subsite is restricted for safety or other reasons, an estimate will be made of number of terns in the air over the colony during flushing (flush count). The number of birds counted by this method is divided by 1.5 in order to convert it to AONs. The survey will be timed to coincide with the peak of incubation activity when the maximum number of nests and incubating adults are present for AON counts and when adult attendance for flush counts is most stable. The survey will be carried out by two surveyors on two separate dates in the period 10th June to 15th July, in moderate weather and sea conditions. Surveys will not be undertaken during rainfall to avoid the chilling of eggs.

3.5.8.5 Winter Wetland Bird Monitoring Programme

Location: The area to be monitored is the South Dublin Bay and River Tolka Estuary SPA. This includes all intertidal areas between Dún Laoghaire West Pier and the Bull Wall.

Methods: A series of six low tide surveys will be carried out at approximately monthly intervals between 1st October and 31st March each year. Survey dates will be selected when low tide occurs in daylight and in good weather conditions. Surveys will be carried out within two hours either side of low tide to ensure that all birds foraging in the census area are present in the intertidal area. The surveys will be undertaken by a team of experienced observers using binoculars and telescopes with each observer positioned in a suitable vantage point on shore. In each case, bird flocks (giving species codes and estimated numbers present) will be mapped on large scale drawings for later analysis.

3.5.8.6 Reporting

An annual report on the results of the Bird Monitoring Programme will be prepared and submitted to the Planning Authority not later than 31st July each year. This will cover the results of the monitoring programme for the previous year (i.e. from April to March).

3.5.8.7 Marine Ecology

Capital Dredging

The following key mitigation measures shall apply to the Capital Dredging Scheme to minimise the impact of the proposed works on marine ecology:

- No over-spilling at the surface of the dredger for all dredging activities within the inner Liffey Channel will be permitted.
- The dredger will work on one half of the channel at a time within the inner Liffey channel to prevent the formation of a silt curtain across the River Liffey.
- A Trailing Suction Hopper Dredger (TSHD) or back-hoe dredger will be used for the capital dredging works. When operating in the River Liffey Channel, the TSHD pumps will be switched off when the drag head is being lifted and returned from the bottom as the dredger turns between successive lines of dredging to minimise the risk of fish entrainment.
- The dredging of sediments within the navigation channel will be carried out during the winter months (October – March) to negate any potential impact on salmonid migration (particularly smolts) and summer bird feeding, notably terns, in the vicinity of the dredging operations. However, upstream of Berth 49 the no-dredging period is extended and includes the added period from 15th March to 31st March. The recommended Closed Periods for capital dredging are indicated previously in Figure 2-1.

Piling Activities

Modelling of underwater noise from impact piling has informed the mitigation measures proposed below. The following key mitigation measures in the form of no-piling windows apply to impact piling activities to minimise the impact of the proposed works on fisheries. Vibratory piling is allowable during these periods.

- No impact piling for construction of SPAR Bridge, SPAR Viaduct, the Marina, Area K Berth 45, or Area K Ro-Ro Ramp locating piles will take place during March to May inclusive, the three months of the year when vulnerable smolts are likely to run in their highest numbers.
- Due to the greatly reduced number of adult salmon returning in recent years, down to circa 500 individual salmon, a further no-piling window will apply to July and August at Area K Berth 45, Area K Ro-Ro Ramp locating piles, Turning circle and temporary works piling, Area N outer piles x 5 rigs, and the Lo-Lo Terminal dolphin are indicated previously in Figure 2-2.

3.5.9 Archaeology and Cultural Heritage Management Plan

3.5.9.1 Landside Works

The impacts on cultural heritage assets on land arising from the 3FM Project focus on works associated with ground disturbance activities that might expose elements of the eighteenth century Great South Wall or other cultural heritage assets.

3.5.9.2 Heritage Gain Proposals

The 3FM project will provide an opportunity to celebrate the 300-year old Great South Wall. Almost 500 people walk the Great South Wall each day, and the 3FM Project proposes a Public Access Feasibility Study to identify possible ways of improving public access and connection to the Great South Wall, and funding to implement the study recommendations.

The 3FM Project will also continue the process of implementing one of the Masterplan 2040's objectives to re-integrate Dublin Port with Dublin City, emphasising Dublin Port-City heritage over the past three centuries. A key element of the 3FM Project is DPC's development of a new Port Heritage Conservation Strategy for the entire Port estate. This provides a comprehensive, integrated approach and policy directive for heritage assets of the Port Estate, both tangible and intangible.

3.5.9.3 Marine Works

Capital dredging is required to deepen the seabed at berths and to provide a 325m turning circle for vessels in the inner Liffey channel.

The total volume of material to be dredged will be circa 1,189,000m³. A trailing suction hopper dredger and/or a back-hoe dredger will carry out the dredging work. Dredged spoil, suitable for disposal at sea, will be disposed of at the licensed dump site used by DPC located at the approaches to Dublin Bay, west of the Burford Bank.

Where dredging will take place for the turning circle, layers of rock armour will be placed on the southern dredged slopes to provide stabilisation and scour protection.

The extension of capital dredging into the south side of the channel area represents direct and permanent impacts on what appears to be previously un-dredged locations. As recorded on Rocque's 1757 map, this area was a wider mooring for ships in the eighteenth century before the construction of Pigeon House Harbour. It is a zone of high archaeological potential and the recovery of shipping debris and/or shipwreck must be anticipated and treated in compliance with obligations arising under Part 5 of the Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023.

3.5.9.4 Archaeological monitoring and management measures

The following archaeological monitoring and management measures will be undertaken:

Retaining an Archaeologist

An archaeologist experienced in maritime archaeology will be retained by DPC for the duration of the relevant works.

Retaining a Heritage Architect or Conservation Engineer

A heritage architect or conservation engineer experienced in industrial and maritime architectural heritage will be retained by DPC for the duration of the relevant works.

Archaeological Licences

Archaeological licences will be required to conduct the on-site archaeological works. Licence applications require the inclusion of detailed method statements, which outline the rationale for the works, and the means by which the works will be resolved. The following licence types will be required: Excavation, to cover monitoring and investigations works; Detection, to cover the use of metal-detectors; and Dive Survey, to cover the possibility of having to conduct underwater inspections. The Excavation licence applications will be accompanied by a letter from DPC confirming that sufficient funds and other facilities are available to the archaeologist to complete the archaeological excavation, post-excavation, and preliminary and final reports (including specialist reports).

Archaeological Monitoring

Archaeological monitoring will be carried out by suitably qualified and experienced maritime archaeological personnel licensed by Department of Housing, Local Government and Heritage (DHLGH). Archaeological monitoring will be conducted during all terrestrial, inter-tidal/foreshore and seabed disturbances associated with the 3FM Project.

The monitoring will be undertaken in a safe working environment that will facilitate archaeological observation and the retrieval of objects that may be observed and that require consideration during the course of the works.

The monitoring will include a finds retrieval strategy that is in compliance with the requirements of the National Museum of Ireland.

Construction Schedules

The time scale and schedule for the construction phase will be made available to the archaeologist, with information on where and when ground disturbances will take place.

Discovery of Archaeological Material

In the event of archaeologically significant features or material being uncovered during the construction phase, machine work will cease in the immediate area to allow the archaeologist/s to inspect any such material.

Once the presence of archaeologically significant material is established, full archaeological recording of such material will be undertaken. If it is not possible for the construction works to avoid the material, full excavation will be undertaken. The extent and duration of excavation will be a matter for discussion between DPC and the regulatory authorities (DHLGH and DCC).

Archaeological Team

The core of a suitable archaeological team will be placed on standby to deal with any such rescue excavation. This will be complemented in the event of a full excavation.

Archaeological Dive Team

An archaeological dive team will be retained on standby for the duration of any in-water disturbance works on the basis of a twenty-four or forty-eight hour call-out response schedule, to deal with any archaeologically significant/potential material that is identified in the course of the seabed disturbance activities.

Site Office/Storage Facilities

A site office and facilities will be provided by DPC on site for use by archaeologists. This will include secure wet storage facilities to facilitate the temporary storage of artefacts that may be recorded during the course of the site work.

Buoying/Fencing

Buoying/fencing of any such areas of discovery will be undertaken if discovered during excavation.

Machinery Traffic

Machinery and construction plant traffic will be restricted to avoid any identified archaeological site/s and their environs.

Spoil

Spoil will not be dumped on any of the selected sites or their environs.

Post-Construction Project Report and Archives

It is a condition of archaeological licensing that a detailed project report is lodged with the DHLGH within twelve months of completion of site works. The report will be to publication standard and will include a full account, suitably illustrated, of all archaeological features, finds and stratigraphy, along with a discussion and specialist reports. Artefacts recovered during the works need to meet the requirements of the National Museum of Ireland.

The above recommendations are subject to the approval of the National Monuments Service at DHLGH and compliance with the Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023.

3.5.10 Water Quality Management Plan

3.5.10.1 Introduction

The objective of the Water Quality Management Plan is to ensure that mitigation measures to be specified in the EIAR are adhered to and that a monitoring regime is put in place to confirm the efficacy of the mitigation measures implemented so as to further safeguard the receiving water environment.

Temporary impacts on water quality have the potential to occur during the construction phase of the works. Mobilised suspended sediment and cement release through construction activities are the principal potential sources of water quality impact. The following have been considered in assessing the mitigation measures required:

- Increased suspended sediment levels due to the accidental release of sediment to the water column during:
 - Demolition of buildings & structures;
 - Berth Construction including the construction of waterside berths, quay walls, jetties, open piled structures.
 - Capital Dredging and Sediment disposal operations;
 - Landside ancillary works to serve the marine operations including the construction of ramps and deck structures to access linkspans, services and drainage installation, and installation of jetty furniture and fender systems etc.;
- Accidental release of highly alkaline contaminants from concrete and cement during the demolition of buildings and structures and the construction of hardstand areas, waterside berths, quay walls, jetties, bridging structures, etc.
- General water quality impacts associated with works machinery, infrastructure and on-land operations including the temporary storage of construction materials, oils, fuels and chemicals.

Detailed mitigation has been incorporated into the engineering design of the 3FM Project to minimise its potential impact on the water environment. Indeed, most potential impacts to water quality posed by this project during construction will be dependent on the quality of drainage and treatment of site run-off before discharge to Dublin Harbour. Therefore, procedures will be put in place for the control and minimisation of surface water and suspended solids movement. Measures will also be taken to ensure existing drainage pathways are kept free from construction sediment and pollutants through the use of effective barriers to pollutant export and best practice techniques to control these pressures at source. Mitigation measures proposed to be employed on site during the 3FM Project construction are described next.

3.5.10.2 Mitigation Measures

Construction Phase Best Practice Measures

Mitigation measures will include the requirements for best practice and adherence to the following relevant Irish guidelines and recognised international guidelines:

- Good practice guidelines on the control of water pollution from construction sites developed by the Construction Industry Research and Information Association (CIRIA, 2001);
- Netregs Guidance for Pollution Prevention series (GPP), Pollution prevention guidelines (PPGs) in relation to a variety of activities developed by the Environment Agency (EA), the Scottish Environmental Agency (SEPA) and the Northern Ireland Environment Agency (NIEA);
 - GPP2: Above Ground oil storage tanks
 - PPG3: use and design of oil separators in surface water drainage
 - GPP5: Works and maintenance in or near water
 - PPG6: Working at construction and demolition sites
 - GPP8: Safe Storage and disposal of used oils
 - GPP13: Vehicle washing and cleaning
 - PPG20: Dewatering underground ducts and chambers
 - GPP21: Pollution incident response planning
 - GPP22: Dealing with spills
- Fisheries Guidelines for Local Authority Works. Department of Communications, Marine & Natural Resources, Dublin, (Anonymous, 1998);
- Guidelines on protection of fisheries habitats during construction projects (Eastern Regional Fisheries Board, 2006);
- International Convention for the Prevention of Pollution From Ships, 1973, as modified by the Protocol of 1978 (MARPOL) for domestic waste discharges to the environment;
- International Marine Organisation guidelines; and
- Control of Substances Hazardous to Health (COSHH) Handling of Hazardous Materials.

Suspended Sediment and Sedimentation Measures

Suspended sediment, including all soils, sands and rubble is the single main pollutant to the aquatic environment generated at construction sites and largely arises from the erosion of exposed soils and sediments by surface water runoff. Appropriate erosion and sediment controls during construction to prevent sediment pollution will be implemented.

Demolition of existing buildings and structures, berth construction and construction of landside ancillary works

These demolition and construction works have the potential to result in a localised impact on water quality.

The mitigation and control measures to address the impact from suspended sediments associated with these activities will follow sound design principles and good working practices as listed in the Netregs Pollution

Prevention Guidelines. In addition to the requirements of best practice and relevant guidelines, the following mitigation measures will be employed by the principal Contractor during the construction phase.

- Where preferential surface flow paths occur, silt fencing or other suitable impermeable barriers if required will be used to ensure silt laden or contaminated surface runoff from the site is segregated from clean storm water and does not discharge directly to a water body or surface water drain.
- Vehicle access routes will be selected and managed to minimize sediment mobilization and transfer.
- In the event that dewatering of foundations or drainage trenches is required during construction and/or discharge of surface water from sumps, a treatment system prior to the discharge will be used; silt traps, settlement skips etc. This measure will allow additional settlement of any suspended solids within storm water arising from the construction areas and ensure that it is of adequate quality for discharge to receiving waters.
- Locations of all temporary discharge points will also be indicated on the site drainage map which will be updated as required over the lifetime of the project.
- Locations of mitigation structures will be indicated on the drainage map which will be updated as required over the lifetime of the project.
- Volumes and points of discharge of clean or treated water will be managed to prevent erosion of banks or scour in receiving waters.

Capital Dredging and Disposal

A Dredging Management Plan has been developed for the 3FM Project. The mitigation proposed for dredging operations in the 3FM Project has been informed by the ABR and MP2 Projects monitoring and experience working in the same locations.

The Dredging Contractor will comply with the mitigation measures arising from the EIAR and in the consents for any Planning, Foreshore Licence/ Lease/ Ministerial Consent and Dumping at Sea Permit. The mitigation measures as per previous projects are summarised in this CEMP.

The following key relevant mitigation measures will apply to each dredging campaign in the 3FM Project:

- Loading will be carried out by a back-hoe dredger or trailing suction hopper dredger (TSHD).
- The dredging activity will be carried out during the winter months (October – March) to negate any potential impact on salmonid migration (particularly smolts) and summer bird feeding, notably terns, in the vicinity of the dredging operations.
- No over-spilling from the vessel shall be permitted while the dredging activity is being carried out within the inner Liffey Channel.
- The TSHD pumps will be switched off while the drag head is being lifted and returned to the bottom as the dredger turns between successive lines of dredging to minimise the risk of fish entrainment.

- The dredger's hopper will be filled to a maximum of 4,100 cubic metres (including entrained water) to control suspended solids released at the dumping site.
- Monitoring of Marine Mammals within 500m of loading and dumping operations will be undertaken for the duration of dredging campaigns in accordance with the measures contained in the Guidance to Manage the Risk to Marine Mammals from Man-Made Sound Sources in Irish Waters (NPWS 2014).
- A documented Accident Prevention Procedure is to be in place prior to commencement.
- A documented Emergency Response Procedure is to be in place prior to commencement.
- A full record of loading and dumping tracks and record of the material being dumped will be maintained for each trip.
- Dumping will be carried out through the vessel's hull.
- The dredger will work on one half of the channel at a time within the inner Liffey channel to prevent the formation of a silt curtain across the River Liffey.

No other capital or maintenance dredging will take place at Dublin Port at the same time as the 3FM Project capital dredging to ensure that there is no overlap in dredging operations that might result in cumulative impacts. A Dredging Management Plan is presented in Section 3.5.10. The Contractor will comply with all measures and mitigation contained therein to ensure that water quality is not significantly impacted.

Concrete and Cement Pollution Measures

Demolition of existing buildings and structures, berth construction and construction of landside ancillary works

The impacts in relation to cement and concrete for the 3FM Project relate to demolition of buildings and structures, construction of piles and foundations for the proposed berthing areas, quay walls etc, the installation of the concrete berthing areas (to be poured in-situ) and construction of landside ancillary works.

The following mitigation measures will be implemented:

- Breaking of concrete (associated with structure demolition) has the potential to emit alkaline dust into the receiving environment. A barrier between the dust source and the sensitive receptor (the water body in this case) will be erected to limit the possibility of dust contacting the receptor.
- Concrete use and production will adhere to control measures outlined in Guidance for Pollution Prevention (GPP5): Works and maintenance in or near water (2017). Any on-site concrete production will have the following mitigation measures: bunded designated concrete washout area; closed circuit wheel wash etc.; and initial siting of any concrete mixing facilities such that there is no production within a minimum of 10 metres from the aquatic zone.
- The use of concrete in close proximity to water bodies requires a great deal of care. Fresh concrete and cement are very alkaline and corrosive and can cause serious pollution in water bodies. It is essential to ensure that the use of wet concrete and cement in or close to any water body is carefully controlled so as

to minimise the risk of any material entering the water, particularly from shuttered structures or the washing of equipment.

- Where concrete is to be placed under water or in tidal conditions, specific fast-setting mix is required to limit segregation and washout of fine material / cement. This will normally be achieved by having either a higher-than-normal fines content, a higher cement content or the use of chemical admixtures.

General Construction Works

The risk of water quality impacts associated with works machinery, infrastructure and on-land operations (for example leakages/spillages of fuels, oils, other chemicals and waste water) will be controlled through good site management and the adherence to codes and practices which limit the risk to within acceptable levels. The Contractor will implement the following measures during construction:

- A detailed works-specific Risk Assessment Method Statement (RAMS) will be prepared by the Contractor which will meet the minimum requirements of this project level CEMP and will include detail in respect of every aspect of the works in order to minimise potential impacts, ensure compliance with the Water Quality Management Plan, and maximise potential benefits associated with the works;
- Management and auditing procedures, including tool box talks to personnel, will be put in place to ensure that any works which have the potential to impact on the aquatic environment are being carried out in accordance with required permits, licences, certificates and planning permissions, and include all mitigation required by the CEMP;
- Existing and proposed surface water drainage and discharge points will be mapped on the Drainage layout. These will be noted on construction site plans and protected accordingly to ensure water bodies are not impacted from sediment and other pollutants using measures to intercept the pathway for such pollutants.
- The use of oils and chemicals on-site will receive significant care and attention. The following procedures will be followed to reduce the potential risk from oils and chemicals:
 - Fuel, oil and chemical storage will be sited on an impervious base within a bund and secured. The base and bund walls must be impermeable to the material stored and of adequate capacity. The control measures in GPP2: Above Ground Oil Storage Tanks and PPG 26 “Safe storage – drums and intermediate bulk containers” (Environment Agency, 2011) shall be implemented to ensure safe storage of oils and chemicals;
 - The safe operation of refuelling activities shall be in accordance with PPG 7 “Safe Storage – The safe operation of refuelling facilities” (Environment Agency, 2011);
- Contingency Planning: The Pollution Incident Response Plan presented in this CEMP will be made specific for construction works in this project by the Contractor and will be consistent with DPC's Environmental Emergency Plan, and will be in accordance with PPG 21 Pollution Incident Response Planning. Whilst a major incident is highly unlikely to occur in circumstances where the mitigation measures as detailed in the CEMP are implemented, the finalisation of this document is considered to be best practice. The Contractor's Environmental Manager and DPC will be notified in a timely manner of all incidents where there has been

a breach in agreed environmental management procedures. Suitable training will be provided by the Contractor to relevant personnel detailed within the Pollution Incident Response Plan to ensure that appropriate and timely actions are taken.

3.5.10.3 Water Quality Monitoring Programme

A Construction Environmental Monitoring Programme has been prepared to provide additional safeguards to the receiving environment and an assessment of the effectiveness of the mitigation measures implemented to address any potential environmental effects on the receiving environment during the construction phase of the works. The monitoring programme will form part of the specification of the Contract Documents for the construction stage.

The Construction Environmental Monitoring Programme includes the following elements related to the receiving waters:

- An assessment based on 3-D computational hydrodynamic modelling and water quality modelling to design the placement of a number of water quality monitoring buoys and telemetry-based warning systems.
- The establishment of a baseline for suspended solids, and dissolved oxygen within the receiving waters of the Liffey Estuary Lower and Dublin Bay. The baseline has been established using existing monitoring data, particularly the high-resolution data acquired through the ABR and MP2 Projects monitoring programme, which may be confirmed if required in advance of construction.
- The establishment of water quality trigger levels and corresponding actions (including the necessity to temporarily cease construction operations) to safeguard sensitive conservation sites and the operations of other users of the receiving waters (e.g. Power Stations).

The finalisation of the Construction Environmental Monitoring Programme will involve engagement with a range of interested parties/stakeholders including Dublin City Council, EPA, National Parks & Wildlife Service, Dublin Port tenants, ESB and local community groups.

Monitoring will continue during construction to assist in the confirmation of the effectiveness of the mitigation measures identified in the EIAR. Regular visual confirmatory monitoring and environmental assurance audits will also be undertaken during the construction phase of the works.

In addition, DPC's existing EMS and monitoring protocols (described earlier in Section 3.3) will monitor the operational activities to ensure that measures to address operational impacts are effective and confirm that adequate protection is being provided to the sensitive receiving waters.

The management of the environmental monitoring programme will fall under the remit of the Environmental Facilities Manager who is independent of the Contractor. The Environmental Facilities Manager will provide reports to the relevant authorities as required and will also submit copies of those reports to the liaison group.

The Contractors' site supervisors will work closely with the Environmental Facilities Manager to monitor activities and ensure that all relevant environmental legislation is complied with and that the requirements of the CEMP and conditions of all relevant permits are implemented.

The Contractor will notify the Environmental Facilities Manager immediately on the occurrence of:

- any incident or accident that significantly affects the environment;
- any breach of licence or permit conditions;
- any malfunction or breakdown of key control equipment or monitoring equipment that is likely to lead to loss of control or environmental mitigation measures;
- any incident with the potential for environmental contamination, or posing a threat to the aquatic environment, or requiring an emergency response by the Local Authority.

This will include date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions, measures taken to restore compliance where breach of a licence condition has occurred, and corrective and preventive actions to prevent a re-occurrence.

Monitoring Programme Liffey and Tolka Estuaries

The monitoring system has been designed to ensure robust protection is afforded to the assets of the users of the River Liffey Channel, notably the intakes of power stations, as well as Natura 2000 sites, notably the South Dublin Bay and River Tolka Estuary Special Protection Area (SPA) (Site Code 004024) and the Rockabill to Dalkey Island Special Area of Conservation (SAC) (Site Code 003000).

It is proposed to use four monitoring stations at locations indicated in Figure 3-3. These are the same locations being used by the ABR and MP2 Projects.



Figure 3-3 Location of Monitoring Stations

Monitoring Station 1 (Eastlink)

This monitoring station will be sited in the River Liffey Channel at East Link Bridge upstream of the works.

Monitoring Station 2 (Poolbeg Sludge Jetty)

This monitoring station will be sited along the southern edge of the River Liffey Channel at the Poolbeg Sludge Jetty in close proximity to a power station intake and 3FM Project works.

Monitoring Station 3 (North Bank Light)

This monitoring station will be sited along the northern edge of the River Liffey Channel at the North Bank Light outside, but in close proximity to, the South Dublin Bay and River Tolka SPA.

Monitoring Station 4 (Tolka Estuary)

This monitoring station will be sited in the Tolka Estuary near the northern edge of the River Liffey Channel inside the South Dublin Bay and River Tolka SPA.

Monitoring System Specification

The specification is based on state of the art 24/7 real time monitoring. Water quality monitoring sensors, giving high resolution data with respect to the following parameters will be used at each of the three monitoring locations

- Turbidity
- Dissolved Oxygen
- Temperature
- Salinity
- pH

Water level will also be measured at one monitoring station to provide information on tidal state. Turbidity is measured as a surrogate for suspended solids. Site specific tests have previously been undertaken by the ABR Project to define the relationship between turbidity and suspended solids.

Apparatus housing and moorings used are robust and designed for the marine conditions at the monitoring locations. A calibration and maintenance programme will be put in place comprising:

- Regular calibration of sensors
- Regular maintenance of sensors (including cleaning)
- Maintain Data Quality Control
- Provision of replacements if required

A data acquisition and transfer system will be used to enable the transmission of high resolution data at approximately 15 minute intervals.

A data storage, interrogation system will be put in place comprising

- Provision of Data Server
- Web site for access to data
- Suitable Software to interrogate and display data

Trigger Values

Threshold values and action limits have been set and agreed with EPA for critical turbidity and dissolved oxygen parameters to provide a basis for detecting sediment plume formation or impact on oxygen levels in the inner Liffey estuary during dredging (RPS 2021). These values are based on data collected in the inner Liffey channel since 2016, established baseline conditions, data accuracy, modelled system responses during dredging (Coastal Processes Risk Assessment, RPS 2019), and potential for significant environmental impact.

The relevant trigger values for guiding assessment of water quality compliance and detecting and responding to incidents during dredging campaigns are summarised in Table 3-23.

Threshold values (TVs) are used here as comparators to assess environmental conditions and whether they are likely to be departing significantly from previously determined baseline conditions. While they are assessed in monthly reports, seasonal factors alter compliance rates, and therefore regulatory compliance based on annual data sets is appropriate. Action limits are triggers that precipitate system alarms and initiate a specified response. In situations where a departure from baseline is indicated, or where alarms are activated, an investigation and specified response actions will be initiated.

Since turbidity is monitored as a proxy of Total Suspended Solids (TSS), site-specific relationships previously established between turbidity and TSS are used to estimate TSS from turbidity data as follows:-

- Liffey sediments: $TSS \text{ (mg/l)} \approx 2.5 \times \text{(NTU)}$,
- Dublin Bay sediments: $TSS \text{ (mg/l)} \approx 1.6 \times \text{(NTU)}$.

Peak daily turbidity represents a worst-case scenario in turbidity events. A TV for peak daily turbidity at monitoring sites is set at ≤ 59 NTU (90th percentile compliance) to conform to baseline conditions. This is equivalent to TSS concentration of 148mg/l in the inner Liffey estuary.

Daily mean oxygen concentration provides a robust estimate of ambient oxygenation conditions. A TV of ≥ 6 mg/l with 90th percentile compliance has been set for daily mean DO concentration for compliance with baseline oxygenation conditions. This is equivalent to 70% saturation.

Live streamed turbidity and DO data from the monitoring sondes will be screened and conditional flags will issue as SMS messages to designated recipients when action limits are breached during dredging campaigns.

Turbidity exceeding an action limit of 59 NTU will raise a flag. However, given that the live data stream is un-validated and may contain spurious and ephemeral data of no environmental significance, alarms will only issue if more than two successive records (a minimum period of 30 minutes) exceed the action limit, and this constitutes an incident which must be reported and investigated (see below).

DO levels below an action limit of 5mg/l (50% saturation) will alert environmental personnel to potential issues through SMS messaging and allow for early mitigation intervention if required. Given that data being screened is instantaneous, raw, un-validated data, an alarm will only issue when more than two successive records (a minimum period of 30 minutes) breach the action limit value, and this constitutes an incident which must be reported and investigated (see below).

Table 3-23 Summary of trigger values (Threshold and Alarm values) for compliance assessment

Parameter	Threshold Values			Alarm Values		
	Criteria	TV	Compliance	Criteria	AL	Compliance
Turbidity NTU	Peak Daily	≤ 59	90%	Live 15min reading	> 59	More than 2 readings
TSS mg/l	Peak Daily	≤ 148	90%	Live 15min reading	> 148	More than 2 readings
DO %sat	Daily Mean	≥ 70	90%	Live 15min reading	< 60	More than 2 readings
DO mg/l	Daily Mean	≥ 6	90%	Live 15min reading	< 5	More than 2 readings

Duration of Monitoring Programme

The monitoring network infrastructure has been in place since 2016 and the project specific monitoring programme will be established at least one month prior to commencement of the works associated with the 3FM Project and continue for the duration of the construction works.

Incident Response

In the event of any incident as defined above the Environmental Facilities Manager shall immediately:

- identify the date, time and place of the incident;
- as soon as practicable notify the relevant authorities as required, in a format prescribed;
- carry out an investigation to identify the nature, source and cause of the incident and any impact arising therefrom;
- in consultation with the main Contractor or dredging Contractor, isolate the source of any such impact;
- evaluate the pollution, if any, caused by the incident; and
- Identify and execute measures to minimise the impact and the effects thereof.

The Environmental Facilities Manager shall prepare a report of the investigation into the incident for submission to the relevant authorities as required within one month of the incident occurring or as otherwise agreed by the relevant authorities.

The report shall include a proposal to:

- identify and put in place measures to avoid recurrence of the incident; and
- identify and put in place any other appropriate remedial actions.

Reporting

Data from ongoing water quality monitoring programmes will be collated at regular intervals (usually calendar months) and summarised in synoptic reports by the Environmental Facilities Manager. Monitoring data are subject to a validation process to eliminate erroneous or spurious values. Copies of the original logged data are retained. Proprietary software systems allow monitoring data to be viewed in plot format, and data to be exported for selected time periods. Turbidity and DO data for one day intervals as reported by the sondes are inspected daily to identify potential water quality or instrument issues. These include assessment for potential

non-compliance with action or regulatory conditions, sonde malfunction or failure, data transmission errors, erratic or gross data changes. The criteria below apply to data validation.

Non-valid data at a monitoring location is identified using a combination of the following criteria:

1. Data recorded during out of calibration periods identified in Calibration Reports and/or showing unacceptable drift, are non-valid.
2. Data recorded during periods of known equipment malfunction reported in Calibration Reports are non-valid.
3. Out of calibration data evidenced by sustained continuous trends in values, and/or erratic data with very large increase in data variance are non-valid. However, if these patterns are replicated at nearby sites they must be investigated further.
4. Single data records outside extreme normal maxima for parameters which may reflect fouling, bubbles, restricted flows through stilling wells or ephemeral passing suspended debris are non-valid.
5. Spurious data transmitted, including non-numeric characters and negative values, are non-valid.

Any breaches of emission, trigger levels or compliance values will be indicated in the report along with the findings of any relevant investigation.

Routine Monthly Summary Reports of validated data are issued by the Environmental Facilities Manager to various stakeholder groups and planning regulators. Reports include validated exported data and descriptive statistics and appraisal of relevant parameters.

Compliance with turbidity and DO threshold values will be through assessment in monthly reports and based on percentile compliance with peak turbidity and mean daily DO over the reporting period. In addition to the requirements set out above for response actions to incidents and any formal reporting requirements, all alarms, incidents and investigations, and any breaches of threshold values will also be detailed in Monthly Summary Reports.

In addition to interim synoptic reports an annual environmental report will be prepared.

3.5.11 Dredging Management Plan

3.5.11.1 Background

A Capital Dredging Scheme is an integral part of the 3FM Project and the EIAR and NIS includes an assessment of the loading and dumping activities required to ensure that a holistic approach is taken in assessing potential environment effects. The areas of proposed dredging works are shown in Figure 3-4.

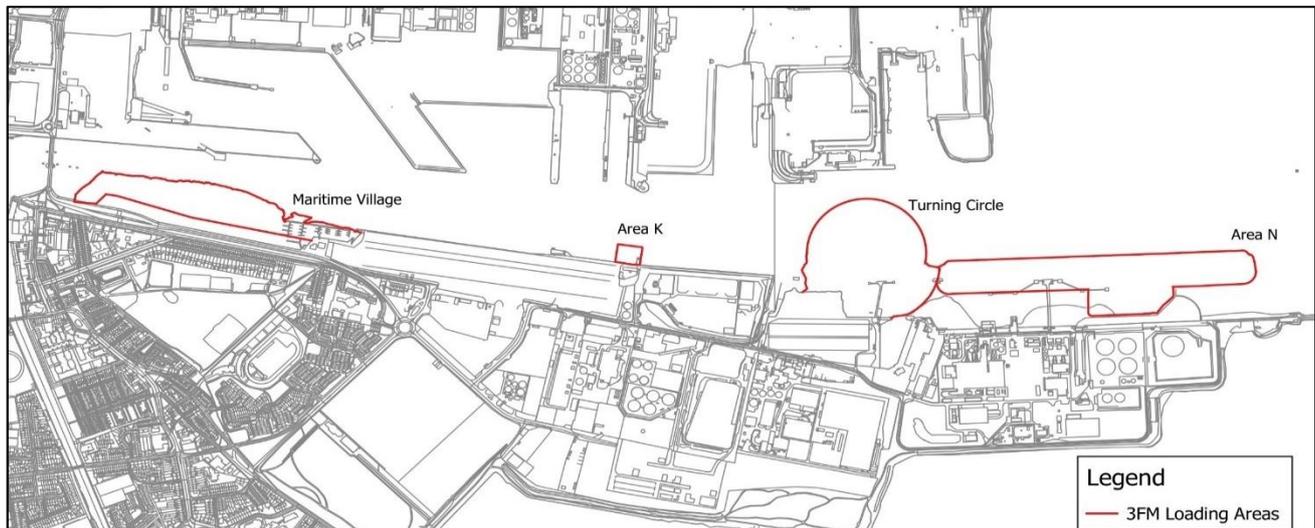


Figure 3-4 Location of dredging (loading) sites

To determine the suitability of the marine sediments for disposal at sea, a comprehensive sediment chemistry sampling and analysis programme was carried out as described in the EIAR Chapter 8 Land, Solis, Geology and Hydrogeology. The full results of the sediment chemistry sampling and analysis were provided to the Marine Institute who examined the results in detail in combination with other relevant data held by the Marine Institute.

It was concluded that the following dredged sediments can be classified as Class 1 (Uncontaminated: no biological effects likely), subject to the formal approval of the Marine Institute, and are therefore suitable for disposal at sea in the absence of a more sustainable alternative.

- Ro-Ro Terminal (Area K) – Localised Scour Protection to 220 kV cables;
- Turning Circle; and
- Lo-Lo Terminal (Area N) Berthing Pocket and an area towards the eastern end of the Wharf to enable construction using marine plant.

It was also concluded that the top 1.0m of material at the Maritime Village contained widespread levels of Class 2 material making it unsuitable for disposal at sea, equating to 70,000m³ or 6% of the total volume required to be dredged. The underlying sediments can be classified as Class 1 (Uncontaminated: no biological effects likely), subject to the formal approval of the Marine Institute, and are therefore suitable for disposal at sea in the absence of a more sustainable alternative.

A summary of the capital dredge volumes and the suitability of the material for disposal at sea is summarised in Table 3-24.

Table 3-24 Capital Dredging – Suitability of Dredged Material for Dumping at Sea

Location	Dredged Depth	Volume
Maritime Village	-3.0 m CD	197,000 m ³
Area K - Ro-Ro Terminal – Localised Scour Protection to 220 kV cables	-12.5 m CD	13,000 m ³
Turning Circle	-10.0m CD	444,000 m ³
Area N - Lo-Lo Terminal Berthing Pocket	-13.0 m CD	533,000 m ³
	-3.0m CD	72,000 m ³
Total Dredge Volume		1,259,000 m³
Volume not suitable for disposal at sea (top 1.0m at Maritime Village)		70,000 m³
Total Dredge Volume suitable for disposal at sea		1,189,000 m³

3.5.11.2 Loading and Dumping of Dredged Material Suitable for Disposal at Sea

The capital dredging works will be carried out using a Trailing Suction Hopper Dredger and/or a back-hoe dredger. Other ancillary equipment will include a survey vessel and a bed-leveller to remove peaks and troughs created by the dredger. All capital dredging works will take place within the period October to March.

It is proposed to dispose of the majority of the dredged material (1,189,000 m³) at the licenced disposal site at the entrance to Dublin Bay located to the west of the Burford Bank, presented in Figure 3-5. Alternative options to disposal at sea were considered and are presented in Chapter 4 of the EIAR.

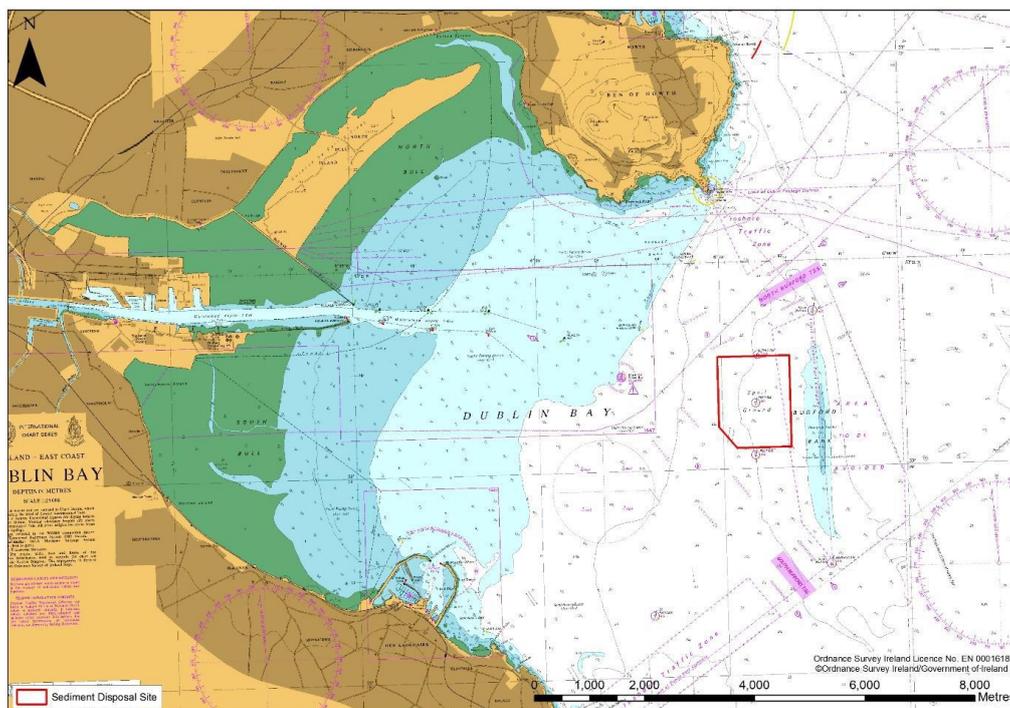


Figure 3-5 Location of licensed offshore disposal site

The loading and dumping of the dredged material will be subject to a separate Dumping at Sea Permit from the Environmental Protection Agency (EPA).

Key Mitigation Measures

The following key mitigation measures apply to the Capital Dredging Scheme

- No over-spilling at the surface of the dredger for all dredging activities within the inner Liffey Channel will be permitted.
- The dredger will work on one half of the channel at a time within the inner Liffey channel to prevent the formation of a silt curtain across the River Liffey.
- The dredging of sediments within the navigation channel will be carried out during the winter months (October – March) to negate any potential impact on salmonid migration (particularly smolts) and summer bird feeding, notably terns, in the vicinity of the dredging operations.
- A Trailing Suction Hopper Dredger (TSHD) or back-hoe dredger will be used for the capital dredging works. When operating in the River Liffey Channel, the TSHD pumps will be switched off when the drag head is being lifted and returned to the bottom as the dredger turns between successive lines of dredging to minimise the risk of fish entrainment.
- A maximum of 4,100m³ of sediment and entrained water will be loaded into the dredger's hopper for each loading/dumping cycle.

Dredging and Loading Activity

Trailing Suction Hopper Dredgers' are equipped with a trailing suction head. When the ship reaches the location requiring dredging, it reduces speed and lowers the suction head to the seabed. The trailing suction head moves slowly over the bed, collecting the sediments in a similar way to a giant vacuum Hoover. The water and material mix is then pumped up the arm of the suction head to the ship's hull (hopper). Once full, the dredger retracts its suction head and begins to sail slowly to the dump site.

When in position over the dump site, the ship slowly sails in the desired direction as doors in the underside of the vessel open and the sediment is released from the hopper. This allows the operators to control accurately here the sediment is deposited.

The capital dredging loading activity will take place within the inner Liffey channel which is dominated by silts. The impact of dumping of these sediments at the dump site has been previously modelled for ABR and MP2 Projects.

Model simulations of the proposed loading and dumping regime using a Trailing Suction Hopper Dredger, of a size akin to current maintenance dredging practices, were used to determine the environmental impact of the dredging operations.

The following input was used in the model simulations:

Typical Capacity of Trailer Suction Hopper Dredger	4,100m ³ hopper capacity
Ratio of sediment/entrained water during loading	0.3
Average Trip Frequency	3-4 hours
Time to release load	90 seconds

The predicted distribution and concentration of Total Suspended Solids within the receiving waters is presented in Figure 3-6 and Figure 3-7. The capital dredging activity occurs only in the winter dredging season. The loading and dumping methodology will ensure that there is no significant increase in Total Suspended Solids above recorded background levels, outside the confines of the dump site.

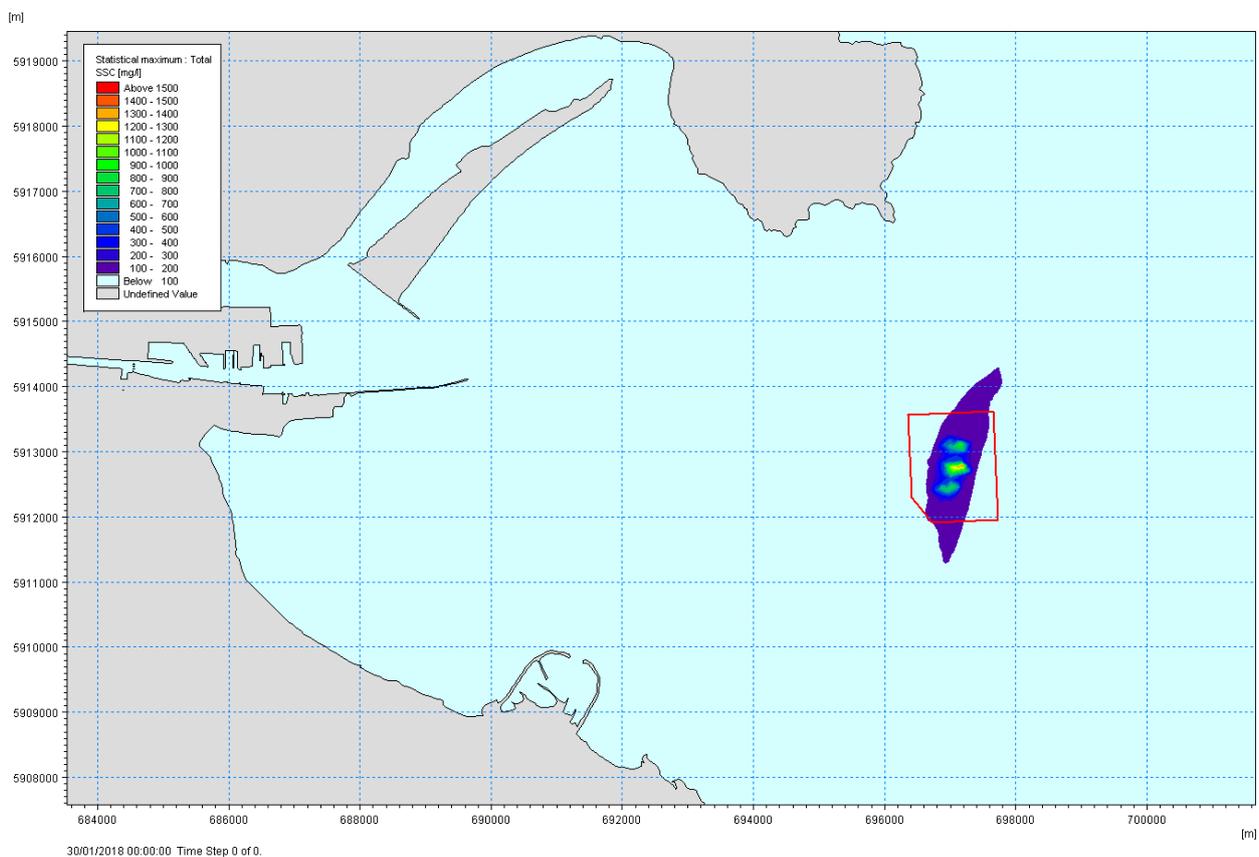


Figure 3-6 Maximum Total Suspended Solids Concentration envelope using a Trailing Suction Hopper Dredger dumping circa 2,030 tonnes wet weight at 3 hourly intervals on average within each winter capital dredging season

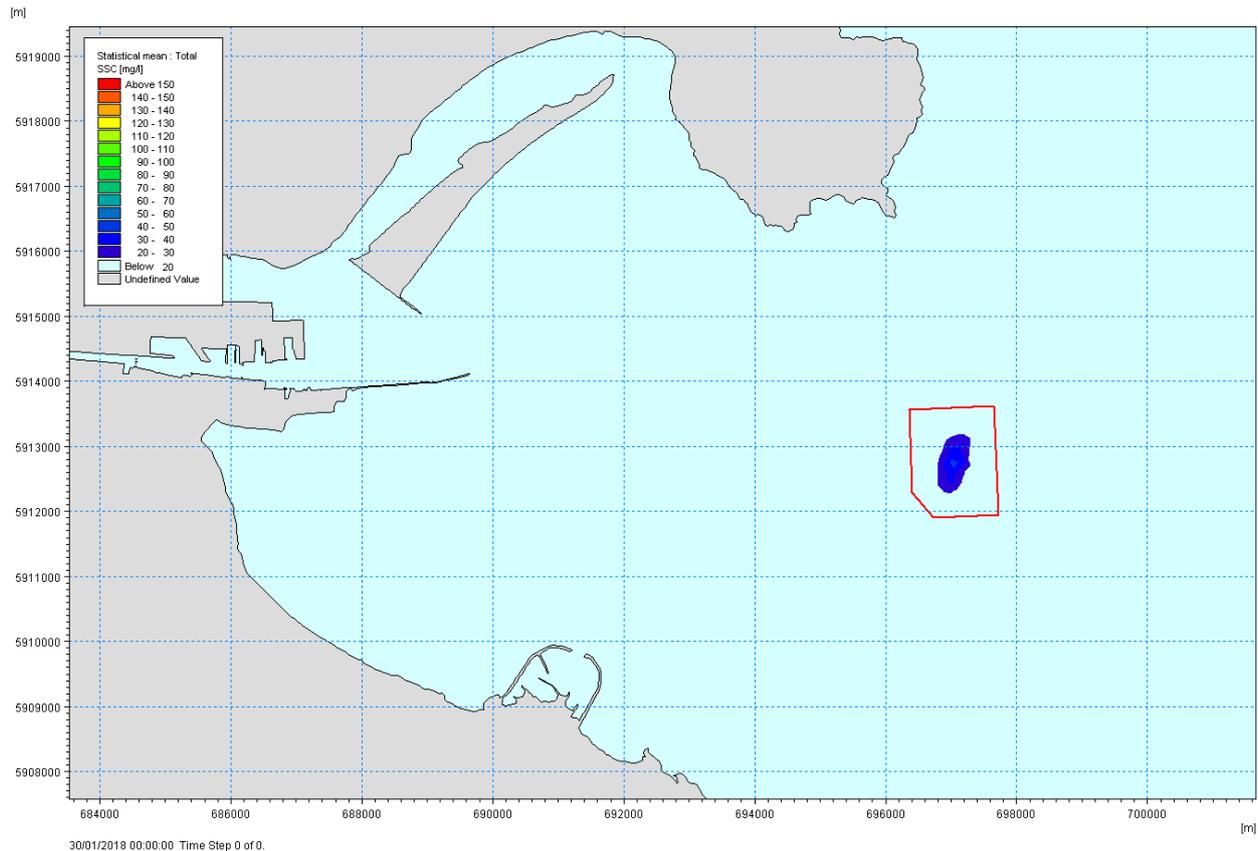


Figure 3-7 Mean Total Suspended Solids Concentration envelope using a Trailing Suction Hopper Dredger dumping circa 2,030 tonnes wet weight at 3 hourly intervals on average within each winter capital dredging season

Contract Management

The Capital Dredging Campaigns will be carried out by suitably qualified and experienced dredging Contractors, following competitive tender. The Contractors will be provided with a copy of the CEMP at tendering stage and are required to comply with all relevant mitigation and environmental protection measures therein.

For each winter dredging season, the successful dredging Contractor will set up a base office within the Dublin Port Estate. Daily meetings will take place among the dredging Contractor, DPC, Harbour Master and the Environmental Facilities Manager. These meetings will review the capital dredging works undertaken the previous day and agree the current day's work programme, taking into consideration navigational requirements including scheduled vessel movements and environmental constraints and feedback from Marine Archaeologists and Marine Mammal Observers (MMOs) undertaking monitoring duties on board the dredger.

Inspections by the Office of Environmental Enforcement (OEE) and MARA will be facilitated at short notice.

3.5.11.3 Consideration of options for removal of Class 2 Material at Maritime Village

The Class 2 element of dredged sediment from the Maritime Village, which is unsuitable for disposal at sea, will be dredged and brought ashore using a back-hoe dredger. The disposal options of the Class 2 material will, in order of preference, be:

1. Filled to Berth 52/53 under a revised Industrial Emissions (IE) licence subject to availability of receptor capacity;
2. Recovered at a soil recovery or soil treatment facility in Ireland subject to testing of the sediments in line with the selected facility licence at the time of the works;
3. Recovered at a soil treatment facility in Great Britain or northern Europe; or
4. Disposed of at a licenced landfill facility in Ireland.

3.5.12 Pollution Incident Response Plan

This Pollution Incident Response Plan (PIRP) sets out best practice for dealing with potential environmental incidents on the 3FM Project site. The PIRP will help to prevent or reduce environmental damage if such an incident occurs. The PIRP should be read in conjunction with DPC's Emergency Management Plan (Appendix A) and with the other environmental management plans presented in this CEMP which list the potential environmental impacts that may arise and the mitigation that will be implemented to prevent impact.

The PIRP will be developed in future revisions of the CEMP in order to incorporate methods and plant in use by the appointed Contractor.

The DPC Emergency Management Plan (EMP) provides guidelines for responding to an emergency within the Port area. Where incidents constitute an emergency as per the EMP they will be governed by the guidelines and provisions outlined therein. In all cases where a pollution event falls within the remit of the EMP the procedures outlined in the EMP must be complied with.

The purpose of this PIRP is to provide clear guidelines on responses to pollution incidents to allow a rapid and efficient response to any incident in order to minimize environmental impact or damage. It is presumed that all relevant mitigation outlined in the individual environmental management plans in this CEMP is fully and effectively implemented.

The Main Works Contractor's (MWC) designated representative (e.g. HSE Manager, Site Manager) will be responsible for coordinating the PIRP and ensuring adequate resources are available for implementation. The PIRP will ensure all appropriate and relevant resources are identified in advance and made available as quickly as possible during a pollution response event. The plan is intended for guidance purposes only and any response may be adapted depending on the specific circumstances of a particular pollution event.

3.5.12.1 Pollution Scenarios

The PIRP will detail the response required to pollution events including:

- Emissions to Water
 - Sediment release
 - Wastewater release
- Emissions to Air
 - Odours
 - Dust

For avoidance of doubt DPC's EMP provides comprehensive guidance in relation to emergency response to the following pollution events:

- oil spills to the marine or river environment (Annex A5)
- oil spills on the shore side (Annex A8)
- spills of hazardous materials (Annex 9)

The EMP uses a tiered system to describe oil and chemical spills:

- Tier 1 - Background and minor operational spills resulting in shoreline pollution which can be wholly dealt with by the relevant local authority or harbour authority and their oil spill response Contractors.
- Tier 2 - Small-scale incidents where local authorities or ports may require mutual aid in order to initiate and maintain a shoreline response and also involve Irish Coast Guard (IRCG) resources.
- Tier 3 - A large spill where substantial further resources may be required and support from National Government is necessary through the implementation of the IRCG National Oil Spill Contingency Plan. Additional assistance can be obtained from IRCG International response Contractor and also through the EU monitoring and Information centre.

Any significant spillage or release of oils, chemicals or hazardous materials resulting from 3FM Project activities falls within the remit of the EMP and will be responded to in accordance with the EMP guidelines. Very minor and localised spills may be dealt with by the Contractor.

3.5.12.2 Key Provisions of the PIRP

The PIRP will include site and project specific pollution incident response measures including:

- Preparation of a Project Organization Chart indicating the area of responsibilities and the reporting lines of the project personnel.
- Contact details of 3FM Project Environmental Facilities Manager
- Contact details for Main Works Contractor (MWC) representatives responsible for coordinating pollution response (e.g. HSE Manager, Site Manager)
- Personnel on site and roles in PIRP implementation
- Date of PIRP issue and review dates
- PIRP distribution list and number of copies and version
- Detailed site plan
- Detailed drainage map of the site including location of all interceptors, mitigation structures and outfalls
- Contact details for internal and external services and agencies with a role in pollution response or stakeholders whose assets may be impacted
- Details of chemicals held on site including maximum quantity, storage locations and containment conditions, Safety Information Data Sheets
- Detailed inventory of pollution prevention equipment - on and off site resources listed with calibration, service details

3.5.12.3 Pollution Response Initiation

All operatives and personnel on site will comply with all relevant mitigation measures to prevent pollution outlined in the individual environmental management plans. Any person who detects a pollution incident will notify the MWC representative responsible (HSE Manager, Site Manager).

On receipt of notification of any such incident the MWC representative will:

- Inform the Environmental Facilities Manager
- Establish the nature of any spill, the source, direction of travel and quantity of material involved
- Assess the extent, nature and potential impact of the pollution event on the receiving environment and any likely impact on Port Operations
- Halt the activities giving rise to the pollution if possible
- Mobilise the pollution response team to take immediate appropriate steps to stop further pollution and contain polluting material where possible by deploying pollution control equipment as required
- Consider whether additional resources are required to mitigate the event
- In the case of significant pollution, inform stakeholders that may be impacted
- Notify DPC's Emergency Management Team If the pollution event falls within the remit of the EMP
- Gather as much further information as possible relating to the incident including noting wind direction and speed
- Inform the relevant regulatory authorities (Table 3-25)
- Put monitoring in place to measure the duration and extent of the event, and the concentration of known pollutants
- Keep a diary record of all actions
- Take comprehensive photographic records of the event
- Ensure all expenditure in response to the incident is tracked under a single project number
- Liaise closely with relevant DPC personnel as identified in the PIRP contacts list.

Table 3-25 Emergency contacts for notification relevant regulatory authorities

REGULATORY AUTHORITY	CONTACT POINT	NUMBER
Dublin City Council	24 Hour Emergency	01 679 6186
Marine Institute	MI Headquarters	091 387 200
Environmental Protection Agency	24 Hour Incident Notification	0818 33 55 99
Inland Fisheries Ireland	24 Hour Hotline	0818 34 74 24
Bord Iascaigh Mhara	Head Office	01 2144 100
National Parks and Wildlife Service	District Conservation Officer	076 100 2593
Sea-Fisheries Protection Authority	SFPA Headquarters	023 885 9300
National Monuments Service	Monument Protection	01 8882000

3.5.12.4 Training and Records

Training in appropriate pollution response procedures will be provided to all site personnel. This will be undertaken at induction training and through regular toolbox talks to ensure that information in relation to the current construction phase of the 3FM Project is kept up to date.

The MWC representative will be responsible for implementing the training programme. The MWC representative will also carry out regular inspections of essential pollution prevention equipment to ensure it is adequately serviced, in calibration or certification and fit for purpose.

The MWC representative will maintain a detailed record of all pollution events and responses, costs incurred and environmental impacts. The record will include a comprehensive debriefing of participants to provide an analysis of causes of the pollution event, detail lessons learned and preventive or corrective actions taken to prevent event recurrence or similar events.

3.5.13 Project Carbon Management Plan

3.5.13.1 Introduction

A Project Carbon Management Plan (PCMP) will be developed for the project. This PCMP will be aligned with the principles of PAS2080:2023 – a global standard for managing whole-life (embodied and operational) carbon in the built environment and infrastructure. The development of the carbon life cycle assessment presented in Chapter 11 of the EIAR is the first phase of the PCMP and this plan will be formally developed at detailed design stage by the design team to facilitate handover to the Contractor for construction stage as a contractual obligation for a cap on the levels of embodied and operational carbon. Post construction the PCMP will be handed back to DPC to facilitate the operational management of carbon for the project.

The PCMP will minimise the carbon footprint of the construction phase through requiring low emission plant; reducing embodied carbon by specifying low-carbon concrete mixes when possible; re-using/re-cycling material; limiting use of carbon-intensive materials; incorporating sustainable design principles; implementing efficient energy management systems and identifying energy saving opportunities; promoting use of carbon-neutral biofuels and renewable energy if possible.

Embodied carbon in the materials employed in the construction phase dominate the climate impact and to mitigate these impacts, sustainable material choices have been made during the preliminary engineering design to reduce embodied carbon from the construction of the proposed development by 30%.

The construction stage of the Project therefore complies with existing policy requirements and, in particular, the target in Chapter 13 of CAP24, which sets a target to decrease embodied carbon in construction materials produced and used in Ireland by at least 30% by 2030. The mitigation in the proposed development achieves this target in reducing the total embodied carbon in the construction materials for the 3FM Project by 30%.

DPC will revisit this mix during detailed design to achieve greater embodied reductions where possible based on industry practices and innovative materials available at the time of construction. This assessment will be informed by carbon calculations undertaken at preliminary design stage as set out in the Climate Report which accompanies the 3FM Project planning application (under separate cover).

In addition to the above mitigation regarding material choices, there are a series of additional construction mitigation measures that will also be adopted as follows:

- The use of non-concrete assets shall be optimised in the design, e.g. gravel footpaths, grassed drains etc. to minimise the need for concrete.
- All aggregates required for pavement materials shall be secondary aggregates. Virgin aggregates shall only be employed where it is demonstrated that secondary aggregates are unsuitable for structural reasons and/or they are unavailable.
- Wherever available, the Contractor shall secure construction materials from local/regional sources or sources within the State to minimise material transport emissions and reduce life cycle carbon emissions associated with the construction materials.

-
- For electricity generation at the construction compounds, hydrogen generators or electrified plant shall be utilised over traditional diesel generators. This shall also apply to lower powered mobile plant, as appropriate.
 - A regular maintenance schedule for all construction plant machinery shall be undertaken to maintain optimum machinery efficiency.
 - Sustainable timber post fencing will be specified over steel in boundary treatments where possible.
 - Engines will be turned off when machinery is not in use.
 - The use of private vehicles by construction staff to access the site will be minimised through the encouragement of use of public transport, encouragement of car sharing, and maximising use of local labour to reduce transport emissions. To implement this, the Contractor shall prepare a Mobility Management Plan for site staff.

4 SITE SAFETY

DPC operates and maintains quality management systems in compliance with the internationally recognised standards OHSAS 18001 & ISO9001. OHSAS 18001 has been withdrawn and replaced by the new international Standard ISO 45001 in 2018. Successful maintenance of international standards enables the organisation to maintain a level of control over, and knowledge of, relevant hazards resulting from normal operations and abnormal situations with an overall objective to improving performance and preventing accidents and/or incidents in the workplace.

DPC operates to the International Ship and Port Facility Security Code (ISPS Code), which provides a comprehensive set of measures to enhance the security of ships and port facilities. Strict security procedures are already in place on site to deal with all access on a 24-hour basis. These procedures require all vehicles and personnel visiting the site to be logged and will continue in place once construction commences and has been completed.

Safety will be of prime importance during the construction works. The works will be subject to the Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work (Construction) Regulations, 2013. All aspects of design construction will be reviewed with regard to health and safety and a risk assessment will be carried out.

A Project Supervisor (Design Process) will be appointed by DPC to produce a pre-tender Health and Safety Plan for the project. The Principal Contractor will be responsible for the control and co-ordination of health and safety during the works and will be appointed as the Project Supervisor (Construction Stage).

All individuals working on the Project will be required to undertake induction procedures. Such will be designed to make individuals aware of all the issues associated with the Project and will include, but not be limited to;

- (i) The terms of the CEMP;
- (ii) Marine Safety;
- (iii) Working Hours;
- (iv) Access arrangements;
- (v) Health, Safety and environmental policy and procedures;
- (vi) Code of Conduct within the site and surrounding environs;
- (vii) Statutory obligations of individuals on site;
- (viii) Traffic Management;
- (ix) Site parking;
- (x) Public Access;
- (xi) Lighting requirements;
- (xii) Complaints and disciplinary procedures;
- (xiii) Protection of the water environment;
- (xiv) Protection of wildlife and habitats;
- (xv) Dust and air quality;
- (xvi) Noise and vibration;

(xvii) Emergency procedures.

Visitors will not be allowed onto the site unless in possession of a current Safe Pass (or equivalent) demonstrating they have undertaken appropriate construction site Health & safety training and have received formal induction or are accompanied by an authorised person who has completed the induction. All visitors will be required to sign a visitor's book.

5 SUMMARY OF CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLANS

Type of Environmental Management Plan	Ongoing Mitigation Required	Ongoing Mitigation Specific Requirements	Ongoing Monitoring/Auditing Required	Timing of Ongoing Monitoring	Reporting Requirements	Reporting Procedures	Ongoing Liaison Required	Other Specific Requirements
Construction Traffic Management Plan	Yes	Compliance with DCC's HGV Management Strategy	Yes	During Construction	Quarterly Reports	Report submitted to Planning Authority	Yes	Complaints Procedure
Invasive Alien Species Management Plan	Yes	Precautionary measures to prevent importation and spread	Yes	During Construction	Quarterly Reports	Report submitted to Planning Authority	Yes	Containment / Treatment required if any Invasive Alien Species are found on the site
Construction Waste Management Plan	Yes	Compliance with the Waste Framework directive (2008/98/EC)	Yes	During Construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Complaints Procedure
Resource & Waste Management Plan	Yes	Prepared in line with Best Practice guidelines for the preparation of Resource & Waste Management Plans for construction & demolition projects, EPA 2021.	Yes	During Construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Complaints Procedure

Type of Environmental Management Plan	Ongoing Mitigation Required	Ongoing Mitigation Specific Requirements	Ongoing Monitoring/Auditing Required	Timing of Ongoing Monitoring	Reporting Requirements	Reporting Procedures	Ongoing Liaison Required	Other Specific Requirements
Noise & Vibration Management Plan	Yes	Compliance with NRA Guidelines and BS5228:2009+A1:2014	Yes	Preconstruction and during construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Specific noise limits to be met at nearest noise sensitive receptors, Complaints Procedure
Dust and Odour Management Plan	Yes	Compliance with EPA and BRE Guidelines Construction of Noise Barriers	Yes	Preconstruction and during construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Complaints Procedure
Marine Mammals Management Plan	Yes	Compliance with NPWS Guidelines	Use of MMOs, installation of SAM system	Preconstruction, during construction and for 2 years after works completion	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and NPWS	Yes	Close liaison required with NPWS
Birds and Marine Ecology Management Plan	Yes	Adherence to piling and dredging mitigation measures	Specialist surveys required	Preconstruction, during construction and for 2 years after works completion	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and NPWS	Yes	Implementation of DPC's Black Guillemot and Tern Management Plans.
Archaeology and Cultural Heritage	Yes	Compliance with DHLGH Guidelines	Monitoring to be undertaken	During Construction	Monthly Reports, input to Annual	Report submitted to Planning Authority and DHLGH	Yes	Appropriate Licences required from DHLGH

Type of Environmental Management Plan	Ongoing Mitigation Required	Ongoing Mitigation Specific Requirements	Ongoing Monitoring/Auditing Required	Timing of Ongoing Monitoring	Reporting Requirements	Reporting Procedures	Ongoing Liaison Required	Other Specific Requirements
Management Plan			by conservation engineer, Grade 1 Conservation Architect and project archaeologist.		Environmental Report			
Water Quality Management Plan	Yes	Compliance with EPA Guidelines etc	Installation of real-time water quality monitoring system	Preconstruction and during construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA	Yes	Complaints Procedure
Dredging Management Plan	Yes	Adherence to dredging mitigation measures .	Yes	During Construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority and EPA, MARA	Yes	Complaints Procedure
Pollution Incident Response Plan	Yes	Adherence to guidelines for rapid and efficient response to minimize environmental impact	Monitoring of pollution events required and records of pollution prevention equipment.	During construction	Detailed record of all pollution events and responses, costs involved and environmental impacts.	Report submitted to Planning Authority and EPA	Yes	Specific training, and debriefing post pollution events to establish causes of events, lessons learned and preventive or corrective action required.

Type of Environmental Management Plan	Ongoing Mitigation Required	Ongoing Mitigation Specific Requirements	Ongoing Monitoring/Auditing Required	Timing of Ongoing Monitoring	Reporting Requirements	Reporting Procedures	Ongoing Liaison Required	Other Specific Requirements
Project Carbon Management Plan	Yes	Aligned with the principles of PAS2080:2023	Yes	During construction	Monthly Reports, input to Annual Environmental Report	Report submitted to Planning Authority	Yes	Close liaison required with Contractor

6 SUMMARY OF ENVIRONMENTAL MONITORING PROGRAMMES

Monitoring Programme	Monitoring Element	Frequency of Monitoring	Location	Parameters Measured	Surveyors / Support	Sampling Constraints	Action Threshold	Monitoring and Reporting	Report / Frequency
Badger Sett Ecological Exclusion Zone (EEZ)	Visual checks to ensure the EEZ remains in place and functional	Monthly during construction	Irishtown Nature Park	EEZ / fencing integrity	1 person	None	N/A	Terrestrial Ecologist	Monthly during monitoring period
BIRD MONITORING	Census of Black Guillemot Population nesting in Dublin Port	Annually in period 26 March to 15 May. Two surveys to be carried out on two separate dates.	Quaysides within Dublin Port	Number Black Guillemots on land or sea within 300m of the shore Number of occupied nest sites and associated adults Number of nest boxes occupied	2 / Boat Support	0500 - 0900 BST. Beaufort 4 or less. Calm Sea Conditions	N/A	Bird Specialist	Annually (year ending March) by 31st July each year.
	Census of Common and Arctic Terns nesting in Dublin Port	Annually in period 10 June to 15 July	Permanent Structures and Pontoons in Dublin Port	Number of apparently occupied nests (egg clutches or flush count).	2 / Boat Support	Moderate weather and sea conditions.	N/A	Bird Specialist under licence from NPWS	Annually (year ending March) by 31st July each year.
	Winter Wetland Birds	Monthly from October 1 to March 31 during each year of the project	Intertidal areas within inner Liffey channel including Tolka Estuary	Bird Flocks - species and approx. numbers.	2 to 3 as required	Low tide ± 2 hours. Daylight. Good weather conditions.	N/A	Bird Specialist	Annually (year ending March) by 31st July each year.

Monitoring Programme	Monitoring Element	Frequency of Monitoring	Location	Parameters Measured	Surveyors / Support	Sampling Constraints	Action Threshold	Monitoring and Reporting	Report / Frequency
	Sand Martins	Annually in period April to August. Two surveys to be carried out on two separate dates.	Pigeon House Precinct and environs	Number of apparently occupied nest sites.	2 / Boat Support	0500 - 0900 BST. Beaufort 4 or less. Calm Sea Conditions	N/A	Bird Specialist	Annually (year ending March) by 31st July each year.
MARINE MAMMALS	Marine Mammal Observation in exclusion zones	For piling, dredging and demolition operations within the foreshore	Within 500m of dredging / demolition operations. Within 1000m of piling operations. Within the Bull Walls for Harbour Porpoise during piling.	Presence of marine mammals	1 to 3 as required	Suitable vantage point./ on dredging vessels.	Presence of marine mammal in exclusion zone.	Marine Mammal Observer	NPWS MMO Location and Effort Forms
	Continuous Static Acoustic Monitoring (SAM)	Ongoing logging using F-PODS at four stations	4 locations Dublin Bay/Lower Liffey	Echolocation clicks of dolphins and porpoises	F-PODs to be retrieved every 3-4 months	F-PODs to be positioned on seabed using acoustic releases	N/A	Marine Mammal Ecologist	Annually (year ending March) by 31st July each year.
	Continuous Passive Acoustic Monitoring (PAM)	Ongoing logging using hydrophone at one station	North Bank Light, inner Liffey channel	Echolocation clicks of dolphins and porpoises	PAM system to be serviced annually	N/A	Presence/Absence	Marine Mammal Ecologist	Annually (year ending March) by 31st July each year
	Seal Haul Out Sites Dublin Bay	Monthly	North Bull Island and adjacent areas. Dublin Bay within zones of influence.	Species. Maturity Stage. Behaviour.	Coordinate with NPWS surveys	Low water \pm 2 hours.	N/A	Marine Mammal Ecologist	Annually (year ending March) by 31st July each year.

Monitoring Programme	Monitoring Element	Frequency of Monitoring	Location	Parameters Measured	Surveyors / Support	Sampling Constraints	Action Threshold	Monitoring and Reporting	Report / Frequency
WATER QUALITY	Water quality in lower Liffey in Dublin Port	High frequency (15min) real time at four stations	4 locations Inner Liffey channel	Dissolved Oxygen (DO), Turbidity, Temperature, Salinity, pH	Regular servicing and calibration of sondes	N/A	DO & Turbidity thresholds to be agreed with EPA in advance of dredging	Environmental Facilities Manager	Monthly Synoptic and Annually (year ending March) by 31st July each year.
ATMOSPHERIC NOISE AND DUST	Dust Deposition	Continuous over project duration	3 locations: <ul style="list-style-type: none"> Poolbeg Marina; East Wall Towards Sandymount 	Dust deposition using Bergerhoff Dust Deposition Gauges	Deposition jars to be replaced monthly	N/A	350mg/m ² /d	Environmental Facilities Manager	Monthly Synoptic and Annually (year ending March) by 31st July each year.
	Noise Levels	Continuous for duration of Project	4 locations: <ul style="list-style-type: none"> Poolbeg Marina; Clontarf; East Wall Towards Sandymount 	Equivalent Continuous Sound Pressure Level (L _{aeq})	Yearly calibration of noise meters	N/A	65 dBA 65 dBA 70 dBA 65 dBA	Environmental Facilities Manager	Weekly to Contractor/DPC Annual AER
UNDERWATER NOISE	Underwater Noise Levels	Validation surveys	4 locations Inner Liffey Channel	dB SEL to monitor TTS - Temporary hearing impact	Boat Support	N/A	140 dB SEL Porpoise, 170 dB SEL Seals 150 dB SEL Fish	Underwater Noise Specialist	Survey required during piling operations within 2 months after commencement

Monitoring Programme	Monitoring Element	Frequency of Monitoring	Location	Parameters Measured	Surveyors / Support	Sampling Constraints	Action Threshold	Monitoring and Reporting	Report / Frequency
GROUND GAS & GROUNDWATER LEVEL MONITORING	Gas Monitoring using in-situ telemetry enabled ground gas monitoring device. Groundwater level monitoring using in-situ continuous groundwater level loggers.	Continuous monitoring of ground gas and groundwater level to commence prior to ground improvement works, during works, and for a further 2 weeks following the completion of ground improvement works.	Area O (at former landfill site)	CH ₄ CO ₂ , O ₂ , CO, H ₂ S, LEL, Flow, atmospheric pressure	N/A	N/A	Notable change in ground gas levels as a result of ground improvement works.	Contaminated Land Specialist	Weekly data report and trend interpretation. Final Report following the completion of monitoring programme.
ARCHAEOLOGY	Interaction with GSW and other protected structures. Restoration works. Monitoring for potential new finds	Continuous for duration of Project	Capital Dredging, Landside works	Ground Disturbance Demolition of Structures Capital Dredging	Boat support during capital dredging	N/A	Notification to National Monument Service of significant finds	Archaeology Specialists	Monthly Reporting

Appendix A

DPC Emergency Management Plan



EMERGENCY MANAGEMENT PLAN

Distribution	Soft Copy	Hard Copy
1. Restricted Q Pulse Users	x	
2. Master Copy (1)		x
3. VTS, Control Room, Fire Wardens & Emergency Operations Centre (4)		x
4. CEO (1)		x
5. Land Operations Manager (3)		x
6. Harbour Master (4)		x
7. External E-mail List	x	
8. USB List (0)	x	

“The aim of the Dublin Port Company Emergency Management Plan is to outline the structures and arrangements that will be used in response to an emergency in order to mitigate:

- Loss of life or injury to employees, contractors, visitors and local residents
- Damage to the environment
- Damage to the facilities, plant and equipment of DPC, its commercial partners, tenant companies and neighbours

The plan also aims to ensure that DPC emergency management structures and arrangements are compatible with the requirements of the 2006 Framework for Major Emergency Management.”

Name	Appointment	Approved (signature)	Date
Approved by B. O'Connell	Chief Executive Officer		February 2024
Reviewed by Capt. M. McKenna	Harbour Master		February 2024
Originator J. Fairley	Land Operations Manager		February 2024

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1. INTRODUCTION

Dublin Port covers an area in excess of 650 acres, within which many activities of a marine, commercial and industrial nature take place.

This Emergency Management Plan (EMP) is designed to provide guidelines to the Dublin Port Company (DPC) for responding to an emergency within their area of jurisdiction.

The maritime jurisdiction of Dublin Port is defined under the Harbours Act 1996 (as amended). The land-based limits are detailed in the Map at Annex J-1.

Operations at Dublin Port include the following:

- a. Vessel arrivals, departures, and shifts.
 - b. Pilotage, towage & vessel traffic services (VTS).
 - c. Lo-Lo terminals operated in common user area and in designated terminals.
 - d. Ro-Ro terminals facilitating both freight and passenger traffic.
 - e. Facilities for handling petroleum products, LPG and molasses.
 - f. Common oil pipeline linking the oil berths with the storage facilities.
- Dry bulk handling facilities for handling concentrate, peat, oil, grain, animal feedstuff, fertilizer, sand, coal, petroleum coke, slags, scrap metals and cement.
- g. Warehouse space
 - h. Vehicle storage facilities.
 - i. Cruise liner operations.
 - j. Leisure craft mooring and movements at Poolbeg and Dublin City Marinas.

In addition to the activities listed, the Dublin Port road network caters for the movement of up to 15,000 vehicle movements through the port per day.

Tenant companies operate several industrial/commercial sites within the DPC estate. Several of these companies are the de-facto 'operating company' of those sites and have ultimate responsibility for emergency planning within those facilities. A reference to tenant companies is attached at **Annex J**.

There are currently seven (7) upper tier SEVESO sites within the DPC estate, and four (4) lower tier sites. These sites are operated by DPC tenant companies. The Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015) (the "COMAH Regulations"), implement the Seveso III Directive (2012/18/EU), and are applied on all qualifying tenant sites by the operators, and overseen by the HSA. The SEVESO III [Directive 2012/18/EU](#) was adopted on 4th July 2012 and entered into force on 13th August 2012 and Member States implemented the Directive on 1st June 2015. A map showing the locations of the upper tier SEVESO sites is also included at **Annex J.1**

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2. OBJECTIVES

The objectives of this plan are to:

- a. Provide an emergency management organisation structure and arrangements which will enable DPC to respond rapidly and efficiently to any emergency in order to prevent injury to personnel, damage to property or the environment, as well as minimizing or eliminating the impact to neighbouring communities.
- b. Ensure all appropriate and relevant resources are identified in advance and made available as quickly as possible during an emergency within Dublin Port.

3. SCOPE AND ASSUMPTIONS

The Dublin Port EMP outlines the DPC structures and arrangements for responding to emergencies that may occur within Dublin port.

The plan is intended for guidance purposes only and may be adapted depending on the circumstances of a particular emergency. The actions to be taken in any given emergency will be decided by the Emergency Management Team (EMT).

This plan may be activated by the CEO of DPC, the Emergency Management Marine Coordinator (EMMC) OR the Emergency Management Land Coordinator (EMLC), or their alternates, depending on the circumstances and severity of the incident.

The plan is designed to cater for both marine and land-based emergencies.

Marine Emergency Scenarios include:

- Major incident on-board a vessel such as fire, flooding or cargo related.
- Collision between vessels or between a vessel and a fixed object.
- Grounding of a vessel.
- Major oil spillage from a vessel or jetty.
- Major oil spill at sea or oil entering the port from a source upriver.
- A security incident, involving a ship, which has the potential to escalate into an emergency.

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Land Emergency Scenarios include:

- Major fire within the general port area.
- Major oil spill.
- Major spill of hazardous material.
- A vehicle accident involving hazardous material.
- Chemical incidents (e.g. toxic cloud).
- Major incident in an oil, gas or hazardous material storage facility.

Marine & Land Emergency

- Infectious Disease (Human or Animal) on Ship due to enter Dublin Port.
- Incident involving transportation or storage of dangerous goods.
- Severe weather event
- Cyber-Security Incident

Scenario specific sub-plans for the above are included as part of this overall plan; however, it should be noted that the scenarios are for planning purposes as well for use in training and exercises. DPC adheres to an 'all hazards approach' to Emergency Management, in that the same structures, resources and personnel will be used to respond to all emergencies occurring in or affecting the port.

This plan makes the following assumptions:

- All personnel with specific roles and responsibilities are familiar with their role in the plan and have been exercised in the implementation of the plan.
- All contact details for key stakeholders are up to date at the date of the last plan revision.
- That the resources outlined in the plan are available and maintained.

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4. ABBREVIATIONS USED THROUGHOUT THIS PLAN

AAR	After Action Review (formal debrief).
AGS	An Garda Síochána
CA	Competent Authority
COP	Common Oil Pipeline
CEO	Chief Executive Officer
CSIRP	Cyber Security Incident Response Plan
CSIRT	Cyber Security Incident Response Team
DPCComm	Data Protection Commissioner
DCC	Dublin City Council
DFB	Dublin Fire Brigade
DG	Dangerous Goods
DoH	Department of Health
DOT	Department of Transport
DPC	Dublin Port Company
EMA	Emergency Management Administrator
EMLC	Emergency Management Land Coordinator
EMMC	Emergency Management Marine Coordinator
EMP	Emergency Management Plan
EMT	Emergency Management Team
EOC	Emergency Operations Centre
EPA	Environmental Protection Agency
ESRVP	Emergency Services Rendezvous Point
FAR	First Aid Responders
HM	Harbour Master
HP/PS	Harbour Police/Port Security
HSA	Health & Safety Authority
HSE	Health Service Executive
IHR	International Health Regulations (2005)
IMDGC	International Maritime Dangerous Goods Code
IMO	Information Management Officer
IRCG	Irish Coast Guard
ISPS	International Ship and Port Facility Security (code)
MCIB	Marine Casualty Investigation Board
ME	Met Eireann
MSDS	Material Safety Data Sheet
NCSC	National Cyber Security Centre
NOG	National Operations Group (oil spill)

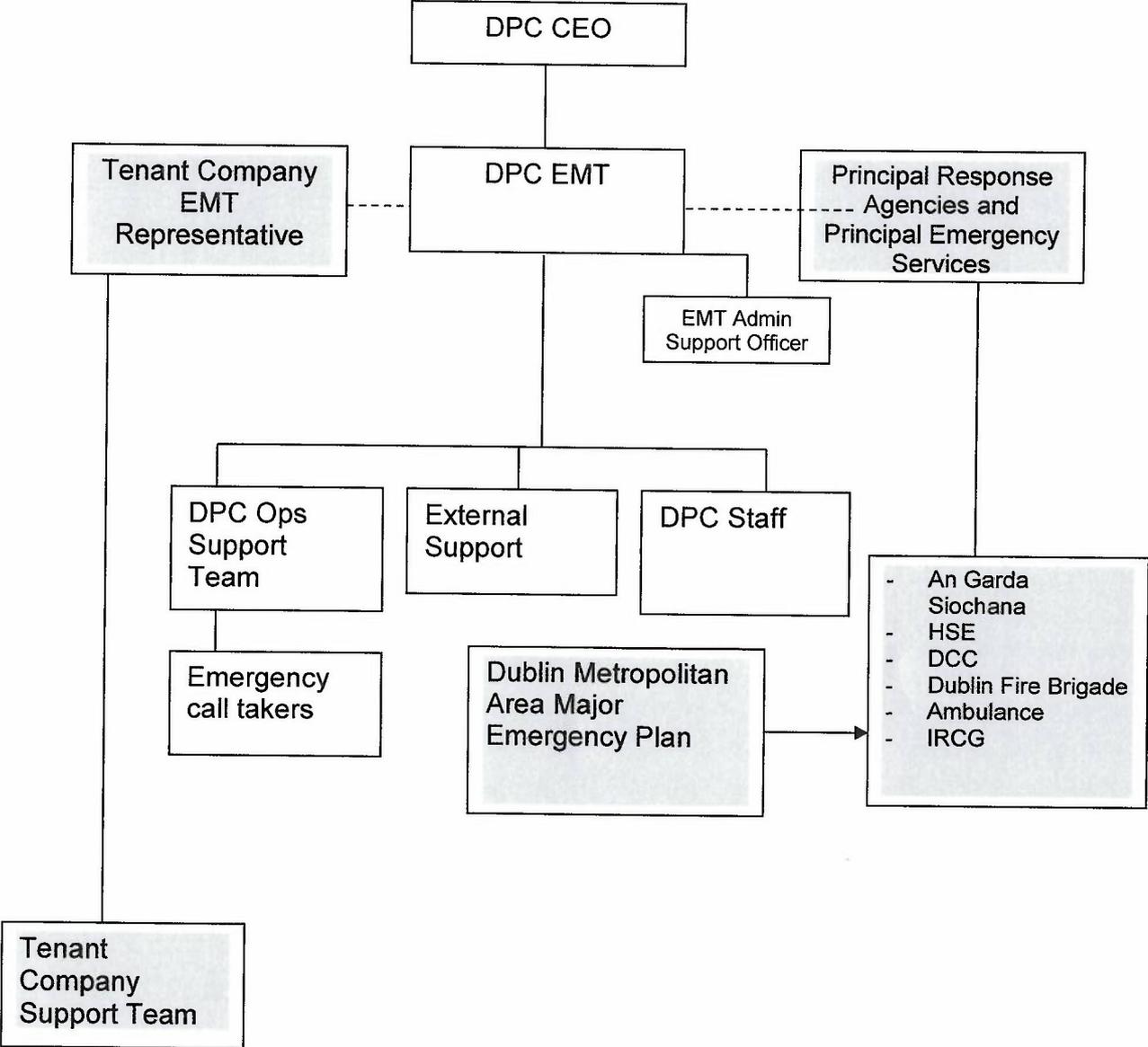
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NOK Next of Kin
OES Operator of Essential Services
PES Principal Emergency Services
PRA Principal Response Agencies
PFSP Port Facility Security Plan
POC Port Operations Centre
SIC Site Incident Controller
SSP Ship's Security Plan
SWEAT Severe Weather Event Assessment Team
SWEP Severe Weather Event Plan
VTS Vessel Traffic Services
WFH Working from Home (Remote Working)

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5. DPC EMERGENCY RESPONSE ORGANISATION AND ROLES



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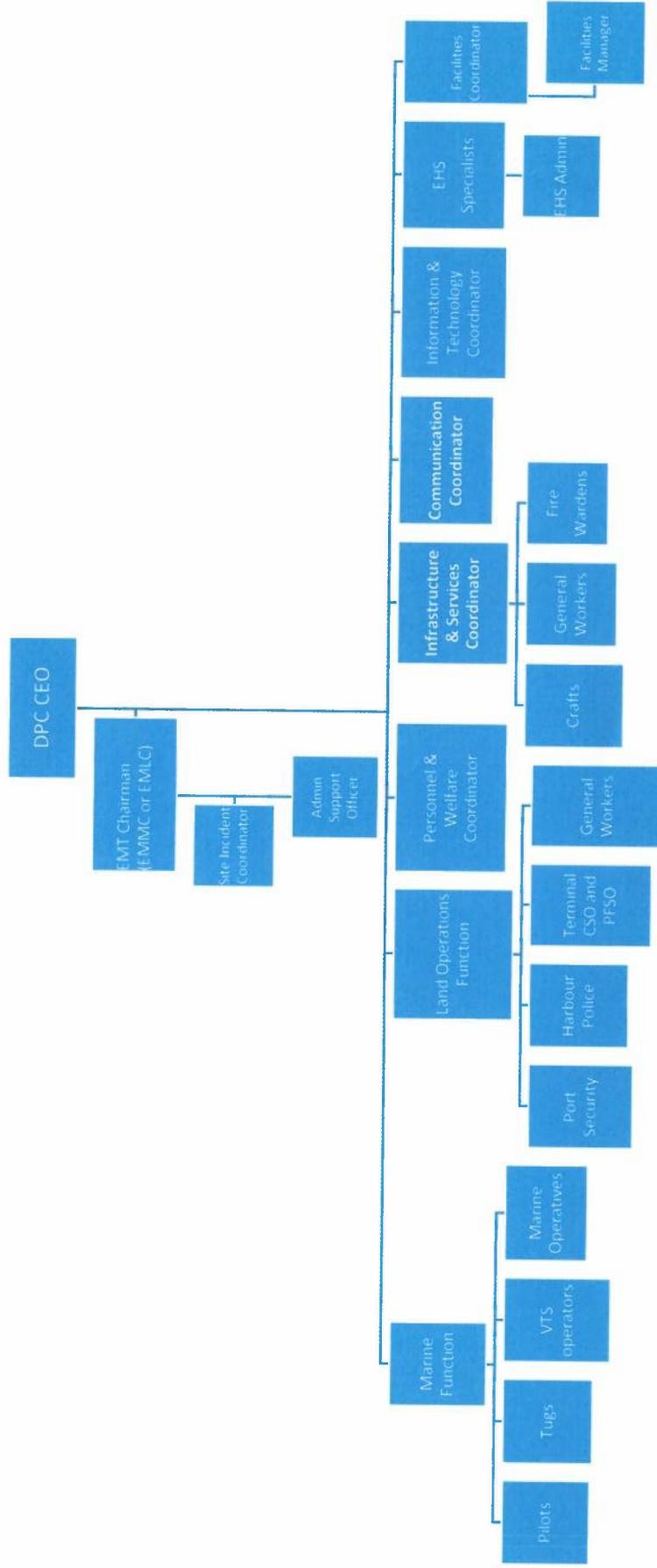
DPC Emergency Management Team Structure

EMT Role	Appointment holder
Chief Executive Officer	Chief Executive
Alternate	Chief Financial Officer
Emergency Management Marine Coordinator (EMMC)	Harbour Master
Alternate	Deputy Harbour Master
Emergency Management Land Coordinator (EMLC)	Head of Land Operations
Alternate	Operations Manager
Infrastructure and Services Coordinator	Head of Engineering & Sustainability
Alternate	Eng. Services Supervisors
Personnel and Welfare Coordinator	Head of Human Resources
Alternate	Human Resource Officer
Communications Coordinator	Port Heritage Director
Alternate	Communications Manager
Information and Technology Coordinator	Chief Technology Officer
Alternate	IT Officer
Facilities Coordinator	Head of Property
Alternate	Facilities Manager
EHS Coordinator	EHS Specialist
Alternate	EHS Specialist/Admin
EMT Administration Support Officer	Clerical/ Admin Officer
Emergency Management Administrator	Head of Land Operations

Contact details for EMT members are listed in **Annex C**.

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EMT Organisation Chart



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EMT - Overview and role

The EMT is made up of senior DPC managers drawn from the key functional areas of the company. The specific roles and responsibilities of team members largely reflect their day-to-day responsibilities. Checklists for EMT members are included in the plan at **Annex D**.

The DPC CEO has overall responsibility for all operations in the port, both marine and land. Many of the day-to-day tasks are delegated to the EMMC and the EMLC, as well as to other management functions. Each EMT member has a designated alternate or deputy, capable of standing in for the primary EMT member should they be unavailable for any reason. Alternates receive the same training for EMT operations as primary team members. Others not listed on the core team may be drafted to the team if their expertise is required.

The Chair of the EMT reports to the DPC CEO, who may in certain situations decide to chair the EMT or may decide to participate in EMT operations without taking over the role of chair; this is their prerogative.

In general terms the overall role of the EMT is to coordinate and control the DPC response to an emergency within the port area of responsibility, to liaise with the external emergency services and provide all reasonable support to them, and to manage DPC's interaction with external stakeholders throughout the response to an incident.

Emergency Management Administrator (EMA)

The EMP will be maintained by the Emergency Management Administrator (EMA) who will ensure the plan is kept up to date and is responsible for arranging training and exercises for EMT members and support staff. The EMA will also ensure the Emergency Operations Centre (EOC) is fit for purpose. The EMA is not an EMT operational role as all tasks associated with the role are undertaken outside of EMT operations. The EMA will ensure the plan is reviewed internally each year and externally once every 5 years.

Site Incident Coordinator (SIC)

In the event of an emergency occurring within the port area of operations, on the marine or the land side, DPC will appoint a 'Site Incident Coordinator'. This will usually be the EMMC or EMLC, their alternate or a person appointed by him. The SIC's role is to manage the DPC resources at the site, to liaise with external agencies responding to the emergency and to keep the EMT up to date with the situation at the emergency site. The SIC will be in direct contact with the Port Operations Centre (POC) by radio and will be equipped with a mobile phone.

Emergency Call Takers

A panel of emergency call takers has been identified and trained in assisting the receptionist with responding to calls to DPC in the event of an emergency. The call takers take all

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emergency related calls and ensure the calls are logged and/or passed to the appropriate EMT or DPC person.

Vessel Traffic Services (VTS) Operator

The VTS operator is the primary point of contact in the event of any marine related incident. In the event of an incident the VTS operator will immediately contact the duty Harbour Master (HM) who will decide what action should be taken, including mobilisation of the EMT. If the duty HM deems it appropriate, the VTS operator will contact emergency services and mobilise the tugs. The VTS operator will refer to the duties of the VTS operator listed in each of the emergency sub-plans at **Annex A**.

VTS & HP/PS will liaise closely during all emergencies.

Marine Operatives

Marine Operatives of the port will support the VTS staff and the tugs and will act on all instructions issued by the Harbour Master during an emergency. Some specific responsibilities of MO's are included at **Annex D**.

Harbour Police/Port Security (Contact details at Annex B)

The HP/PS has a critical role in the security of port facilities, roads, and infrastructure, which include the control and coordination of emergencies including initiating the immediate response to an emergency incident. They also play a key role in alarm monitoring, receipt of calls, gathering of information, notification of emergency services, meeting the emergency services at the ESRVP, guiding them to the site of an emergency within the port, and controlling traffic within the port. The specific emergency responsibilities of the HP/PS are included at **Annex D**, and checklists for HP/PS personnel are included in the sub-plans at **Annex A**.

DPC Fire Wardens

DPC Fire Wardens staff the oil jetties on a 24/7/365 basis. They are responsible for the safety and security of all shipping operations on the Oil Jetty, the Common Oil Pipeline (COP), and can communicate directly with the POC and COP users via specific radio telephone channels. Fire Warden emergency response duties are listed in **Annex D**.

DPC Fire Marshals

DPC has identified and trained a number of Fire Marshals who have a key role in accounting for personnel in their designated area during an emergency. Fire Marshals have been appointed in all DPC buildings, and they have a key role in accounting for personnel in their

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facility during evacuations, and in keeping the EOC informed of events in their area. Their duties are outlined in **Annex D**.

DPC First Aid Responders

DPC has a number of qualified First Aid Responders (FAR) staff suitable for deployment in the event of an emergency. FAR's report to the Incident Site Coordinator once they have been accounted for by their Fire Marshal and are prepared to administer first aid and to assist the emergency services on request. Their duties are outline in **Annex D**.

The Emergency Operations Centre (EOC)

The primary EOC is located on the 1st floor of the POC located at the southern end of Breakwater Road. The EMT will meet here in the event of an emergency being declared. Should the emergency affect the POC then the alternate EOC will be used and is based in the IT training room located on the lower ground floor of the Port Centre on Alexandra Road. Should both locations be unavailable then the EMT Chair will decide on an appropriate location and inform other EMT members.

The EOC will be equipped in accordance with Appendix 1 to **Annex B**:

Emergency Services

In the event of an emergency in Dublin Port, Emergency Services should go immediately to the Emergency Services Rendezvous Point (ESRVP), located at the junction of East Wall Road & Tolka Quay Road West (indicated on the map at **Annex E**). HP/PS will meet with and guide the emergency services to the area of emergency, if safe to do so. The primary unit of the initial lead agency will attend the scene and relay information to emergency services gathered at or near the ESRVP. In a multi-agency response, the lead agency will generally appoint a senior officer as the 'On Site Coordinator' at a safe forward point and senior operational staff from each emergency service and the DPC appointed SIC will collectively manage the emergency from this location.

Information Management Officer (IMO).

The IMO is responsible for maintaining the information display boards in the EOC. This role should be filled by an EMT member who has been trained in the role but can be filled by any EMT member if a trained IMO is not available. The panel of EMT IMO's should receive refresher training every four years and should be practiced in the role when the EMT is exercised.

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6. PORT WIDE ALARM ACTIVATION

The DPC fire alarm panel system is located in the HP/PS Control Room, situated on the ground floor of the POC, Breakwater Road, Dublin Port. The fire alarm system monitors approximately 21 sites, and break glass units located throughout the port estate.

The fire alarm system can be activated manually or automatically from various points around the port directly linked to the system. When activated, the HP/PS are alerted and have 2.5 minutes to investigate the cause of the alarm before the Port wide alarm sounds, or in cases where a fire is confirmed the port wide siren can be activated immediately.

The fire alarm telemetry system indicates the location of the alarm activation and keeps an electronic record of all incidents. In the event of a false alarm or technical fault the system can be manually overridden in the POC to prevent the port-wide alarm activating.

The port wide sirens are located at the ESB North Wall Power Station, the Oil Jetties and Odlum's building (not operational) and are generally tested between 11.00am and 12.00 p.m. (midday) on the first Monday of every month, excluding Bank Holidays. With the exception of alarm tests, all pumping stops immediately on sounding of the port wide siren. Fire Wardens on the oil Jetties will communicate with all COP users by VHF Radio.

For confirmed alarm activations, the affected site and HP/PS must call 999/112 and request emergency services attendance, whilst clearly stating the nature of the emergency, name and location of the site affected.

In passing information to the Emergency Services, the E.T.H.A.N.E. pneumonic should be used:

- **Exact location of the emergency**
- **Type of emergency – e.g. Fire; hazardous material spill; Road Traffic Accident.**
- **Hazards, present and potential**
- **Access route to the emergency**
- **Number and type of casualties (if known)**
- **Emergency Services – those present and those required.**

Once confirmed HP/PS will immediately open the emergency gates located at the western end junction of Tolka Quay Road and East Wall Road and this immediate area operates as the ESRVP.

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DFB will be dispatched to the Port to deal with the incident, whilst HP/PS will implement a traffic control plan, with the support of Gardaí, as required.

The port wide alarm system is a continuous wailing alarm sound, similar to an air-raid siren. On hearing this alarm port users should:

- Be aware that an incident is on-going.
- Account for staff, visitors and contractors.
- Continue to operate as normal unless instructed otherwise or individual company SOPs indicate otherwise.
- Wait for further instructions from the HP/PS or the PES.

Port users, and members of the wider community, are asked to bear in mind that calling DPC by telephone during sounding of the port wide siren may block telephone lines at a vital time. Port users should await further information from the HP/PS, whilst members of the public should tune in to a national radio station for updates.

A new port-wide fire-main was installed in 2015 and replaced the former Saltwater mains system that covers the majority of bulk fuel storage facilities in Dublin Port. The system is fully automated and is controlled from the Port Operations Centre Control Room that is manned 24/7 by HP&PS.

Port Evacuation

During an emergency it may be necessary to evacuate the port, or parts of the port, for safety reasons.

The HP/PS will control traffic flow throughout the port in the event of an evacuation of one or more areas.

The details of port evacuation routes are included at **Annex E** to this plan.

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7. COMMUNICATIONS

In the event of an emergency in Dublin Port the media and social media will be critical in informing the public of the incident. The perception of what has happened and whether people perceive themselves at risk will depend on what they see and hear. The importance of managing this relationship with the media cannot be overstated especially concerning information released via formal and informal (social media) channels. Positive media relations will enable the EMT to focus on minimising effects of the incident, whereas negative relations will be a continuous distraction and will make management of the issues much more difficult.

In the course of dealing with a major incident, decisions on who will communicate with various elements of the media will be made by the CEO with advice from EMT Communications Coordinator. The role of the EMT Communications Coordinator is to advise the CEO and EMT Chairman on all aspects of media liaison and to prepare communications material, media, and social media releases to support the emergency management strategy.

Should a serious incident occur at a Dublin Port facility, the media will more than likely try to converge on, or as near as possible to, the scene of the incident. This may include the opposite shoreline to the actual incident site. The EMT Communications member must manage the media in a proactive way and may need to do so from the Port Centre on Alexandra Road (in which case the Alternate should attend EMT meetings in EOC). The SIC should control further access to the incident site with the assistance of the HP/PS and Gardaí.

The primary point of contact for incidents occurring on tenant sites are listed in Annex J.

Telephone Enquiries

The response to callers by reception staff at DPC will be determined by the information they may have at the time, and the specific instructions of the EMT as issued through the EMT Communications Coordinator. Details of the caller should be recorded on the telephone log proforma at Annex F-1.

Social Media

To be updated by PHC, Comma & Digital Media/Marketing Manager during 2024

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DPC Spokesperson

The CEO may wish to appoint a spokesperson to speak directly to the media on behalf of DPC or may act as the DPC spokesperson. Potential spokespersons for DPC should have media spokespersons training.

Annex F-2 contains information to assist the spokesperson both in preparing for interviews with the media and in delivering a credible response on behalf of the Company during such interviews.

Press Conferences

The sole authority for deciding to hold a DPC press conference rests with the CEO, after consultation with the EMT Communications Coordinator. The CEO in consultation with the EMT spokesperson will decide the appropriate person and location for any press conference. If it is apparent a Press Conference is likely to take place, steps should be taken to prepare the designated location with tables, chairs and an appropriate backdrop for use during the Press Conference. The EMT Communications member should consider the use of a backdrop featuring the DPC name and logo for any press conference, media briefing or interview, depending on the type and scale of the emergency.

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8. TRAINING, EXERCISE AND MAINTENANCE PLAN

General

DPC's Emergency Management competency is continuously enhanced through participation in training and exercises at different levels. DPC management regularly participate in Emergency Management exercises on tenant sites, as well as exercising as the DPC EMT in a stand-alone capacity, at least twice annually. Whilst there are a number of scenario specific sub-plans associated with the overall EMP, DPC adheres to an 'all hazard approach' to Emergency Management.

It will be the responsibility of the EMA to ensure all aspects of the Training, Exercise & Maintenance Plan are implemented and the funding and other resources necessary to carry it out are included in the annual budget. Training and exercising within the context of DPC's EMP is generally concerned with achieving the following objectives:

- Continuously developing the competence of the EMT organisation in implementing the plan.
- Continuously improving the plan by identifying potential gaps in the plans during training exercising and taking action to ensure these are addressed.
- Continuously familiarising the EMT members and supporting staff with the plan and with their roles during plan implementation.

Objective

The objective of this 'Training, Exercise and Maintenance Plan' is to provide a structured framework for training and exercising the members of the EMT in their roles as well as providing a sound basis for maintaining the integrity of the information contained within the plan.

Annual Training Requirement

Training will be conducted annually as follows:

- EMT members and their alternates will receive (induction or refresher) training in relation to the nature of emergencies and their role in the Emergency Management System.
- The EMT will exercise formally in the implementation of the EMP.

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- Administrative staff and potential support group members (e.g. emergency call takers) will receive Emergency Management familiarisation training as and when required at the discretion of the Personnel & Welfare Coordinator (HR).
- Security, reception, and other staff will receive training on the EMP sub-plans and their role in implementing the plans, as appropriate.

The EMA will ensure training records are maintained for all EMT training activities.

EMT exercises will consist of two exercises per year, one land and one marine based to ensure all possible emergency situations are regularly covered.

In addition to DPC specific EMT training, management and staff of DPC regularly participate in or observe at tenant site emergency exercises, many of which are attended by the PES.

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Annex A1: Major incident on board a vessel; Fire, Flooding, sinking.

Definition:

This sub-plan of the DPC EMP will be activated in the event of a major incident on board a vessel within Dublin Port, including fire, explosion, sinking or serious flooding.

Objective:

To prevent and minimise the loss of life to personnel on board the vessel, and to minimise potential harm to the marine environment and the vessel, whilst minimising disruption to port operations.

Duty VTS Operator - Action Points:

On receipt of notification of a major incident from a vessel, the VTS operator at in POC will implement this sub-plan, and will:

- Contact and brief the Duty HM and implement his instructions.
- Inform the IRCG.
- Ensure the emergency services are notified through 999/112.
- Establish communications with vessel Master and receive briefing.
- Mobilise the DPC EMT through the HP/PS on HMs instructions.
- Contact and brief HP/PS.
- Advise Team Leader and deploy all available craft (including private tug operators).
- Inform the other members of the operations team in the POC.
- Contact and inform the ships agent of the incident.
- Refer to the 'Major incident on board a vessel form' at appendix 1.1.
- Consider monitoring the incident remotely using CCTV system.

It is essential that VTS & HP/PS liaise closely during all emergencies.

EMMC:

When informed of a major incident on board a vessel the EMMC will:

- Instruct the VTS operator to mobilise the DPC EMT through the HP/PS
- Establish contact with the vessel and ascertain the extent of the problem, including whether hazardous materials are on board.
- Control all shipping in the DPC area through the VTS operator.
- Deploy available DPC resources as required.
- Act as or appoint an appropriate Incident Site Controller.
- Nominate passenger and crew disembarkation points for rescue craft.
- Where appropriate, direct the ship to another berthing location, or to sea.
- Instruct Fire Wardens to activate the salt-water pumps, as appropriate.

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- Ensure the scene is secured on the marine side.
- Consider the danger of the ship sinking or capsizing from too much water being pumped in the vessel.
- Confirm the availability of tugs as a fire-fighting resource to DFB.

Harbour Police/Port Security:

- Despatch HP/PS personnel to meet emergency services and direct/ guide them to the appropriate locations, disembarkation points etc.
- Contact and brief the EMLC.
- Restrict access to the area of the incident on the land side.
- Liaise with EMLC and the Gardaí regarding the control of traffic within the Port.
- The use of PPE and the consideration of personal health and safety of the HP/PS responders will be considered in all situations.
- Liaise with M&S shift crew as and when required.
- Liaise closely with the VTS operator throughout the incident.

Fire Wardens:

- Assemble in pre-designated location, make contact by radio with the EMMC and follow his instructions.
- Stop pumping of product (if required).

EMT:

In the event of a major incident on board a vessel, the EMT will convene in the EOC. The considerations of the EMT will include but not be limited to

- Liaison with the Ship's operating company re crew list and passenger manifest.
- Liaise with the IRCG through the HM or deputy HM.
- Coordinate with the emergency services through the SIC.
- Coordinate and control the DPC communication with internal and external stakeholders throughout the response.
- Liaise with Gardaí regarding traffic control requirements (through SIC).
- Liaise directly with the Marine Survey Office of the Department of Transport (DOT) as required.
- Ensure the potential for environmental damage is assessed and implement the DPC environmental policy as appropriate.
- Liaise with regulatory agencies as appropriate.
 - DCC (office hours contact Pollution Control Section 01 222 2222 or 24 Hrs. contact 086 3887893).
 - EPA on (053) 91 60600 or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours.

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- HSA on 0818 289389 or outside normal hours, contacted via AGS.
- Department of Health and Children
- DOT.
- Provide assistance as requested to the Marine Casualty Investigation Board (MCIB).
- Arrange for procurement of additional resources as required.

Command and Control:

The DPC EMT will be in command of the DPC response to any serious emergency in the DPC controlled area of operations.

Incident Site Controller:

The EMMC will act as or appoint an appropriate Site Incident Controller, who will:

- Control the response of DPC personnel at the incident site.
- Manage material resources at the incident site.
- Be the primary DPC point of contact for external agencies responding at the incident site.
- Keep the DPC EMT informed and updated.

General considerations for the EMT

- The effects of firefighting water on the stability of a ship need to be considered, including the period after the fire has been extinguished.
- Oil pollution inventory equipment should be prepared and positioned to ensure a speedy and efficient response to any spill resulting from the incident.
- The possibility of hazardous fumes/ potential explosion risk should be considered.
- A continuous watch on the vessel must be maintained until declared safe by the EMMC.
- The implications for the Port Facility Security Plan (PFSP) should be considered.
- The Health and Safety of personnel entering enclosed spaces of a ship should be considered throughout the operation.
- Traffic control within the port is a key consideration, particularly at predictably busy times.
- Collate a list of all related expenditure under a specific project number.

Post-Incident Actions:

- EMMC to arrange a formal debrief / After Action Review (AAR) – and provide a written debrief report to the CEO.
- CEO to arrange for enquiry as appropriate.
- Consider post-incident media strategy.

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Contact Details IRCG:

Irish Coastguard Marine Rescue Coordination Centre (MRCC) – 01 6620922 or dial 112/999 and ask for IRCG.

mrccdublin@irishcoastguard.ie

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Appendix 1.1 – Major Incident on Board a Vessel – Information Capture

To be initiated by the VTS Watch keeper and completed by the HM.

Port:		Berth:		Date:	
Vessel:		Agent:			
Time of Notification:				HM Notified at:	
Type of incident (Fire, Flood Cargo):					
Number of personnel and crew on board: P: Crew:		Number of casualties reported: P: C:		Number of personnel unaccounted for: P: C:	
Nature of any Hazardous material on board.					
Details of incident: (location of fire, material burning, etc)					
Name of Ships master:					
Emergency services advised: (By whom, at?		Dublin Fire Brigade	Gardaí	IRCG	Ambulance service
Ships agent name:				Informed at:	
Need to move vessel considered?					
Other shipping informed/ moved?					
Tugs Mobilised?				Other Port craft Launched?	
Vessel stability data and effect of water requested and received?					
Requirement for divers established?				Activated?	
Potential environmental Impact assessed?				Pollution Control plan activated?	
EMT activated, briefed, and advised?					

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Annex A2: Collision between vessels, or between a vessel and a fixed object

Definition:

This sub-plan of the DPC EMP will be activated in the event of a collision between vessels at sea or within the DPC area, or a collision between a vessel and a fixed object, which may cause casualties and/ or the possibility of the vessel(s) sinking or causing marine pollution.

Objective:

To prevent and minimise the loss of life to personnel on board the vessel(s), and to minimise potential damage to the environment, the vessel(s), DPC facilities and infrastructure, while minimising the effect of the incident on operations within the port.

Duty VTS Operator - Action Points:

On receipt of notification of such an incident, the VTS Operator will:

- Contact and brief the Duty HM and implement his instructions.
- Inform the IRCG.
- Ensure that the emergency services are notified through 999/ 112.
- Establish communications with Master's and receive briefing.
- Mobilise the DPC EMT through the HP/PS on HMs instructions.
- Advise team Leader and deploy all available craft (including private tug operators).
- Inform the other members of the operations team in the POC.
- Contact and inform the ships agents of the incident.
- Initiate the completion of the 'collision of vessels' form at Appendix 2.1.
- Consider monitoring the incident remotely using CCTV system.

It is essential VTS & HP/PS liaise closely during all emergencies.

EMMC:

When informed of a collision of vessels, or a vessel and a fixed object the EMMC will:

- Instruct the VTS operator to mobilise the DPC EMT through the HP/PS.
- Act as, or appoint, a Site Incident Controller.
- Establish contact with the vessel(s) and get all available details.
- Control all shipping in the area.
- Ensure the marine side of the incident is secured.
- Despatch all available DPC vessels to the area to commence rescue operations including survivor/ victim recovery, as appropriate.
- Assess the danger of sinking and any requirement for marker buoys.
- Nominate landing points for rescue craft, if required.
- Update the EMT throughout the emergency.

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- When the collision is with a fixed object, assess the damage to the shore-side installation.

Harbour Police/Port Security:

- Despatch PS personnel to meet, direct/ guide emergency services to the appropriate locations.
- Restrict land side access to the area of the incident and liaise with the Gardaí regarding the control of traffic within the Port.
- Contact and brief the EMLC.
- The use of PPE and the consideration of personal health and safety of the HP/PS and FPO responders will be considered in all situations.
- Prepare pollution control inventory for deployment as required or directed.
- Liaise with M&S shift crew as and when required.
- Liaise closely with the VTS operator throughout the incident.

EMT:

In the event of ships colliding or a collision with a fixed object the EMT will meet in the EOC and will consider the following

- Liaison with the Ship's operating company re crew list and passenger manifest.
- Liaise with the IRCG as appropriate to the circumstances.
- Coordinate with the emergency services through the SIC
- Coordinate the DPC communication with all internal and external stakeholders.
- Control communications with stakeholders
- Liaise directly with the DOT.
- Ensure the potential for environmental damage is assessed and implement the DPC environmental policy as appropriate.
- Liaise with regulatory agencies as appropriate.
 - DCC (office hours contact Pollution Control Section 01 222 2222 or 24 Hrs. contact 086 3887893),
 - EPA on (053) 91 60600 or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours.
 - HSA on 0818 289389 or outside normal hours, contacted via AGS.
 - Department of Health and Children
 - DOT.
- Provide assistance as requested to the MCIB.
- Ensure all expenditure related to the incident is tracked under a single project number.

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Command and Control:

The DPC EMT will be in command of the DPC response to any serious emergency in the DPC controlled area of operations.

Incident Site Controller:

The HM will act as or appoint an appropriate Incident Site Controller, who will:

- Control the response of DPC personnel at the incident site.
- Manage DPC material resources at the incident site.
- Be the primary DPC point of contact for external agencies responding at the incident site.
- Keep the DPC EMT informed and updated and will requisition resources through the EMT where necessary.

General considerations for EMT:

- The effects of firefighting water on a ships stability should be considered.
- Oil pollution inventory equipment should be prepared and positioned to ensure a speedy and efficient response in case there is an oil spill caused by the incident.
- Has the Vessel lost any deck cargo as a result of the collision? If yes - what quantity & location which will need to be marked with a buoy.
- If a vessel has sunk as a result, consult HM re necessity to close the channel.
- The implications for the PFSP should be assessed by the Port Facility Security Officer (PFSO).
- Close liaison with investigating authorities will be required. These may include the MCIB, the ships owners, the Health and Safety Authority (HSA), The Environmental Protection Agency (EPA) and insurers.
- Consider controlling all entry/exit via No.3 Branch Road.
- Collate a list of all expenses incurred as a result under a single project code.

Post-Incident Actions:

- Prepare and issue notice to mariners.
- EMMC Coordinator to arrange an AAR.
- CEO to arrange for enquiry as appropriate.
- Preserve all records of the incident in an appropriate fashion.
- Consider post-incident media strategy.

Contact Numbers:

Irish Coastguard MRCC – 01 6620922 or dial 112/999 and ask for IRCG.
mrccdublin@irishcoastguard.ie

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Appendix 2.1 – Collision of Vessels at Sea or in the Port

To be initiated by the VTS Watch-keeper and completed by the HM.

Port:	Vessel Location:	Date:		
Name of Vessels:	A.			
	B.			
Ships Agents: Informed at:	A.			
	B.			
Time of Notification:			HM Notified at:	
Number of crew and passengers:	Pax.			
	Crew.			
Details of cargo:	A.			
	B.			
Name of Ships master:	A.			
	B.			
Emergency services advised: (By whom, at?)	DFB	Gardaí	IRCG	Ambulance service
Need to move vessels considered?				
Other shipping informed/ moved?				
Tugs Mobilised?			Other Port craft launched?	
Vessel stability data and effect of water requested and received?				
Requirement for divers established?			Activated?	
Potential environmental impact assessed?			Pollution response plan activated?	
Arrangements for collection of debris?				
EMT Briefed and advised?				

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Annex A3: Grounding of a Vessel

Definition:

This sub-plan of the DPC EMP will be activated in the event of the grounding of a vessel within Dublin Port, or in an area that may affect shipping operations within the Port.

Objective:

To prevent and minimise the loss of life to personnel on board the vessel, and to minimise the effects of such an incident on the environment and on Dublin Port operations.

Duty VTS Operator - Action points:

On receipt of notification of such an incident the VTS Operator will:

- Contact and brief the Duty HM.
- Ensure that the emergency services are activated as required.
- Inform the IRCG if necessary, or as instructed.
- Mobilise the DPC EMT through the HP/PS on HMs instructions.
- Inform the other members of the operations team in the POC.
- Activate and deploy DPC resources on instruction from the HM (including private tug operators).
- Contact and inform the ships agent of the incident and notify all other ships in the area.
- Gather as much further information as possible relating to the incident and keep the HM fully informed and up to date.
- Consider monitoring the incident remotely using CCTV system.
- Initiate completion of the 'Grounding of a vessel form' at appendix 3.1.

It is essential VTS & HP/PS liaise closely during all emergencies.

EMMC:

When informed of the grounding of a vessel within DPC, the EMMC will.

- Consider the need to activate the DPC EMT and instruct VTS accordingly.
- Establish contact with the vessel and ascertain the extent of the problem, including whether hazardous materials are on board.
- Confirm the height of tides, prevailing and predicted weather conditions.
- Establish if the Vessel is taking on water.
- Make an assessment of the potential for spillage, leaks of hazardous materials or cargo, and arrange for preparation of control equipment if required.
- Direct and control all other shipping in the area.

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- Despatch tug(s) to the grounded vessel (including private tug operators).
- Nominate a point of contact for external agencies responding to the emergency.
- Deploy DPC resources as required.
- Nominate landing points for rescue craft if required.
- Liaise with the ship's Master regarding re-floating of the vessel, either directly on board or through VHF as appropriate.
- Notify DOT, as required.

Harbour Police/Port Security:

- Meet, greet, and escort external emergency services to the appropriate location.
- Restrict access to the area of the incident on the landside.
- Contact and brief the EMLC.
- Liaise with the Gardaí regarding the control of traffic within the Port.
- The use of PPE and the consideration of personal health and safety of HP/PS responders will be considered in all situations.
- Despatch personnel to control any shore side 'spectators', if required.
- Liaise with M&S shift crew as and when required.
- Liaise closely with the VTS operator throughout the incident.

EMT:

In the event of the grounding of a vessel in the DPC area the EMT will meet in the EOC and will consider the following

- Liaise with the Ship's operating company re the crew list and passenger manifest.
- Liaise with the IRCG as appropriate to the circumstances.
- Coordinate with the emergency services regarding the provision of DPC resources required for responding to the incident.
- Coordinate the DPC communication with internal and external stakeholders.
- Liaise directly with the DOT.
- Assess the potential for environmental damage as a result of the incident and ensure implementation of the DPC environmental policy as appropriate to the circumstances.
- Liaise with regulatory agencies as appropriate.
 - DCC (office hours contact Pollution Control Section 01 222 2222 or waterpollution@dublincity.ie or 24 hrs. contact 086 3887893
 - EPA on (053) 91 60600 or info@epa.ie or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours.
 - HSA on 0818 289389 or outside normal hours, contacted via AGS.

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- Department of Health and Children.
 - DOT.
- Provide assistance as requested to the MCIB.
 - Collate a list of all expenditure associated with the incident under a single project code.

Command and Control:

The DPC EMT will be in command of the DPC response to any serious emergency in the DPC controlled area of operations.

Incident Site Controller:

The HM will act as or appoint an appropriate Incident Site Controller, who will:

- Control the response of DPC personnel at the incident site.
- Manage DPC material resources at the incident site.
- Be the primary DPC point of contact for external agencies responding at the incident site.
- Keep the DPC EMT informed and updated.

General considerations for the EMT:

- Re-floating and security of the vessel.
- Oil pollution inventory equipment should be prepared and positioned to ensure a speedy and efficient response should there be a subsequent spillage.
- A continuous watch on the vessel must be maintained until the danger has passed and the situation has returned to 'normal operations.
- Implications for the Dublin PFSP should be assessed by the PFSO.
- Consider removing potential pollutants from the vessel.
- Consider controlling all entry/exit via No.3 Branch Road.

Post-Incident Actions:

- EMC to initiate inquiry into the cause of the grounding.
- CEO to initiate formal investigation.
- Consider post-incident media strategy.
- EMMC to arrange AAR.

Contact Numbers:

Irish Coastguard MRCC – 01 6620922 or dial 112/999 and ask for IRCG.
mrccdublin@irishcoastguard.ie

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Appendix 3.1 Grounding a Vessel; Information Capture Form

To be initiated by the VTS Watch keeper and completed by the HM.

Port:		Location:		Date:	
Vessel:		Tonnage, length:			
Time of Notification:				HM Notified at:	
Number and status of crew/passengers:		Pax:			
		Crew:			
Requirement for evacuation of passengers and crew?					
Status of vessel:					
Details of cargo, including any dangerous Goods on board:					
Name of Ships master:					
Emergency services required, advised: (By whom, at?		DFB	Gardaí	IRCG	Ambulance service
Ships agent name:				Informed at:	
Initial assessment of damage:					
Ships draft Fore & Aft		Height of tide at time of grounding?		Sounded depth at grounding location?	
Weather Conditions and tides at time of grounding?					
Direction of Vessels Head?					
Effect on shipping in the port?					
Tugs Mobilised?				Other Port craft Launched?	
Vessel stability data requested and received?					
Requirement for divers established?				Activated?	
Potential environmental Impact assessed?				Pollution control plan activated?	
EMT required, informed and advised?					

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Annex A4: Major oil spill from a Vessel or Jetty

Definition:

This sub-plan of the DPC EMP will be activated in response to a major oil spill from a vessel within the Port or at the oil jetties.

Objective:

To minimise the effects of a major oil spill from a vessel within the port or from the oil jetties on the marine and shore-side environments.

Reference:

IRCG OSRP (Oil Spill Response Plan.)

For the purpose of contingency planning and response, a tiered approach is used to categorise marine pollution. This approach identifies resources for responding to oil and chemical spills of increasing magnitude.

Definition of the tiered system to describe oil and chemical spills:

Tier	Definition
Tier 1	Background and minor operational spills resulting in shoreline pollution which can be wholly dealt with by the relevant local authority or harbour authority and their oil spill response contractors.
Tier 2	Small-scale incidents where local authorities or ports may require mutual aid in order to initiate and maintain a shoreline response and also involve IRCG resources.
Tier 3	A large spill where substantial further resources may be required and support from National Government is necessary through the implementation of the IRCG National Oil Spill Contingency Plan. Additional assistance can be obtained from IRCG International response contractor and also through the EU monitoring and Information centre.

Duty VTS Operator - Action Points:

On receipt of notification of such an incident, the recipient, usually the VTS Operator will:

- Inform the Duty HM.
- Inform the IRCG.
- Ensure that the emergency services are activated if required.
- Instruct the HP/PS control room to mobilise the DPC EMT.
- Inform the other members of the operations team in the POC and deploy the quick response boom immediately.

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- Inform E.S.B. at Poolbeg and North Wall, and Synagen and advise the Duty Manager to shut off the cooling water intakes (depending on tides etc.).
- Contact and inform the ships agent of the incident.
- Gather as much further information as possible relating to the incident and keep the HM fully informed and up to date, including noting wind direction and speed.
- Consider monitoring the incident remotely using CCTV system.
- Initiate the completion of the 'major oil spill' form at appendix 1.

It is essential VTS & HP/PS liaise closely during all emergencies.

EMMC:

When informed of a major spill from a vessel or a jetty the EMMC will:

- Investigate source of the spill and endeavour to stop at source.
- Activate and deploy DPC resources as required.
- Activate the deployment of the oil spill containment equipment (listed at Appendix 2). Despatch personnel to the site to start containment operations.
- Instruct the VTS operator to mobilise the DPC EMT through the HP/PS.
- Establish the exact location of the spill, the nature of the material and the amount involved.
- Make an initial assessment of the potential damage to the environment on the marine side, and at the marine/ shore interface.
- Assess the weather and tidal conditions, and the likely effect on the direction of the oil slick.
- Confirm that the IRCG have been informed.
- Assess situation and declare tier 1, 2 or 3 spill in accordance with international protocol.
- Inform DCC as required, DCC (office hours contact Pollution Control Section 01 222 2222 or 24 Hrs. contact 086 3887893 based on initial assessment of the spill.
- Direct and control all other shipping in the area.
- Liaise with the ships master for spillage from a vessel and request updates every 5 minutes and a full incident report in writing.
- Direct the placements of the booms, bearing in mind the natural catchment areas, wind speed, tide direction and flow. Give consideration to local environmental issues.
- Act as or appoint 'Site Incident Controller'.
- Ensure collection of evidence, samples etc. to assist in the subsequent investigation.
- Keep the EMT fully informed throughout the response phase.
- Arrange for the issue of appropriate PPE to first responders and ensure compliance with DPC H&S policy.

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- Notify the EPA as required.

Harbour Police/Port Security:

- Inform the EMLC.
- Despatch personnel to meet and direct the emergency services to the site of the incident, if at the Jetties.
- Control access to the site on the landside.
- The use of PPE and the consideration of personal health and safety of the HP/PS responders will be considered in all situations.
- Liaise closely with the VTS operator throughout the incident.
- Liaise with M&S shift crew as and when required.

EMLC

- Make an initial assessment of the damage to infrastructure and environment on the land side.
- Liaise directly with the EMMC to coordinate the land-side response with the Marine response.
- Ensure emergency services on the shore-side are fully briefed.
- Liaise with the DPC HR Manager and EMMC and identify additional personnel resources available for clean-up operations.

EMT:

In the event of the grounding of a vessel in the DPC area the EMT will meet in the EOC and will consider the following

- Liaise with the IRCG as appropriate. Seek activation of the IRCG National Oil Spill Response Plan if required, and advice regarding assessment of severity, i.e. tier 1, 2 or 3 spill.
- Liaise directly with DCC (office hours contact Pollution Control Section 01 222 2222 or 24 hours contact 086 3887893 regarding shoreline issues and clean up.
- Assess the environmental damage as a result of the incident and ensure implementation of the DPC environmental policy as appropriate to the circumstances.
- Liaise with the EPA regarding the spill on (053) 91 60600 or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours.
- Liaise directly with the DOT.
- Coordinate the DPC internal and external communications throughout the incident.
- Record all expenditure under a single project code.

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Command and Control:

The CEO will control the DPC response to a major oil spill. The EMMC will coordinate the response on the marine-side, with the EMLC coordinating the shore-side response.

General considerations for the EMT:

- Consider use of a drone or Helicopter (contact details at Annex B) to get an aerial view of the scene.
- EMMC and EMLC must communicate regularly in this scenario for coordination.
- There will be a requirement to purchase consumables (such as oilskins) for this type of response and finance should be made available quickly. All expenditure should be tracked, preferable under a single code.
- Rosters will be required for DPC responders.
- DCC will have a significant role to play in responding on the shore-side and providing personnel for the clean-up operation. Facilities for these personnel may be required on site, for a protracted period.
- Close liaison between the HM and the IRCG will be required.
- There will be major media interest in an incident of this nature. The possibility of protest by environmental activists must be considered.
- Liaison with the neighbouring communities and communication with them regarding the incident must be proactive and on-going.
- Sorbents are the most effective way of containing oil and oily matter.
- Booms are largely ineffective in water speeds exceeding 1 knot.
- Consideration must be given to storage and disposal of recovered material.
- For product which is contained within a limited area and accessible by truck, a 'gully-sucker' should be considered.

Post-Incident Actions:

- HM to initiate enquiry into the cause of the incident.
- EMMC to arrange an AAR.
- Consider post-incident media strategy.

Contact Numbers:

Irish Coastguard MRCC – 01 6620922 or dial 112/999 and ask for IRCG.
mrccdublin@irishcoastguard.ie

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Appendix 4.1 – Major Oil Spill – Information Form

To be initiated by the recipient of the call informing of the incident and completed by the HM.

Dublin Port	Date:	Location of spill;	
Vessel Name	Exact Cargo – amount and type		
Time of Notification:		HM Notified at:	
Location of Vessel:		Time QR Boom Deployed:	
Source and nature of Spill (if known)			
Status of vessel:			
Name of Ships master:			
Nature of Material involved:	UN Number of material:	MSDS Available?	
Emergency services required, advised: (By whom, at?)	DFB	Gardaí	IRCG
Other agencies/ bodies informed:	Irish Wildlife	Local Authorities:	Other
Ships agent name:		Informed at:	
Initial assessment of damage Marine side			
Initial assessment of damage Shore side			
Weather Conditions and tides at time of spill?			
Effect on shipping in the port?			
Vessel stability data requested and received?			
Requirement for divers established?		Activated?	
Potential environmental Impact assessed?		Pollution control plan activated?	
Other actions considered or taken (e.g. Letter of protest issued)			

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Appendix 4.2 – Pollution Equipment Table – Dublin Port

Year of Supply	Owner	Item	Storage location	Key Holder or location
2012 Boom 2010	DPC	Vikoma Type 400 Reel System c/w GP 10 Power pack containing 200 meters Vikoma Harbour Boom Solid Buoyancy	Stored outside Port Operations Building on Reel	POB Control
1992	OSR Oil Spill Response	Troilboom GP750. Solid Buoyance Boom 400m	Joint Fuel Terminal (JFT), Alexandra Road	JFT
1992	OSR (ESB Boom)	Ro-Boom 1100 Harbour Boom 200m Stowed on reel in 10ft.unit container. Complete with power unit for reel rotation/boom inflation.	POB	POB Control
----	DPC	Wikomo Komara 12k mkl Mini Skimmer Diesel pump. Hydraulic Oil AWS 32.	Sol.-2-Pol. Store, Alex Quay West.	Oil Pollution Container
1992	OSR	Fastank 2000-gallon capacity. Erectable Mobile Oil Tank.	Alexandra Basin East	Oil Pollution Container
1992	OSR	Ro-Mop Skimmer Ref. OMI 140D Motor.	Alexandra Basin East	Oil Pollution Container
1992	OSR	Ro-Vac System Vacuum Recovery of Oil Motor	Alexandra Basin East	Oil Pollution Container
1992	OSR	Hydro boom - Skirt 1m for water cooling inlet 42m	Alexandra Basin East	Oil Pollution Container
1995	Consortium	10 V.H.F. Radios with charges handheld	JCR	JCR

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Year of Supply	Owner	Item	Storage location	Key Holder or location
1996	Consortium	Vikoma 12K Skimmer. 2-year spare kit. Flexi-Manta-ray surface skimmer. 3" Diesel Pump.	Alexandra Basin East.	Oil Pollution Container
1997	DPC 2	Diaphragm Pumps	Alexandra Basin East.	Oil Pollution Container

Consumable Equipment

Disposable Absorbent Booms 3m T270 3m X 20cm diam.

Oil Sorbant Sheeting 3m T100 Rolls 44m X 96cm.

Oil Sorbant Sawdust 24 X Polysorb in 53lt. bags + 100 45 ltrs.

Note 1:

OSR = Oil Spill Response

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Annex A5: Major oil spill at Sea or Upriver

Definition:

This sub-plan of the DPC EMP will be activated in response to a major oil spill at sea or upriver (Liffey) affecting the Port.

Objective:

To minimise the effects of an oil spillage at sea, or upriver, on the Dublin Port environment and Port Operations.

References:

For the purpose of contingency planning and response, a tiered approach is used to categorise marine pollution. This approach identifies resources for responding to oil and chemical spills of increasing magnitude.

Definition of the tiered system to describe oil and chemical spills:

Tier	Definition
Tier 1	Background and minor operational spills resulting in shoreline pollution which can be wholly dealt with by the relevant local authority or harbour authority and their oil spill response contractors.
Tier 2	Small-scale incidents where local authorities or ports may require mutual aid in order to initiate and maintain a shoreline response and also involve IRCG resources.
Tier 3	A large spill where substantial further resources may be required and support from National Government is necessary through the implementation of the IRCG National Oil Spill Contingency Plan. Additional assistance can be obtained from IRCG International response contractor and also through the EU monitoring and Information centre.

Duty VTS Operator - Action Points:

On receipt of notification of any such incident the VTS Operator will:

- Inform the Duty HM.
- Inform the IRCG.
- Ensure that the emergency services are activated as required.
- Mobilise the DPC EMT through the HP/PS.
- Assess actual/expected traffic in area and suspend if necessary.
- Inform the other members of the operations team in the POC.
- If spill is upriver, deploy quick response boom.
- Inform E.S.B. at Poolbeg and North Wall and advise the Duty Manager to shut off the cooling water intakes (depending on tides etc.).

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- Gather as much further information as possible relating to the incident and keep the HM fully informed and up to date, including noting wind direction and speed.
- Consider monitoring the incident remotely using CCTV system.
- Initiate the completion of the 'major oil spill' form at appendix 5.1.
- If the spill is upriver advise DCC immediately (office hours contact Pollution Control Section 01 222 222 or 24 Hrs. contact 086 3887893)

It is essential VTS & HP/PS liaise closely during all emergencies.

EMMC:

- Establish the nature of the spill, the source, direction of travel and quantity of material involved.
- Consider the need to activate the DPC EMT.
- Liaise with the IRCG regarding response and provide as much assistance as possible.
- Assess the likely impact on Port Operations and brief CEO/ EMT.
- Assess the likely impact on the DPC environment, foreshore etc.
- Arrange for the issuing of PPE to DPC first responders, as required and ensure compliance with H&S requirements.
- Deploy the DPC pollution control equipment as required.
- Liaise with external agencies regarding the DPC response to the incident.
- Direct and control all shipping in the Dublin Port area.
- Liaise with the DPC HR Manager and identify additional personnel resources available for assisting if required.
- Issue letter of protest and request for confirmation of responsibility to the appropriate third parties.
- Notify the EPA, as required.

EMT:

- Seek activation of the IRCG National Oil Spill Response Plan as required.
- Liaise directly with DCC regarding shoreline issues and clean up.
- Ensure implementation of the provisions of the DPC environmental policy.
- Liaise with the regulatory authorities regarding the spill.
- Liaise directly with the DOT.
- Coordinate the DPC internal and external communications.
- Provide assistance as requested to the MCIB.
- Arrange for procurement of additional resources as required.
- Ensure all expenditure in response to the spill is tracked under a single project number.

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Command and Control:

Whilst the IRCG are the lead agency in responding to oil spills at sea, and the Local Authority for oil spills upriver, the DPC response will be coordinated by the HM, in consultation with the CEO and the EMT.

General considerations for the EMT:

- Ensure all responders under DPC control operate with appropriate PPE.
- Consider use of a drone or Helicopter to get an aerial view of the scene.
- There may be a requirement to purchase consumables (such as oilskins) for this type of response and finance should be made available quickly.
- Initiate a robust record of all expenditure.
- The response to an incident of this nature may be protracted, and response personnel rosters may be required.
- The Local Authorities will have a significant role to play in responding on the shore-side and providing personnel for the clean-up operation. Facilities for these personnel may be required on site, for a protracted period.
- There will be major media interest in an incident of this nature. There may be a media presence on site, which must be controlled by DPC.
- Liaise with the PES regarding keeping the public informed. Ensure neighbouring communities are informed and up to date.
- Booms are largely ineffective in water speeds exceeding 1 knot.
- Consider controlling all entry/exit via No.3 Branch Road.

Post-Incident Actions:

- Recovery of DPC costs and compensation for lost operations to be considered and pursued, where possible.
- EMA to arrange a formal debrief.
- Consider post-incident media strategy.

Contact Numbers:

Irish Coastguard MRCC – 01 6620922 or dial 112/999 and ask for IRCG.
mrccdublin@irishcoastguard.ie

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Appendix 5.1 – Major Oil Spill – Information Form

To be initiated by the recipient of the call informing of the incident and completed by the HM.

Dublin Port	Date:	Location of spill;	
		At Sea	Upriver
Source of spill	Amount and type of material		
Time of Notification:		HM Notified at:	
Location of 'slick'	Time QR Boom Deployed		
Wind speed and direction			
Tidal state.			
Type of oil involved in spill	UN Number if applicable		MSDS Sheet available?
Emergency services advised: (By whom, at?)	DFB	Gardaí	IRCG
Other agencies informed	Irish Wildlife	Local Authorities	
Initial assessment of potential damage – marine side			
Initial assessment of damage Shore side			
Weather Conditions and tides at time of spill?			
Effect on shipping in the port?			
Potential environmental Impact assessed?			
Letter of protest issued:			

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Appendix 5.2 – Pollution Equipment Table – Dublin Port

Year of Supply	Owner	Item	Storage location/ No. on the map in Appendix 2	Key Holder or location
2012 Boom 2010	DPC	Vikoma Type 400 Reel System c/w GP 10 Power pack containing 200 meters Vikoma Harbour Boom Solid Buoyancy	Stored outside Port Operations Building on Reel	POB Control
1992	OSR Oil Spill Response	Troilboom GP750. Solid Buoyance Boom 400m	Joint Fuel Terminal (JFT), Alexandra Road	JFT
1992	OSR (ESB Boom)	Ro-Boom 1100 Harbour Boom 200m Stowed on reel in 10ft. unit container. Complete with power unit for reel rotation/boom inflation.	POB	POB Control
-----	DPC	Wikomo Komara 12k mkl Mini Skimmer Diesel pump. Hydraulic Oil AWS 32.	Sol.-2-Pol. Store, Alex Quay West.	Oil Pollution Container
1992	OSR	Fastank 2000-gallon capacity. Erectable Mobile Oil Tank.	Alexandra Basin East	Oil Pollution Container
1992	OSR	Ro-Mop Skimmer Ref. OMI 140D Motor.	Alexandra Basin East	Oil Pollution Container
1992	OSR	Ro-Vac System Vacuum Recovery of Oil Motor	Alexandra Basin East	Oil Pollution Container
1992	OSR	Hydro boom - Skirt 1m for water cooling inlet 42m	Alexandra Basin East	Oil Pollution Container
1995	Consortium	10 V.H.F. Radios with charges handheld	JCR	JCR

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Year of Supply	Owner	Item	Storage location/ No. on the map in Appendix 2	Key Holder or location
1996	Consortium	Vikoma 12K Skimmer. 2-year spare kit. Flexi-Manta-ray surface skimmer. 3" Diesel Pump.	Alexandra Basin East.	Oil Pollution Container
1997	DPC 2	Diaphragm Pumps	Alexandra Basin East.	Oil Pollution Container

Consumable Equipment

Disposable Absorbent Booms 3m T270 3m X 20cm diam.
 Oil Sorbant Sheeting 3m T100 Rolls 44m X 96cm.
 Oil Sorbant Sawdust 24 X Polysorb in 53lt. bags + 100 45 ltrs.

Note 1:

OSR = Oil Spill Response

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Annex A6: Security incident on board a Vessel

Definition:

All ships have their own SSP (Ship Security Plan) and a SSO (Ship Security Officer) and in the event of a security incident on board the SSO will deal with this in accordance to their plan and on board security protocols. If the ship notifies the port and/or local authorities etc., DPC will provide whatever support is required in accordance to their PFSP, whilst taking into consideration Annex A6 of the DPC EMP.

Objective:

To make preparations for responding effectively to a security incident on board a vessel which may lead to a major incident.

Duty VTS Operator - Action Points:

On receipt of notification of such a security incident, the VTS Operator in POC will

- Inform the EMMC and EMLC.
- Inform the PFSO (if different from above).
- Consider monitoring the incident remotely using CCTV system.

It is essential VTS & HP/PS liaise closely during all emergencies.

EMLC

- Liaise directly with PSFO regarding implementation of the PFSP.
- Liaise directly with the EMMC and advise in relation to security response.
- Liaise directly with the State security services and emergency services.
- Establish the exact nature of the incident, the number of passengers and crew on board and their status.
- Notify the DOT.
- Consider the need to activate the DPC EMT.
- Assess the likely effects on Port Operations, in consultation with the EMMC.
- Consider requirement for evacuation of any shore-side buildings.

EMMC:

- Identify a suitable berthing location for the vessel in question, away from shore-based hazards, and consider anchorage.
- Nominate passenger disembarkation points in the event of an evacuation of the vessel.

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- Place port vessels and personnel on stand-by to respond to the incident and direct their actions.
- Direct and control all shipping in the Dublin Port area.
- Liaise with the IRCG.
- Liaise with the DPC HR Manager and EMLC to identify additional personnel resources required for assisting.
- Liaise directly with the EMLC throughout the incident.

EMT:

- Oversee the PFSP response.
- Inform and liaise with the state security services through the approved channels outlined in the PFSP.
- Liaise directly with the ships operating company, the Ships Security Officer and the Company Security Officer.
- Liaise directly with the DOT.
- Coordinate all DPC communications with internal and external stakeholders.
- Consult with the EMMC regarding the movement of the ship to a suitable location at an appropriate time, in order to allow normal port operations to resume or continue.

Command and Control:

The EMLC will coordinate the DPC response to a security incident on board a vessel, with the assistance of the EMMC. Preparations for responding to a catastrophic incident will be made by the EMT. The State security services have 'command' of security incidents and will be the lead response agencies.

General considerations for the EMT:

- Make all reasonable preparations for minimising the effects of a major incident, including having evacuation routes, disembarkation points, firefighting equipment and personnel available to respond.
- A security incident of this nature may be protracted and may adversely affect Port Operations in the short term. Business Continuity plans for key activities may need to be implemented.
- There may be strong media interest and presence on site for the duration of the emergency.
- The state security services have primary responsibility for security incidents, and they may require facilities on site for the duration of an incident.
- Ensure that a detailed DPC incident log is maintained throughout the incident.

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Post-Incident Actions:

- Recovery of DPC costs and compensation for lost operations to be considered and pursued, where possible.
- Consider Port Security Audit review.
- EMA to arrange a formal debrief – AAR. This should include a review of the effectiveness of both the DPC EMP and the PFSP.
- Consider post-incident media strategy.

Contact Numbers:

Irish Coastguard MRCC – 01 6620922 or dial 112/999 and ask for IRCG.

mrccdublin@irishcoastguard.ie

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Annex A7: Major fire within the Port Estate

Definition:

This sub-plan of the DPC EMP will be activated in response to a major fire within the Dublin Port Facility.

Objective:

To ensure DPC responds effectively to any major fire in the port are in order to:

- Prevent or minimise loss of life.
- Prevent the release of harmful materials into the environment.
- Minimise the damage to buildings, infrastructure and other assets.

Person discovering fire in a building or facility:

- Raise the fire alarm by activating a break glass unit and/or notify emergency services by dialling 999 or 112 if possible and safe to do so.
- Rescue any person in danger if safe to do so.
- Activate the emergency evacuation procedures for the building/ facility.
- Consider personal health and safety throughout the response.
- Contact the HP/PS Control Room in POC.

Duty Operator POC:

- Investigate the fire alarm panel to determine location of the fire.
- If fire cannot be verbally or visually confirmed through witness report or CCTV do not direct the HP/PS mobile unit to the site to investigate unless clearly safe to do so.
- On notification of the incident the HP/PS will consider manually activating the 'air siren' as a way to inform all port users of the incident.
- Notify the emergency services using the 'ETHANE' format:
 - Exact Location
 - Type of emergency
 - Hazards present
 - Access route
 - Number and type of casualties (if known)
 - Emergency services required.

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- Direct HP/PS mobile unit to meet the emergency services at the ESRVP and if safe to do so, HP/PS will guide them to the incident location.
- Mobilise the EMT (confirm with EMLC).
- Direct HP/PS to implement traffic management plan if safe to do so.
- Consider telephoning nearby tenants/operators and brief them of the incident, e.g. what has happened, evacuation, traffic management.
- Monitor the incident remotely using CCTV system.
- Initiate manual log of the incident.
- It is essential HP/PS & VTS liaise closely during all emergencies.
- Liaise with M&S shift crew as and when required.

Harbour Police/Port Security Mobile Patrol:

- HP/PS primary responsibility is to confirm incident, i.e. there is a fire in location x; for clarity this does not mean physically respond to the incident location if the fire cannot be verbally confirmed by witness, or visually confirmed by CCTV or from a safe location.
- If safe to do so investigate the alarm location, if there is any doubt advise emergency services 'alarm activation but fire cannot be confirmed'.
- Control the movement of traffic in the area if safe to do so.
- Cordon and contain the immediate scene if safe to do so, to allow ease of access for emergency services.
- If safe to do so meet the emergency services at the ESRVP and advise them of the exact location of the incident.
- Be prepared to control the actions of onlookers and prevent their hindering the emergency operation.
- Provide advice/ guidance to DFB incident controller.
- Keep the POC updated.

In the event of the necessity to evacuate the POC, the HP/PS Control Room operator should immediately transfer to the alternate control site at the Maintenance and Services building or Port Centre taking with them all necessary equipment and when established at the new location, and report to their Senior Officer.

VTS Operator:

- Brief Duty HM
- Determine wind speed and direction and advise SIC.

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Fire Wardens (Oil Jetty):

- Account for all personnel from the area as soon as possible.
- All personnel must report to their designated fire assembly point.
- Visitors to the Oil Jetty should stay with the Fire Warden, DPC employee, local contractor or ship being visited and report to the assembly area with them to be accounted for.
- Close the site of the fire and do not reoccupy until the emergency services have given the all clear.

In the event of a fire on the oil jetties the Fire Warden will endeavour to prevent the spread of the fire by instructing the jetty crew to take the following action, if it is safe to do so:

- Stop all pumping operations.
- Clear and isolate the oil pipelines.
- Attack minor fire by means of dry powder extinguishers.
- Disconnect marine arms.
- Let go vessels moorings fore and aft when tug is 'fast'.
- Evacuate the jetty if necessary. (See Appendix 7-1, evacuation of the oil jetties,).
- Start the salt-water pumps.
- Liaise directly with the HP/PS, providing regular situation reports.

EMLC:

- Assess the need to go to the incident site.
- Act as or appoint the SIC until the arrival of the emergency services.
- On arrival of the emergency services, introduce and brief the Senior Fire Officer from the DFB.
- Liaise with emergency services throughout the incident.
- Where the incident occurs on a tenant site, act as or appoint the DPC point of contact with the tenant company.
- Liaise directly with the EMT and keep them briefed regarding the emergency.
- Advise EMT regarding liaison/communication with local communities and other tenant companies.
- Control access to the site through the HP/PS, until arrival of the Gardaí if safe to do so
- Liaise with the Gardaí re traffic management in the DPC area, and possible evacuation of some or all of the facility if safe to do so.
- Identify any DPC casualties and inform EMT – Personnel and Welfare Coordinator.

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EMMC:

- Assess the impact on port operations and advise the EMT accordingly.
- Control all shipping in the area.
- In consultation with the EMLC consider the need to evacuate the passenger terminals and other buildings as a precaution and brief the EMT.

EMT:

- Liaise directly with the EMLC to establish the severity of the fire and the materials involved.
- In consultation with Emergency Services decide on the level of evacuation of the DPC area and the safe routes to be used and EMLC communicate this to the HP/PS.
- Liaise directly with the emergency services regarding the incident.
- Ensure all DPC personnel are accounted for.
- Arrange for the deployment of DPC firefighting equipment (foam supplies) to the scene if requested to do so by DFB.
- Liaise directly with the tenant company regarding the materials involved.
- Assess the potential for environmental damage as a result of the incident and ensure implementation of the DPC environmental policy as appropriate to the circumstances and advise EMT EHS coordinator.
- Liaise with D.C.C (office hours contact Pollution Control Section 01 222 2222 or 24 hrs. contact 086 3887893 E.P.A and H.S.A for environmental issues.
- Fire water run-off will only be discharged following the consent of DCC and in accordance with the requirements of SOP-MS-OPS-029 Control of Fire Water Run Off.
- Coordinate the traffic plan with Gardaí through the EMLC.
- Coordinate all DPC communications with internal and external stakeholders throughout the incident.
- Record all expenses incurred as a result of the incident under a single project number.

Command and Control:

The EMLC or alternate will be the SIC until the arrival of the emergency services and control is handed over to the Senior Officer from DFB.

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General considerations for EMT:

- Remember due to the nature of this incident the lead agency will be the DFB and DPC will provide a supporting role once the lead agency is in situ.
- It is likely the initial response will be by the tenant property, DPC HP/PS, Fire Wardens, or Fire Marshals if safe to do so.
- Responders should also attempt to establish the following information re the exact location of the fire, the nature of the any substances involved the likelihood of the fire spreading to adjacent buildings and the likelihood of a toxic cloud and inform DFB accordingly.
- The risk of the fire spreading to nearby storage facilities should also be considered, particularly where there are hazardous materials in the vicinity.
- Only intrinsically safe radios should be used for communication from the incident site.
- Consider a prohibition on the use of mobile phones for safety reasons.
- Consideration should be given to ceasing all other operations in the immediate vicinity for the duration of the emergency.
- Ensure that a detailed incident log is maintained throughout the incident.
- Health and Safety of all DPC responders must always be considered.
- Consider closing No.1 Branch Road South (R&H Hall), No.3 Branch Road South (Doyle Shipping Group) and No. 4 Branch Road South (Doyle Shipping Group) security entry/exit to the Common User area, therefore controlling all entry/exit via No.2 Branch Road South, which is controlled by HP/PS.
- Consider the need to advise Dublin Port Service Station to stop pumping fuel based on the seriousness of the incident.

Post-Incident Actions:

- EMLC to arrange debrief to review the effectiveness of the EMP and amend as required.
- Consider including representatives from emergency services, in particular the Senior Fire Officer with a view to ensuring all steps to prevent a reoccurrence are identified and taken.
- Prepare for the clean-up of the incident site once all investigations have been completed.
- Facilities Coordinator to liaise with insurers regarding damage.
- Ensure that counselling services are made available to affected staff (Corporate Services).
- Consider post-incident media strategy.
- Consider implementing Port Centre Business Continuity Plan.

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Appendix 7.1 Evacuation of the Oil Jetties

Two routes may effect evacuation of the Oil Jetties, ashore or by means of escape capsules. These capsules are enclosed lifeboats of fire-resistant design and hold a maximum number of 22 persons and can be lowered from a position inside the capsule, or from winch position. These 2 capsules are provided to enable rapid escape from the Oil Jetties, if the northern escape route is blocked for any reason. They are motorized, fitted with a compass, air supply and a water drenching system.

Capsule Launching from Oil Jetties

1. Release the two gripes.
2. Lift brake either from within the capsule or from the winch position.

Capsule in Water

1. Open accumulator valve.
2. Make sure hydraulic pressure needle is in the green on gauge.
3. Press a button at gear lever level, push lever forward at the same time to disengage the gear.
4. Press starter button with your foot to start engine.
5. Bring the throttle lever back to center position and you should hear a click. This re-engages the gears.
6. Pull hook release lever, capsule should now be free of davits.
7. Push the throttle lever forward again and capsule should be under way.
8. Turn water drencher valve and air accumulation valve to on position if required.
9. If vision is blurred steer capsule away from the fire.

The land escape route from the Oil Jetties is by way of Jetty Road. Once on Jetty Road escape may be executed either eastward onto Breakwater Road South or westward onto No. 4 Road.

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Annex A8: Major oil spill on the shore side

Definition:

This sub-plan of the DPC EMP will be activated in response to a major oil spill on the shore-side of the Dublin Port Facility.

Objective:

To minimise the effects of a major oil spill on the shore-side of Dublin Port and to protect the environment from harm.

Duty Operator - Action Points:

On receipt of notification of such an incident the Duty Operator will:

- Inform the EMLC and EMMC.
- If oil spill cannot be verbally or visually confirmed through witness report or CCTV do not direct the HP/PS mobile unit to the site to investigate unless clearly safe to do so.
- Mobilise the EMT if instructed to do so by the EMLC.
- Contact external agencies as directed by the EMLC or EMMC.
- Consider monitoring the incident remotely using CCTV system.
- Direct HP/PS mobile unit to meet the emergency services at the ESRVP and if safe to do so HP/PS will guide them to the incident location.
- It is essential VTS & HP/PS liaise closely during all emergencies.
- Liaise with M&S shift crew as and when required.

Harbour Police/Port Security:

- HP/PS primary responsibility is to confirm incident, i.e. there is an oil spill in location x; for clarity this does not mean respond to the incident location if the oil spill cannot be visually confirmed by witness, CCTV or from a safe location.
- On notification of the incident the HP/PS will consider manually activating the 'port wide siren' as a way to inform all port users of the incident.
- If safe to do so the mobile unit will proceed immediately to the incident location, don PPE as appropriate and conduct an initial investigation to determine.
 - The exact location of the spill.
 - The type and quantity of oil involved.
 - The initial cause of the spill.
- If there is any doubt advise Emergency Services, there is a reported oil spill, but it has not been 'confirmed'.
- Contact and update the EMLC.

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- If safe to do so cordon and contain the scene until the arrival of the Emergency Services.
- Keep the EMLC updated throughout.

EMLC:

- Act as or appoint the SIC during the emergency.
- Liaise directly with the Emergency Services throughout the incident.
- Where the incident occurs on a tenant site, act as or appoint the DPC liaison with the tenant company.
- Liaise directly with the EMT and keep them briefed regarding the emergency.
- Liaise with the Gardaí re traffic management in the DPC area.
- Identify source of spill and endeavour to stop or reduce it, if safe to do so.
- Advise Emergency Services regarding spill run off and containment measures.
- In conjunction with the Infrastructure & Services Coordinator assess the need to close interceptors to prevent marine pollution.
- Control the containment and clean-up operation at the incident site.
- If safe to do so initiate a traffic management plan to divert port traffic away from the incident site and communicate with Gardaí as required.
- If safe to do so implement relevant DPC evacuation plans as appropriate.

EMMC:

- Assess the impact on port operations and advise the EMT accordingly.
- Control all shipping in the (immediate) vicinity of the incident.
- Consider the need to evacuate the passenger terminals and other buildings as a precaution and brief the EMT.
- Liaise with ships agents as required.
- Control any on-going port operations.

EMT:

- Inform and liaise with regulatory agencies, including the EPA on (053) 91 60600 or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours and Local Authority (DCC office hours contact Pollution Control Section 01 222 2222 or 24 hrs. contact 086 3887893 as required.
- Arrange for the provision of personnel from DPC to assist in the containment and clean-up operations.
- Advise and recommend activation of the National Operations Group if deemed necessary.
- Initiate meeting with the company, organisation or individual responsible for the spill, and if a tenant company or operator arrange for letter of protest and confirmation of responsibility.

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- Implement the appropriate provisions of the DPC environmental policy as appropriate to the circumstances i.e. the containment of the oil spill and the deployment of haz-mats at drains and interceptors shut down and advise EMT EHS coordinator.
- Control and monitor communications with external stakeholders, including the media.
- Track all expenditure in response to the spill under a single project code.

Command and Control:

The EMLC or alternate will be the SIC throughout the management of a major oil spill. Where a tenant company is involved, they will continue to act as the coordinator on site on behalf of the DPC and liaise directly with the tenant.

General considerations for EMT:

- If safe to do so all available resources, personnel, and materiel, must be deployed as quickly as possible to the incident scene.
- Personnel responding will report to the SIC at the scene.
- PPE will be issued from POC.
- Only intrinsically safe radios should be used for communication from the incident site.
- In the event of a major spill the response operation will be relatively protracted, and personnel arrangements and rosters must be considered.
- Response personnel from external agencies may be on site for the duration and may require rest and canteen facilities.
- Consideration should be given to ceasing all other operations in the immediate vicinity for the duration of the emergency.
- Ensure that a detailed incident log is maintained throughout the incident.
- Consider closing No.1 Branch Road South (R&H Hall), No.3 Branch Road South (Doyle Shipping Group) and No. 4 Branch Road South (Doyle Shipping Group) security entry/exit to the Common User area, therefore controlling all entry/exit via No.2 Branch Road South, which is controlled by HP/PS.
- Consider the need to advise Dublin Port Service Station to stop pumping fuel based on the seriousness of the incident.

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Post-Incident Actions:

- EMLC to arrange debrief to review the effectiveness of the plan and amend as required. Include representatives from all emergency services, in particular the Senior Fire Officer with a view to ensuring all steps to prevent a reoccurrence are identified and taken.
- Prepare for the clean-up of the incident site once all investigations have been completed.
- Facilities Coordinator to liaise with insurers regarding damage.
- Consider post-incident media strategy.

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Annex A9: Major spill of hazardous material

Definition:

This sub-plan of the DPC EMP will be activated in response to a major spill of hazardous material within Dublin Port (shore side).

Objective:

To minimise the effects of a major shore-side spill of hazardous material in order to:

- Minimise casualties.
- Minimise harm to the environment.
- Minimise the effect on Port operations.

Duty Operator - Action Points:

On receipt of notification of such an incident the Duty Operator at the POC will:

- Notify the emergency services using the ETHANE format.
 - Exact Location
 - Type of emergency
 - Hazards present
 - Access route
 - Number and type of casualties (if known)
 - Emergency services required.
- Contact and inform EMLC.
- If the major spill of hazardous material cannot be verbally or visually confirmed through a witness report or CCTV do not direct the HP/PS mobile unit to the site to investigate unless clearly safe to do so.
- Monitor the incident remotely using CCTV system.
- Direct HP/PS mobile unit to meet the emergency services at the ESRVP and if safe to do so HP/PS guide them to the incident location.
- Mobilize the EMT.
- It is essential VTS & HP/PS liaise closely during all emergencies.
- Liaise with M&S shift crew as and when required.

Harbour Police/Port Security:

- HP/PS primary responsibility is to confirm incident, i.e. there is a major spill of hazardous material in location x; for clarity this does not mean respond to the

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incident location if the spill cannot be visually confirmed by witness, CCTV or from a safe location.

- On notification of the incident the HP/PS will consider manually activating the 'air siren' as a way to inform all port users of the incident.
- Despatch personnel to meet the Emergency Services at the ESRVP and guide them to the location of the incident.
- Conduct an initial investigation to determine:
 - The exact location of the spill.
 - The type and quantity of hazardous material involved.
 - The initial cause of the spill.
 - Cordon and control the scene and brief the Gardaí on their arrival.
 - The use of PPE and the consideration of personal health and safety of the HP/PS responders will be considered in all situations.
 - Advise and support Emergency Services on their arrival on-site.
 - Establish wind speed and direction and advise SIC and Emergency Services.

EMLC:

Due to the technical nature of this emergency situation the EMLC should seek the advice of DFB and/or Gardaí when considering the following.

- The potential for a toxic or hazardous cloud and advise the EMT of the appropriate action.
- Initiation of the traffic management plan to divert traffic away from the scene of the incident and liaise with the Gardaí regarding implementation of traffic management and site evacuation plans.
- Response of the FAR teams - assistance should only be given where it is safe to do so.
- The requirement for evacuation of adjacent premises and locations (evacuation take place to upwind assembly areas).
- Advise EMT regarding the potential effect of the incident on port operations and advise regarding evacuation.
- Liaise directly with the Emergency Services throughout the incident.
- Where the incident occurs on a tenant site, act as the DPC point of contact with the tenant company.
- Identify source of spill and:
 - Endeavour to stop or reduce flow it if safe to do so.
 - Inform the DFB.
- Advise Emergency Services regarding spill run off and containment measures.

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- Liaise with Infrastructure & Services Coordinator to assess the need to close interceptors.
- Control the containment and clean-up operation at the incident site.

EMMC:

- Assess the requirement for stopping any port operations and advise the EMT accordingly.
- Control all shipping in the (immediate) vicinity of the incident.
- Consider the need to evacuate the passenger terminals and other buildings as a precaution and brief the EMT.
- Liaise with ships agents as required.
- Control any on-going port operations.

EMT:

- Inform and liaise with the EPA on (053) 91 60600 or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours; HSA on 1890 289389 or outside normal hours, contacted via AGS and the Local Authority (DCC office hours contact Pollution Control Section 01 222 2222 or 24 hrs. contact 086 3887893 as required.
- Access MSDS sheet for the material involved and make an assessment of the potential effects of the spill.
- Assess the potential for environmental damage as a result of the incident, and ensure implementation of the DPC environmental policy as appropriate to the circumstances i.e. the containment of the hazardous material and the deployment of haz-mats at drains and interceptors shut down.
- Control communications with external stakeholders, including the local residents and the media.
- Arrange for the provision of suitably trained DPC personnel to assist in the containment and clean-up operations.
- Source and activate specialist clean up organisation as required.
- Initiate meeting with the company, organisation or individual responsible for the spill, and if a tenant company or operator arrange for letter of protest and confirmation of responsibility.
- Facilities Coordinator to liaise with insurers as appropriate.
- Collate a list of all expenses.

Command and Control:

The EMLC or alternate will be the SIC until the arrival of the DFB, who will assume control. The EMLC or alternate will continue to act as the SIC on behalf of the DPC and liaise directly with the Emergency Services and tenant as required.

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General considerations:

- Remember due to the nature of this incident the lead agency will be DFB and DPC will provide a supporting role once the lead agency is in situ.
- However, if safe to do so, DPC should deploy all available resources, personnel and materiel, as quickly as possible.
- DPC personnel responding will report to the SIC at the scene.
- PPE will be issued from POC.
- Only intrinsically safe radios should be used for communication from the incident site.
- Consideration should be given to having a prohibition on the use of mobile phones in the immediate vicinity of the spill.
- In the event of a major spill the response operation may be relatively protracted, and personnel arrangements and rosters must be considered.
- Response personnel from external agencies may be on site for the duration and may require rest and canteen facilities.
- Consideration should be given to ceasing all other operations in the immediate vicinity for the duration of the emergency.
- Ensure a detailed incident log is maintained throughout the incident.
- Consider closing No.1 Branch Road South (R&H Hall), No.3 Branch Road South (Doyle Shipping Group) and No. 4 Branch Road South (Doyle Shipping Group) security entry/exit to the Common User area, therefore controlling all entry/exit via No.2 Branch Road South, which is controlled by HP/PS.
- Consider the need to advise Dublin Port Service Station to stop pumping fuel based on the seriousness of the incident.

Post-Incident Actions:

- Review the effectiveness of the plan and amend as required.
- Discuss the incident with the senior Fire Officer with a view to ensuring all steps to prevent a reoccurrence are identified and taken.
- Prepare for the clean-up of the incident site, once all investigations, including Garda have been completed.
- Facilities Coordinator to liaise with insurers regarding damage.
- EMLC to arrange a debrief to include representatives from all emergency services, in particular the Senior Fire Officer with a view to ensuring all steps to prevent a reoccurrence are identified and taken.
- Consider post-incident media strategy.

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Annex A10: Vehicle accident involving hazardous material.

Definition:

This plan will be activated in response to a vehicle accident involving a spill of hazardous material within the Dublin Port Facility.

Objective:

To minimise the effects of a spill of hazardous material in order to

- Minimise casualties caused.
- Minimise harm to the environment.
- Minimise the effect on Port operations.

Duty Operator - Action Points:

On receipt of notification of such an incident the Duty Operator at the POC will

- If the vehicle accident involving hazardous material cannot be verbally or visually confirmed through a witness report or CCTV do not direct the HP/PS mobile unit to the site to investigate unless clearly safe to do so.
- Monitor the incident remotely using CCTV system.
- Direct HP/PS mobile unit to meet the emergency services at the ESRVP and if safe to do so, guide them to the incident location.
- Notify the emergency services using the ETHANE message format.
 - Exact Location
 - Type of emergency
 - Hazards present
 - Access route
 - Number and type of casualties (if known)
 - Emergency services required.
- On notification of the incident consider manually activating the 'port wide siren' depending on the size and scale of the incident, hazard involved and weather conditions as a way to inform all port users of the incident.
- Contact and brief the EMLC.
- Mobilise the EMT
- It is essential VTS & HP/PS liaise closely during all emergencies.
- Liaise with M&S shift crew as and when required.

Harbour Police/Port Security:

- HP/PS primary responsibility is to confirm incident, i.e. there is a vehicle accident involving hazardous material in location x; for clarity this does not mean respond to

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the incident location if the type of hazardous material cannot be visually confirmed by witness, CCTV or from a safe location.

- Establish the following information as quickly as possible:
 - The exact location of the accident.
 - Whether there are any casualties.
 - The type and quantity of hazardous material involved.
 - The number of vehicles involved.
- Brief the EMLC on arrival.
- Cordon and control the movement of traffic in the area until the arrival of the Gardaí and consider implementing a traffic diversion if safe to do so.
- Despatch personnel to meet the emergency services at the ESRVP and guide them to the location of the incident.
- Establish wind speed and direction and advise incident controller and emergency services.

EMLC:

- Cordon and contain the incident scene and implement a traffic management plan to divert traffic from the scene.
- Liaise with Gardaí re implementation of the traffic management and port evacuation plans.
- Seek guidance and advice from the DFB re the potential for a toxic or hazardous cloud and advise the EMT re appropriate action.
- Consider response of the first aid teams - assistance should only be given where it is safe to do so.
- Consider the requirement for evacuation of adjacent premises and locations, (evacuation take place to upwind assembly areas) and liaise with emergency services, i.e. Gardaí and DFB.
- Control any on-going land operations.
- Liaise directly with the EMT regarding the potential effect of the incident on port operations, and advice regarding evacuation.
- Advise emergency services regarding spill run off and containment measures.
- Control the containment and clean-up operation at the incident site, in consultation with the DFB.
- Preserve the scene for the subsequent Garda investigation.

EMMC:

- Assess the requirement for stopping any port operations and advise the EMT accordingly.
- Control all shipping in the (immediate) vicinity of the incident.

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- In consultation with the EMLC consider the need to evacuate the passenger terminals and other buildings as a precaution and brief the EMT.
- Liaise with ships agents as required.
- Control any on-going marine operations.

EMT:

- Inform and liaise with the EPA on (053) 9160600 or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours, HSA on 1890 289389 or outside normal hours, contacted via AGS and Local Authority (DCC office hours contact Pollution Control Section 01 222 222 or 24 Hrs. contact 086 3887893 as required.
- Access MSDS sheet for the material involved and make an assessment of the potential effects of the spill.
- Contact the hospital to which casualties are brought and inform them of the nature of the material involved and arrange for the faxing of the MSDS sheets.
- Arrange for the provision of personnel from DPC to assist in the containment and clean-up operations.
- Source and activate specialist clean up organisation as required.
- Control communications with external stakeholders, including local neighbourhoods and the media.
- Assess the potential for environmental damage as a result of the incident and ensure implementation of the DPC environmental policy as appropriate to the circumstances, i.e. the containment of the hazardous material and the deployment of haz-mats at drains and interceptors shut down.
- Arrange for the provision of other resources as required by the incident.
- Collate a list of all expenses.

Command and Control:

The EMLC or alternate will be the SIC until the arrival of the DFB and the Gardaí. DFB will assume control of the incident and the senior ranking Garda the investigation. The EMLC will continue to act as the coordinator on site on behalf of the DPC and liaise directly with the emergency services as required.

General considerations:

- The use of PPE and the health and safety of DPC responders to be considered in all circumstances.
- First aid and other responders to be despatched to the scene and report to the SIC.

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- Only intrinsically safe radios should be used for communication from the incident site, and consideration given to a prohibition on the use of mobile phones in the immediate vicinity.
- Consideration should be given to ceasing all other operations in the immediate vicinity for the duration of the emergency.
- Ensure a detailed incident log is maintained throughout the incident.
- Consider closing No.1 Branch Road South (R&H Hall), No.3 Branch Road South (Doyle Shipping Group) and No. 4 Branch Road South (Doyle Shipping Group) security entry/exit to the Common User area, therefore controlling all entry/exit via No.2 Branch Road South, which is controlled by HP/PS.
- Consider the need to advise Dublin Port Service Station to stop pumping fuel based on the seriousness of the incident.

Post-Incident Actions:

- EMLC to arrange a formal debrief / AAR to review the effectiveness of the plan and amend as required.
- Review the traffic control measures on the port roadways.
- Prepare for the clean-up of the incident site, once all investigations, including police, have been completed.
- Formally review the DPC response to the emergency.
- EMLC or EMMC to arrange a debrief to include representatives from all emergency services, in particular the Senior Fire Officer with a view to ensuring all steps to prevent a reoccurrence are identified and taken.
- Consider post-incident media strategy.

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Annex A11: Chemical incident or toxic cloud

Definition:

This plan will be activated in response to a serious chemical incident or an incident resulting in a toxic cloud of noxious gas at Dublin Port.

Objective:

To minimise the effects of chemical spill or cloud of noxious gas in order to

- Minimise the casualties caused to personnel within the port and to local neighbours.
- Minimise harm to the environment.
- Minimise the effect on Port operations.

Duty Operator - Action Points:

On receipt of notification of such an incident, the recipient, usually the VTS Operator at the POC or HP/PS in the Control Room will: -

- If the chemical incident or toxic cloud cannot be verbally or visually confirmed by a witness report or through CCTV do not direct the HP/PS mobile unit to the site to investigate unless clearly safe to do so.
- Monitor the incident remotely using CCTV system.
- Direct HP/PS mobile unit to meet the emergency services at the ESRVP and if safe to do so, guide them to the incident location.
- Notify the emergency services using the ETHANE format:
 - Exact Location
 - Type of emergency
 - Hazards present
 - Access route
 - Number and type of casualties (if known)
 - Emergency services required.
- On notification of the incident consider manually activating the 'air siren' depending on the size and scale of the incident, hazard involved and weather conditions as a way to inform all port users of the incident.
- It is essential VTS & HP/PS liaise closely during all emergencies.
- Liaise with M&S shift crew as and when required.
- Contact and brief EMT members as appropriate.

Harbour Police/Port Security:

- HP/PS primary responsibility is to confirm incident, i.e. there is a chemical incident or toxic cloud in location x; for clarity this does not mean physically respond to the incident location if the type of hazardous material cannot be visually confirmed by witness, CCTV or from a safe location.

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- Establish the following information as quickly as possible:
 - The exact location of the incident.
 - Whether there are any casualties.
 - The type and quantity of hazardous material involved.
- Brief the EMLC.
- If safe to do so cordon and control the movement of traffic in the area until the arrival of the Gardaí and consider implementing a traffic diversion.
- Despatch personnel to meet the emergency services at the ESRVP and guide them to the location of the incident.
- Establish wind speed and direction and advise incident controller and emergency services.

EMLC:

Seek guidance and advice from affected premises, HP/PS and DFB to:

- Assess the requirement for evacuation of premises and locations, and ensure evacuation takes place to upwind assembly areas.
- Control access to the affected area, and likely affected area, and prevent further traffic from entering the area.
- Divert traffic and evacuated personnel upwind of the cloud.
- Identify the source of the cloud, and
- Stop further leakage if safe to do so.
- Advise the DFB of the actions taken.
- Liaise directly with the EMT and advice regarding the potential effect of the incident on port operations and advice regarding evacuation.
- Liaise directly with the emergency services throughout the incident.
- Advise emergency services regarding spill run off and containment measures.
- Control the containment and clean-up operation at the incident site, in consultation with the DFB.
- Preserve the scene for the subsequent investigations (EPA, Garda, and Insurance).

EMMC:

- Assess the requirement for stopping any marine operations and advise the EMT accordingly.
- Control all shipping in the (immediate) vicinity of the incident.
- In consultation with the EMLC consider the need to evacuate the passenger terminals and other buildings as a precaution and brief the EMT.

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- Liaise with ships agents as required.
- Control all on-going marine operations.

EMT:

- Liaise directly with the local stakeholders and communities through the issuing of media releases and radio warnings.
- Inform and liaise with the EPA on (053) 91 60600 or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours, HSA on 1890 289389 or outside normal hours, contacted via AGS and Local Authority (DCC office hours contact Pollution Control Section 01 222 2222 or 24 Hrs. contact 086 3887893 as required.
- Access MSDS sheet for the material involved and make an assessment of the potential effects of the spill.
- Contact the hospital to which casualties are brought and inform them of the nature of the material involved and arrange for the faxing of the MSDS sheets.
- Assess the potential for environmental damage as a result of the incident, and ensure implementation of the DPC environmental policy as appropriate to the circumstances, i.e. the containment of the hazardous material and the deployment of haz-mats at drains and interceptors shut down.
- Arrange for the provision of personnel from DPC to assist in the containment and clean-up operations.
- Source and activate specialist clean up organisation as required.
- Arrange for the provision of other resources as required by the incident.
- Collate a list of all expenses.

Command and Control:

The EMLC or alternate will be the incident site coordinator until the arrival of the DFB, who will assume control. EMLC will continue to act as the SIC on behalf of the DPC and liaise directly with the emergency services as required.

General considerations:

- Establish from the lead agency i.e. DFB whether it is safe to deploy personnel to the area of the source of the cloud.
- Use of PPE and the safety of DPC responding personnel to be considered throughout the response to the incident.
- First aid and other responders to be despatched to the scene and report to the SIC.

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- Only intrinsically safe radios should be used for communication from the incident site, and a prohibition on the use of mobile phones in the immediate area should be considered.
- Consideration should be given to ceasing all other operations in the immediate vicinity for the duration of the emergency.
- Ensure a detailed incident log is maintained throughout the incident.
- Consider closing No.1 Branch Road South (R&H Hall), No.3 Branch Road South (Doyle Shipping Group) and No. 4 Branch Road South (Doyle Shipping Group) security entry/exit to the Common User area, therefore controlling all entry/exit via No.2 Branch Road South, which is controlled by HP/PS.
- Consider the need to advise Dublin Port Service Station to stop pumping fuel based on the seriousness of the incident.

Post-Incident Actions:

- EMLC to arrange a formal debrief / AAR, to review the effectiveness of the plan and amend as required.
- Prepare for the clean-up of the incident site, once all investigations, including Gardaí, DFB and EPA etc. have been completed.
- EMLC to arrange a debrief to include representatives from all emergency services, in particular the Senior Fire Officer with a view to ensuring all steps to prevent a reoccurrence are identified and taken.
- Consider post-incident media strategy.

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Annex A12: Major incident in an oil, gas or hazardous material storage area

Definition:

This plan will be activated in response to a major incident in an oil, gas or hazardous material storage facility within the DPC area.

Objective:

- To minimise the effects of a major incident in a storage facility within the Port area in order to:
 - Minimise injury and loss of life.
 - Minimise harm to the environment.
 - Minimise the damage to facilities within the Port.

Duty Operator - Action Points:

On receipt of notification of such an incident, the recipient, usually the VTS Operator at the POC or HP/PS in the Control Room will:

- If the incident in an oil, gas or hazardous material storage area cannot be verbally or visually confirmed through witness report or CCTV do not direct the HP/PS mobile unit to the site to investigate unless clearly safe to do so.
- Monitor the incident remotely using CCTV system.
- Direct HP/PS mobile unit to meet the emergency services at the ESRVP and if safe to do so, guide them to the incident location.
- Contact the emergency services and provide as much detail in relation to the nature of the incident and hazardous material as possible and update the DFB as necessary via 999/112.
- Consider the need to activate the Port wide siren depending on the size and scale of the incident, the hazard involved and weather conditions.
- Consider monitoring the incident remotely using CCTV system.
- It is essential VTS & HP/PS liaise closely during all emergencies.
- Liaise with M&S shift crew as and when required.
- Contact and brief EMLC and contact EMT members as directed by the EMLC.

Harbour Police/Port Security:

- HP/PS primary responsibility is to confirm incident, i.e. there is an oil, gas or hazardous material incident in location x; for clarity this does not mean physically respond to the incident location if the type of oil, gas or hazardous material cannot be visually confirmed by witness, CCTV or from a safe location.
- Establish the following information as quickly as possible:
 - The exact location of the incident.

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- Whether there are any casualties.
- The type and quantity of hazardous material involved.
- Brief the EMLC on arrival.
- Cordon and control the movement of traffic in the area if safe to do so until the arrival of the Gardaí and consider implementing a traffic diversion.
- Despatch personnel to meet the emergency services at the ESRVP and guide them to the location of the incident if safe to do so.
- Establish wind speed and direction and advise incident controller and emergency services.

EMLC:

Seek guidance and advice from affected premises, HP/PS and DFB to:

- Assess the requirement for evacuation of premises and locations, and ensure evacuation takes place to upwind assembly areas.
- Control access to the affected area, and likely affected area, and prevent further traffic from entering the area.
- Divert traffic and evacuated personnel upwind of the incident location.
- Identify the source, and
 - Stop further leakage if safe to do so.
- Advise the DFB of the actions taken.
- Liaise directly with the EMT and advice regarding the potential effect of the incident on port operations and advice regarding evacuation.
- Liaise directly with the emergency services throughout the incident.
- Advise emergency services regarding spill run off and containment measures.
- Control the containment and clean-up operation at the incident site, in consultation with the DFB and site operator.
- Liaise with Infrastructure & Services Manager to assess the need to close interceptors.
- Preserve the scene for the subsequent investigations (EPA, DPC, Gardaí, and Insurance).

EMMC:

- Assess the requirement for stopping any marine operations and advise the EMT accordingly.
- Control all shipping in the (immediate) vicinity of the incident.
- EMLC and EMMC to consider the need to evacuate the passenger terminals and other buildings as a precaution and brief the EMT.
- Liaise with ships agents as required.
- Control all on-going marine operations.

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EMT:

- Liaise directly with the local stakeholders and communities through the issuing of media releases and radio warnings.
- Inform and liaise with the EPA on (053) 91 60600 or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours, HSA on 0818 289389 or outside normal hours, contacted via AGS and Local Authority (DCC office hours contact Pollution Control Section 01 222 2222 or 24 Hrs. contact 086 3887893 as required.
- Arrange for the provision of personnel from DPC to assist in the response.
- Assess the potential for environmental damage as a result of the incident and ensure implementation of the DPC environmental policy as appropriate to the circumstances, i.e. the containment of the hazardous material and the deployment of haz-mats at drains and interceptors shut down.
- Control communications with external stakeholders.
- Arrange for the provision of other resources as required by the incident.
- Collate a list of all expenses.

Command and Control:

In the event of an incident occurring on a tenant company site, the tenant company will be responsible for controlling the incident until the arrival of the emergency services. The EMLC will be the SIC and point of contact and will liaise with the tenant incident controllers and all external agencies.

General considerations:

- Use of PPE and the safety of DPC personnel responding to the incident will be considered throughout the incident.
- First aid and other responders should be made available to the tenant company through the SIC.
- Only intrinsically safe radios should be used for communication from the incident site, and a prohibition on the use of mobile phones should be considered.
- Consideration should be given to ceasing all other operations in the immediate vicinity for the duration of the emergency.
- Ensure a detailed incident log is maintained throughout the incident.
- Consider closing No.1 Branch Road South (R&H Hall), No.3 Branch Road South (Doyle Shipping Group) and No. 4 Branch Road South (Doyle Shipping Group) security entry/exit to the Common User area, therefore controlling all entry/exit via No.2 Branch Road South, which is controlled by HP/PS.
- Consider the need to advise Dublin Port Service Station to stop pumping fuel based on the seriousness of the incident.

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- Post-Incident Actions:
- EMLC to arrange a formal debrief/ AAR to review the effectiveness of the plan and amend as required.
- Formally review the DPC response to the emergency.
- EMLC to arrange a debrief to include representatives from all emergency services, in particular the DFB, Senior Fire Officer with a view to ensuring all steps to prevent a reoccurrence are identified and taken.
- Consider post-incident media strategy.

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Annex A13: Infectious Disease (Human or animal) on ship due to enter Dublin Port

Definition:

This plan will be activated in response to notification of DPC by a vessel or other Authority due to the port of the presence or suspected presence of an infectious disease affecting or with the potential to affect Ireland's people, animals, and horticultural or agricultural industries.

Objective:

- To ensure DPC compliance with the regulatory requirements relating to infectious diseases (shipping) regulations.
- To ensure accurate and timely notification of the competent authorities in the event of notification of an infectious disease to DPC by a ship engaged in international travel.
- To facilitate the requirements of the Competent Authority when responding to an infectious disease incident on a ship entering Dublin Port.
- To minimise the disruption to Dublin Port activities during response to an incident involving infectious disease on a ship in Dublin Port.
- Compliance with Notice to Mariners; No. 31.1 of 2020 – Novel Coronavirus (2019-nCoV – Maritime Declarations of Health). [Notice to Mariners - Dublin Port](#)
- Implementation of the DPC Covid-19 Response Action Plan.
- Compliance with HSE Response Plan for the management of Public Health Alert at points of Entry (Seaports).

Duty Operator - Action Points:

The law relating to infectious diseases in a ship requires the ships master to inform the authorities in the destination port of the presence or suspected presence of such a disease in advance of arrival (generally, not more than 24 hrs. and not less than 4 hours prior to scheduled arrival). On receipt of notification of the presence or suspected presence of an infectious disease, the recipient, usually the VTS Operator at the POC or HP/PS in the Control Room will

- Confirm receipt of the message to the ships master.
- Immediately inform and brief the Harbour Master of the notification and request they contact all EMT members.
- Note in detail the content of the message for onward transmission to the Competent Authority.
- Follow the instructions of the Harbour Master.

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- The Harbour Master will instruct the vessel's master to submit a Medical Declaration of Health (MDOH) to the HMs office and onto the Safe Seas Ireland database.

Harbour Police/Port Security:

- As above where the HP/PS are the original recipients of the message in the control room.
- Be prepared to provide a physical presence in the vicinity of a detained ship, or a designated cargo or baggage storage area.
- Follow all HSE guidelines re safe distances of cordon, proximity to ship, PPE etc.
- Follow the instructions of the EMLC/EMMC at Dublin Port and of the EMT.
- It is essential VTS & HP/PS liaise closely during all emergencies.
- Liaise with M&S shift crew as and when required.

EMLC:

- Make appropriate arrangements for the control of access to the designated ship(s) if detained or quarantined by the Competent Authority.
- Be prepared to make arrangements for a physical security presence in appropriate locations as required/ requested by the Competent Authority.
- Liaise with the Competent Authority regarding requirements for shore-side facilities during the response to the incident.
- Task the HP/PS as appropriate to the circumstances
- Follow all HSE guidelines re safe distances of cordon, proximity to ship, PPE guidelines etc.

EMMC:

On receipt of notification from a ship that there is or may be an incident involving a communicable disease, the Harbour Master will:

- The Harbour Master will contact the National Emergency Operations Centre NEOC and request a Port Public Health Alert activation.
- Partake in teleconference following activation of Sea Port Public Health Alert.
- Determine current location of ship and consider entry requirements or order to anchor pending consultation with relevant Government Dept.'s or Agencies.
- Inform directly or instruct the VTS operator to inform the relevant section (Public Health) of the HSE (Contact details in appendix 13-1) as soon as practicable.
- Ensure the Dept. of Agriculture (Contact details appendix 13-1) are contacted and informed in the event of an infectious disease with animal health implications (contact details in appendix 13-1)

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- Ensure Customs and Excise service in Dublin Port are contacted and informed (contact details at appendix 13-1).
- Contact and brief the CEO at DPC, who will advise regarding the activation of the EMT.
- Inform the EMLC.
- Act as the DPC point of contact for the Competent Authority (HSE or Dept. of Agriculture) Customs and Excise officials for the duration of the incident.

EMT:

If convened in the circumstances by the CEO, EMMC or EMLC

- Make arrangements for the continuation of normal business activity as required.
- Inform and liaise with the Public Health authorities of the HSE. The Health Protection Surveillance Centre can be contacted at 01 8765300 or through the HSE Ambulance service National Emergency Operations Centre by dialling 999/112/0818 501999.
- Control communications with external stakeholders, including the media.
- Be prepared to act jointly with the Competent Authority and Customs and Excise officials regarding press briefings, through provision of a DPC spokesperson.
- Arrange for the provision of DPC resources to the responding agencies as required by the incident.
- The relevant DPC Manager shall liaise with the EMT Personnel & Welfare Coordinator to ensure the appropriate arrangements have been made for the protection and screening (if necessary) of DPC personnel who may become exposed to the risk of infectious disease when carrying out their assigned tasks.
- Ensure DPC personnel involved in any interface with the ship, its passengers or cargo, wear appropriate PPE.
- Ensure DPC personnel involved in any interface with the ship, its passengers or cargo follow all HSE guidelines re safe distances of cordon, proximity to ship, PPE guidelines etc.
- Provide support of the Competent Authority where possible and where required by regulation.
- Collate a list of all expenses.

Command and Control:

In the event of a ship reporting the presence on board of a communicable disease with the potential to affect humans or animals, the Competent Authority is the Health Service Executive, under International Health Regulations (WHA58.3 of 2005 - International Health Regulations refers).

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The EMMC will act as the DPC Coordinator for the duration of the incident. The DPC role will be to facilitate the response of the competent authorities (HSE Public Health officials and Customs and Excise service) in carrying out their respective duties.

General considerations:

The Competent Authority may isolate and quarantine individuals or groups they suspect of being ill or of having been exposed to infectious diseases, particularly any of the following:

- Cholera
 - Pneumonic Plague
 - Yellow fever.
 - Viral haemorrhagic fevers.
 - West Nile fever.
 - Smallpox.
 - Ebola
 - Poliomyelitis due to wild type poliovirus.
 - Human influenza caused by a new sub-type.
 - Severe acute respiratory syndrome (SARS/COVID-19 Corona Virus)
 - Dengue fever, Rift Valley fever and meningococcal disease
 - SARS, Bird Flu or Swine Flu
- Additionally, there are ranges of animal diseases, i.e. Foot & Mouth, Mad Cow Disease etc., which may lead to restrictions being imposed by the Dept. of Agriculture officials in the Port.
- There may be a requirement to establish a mooring station or anchorage for a vessel reporting a case of infectious disease (human or animal). If so, the ship is most likely to be detained by a Customs and Excise official operating of his own accord or on the direction of a Medical Officer of Health as designated by the HSE, or a Veterinary officer of the Dept. of Agriculture.
- A Medical Officer of Health from the HSE may establish a mooring station and 'designate' it as a special mooring area for a particular ship.
- Where a ship is moored in such circumstances, it will remain at that mooring station until a Medical Officer of Health has examined it.
- The 'detention' of a ship in such circumstances by an officer of Customs and Excise ceases on completion of an inspection by a Medical Officer of Health, or if a Medical Officer of Health has not commenced inspection of the ship within 12 hours of the ship's mooring.

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- The ship Master is responsible for complying with International Health Regulations (IHR).
- Where a ship is detained under IHR, no person (other than a pilot, an officer of Customs and Excise, or an immigration officer) may board or leave the ship without consent of a medical officer of health or other medical officer.
- Copies of reference documents (WHA58.3 of 2005 - International Health Regulations), and SI No. 4 of 2008 (infectious diseases shipping regulations) be available in the EOC.
- Infrastructure & Services Coordinator to consider the deployment of the following DPC resources.
 - Consumables:
 - Foam Mats (to be deployed at the top of gangways)
 - Disinfectant Mat (exit gate of No.3 Branch Road South)
 - Decontamination Mats (Terminal 1, 2, 3 & Port Centre)
 - Wheelie Bins for the arrivals area in terminal 1 & 2 manned by Dept. of Agriculture staff.
 - Fixed Infrastructure:

Disinfectant Spray Units will be located at the following ramps and the disinfectant is supplied by the Dept. of Agriculture.

 - No.1 Ramp Upper & Lower Deck (Stena Line) – 1 unit.
 - No.5 Ramp (Irish Ferries) – 3 units
 - No.6 Ramp (Stenaline/Seatruck) – 1 unit
 - No.7 - 8 Ramp (Seatruck) – 1 unit.
 - No.9 Ramp (Irish Ferries) – 1 unit

***The above consumable equipment and fixed infrastructure is currently being reviewed with Dept. Of Agriculture to confirm type to be retained.*

The following equipment retained for above is held at the old FSK Freight Shed (located beside Tank-clean):

Description	Quantity
Knapsack 16 Litre sprayer	4
Power Washer (KARCHER HD 6/13CX Plus 240 Volt Cold Water)	2
Disinfectant - 125 x 5 litre Bimodex	25
Wheelie Bin - yellow (240L)	4
Disinfectant Mats - 348 Sani master disinfectant mat	15
Tyvek suits (50 large, 25 XL, 25 Medium)	100
Safety Gloves (Chemical resistant)	50
Safety Goggles (sealed type)	20
FFP3 Disposable Half Masks (box of 10)	200
Safety Visor	20

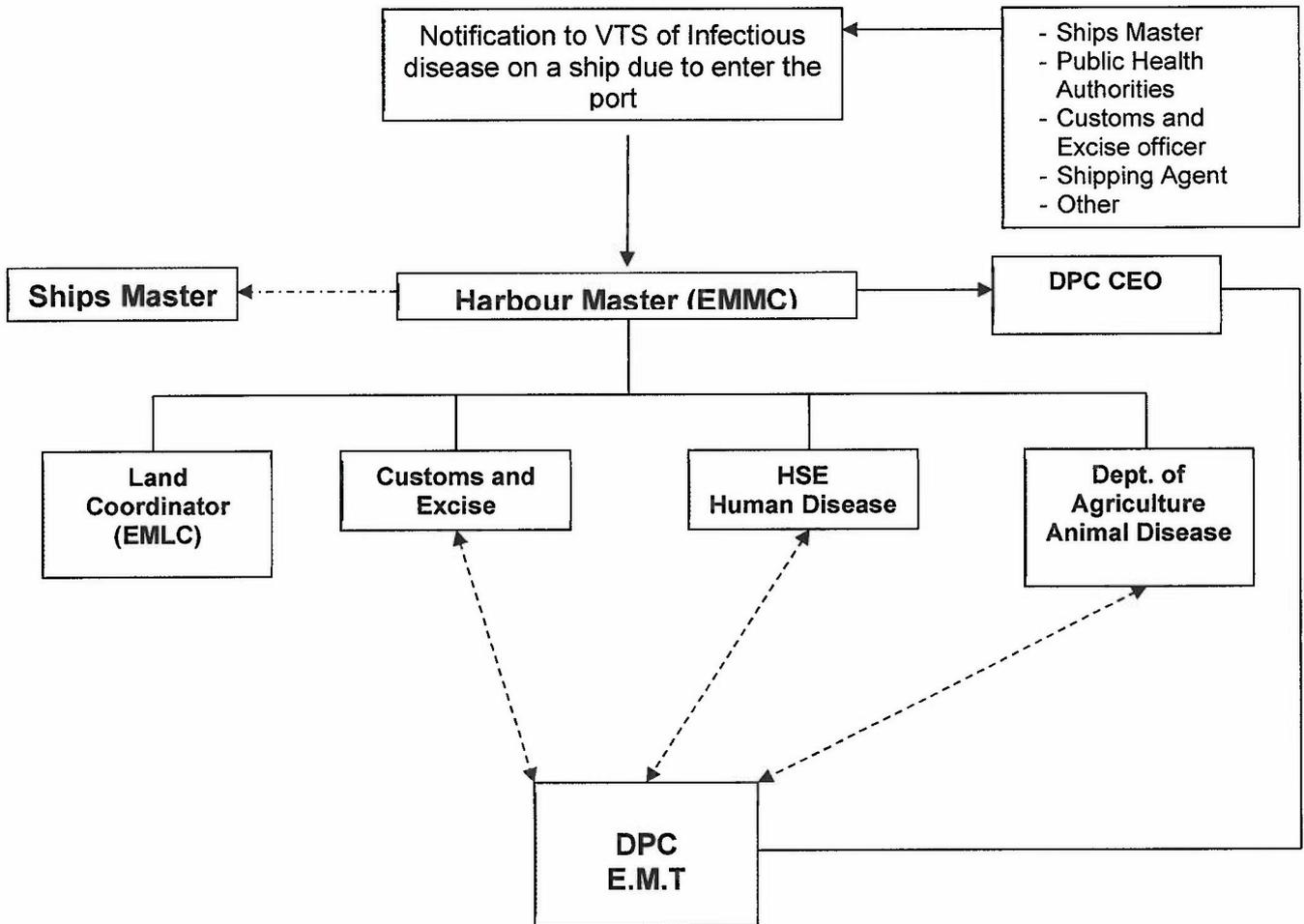
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Post-Incident Actions:

- EMA to arrange formal debrief/ AAR to review the effectiveness of the plan and amend as required.
- Formally review the DPC response to the emergency.
- EMMC to arrange a debrief to include representatives from all agencies involved, including the HSE, Customs and Excise, Dept. of Agriculture, in order to examine how and whether the response to the notification was effective and met the requirements of the law.
- Consider post-incident media strategy.

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Appendix 13-1: Notification of and liaison with CA.

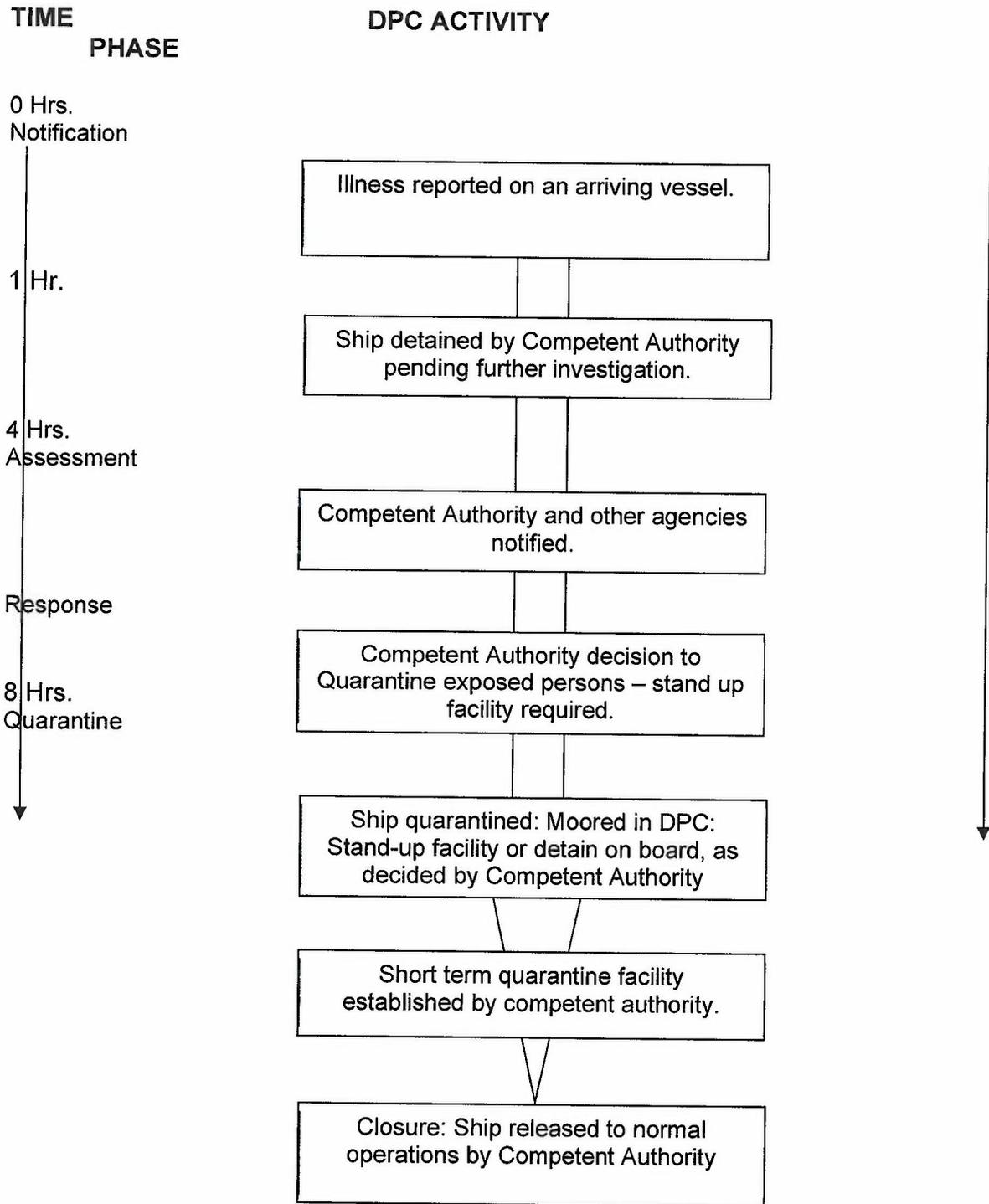


Competent Authority Points of contact:

Agency	'Normal Hours'	'Out of Hours'	e-mail
HSE Public Health	National Emergency Operations Centre (NEOC)	01 4631380/01 463 1384 087 7743465	control.manager@hse.ie ambulance.control5@hse.ie ambulance.control7@hse.ie
Dept. Of Agriculture	Disease Control	0818 200456 01 6072379	NDCC@agriculture.gov.ie
Customs and Excise	01 8776252 087 2270460	Brenda Hearn 086 0227928	Brenda.hearn@revenue.ie cmoulton@revenue.ie

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Appendix 13-2: Timeline for establishment of stand-up facility



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Annex A-14: Incident involving the transportation or storage of Dangerous Goods

Explanatory Note:

The transportation of dangerous goods is controlled and governed by a variety of different regulatory regimes, operating at both the national and international levels. Prominent regulatory frameworks for the transportation of dangerous goods, as applicable to DPC include the SI 617 2010 (carriage of Dangerous Goods by road regulations), also known as ADR, United Nations Recommendations on the Transport of Dangerous Goods, and the IMO's International Maritime Dangerous Goods Code. Collectively, these regulatory regimes mandate the means by which dangerous goods are to be handled, packaged, labelled, and transported.

There are nine defined classes of Dangerous Goods with internationally recognised conventions in place for the labelling of each (see appendix 14-1). There are regulations covering the transportation of such goods by sea, air, road, and rail.

Additional specific requirements regarding transportation of such goods through Dublin Port are laid out in Dublin Port byelaws as follows:

- Dublin Port dangerous cargoes byelaws (2014)
- Byelaws regarding the control of class 1 (explosive) DG within Dublin Port, under the provisions of the explosive act 1875 (2013)

The International Maritime Organisation (IMO) has developed the International Maritime Dangerous Goods Code (IMDGC) outlining the requirements for transportation of such goods by sea.

In Ireland, the **competent authorities** relating to the transportation of DG are:

Competent Authority	Organisation
Main Competent Authority	Health and Safety Authority
For transport by sea	Marine Survey Office. Part of the Maritime Safety Directorate, Department of Transport, Tourism and Sport.
For ADR*/ IMDG Class 7 (Radiological)	Industrial section, Regulatory Services Division, Radiological Protection Institute of Ireland. ¹
For vehicles carrying DG under ADR*	The Road Safety Authority.

¹ Source: 'ADR -Transport of Dangerous Goods Legislation & Competent Authority Information Note' available at www.HSA.ie/eng/your-industry/ADR

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*ADR refers to the regulations governing the transportation of DG by road.

Definition:

This sub-plan of the DPC EMP will be activated in the event of an incident involving the transportation or storage of Dangerous Goods (all classes) in or through the port estate.

The terms *Dangerous Goods* and *Hazardous Material* are both in common use and mean the same thing for the purposes of this plan. This sub-plan should be read in conjunction with Annexes A9-12 as applicable to any specific emergency within the port.

Objective:

To prevent and minimise loss of life, to minimise potential harm to the marine or land environment, and/ or damage to infrastructure and property as a result of an incident involving Dangerous Goods in storage or transit through Dublin Port.

In the event of an incident involving Dangerous Goods within the port the VTS operator or the HP/PS control room will be notified as soon as practicable by third parties or the first DPC personnel to become aware of the incident.

Duty VTS - Action Points:

On receipt of notification of any incident on board a vessel involving Dangerous Goods or the suspicion that Dangerous Goods may be involved, the duty VTS operator will implement this sub-plan, and will

- Contact and brief the Duty Harbour Master and implement their instructions.
- Ensure the emergency services are notified through 999/112, using the E.T.H.A.N.E. notification protocol.
- On instruction from EMMC mobilise EMT members.
- Contact and brief HP/PS.
- Advise Marine Supervisor or Team Leader and be prepared to deploy all available craft on instruction of the Harbour Master.
- Inform the other members of the operations team in the POC.
- Inform the IRCG.
- Contact and inform the ships agent of the incident.
- Monitor the incident remotely using CCTV system.
- It is essential that VTS & HP/PS liaise closely during all emergencies.

Control Room Operator - Action Points:

On receipt of notification of such an incident involving transportation or storage of DG the Control Room Operator at the POC will:

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- If the exact nature of the incident or Dangerous Goods material cannot be verbally or visually confirmed through witness report or CCTV **do not** direct the HP/PS mobile unit to the storage site to investigate unless safe to do so.
- Monitor the incident remotely using CCTV system.
- Direct HP/PS mobile unit to meet the emergency services at the ESRVP and if safe to do so, guide them to the incident location.
- Contact the emergency services and provide as much detail in relation to the nature of the incident and Dangerous Goods as possible and update the DFB as necessary 999/112
- Consider the need to activate the 'port wide siren' depending on the size and scale of the incident, hazard involved and weather conditions.
- Contact and brief EMLC and request they contact all EMT members.

Harbour Police/Port Security:

Where an incident involving Dangerous Goods in storage within the port, or in transit through the port, occurs the HP/PS will implement this sub-plan, and will.

- HP/PS primary responsibility is to confirm incident, i.e. there is an incident involving the transportation or storage of Dangerous Goods in location x; for clarity this does not mean physically respond to the incident location if the type of Dangerous Goods cannot be visually confirmed by witness, CCTV or from a safe location.
- Notify the emergency services through 999/112 using the E.T.H.A.N.E. protocol.
- HP/PS personnel to meet emergency services and direct/guide them to the appropriate location, if safe to do so.
- Restrict access to the area of the incident on the land side if safe to do so.
- Liaise with SIC and the Gardaí regarding the control of traffic within the Port.
- Contact and brief the EMLC and follow instructions.
- Notify the VTS operator of an incident involving Dangerous Goods within the port and keep them updated throughout the incident.
- Liaise with M&S shift crew as and when required.
- Consider the appropriate use of PPE and the personal health and safety of the HP/PS responders.
- Monitor the incident on CCTV.

EMMC:

When informed of an incident involving Dangerous Goods on a ship the EMMC will

- Determine the need to activate the DPC EMT and instruct the VTS operator accordingly.

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- Establish contact with the vessel and ascertain the extent of the problem, including the classification of the Dangerous Goods involved and on board.
- Control all shipping in the Dublin Port area through the VTS operator.
- Deploy available DPC resources as required.
- Consider seeking expert advice regarding the substance(s) involved.
- Ensure the competent authority is informed (Marine Survey Office, RPII).
- Act as or appoint an appropriate SIC.
- Where appropriate, direct the ship to a suitable berthing location, or to sea.
- Ensure the scene is secured on the marine side.
- Liaise with the EMLC regarding traffic.

EMLC:

When informed of an incident involving Dangerous Goods in storage or in transit through the port (i.e. on the landside) the EMLC will

- Determine the need to activate the DPC EMT and instruct the HP/PS duty operator accordingly.
- Establish contact with HP/PS via Control room to ascertain the classification of the Dangerous Goods involved as a matter of priority.
- Control traffic in the port by HP/PS and advise/assist the Gardaí re same
- Consider seeking expert advice re the substance(s) involved.
- Deploy available and appropriate DPC resources as required.
- Ensure the appropriate competent authorities are informed (HSA, RSA, RPII)
- Act as or appoint an appropriate SIC.
- Ensure the scene is secured on the land side.
- Liaise with the EMMC regarding the loading/unloading of vessels.

Fire Wardens:

- Seek or await SITREP from HP/PS Control room.
- Notify all users on oil jetty of the incident, and COP users of the incident by radio.
- If deemed necessary, assemble in pre-designated assembly area, make contact by radio with the EMMC/EMLC and follow instructions.

EMT:

In the event of an incident within the port involving Dangerous Goods, the EMT will convene in the EOC. The considerations of the EMT will include but not be limited to:

- Liaison with third parties regarding the quantity and classification of the Dangerous Goods involved, and its potential impact on life, the environment and property.

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- Managing liaison with the designated Competent Authority.
- Coordinate with the emergency services through the SIC, and/or through the PES representative at the EOC and seek PES representatives to the EOC if necessary.
- Coordinate and control the DPC communication with internal and external stakeholders throughout the response.
- Make reference to the DPC Dangerous Cargoes byelaws 2014 and ensure compliance during the response phase.
- Liaise with Gardaí regarding traffic control requirements (through SIC).
- Ensure the potential for environmental damage is assessed and implement the DPC environmental policy and response as appropriate.
- Establish who the owner of the goods/ vehicle/ vessel involved are and establish and maintain appropriate and open communications.
- Liaise with regulatory agencies as appropriate.
 - DCC (office hours contact Pollution Control Section 01 222 2222 or 24 Hrs. contact 086 3887893
 - EPA on (053) 91 60600 or the Lo Call number is 0818 335599, both numbers are redirected to a 24-hour number outside normal hours.
 - HSA on 0818 289389 or outside normal hours, contacted via AGS.
 - DoH.
 - DOT.
- Arrange for procurement of additional resources as required.
- Consider seeking expert advice re the substance(s) involved.

Command and Control:

The DPC EMT will be in command of the DPC response for all serious incidents in their area of operation and will cooperate fully with the designated Competent Authority during the response to and recovery from an incident involving Dangerous Goods.

Site Incident Controller:

The EMMC/ EMLC will act as or appoint an appropriate SIC, who will:

- Control the response of DPC personnel at the incident site.
- Manage DPC material resources at the incident site.
- Be the primary DPC point of contact for external agencies responding at the incident site.
- Keep the DPC EMT fully informed and updated throughout the response phase.

General considerations for the EMT

- Refer to written material in the EOC regarding Dangerous Goods, including:
 - IMDG code (Summary; Part 1; Part 2)

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- 2008 Emergency Response Guidebook
 - Dublin Port Dangerous Cargoes by-laws (2014)
 - DPC Oil Spill Response Plan (2018)
-
- Consider the requirement to prepare and position the DPC oil pollution inventory equipment to ensure a speedy and efficient response to any spill resulting from the incident.
 - The possibility of hazardous fumes/ potential explosion risk should be considered, including potential impact outside the port estate.
 - Any implications for the Port Facility Security Plan should be considered.
 - The health and safety of all personnel involved in the response must be prioritised throughout the response.
 - Traffic control within the port is a key consideration, particularly during peak traffic times.
 - Close liaison with PES as well as with the haulier/ storage owner/ vessel owner will be required throughout and in the aftermath of the incident; communications will be a key issue.
 - Monitoring of traditional media and social media during the response and recovery phases will be important.
 - Collate a list of all related expenditure under a specific project number.

Post-Incident Actions:

- EMMC/ EMLC to arrange a formal debrief (AAR) that is documented and reviewed accordingly as per the EMP.
- Be prepared to provide assistance to the competent authority throughout the response and the recovery phase as it is likely they may require facilities on-site for investigation/ inquiry purposes.
- Consider post-incident media strategy.

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Contacts checklist:

Competent Authority	Organisation	Contact details
Main Competent Authority	Health and Safety Authority	0818 289389 (9-3pm Mon- Fri) 01 6147000 Fax: 01 6147125 contactus@hsa.ie
For transport by sea	Marine Survey Office. Part of the Maritime Safety Directorate, Department of Transport	Tel: +353 (0)1 678 3400 Fax: +353 (0)1 678 3409 mso@transport.gov.ie
For ADR/ IMDG Class	Health & Safety Authority	0818.289389 contactus@hsa.ie
7 (Radiological)	EPA (RPII merged with EPA)	053 91 60600 0818 335599
For vehicles carrying DG under ADR	The Road Safety Authority.	Lo-Call: 0818 406040 Tel: 096-25800 Web: www.rsa.ie Email: info@rsa.ie
Other useful contacts		
Irish Coastguard MRCC		01 6620922 (or 999/112) mrccdublin@irishcoastguard.ie
Dublin City Council		01 222 2222 or 24 Hrs. 086 3887893

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Appendix 14-1: Classes of dangerous goods

- Class 1 Explosive substances and articles
- Class 2 Gases, including compressed, liquefied and dissolved under pressure gases and vapours.
 - Flammable gases (e.g. butane, propane acetylene)
 - Non-flammable and non-toxic, likely to cause asphyxiation (e.g. nitrogen, CO₂) or oxidisers (e.g. oxygen)
 - Toxic (e.g. Chlorine, Phosgene)
- Class 3 Flammable liquids
- Class 4.1 Flammable solids, self-reactive substances, and solid desensitized explosives
- Class 4.2 Substances liable to spontaneous combustion
- Class 4.3 Substances which, in contact with water, emit flammable gases.
- Class 5.1 Oxidizing substances
- Class 5.2 Organic peroxides
- Class 6.1 Toxic substances
- Class 6.2 Infectious substances
- Class 7 Radioactive material
- Class 8 Corrosive substances
- Class 9 Miscellaneous dangerous substances and articles

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Annex A-15: Severe Weather Event Plan

Definition:

This sub-plan of the DPC EMP will be activated in response to severe weather warnings issued by Met Eireann (ME), and other reliable weather forecasting sources.

Objective:

To ensure DPC prepares for and responds effectively and in a timely manner to severe weather warnings issued by ME in order to

- Ensure the safety of DPC staff members, contractors and visitors operating within the port during the severe weather period.
- Ensure Business Continuity for DPC insofar as is reasonably practicable throughout a severe weather event.
- Liaise as appropriate with DPC tenant companies, operators, and port users prior to, during and post the event.
-

Met Eireann Severe Weather Warning System.

ME weather warnings are issued in three categories, as follows:

- **STATUS YELLOW** – Weather Alert – **Be Aware** The concept behind YELLOW level weather alerts is to notify those who are at risk because of their location and/or activity, and to allow them to take preventative action. It is implicit that YELLOW level weather alerts are for weather conditions that do not pose an immediate threat to the general population, but only to those exposed to risk by nature of their location and/or activity.
- **STATUS ORANGE** – Weather Warning – **Be Prepared** This category of ORANGE level weather warnings is for weather conditions which have the capacity to impact significantly on people in the affected areas. The issue of an Orange level weather warning implies that all recipients in the affected areas should prepare themselves in an appropriate way for the anticipated conditions.
- **STATUS RED** – Severe Weather Warning – **Take Action** The issue of RED level severe weather warnings should be a comparatively rare event and implies that recipients take action to protect themselves and/or their properties; this could be by moving their families out of the danger zone temporarily; by staying indoors; or by other specific actions aimed at mitigating the effects of the weather conditions.

The criteria for issuing the various alert levels for a variety of conditions are listed at **Appendix 1** to this sub-plan. It should be noted that the alerts are issued when the criteria outlined are anticipated *within a 48-hour period*. However, on some occasions (weekends, holiday periods) it may be necessary to issue Weather Warnings beyond this 48-hr horizon, if sufficient certainty derives from examination of the weather charts.

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Normally, however, a Weather Advisory (see below) will be used to flag severe weather beyond 48hrs, and Advisories will normally anticipate only “Orange” or “Red” criteria weather hazards.

Weather Advisories.

Weather Advisories may be issued to provide early information on potential hazardous weather beyond the 48hr horizon. They may also be employed when a sum of weather elements acting together create a significant hazard, e.g. winds which may not be up to warnings strength but which, when combined with high tides and significant swell, generate a risk of flooding. Another possible use would be to advise of wind speed and direction on occasions of Volcanic Ash contamination. They might also be used to advise of expected significant medium-term accumulations of rain during a very unsettled period when soils are known to be saturated. The issue of Weather Warnings and Weather Advisories is at all times down to the judgement of the ME forecasters.

There are several categories of severe weather for which warnings are issued:

- Wind
- Rain
- Snow
- Low Temperatures
- Fog
- High Temperatures
- Thunderstorms
- Coastal Wind Warnings
- High tides and flooding

Dublin City Council Tide-watch and Rain-watch Section operate a high tide flood warning system whereby graded warnings are issued by email.

Astronomical tides are forecast levels influenced by heavenly bodies only, real tide levels are influenced by many other factors, particularly atmospheric pressure, and winds.

Colour code: -

Green – very low risk.

Yellow – tide to be monitored.

Orange – Minor Alert.

Red – Severe Alert.

In particular, strong or storm force winds can be a significant challenge for continuity of operations in Dublin Port.

ME weather forecast reports are received daily by email between 12.00-15.30 hours by a number of DPC management and supervisory staff, including the Severe Weather

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Assessment Team (see below). In addition, the Harbourmaster and his deputies are constantly monitoring sea area forecasts. The Harbour department receive wind warnings from Met Eireann when mean wind speeds are forecasted above 25kts and gusts in excess of 35kts. The purpose of these bespoke warnings is to activate the manning up of both harbour tugs being available for immediate use.

Weather reports include a general weather report and information pertaining to the requirement for gritting during periods of low temperature. The General Workers Supervisor is responsible for assessing **the weather forecast** to determine the requirements for gritting the estate. When gritting is required GWS implements SOP-DPC-LO-102.

DPC Severe Weather Assessment Team.

The Duty Harbour Master, the Land Operations Manager (respectively the EMMC and EMLC), or their alternates and the Engineering Services Manager form the DPC Severe Weather Assessment Team (SWAT). On receipt of ME severe weather warnings, the SWAT will respond as follows:

- **Status Yellow Warning:** The SWAT will assess the situation from the marine and land operations perspective and will discuss the potential impact by conference call or by meeting face-to-face. The discussion will cover:
 - Potential impact on safety of personnel, including DPC staff, contractors, visitors and other port users operating during the weather event in question
 - Potential impact on marine operations
 - Potential impact on land operations
 - Agreed actions to prepare for and monitor the event, if required
 - Whether the port estate needs to be gritted in accordance with SOP-DPC-LO-102 – GWS and will implement as required.
 - Whether any further information regarding the weather warning is required from ME (see procedure for accessing additional information in **Appendix 2** to this sub-plan)
 - Agreement on whether the EMT should be activated or not.

- **Status Orange Warning:** The SWAT will meet as soon as practicable on receipt of a status orange warning and will assess the potential impact on DPC operations and agree the preparatory actions required for the event. The initial meeting will assess:
 - Safety of personnel, including DPC staff contractors and visitors and other port users operating during the event, and any additional actions or PPE that are required whilst operating during the event.
 - Whether selected staff should work from home during the event.

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- Communications required to alert all DPC staff and inform them of actions required.
 - Likely impact on marine operations, and whether DPC needs to communicate with shipping agents and other external stakeholders regarding the impact.
 - Likely impact on land operations and whether DPC needs to communicate with port users and other external stakeholders.
 - Whether the port estate needs to be gritted in accordance with SOP-DPC-LO-102 – GWS and will implement as required.
 - Whether any special arrangements need to be made for key DPC staff, e.g. accommodation locally.
 - Any actions required to reduce the impact of the event on DPC, e.g. securing loose items in high winds, additional gritting during extreme low temperatures, etc.
 - Whether the EMT should be activated or put on stand-by.
- **Status Red Warning:** The SWAT will instruct the HP/PS to activate the EMT and will issue the time and location for the EMT meeting. This should take place as soon as practicable after receipt of a status red weather warning. The SWAT will agree who will chair the EMT meeting, depending on the type of severe weather due and whether this has a bigger impact on land or marine operations. When the EMT meets it will assess the overall situation and decide on actions required to ensure the safety of personnel and the continuity of operations insofar as is reasonably practical. Specifically, the EMT will give consideration to the following:
- Safety of personnel, including DPC staff, contractors, visitors, and port users, – communications with and advice to all.
 - Safety of DPC staff members travelling to and from work during the period of the warning.
 - Arrangements for the accommodation of key staff members during the period of the warning.
 - Whether staff should be advised not to travel to work, or to work from home.
 - The impact on marine operations, and any additional actions and/or communications required to minimise the impact and ensure the safety of personnel and continuity of operations insofar as is reasonably practical.
 - The impact on land operations, and any additional actions and/or communications required to ensure the safety of personnel and the continuity of operations insofar as is reasonably practical.
 - Whether the port estate needs to be gritted in accordance with SOP-DPC-LO-102 – GWS and will implement as required.
 - General public communications regarding impact on port operations and sailings.
 - Communications with Dublin City Council, as required (e.g. during flooding events)

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- Communications with Principal Response Agencies, and Principal Emergency Services.

Media and Communications

Any operational impacts of severe weather on Dublin Port can have a wider domino effect on the city, particularly in relation to road traffic. Should severe weather force the suspension of operations in the container terminal (in particular), or other parts of the port, there will be an immediate knock-on adverse effect on road (haulier) traffic to into and out of the port. This in turn affects traffic in the Dublin Tunnel, which in turn affects M1/ M50 traffic.

ERTO, the operator of the Dublin Tunnel, will be contacted and informed of any closure to traffic within the port by the EMT.

Wider public communications will be required during any suspension of operations or closure of an area of the port estate. The EMT should use all available media channels to keep the public informed of the situation and advise them of any action required, e.g. check with ferry companies. More targeted communications to road hauliers may be required, again using all available media channels, in particular social media as this communicates directly to the end user. Direct contact with the major radio stations in Dublin may also be required to get the message out quickly and to as wide an audience as possible. Social media should be monitored throughout this period, and queries on social media should be responded to quickly, under control of the EMT communications member.

The EMT Communications Coordinator must approve all press releases, holding statements, posts, tweets etc. on all modes of media and social media for all severe weather events to ensure accuracy and continuity of information attributed to DPC.

Command and Control:

The DPC EMT will be in command of the DPC response to any serious emergency in the DPC controlled area of operations.

General Considerations for EMT

- Liaison with Dublin City Council re severe weather activities undertaken by the council - <http://www.dublincity.ie/weather-warning>
- Monitor any declarations of an emergency at local, regional or national level.
- If the National Emergency Coordination Group for severe weather has convened, the EMT must take cognisance of any advice issued.

Post Event Actions

EMLC to arrange a formal debrief or AAR when the weather event has been stood down.

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Appendix 1 to Annex A-15: Met Eireann Criteria for Issuing Weather Alerts.

Status Red Warnings:

Weather Element	Criteria for Red – Severe Weather Warnings
1. Wind	Mean Speeds in excess of 80 km/h Gusts Speeds in excess of 130 km/h
2. Rain	70mm or greater in 24 hrs 50mm or greater in 12 hrs 40mm or greater in 6 hrs
3. Snow/Ice	Significant falls of snow likely to cause accumulations of 8 cm or greater below 250 m AMSL. Slippery paths and roads due to accumulation of ice on untreated surfaces; situation likely to worsen.
4. Low Temperatures	Minima of minus 10C or lower expected. Maxima of minus 2C or lower expected.
5. Fog	No Criterion – not displayed.
6. High Temperature	As Orange criterion but persisting for two or more consecutive nights.
7. Thunderstorms	No Criterion – not displayed.
8. Coastal Wind Warnings	Violent Storm Force 11 or greater. (Mean Speeds)

High tide and flood warnings: Note that the ME criteria for alerts does not include high tides and flood warnings. These are issued through Dublin City council, and the Harbourmaster is one of the recipients.

Contact details 01 2224302 (Flood project office).

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Criteria for Status Orange Warnings:

Weather Element	Criteria for Orange – Weather Warnings
1. Wind	Mean Speeds between 65 and 80 km/h Gusts between 110 and 130 km/h
2. Rain	50mm – 70mm in 24 hrs 40mm – 50mm in 12 hrs 30mm – 40mm in 6 hrs
3. Snow/Ice	Significant falls of snow likely to cause accumulations of 3 cm or greater below 250m AMSL. Slippery paths and roads due to accumulation of ice on untreated surfaces; situation stable.
4. Low Temperatures	Minima of minus 5C to minus 9C expected. Maxima of 0C or minus 1C expected.
5. Fog	Dense fog likely to cause a widespread and significant driving hazard on national primary routes.
6. High Temperature	Maxima in excess of 30C and minima in excess of 20C expected in a 24hr period
7. Thunderstorms	Widespread thundery activity over an area of several counties.
8. Coastal Wind Warnings	Storm Force 10. (Mean Speeds)

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Criteria for Status Yellow Warnings:

Weather Element	Criteria for Yellow – Weather Alerts
1. Wind	Mean Speeds between 50 and 65 km/h Gusts between 90 and 110 km/h
2. Rain	30mm – 50mm in 24 hrs 25mm – 40mm in 12 hrs 20mm – 30mm in 6 hrs
3. Snow/Ice	Scattered snow showers giving accumulations of less than 3 cm below 250m AMSL. Slippery paths and roads due to accumulation of ice on untreated surfaces; situation improving.
4. Low Temperatures	Minima of minus 3C or minus 4C expected. Maxima of plus 1C or plus 2C expected.
5. Fog	No Criterion.
6. High Temperature	Maxima in excess of 27C expected
7. Thunderstorms	No Criterion.
8. Coastal Wind Warnings	Gale Force 8 or Strong Gale Force 9. (Mean Speeds)

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[Appendix 2 to Annex A-15: Procedure for contacting Met Eireann for additional weather forecast information.](#)

Note: ME charge a fee for the provision of additional or customised forecast information.

General forecasts – one off written forecast by fax or e-mail: The fees for additional forecast information under this commercial scheme are (As of 09 Nov 2018).

- General land-based forecast: €39
- Marine forecast €61

These services can be accessed through the following contacts:

- E-MAIL customer.liaison@met.ie
- phone: 01-8064200

Met Eireann Telephone Consultancy Services.

ME offer a telephone consultancy service enables public customers to have direct telephone access to the Duty Forecaster on a 24/7 basis, 365 days per year.

Organisations can purchase 'blocks' of consultations, or pay on a one-off basis, as follows (as of 04 Jan 2024).

A single TCS consultation:	€48
1 block (10 calls)	€183
2 blocks (20 calls)	€333
3 blocks (30 calls)	€483

Met Eireann Bespoke warnings:

ME offer a service where they issue warnings to customers via email when criteria to the customer's specification are expected to be exceeded. The customer indicates the criteria in the contract set-up. This service incurs an annual fee of €2225.

Further information on ME services is available on <https://www.met.ie/about-us/specialised-services/commercial-services/>

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Appendix 3 to Annex-15: Snow /Ice Response

1. Weather Reports

- The weather forecast reports are received daily by email and include a general weather report and information pertaining to the requirement for gritting.
- The report is received between 1200-1500 hours each day; but usually arrives at approx. 1300 hours.
- The Head of Land Operations (HLO), Operations Manager/s (OM), and EHS Specialist (EHSS) receive these daily emails.
- Between 1400-1530 hours the OM/EHSS will review the report to determine the required gritting response for that evening and or following morning and brief the HLO.
- The OM/EHSS will select and advise suitably qualified staff members or contractor of the start/finish times they are required and what duties are necessary and once the personnel are confirmed will advise HLO by email of the DPC response.
- The OM/EHSS will advise the HLO of hours worked re CoreHR (time & attendance) and any overtime.
- The OM/EHSS will ensure all gritting equipment and machinery is prepared in advance of completing work at 1600 hours (Mon-Friday).

2. Gritting Procedure

- On arrival in the Engineering Services compound, DPC or Contract staff gritting will contact both the on-duty Engineering Services Shift (087 6393626 & 087 6699896) and Harbour Police/Port Security Control Room (01 8876858) to see if there are any additional issues or customer requirements.
- Gritting inspection and or gritting are then completed in accordance with the Routine Checks & Gritting schedule with priority given to ramps and roads.
- Requests for gritting outside of the areas listed below will be addressed once the listed areas have been completed or the caller can be referred to an external contractor at their own expense.
- In cases where Port Centre is required to be gritted the OM/EHSS will ensure 'public access' routes that are routinely opened at 0600 hours Mon-Fri are not to be opened until gritting has taken place.

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2.1 Routine Checks & Gritting Locations:

- All Operational Ramps
- Alexandra Road
- Tolka Quay Road
- Promenade Road
- Breakwater Road
- No.1 Branch Road North/South
- No.2 Branch Road North/South and Extension
- No.3 Branch Road South
- No.4 Branch Road South
- Terminal Road North/South
- Bond Road
- Bond Drive
- Terminal 10 Link Road
- Alexandra Quay East Roadways
- Alexandra Quay West Roadways
- Ocean Pier berth 28-40
- Terminal 1-2 Carparks
- Unified Passenger Terminal (Irish Ferries/Stenaline) compound
- Engineering Services
- Port Operations Centre
- Oil Jetty
- Port Centre *

** All paving at Port Centre should be treated with a grit containing a maximum of 20% salt.*

2.2 Gritting Areas if requested (No recovery charge)

- Terminal 4 South (Seatruck) entrance to ramp
- Terminal 4 Bridge connecting CUA to Tolka Quay Road
- Terminal 4 North
- Terminal 6 (car compound)
- Terminal 5 (P&O) entrance to ramp
- Doyle Shipping Group Container terminal (AQE)
- Texaco Yard (DSG Container Terminal North)
- Terminal 4 Central & North (North currently construction site)
- Southbank Road (Eastern end)
- Whitebank Road
- Southbank Quay berth 46-47
- Terminal 8 northern section (DPC trade car overflow)

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2.3 Gritting Areas if requested (Recovery charge applies)

- Terminal 4 South (Seatruck) all other areas
- Terminal 5 (P&O) all other areas
- Terminal 7 northern section (State Services)
- Terminal 8 southern section (Irish Ferries overflow)
- Terminal 9 (State Services)
- Terminal 10 (State Services)
- Terminal 11 (State Services)
- Yard 1, 2, 3 & 4 (State Services)
- Dublin Ferry-port Terminal (DFT)
- Marine Terminals Ltd (MTL)
- All other tenant properties
- All other areas

3. General Gritting of DPC buildings

DPC buildings include Port Centre, Engineering Services and Port Operations

- 1) All buildings are supplied with Grit boxes and bags of De-Icer that are in and around the entrance/egress of building.
- 2) It is the responsibility of the local DPC Managers to ensure that there are sufficient quantities of grit/bags of De-Icer in these boxes.
- 3) Local DPC managers are to brief their staff/approved contractors of the location of the grit boxes and staff/approved contractors are permitted to apply the product in the event of ice being detected and the need for it to be applied ASAP.
- 4) In the event of 2) taking place, i.e., product applied; DPC staff/approved contractors are to notify Port Operations Control room on 01 8876858/01 8876859.
- 5) Port Operations Control room operator will notify the HLO, OM or EHSS, who will assess any further action.

4. Grit and Ice Melt

- All Grit supplies are stored in the black shed in Terminal 7
- Bags of Ice melt are stored in M&S Stores and yard

5. DPC Contact List

- | | | |
|-------------------|------|-------------|
| • John Fairley* | HLO | 087 2928888 |
| • Thomas Kavanagh | OM | 087 9393289 |
| • Mark Nathan* | OM | 086 7960537 |
| • Keith Halpenny | EHSS | 086 8378001 |
| • John Kinsella | GW | 086 8378009 |

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- Barry Fitzgerald Contractor 083 880 2871
- Philip Mongey Contractor 086 8176543
- Robbie McCann MG+ 085 7642995
- Brian Drumm MG+ 083 8899041
- Simon Murphy MG+ 085 7129691
- Simon Mongen* Contractor 085 2779228

**Indicates non-Roma-quip trained personnel (training completed 14/11/2023)*

In the event of a significant event outside of the capability of DPC staff an external contractor can be engaged or referred to tenants at their cost.

6. External Contractor List

- Philip Mongey – Gilford Construction 086 8176543
philipmongey@gmail.com
- David O'Brien 0852117263
- Cillian Burke - Talamh Contracts Ltd 083 8725037
talamhcontracts@gmail.com

7. Equipment Maintenance and Training Providers

- Ashley Hehir - Winter Equipment (Roma-quip) 057 9120836
- Roma-quip Customer Support Team 057 9120836
- 24-hour service 057 9120848
After hours 087 1866084
service@romaquip.com
- Christopher Leonard (Roma Trainer) 086 1676661
cleonard@romaequip.com

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Annex A-16: Cyber-Security Incident Response.

Note: This annex should be read in conjunction with the stand-alone DPC Cyber Security Incident Response Plan.

Definition:

The DPC Cyber Security Incident Response plan sets out the DPC structure and arrangements for responding to IT/ Cyber incidents and will be activated in response to notification or suspicion of a cyber-incident affecting any of the DPC ICT systems or applications. Whilst there is a Cyber Security Incident Response Team (CSIRT), the EMT has overall responsibility for business continuity in DPC and the CSIRT reports to the EMT during cyber/ IT incidents.

Objective:

- To ensure DPC compliance with the regulatory requirements relating to cyber incidents as outlined in the NIS directive (2016/1148) and the 'guidelines for operators of essential services (OES) 2019.
- To ensure accurate and timely notification of DPC IT department in the event of a suspected or actual cyber incident affecting ICT systems.
- To ensure the EMT is notified and activated in a timely manner in the event of a cyber-incident affecting DPC operations or administration.
- Manage the DPC external communications in the event of a cyber-incident.

References:

- DPC BCP for Port Centre
- DPC IT DR plan
- DPC Cyber-Security Incident Response Plan
- DPC Departmental Cyber-Security BCP's
- NIS Compliance Guidelines for Operators of Essential Service (2019)
- DPC risk register
- S.I. 360 2018 (the 'NIS Directive')

Critical ICT systems.

There are several ICT systems in operation within the port upon which critical port operational and administrative functions depend. Several critical systems have stand-alone servers and are 'closed' systems, in that there is no connectivity to outside agents or the general public – these are:

- VTS
- CCTV

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- VHF
- Machine network

Other critical systems that have external connectivity are

- DPC network including the VTMS application.

The DPC general IT network is of necessity connected to the wider world as internet access, e-mail, telephony, and other applications require such connectivity. Each DPC department has conducted IT impact assessments and has identified the critical IT systems required by their department for continuation of operations and essential administration. These assessments are consolidated and held in the DPC IT department.

Based on the criticality of each system to DPC overall operations and administration the IT department has identified three tiers of ICT systems from a restoration and recovery perspective:

- Tier 1: Priority for restoration/recovery as soon as possible, within 4-6 hours.
- Tier 2: Important systems, for recovery as soon as practicable after restoration of tier 1 systems, within 6-24 hours.
- Tier 3: Systems that do not require immediate recovery and are targeted for restoration/ recovery outside the 24-hour window.

It is noted and acknowledged by the IT department that the importance of some applications depends on the date within the monthly work cycle that the outage or issue occurs, and that this is a key consideration when assessing the impact of an IT / cyber-incident in the initial response phase. E.G. The payroll system.

DPC IT Infrastructure.

The DPC IT infrastructure is managed by the DPC IT department. The port has a communications room where its main servers are securely located, and these are backed up to on-site secondary servers maintained in locations outside Port Centre. At the time of writing the port is in the process of signing a contract for tertiary cloud-based back up of critical files and systems. There is an automated back-up of all files at 23.00 hrs each day. The VTMS backs-up automatically every four hours.

The telephony system is an internet-based system, and the Port has three (3) separate independent, firewalled fibre-optic internet connection lines.

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DPC ICT End Users – IT Security Awareness Training

DPC staff across all departments access and use the ICT systems on a continuous, ongoing basis. Any end user can be the first person to notice or detect an IT issue or suspected cyber incident.

All DPC staff with access to the IT systems will receive IT Security Awareness Training that includes familiarisation with:

- Types of IT / cyber attacks
- IT security policy in DPC
- Good IT Security practices for end users
- Actions to take in the event of an IT issue or suspected cyber incident.

Actions on Detection / suspicion of an IT/ Cyber issue.

On detection or suspicion of any cyber incident, the DPC end user will take the following initial actions – these are applicable whether working in the office or Working from Home, during normal hours or after normal office hours:

- If possible, take a photograph of the device screen showing the ‘error’, warning, or IT issue using your mobile phone.
- Disconnect the device (PC, laptop, tablet etc.) from the network.
- Power down the device.
- Contact and inform a member of the IT team **01-8876049**
- Follow the instructions of the IT team responder.

IT Department – Activation of CSIRT and Escalation to EMT.

The IT team member who receives the initial notification will investigate the issue and is designated as the *Incident Handler*. Where the Incident Handler suspects a cyber-attack, or interference by an outside agent or an IT outage that is abnormal s/he will immediately inform the head of IT.

The head of IT will assess the situation based on the briefing by the Incident Handler and will determine whether the Cyber Security Incident Response Team (CSIRT) should be activated, and whether the EMT Coordinator should be informed. The EMT coordinator should be informed when:

- The IT issue is likely to affect port marine or land operations.
- The IT issue is likely to have an immediate adverse impact on the administrative functions of DPC.
- The nature of the incident requires notification of the National Cyber Security Centre (NCSC) or the Data Protection Commissioner (DPCComm).

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Note that the DPC CSIRT is responsible for notifying and liaising with the NCSC in the event of a cyber-incident, and the head of IT will keep the EMT updated on this liaison. The CSIRT activation is detailed in the CSIRP. Should the Incident Handler be unable to contact the head of IT, s/he may activate the CSIRT and escalate to the EMT as follows.

Normal Hours:

- Contact the EMMC on **086 2230352**
- Contact the EMLC on **087 2928888**

Outside normal Hours:

- Contact VTS on **01-8876070** and ask to then notify the Duty Harbourmaster
- Contact Harbour Police & Port Security (HP&PS) on **01 8876858** and ask then to notify the EMLC.

CSIRT Default Actions.

All DPC personnel should be aware that DPC IT section, through the CSIRT, may disconnect all systems from a network as part of the initial response and investigation of a possible cyber-incident. This is to check all systems for breaches of cyber-security. CSIRT is aware of the critical IT systems, and these will be prioritised for recovery in accordance with the designated Tiers and within the stated timeframes.

It is essential that each DPC department with a critical dependency on IT systems has identified and documented the alternative or manual work-around procedure in the event of an unplanned interruption of service. This procedure must be captured in the departmental Cyber Incident BCP, a template of which is included as an annex to the DPC Cyber-Incident Response Plan.

EMMC/ EMLC

On receipt of notification of an IT or Cyber-security issues affecting port operations or critical administrative functions the EMMC or EMLC will assess whether the EMT should activate to manage the business continuity aspects and external communications relating to the incident. When required to activate the normal EMT activation procedures (through Port Security) apply.

VTS Operator /HP&PS:

If contacted and notified of an IT or cyber incident by the Head of IT, the Incident Handler or either of the EMT Coordinators the following should be considered:

- Has the Head of IT or Incident Handler advised that the EMT should be activated?
- Have the EMMC and/or EMLC been informed?

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- Does the EMT need to be activated? If yes (Port Security to)
 - o Send notification to all EMT members.
 - o Confirm the virtual meetings software system still accessible – if yes Create teams meeting for EMT and e-mail and/or text to all EMT members
- Confirm whether the CCTV system is affected and advise DPC head of security.
- Confirm serviceability of VTS, VHF and VTMS systems.

Default to departmental CS BCP if critical department systems are affected.

EMT:

If convened in response to a cyber-incident or IT failure, the role of the EMT is to oversee the implementation of the DPC BC plans.

- Confirm implementation of departmental CS BCP's.
- Liaise directly with the head of IT regarding breach notification on the event of data loss, and confirm arrangements for notification of the DPC Data Protection Officer (The DPC Risk Manager)
- Confirm notification of NCSC by the DPC CSIRT
- Consider the requirement for a public statement to be released through the media, including through DPC social media channels.
- Brief the receptionist regarding response to queries from the press or public.
- Ensure the DPC insurers are informed as required.
- Ensure coordination of the activities of any external response agencies, noting that the NCSC responders will work directly with the DPC CSIRT.
- Ensure clear communications with all DPC personnel regarding the incident.
- Ensure clear communications with contractors and visitors, as required by circumstances.
- Make arrangements to collate records of expenditure related to the response for reclaim purposes.
- Liaise with head of IT regarding any derogations required from DPC IT Policy during the response, e.g., regarding the use of personal devices for business purposes.
- Support the external response agencies throughout the response phase.

Command and Control:

In the event of a cyber-security incident affecting Dublin Port Company, the following governance of the response will be implemented:

- Overall responsibility for DPC BC will lie with the EMT.

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- The technology response and recovery will be managed by the DPC CSIRT, led by the head of IT in DPC, who will ensure the EMT are updated throughout.
- Individual DPC department heads will ensure the departmental CS-BCP for their department are implemented, and that the EMT are updated throughout the response and recovery phase.

The EMMC or EMLC will act as the EMT chair for the duration of the incident. The EMT role is to ensure continuity of port operations during the response and recovery period, and to coordinate all response activities.

General considerations:

In the event of ransom ware attack DPC should consider its position as a semi-state (commercial) body and will take the advice of the Gardaí and the NCSC when making any decisions regarding the payment of a ransom in response to a cyber-attack.

It should be noted that the Head of IT has a dual role leading the CSIRT and as a member of the EMT. The EMT needs to be conscious of this when seeking briefings and updates from him. Equally the Head of IT must be aware of the requirement to update the EMT as circumstances allow throughout a cyber-incident.

Post-Incident Actions:

- The Head of IT will make arrangements for a formal debrief of the DPC CS-IRT once the systems have been restored/ recovered.
 - o An internal debrief should take place as soon as practicable following recovery from the incident.
 - o An Inter-Agency debrief should also be considered for incidents where the NCSC, DPCComm and or AGS are involved in the response.
- The EMT chair will arrange a formal EMT debrief with 2 weeks of standing down the EMT following a cyber-security incident.
- Both the DPC EMP and the DPC CS-IRP should be reviewed in the aftermath of any cyber-incident affecting DPC.
- DPC may be requested to provide representative(s) at investigations, inquiries or other After-Action Reviews undertaken by other state actors following a cyber-security incident and should try to comply with such requests.

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Annex B: Contact Details

For: Harbour Police/Port Security, Emergency Operations Centre, Fire Wardens and Helicopter Hire.

HARBOUR POLICE/PORT SECURITY

Name	Mobile	Direct line	Fax	E-mail
Mark Nathan	0867960537	01 8876055	01 8876883	mnathan@dublinport.ie
Thomas Kavanagh	0879393289	01 8876377	01 8876883	tkavanagh@dublinport.ie
Control Room		01 8876858		
CCTV Room		01 8876859		

EMERGENCY OPERATIONS CENTRE

EOC Line	Number
1	01 8876833 or 01 7040833
2	01 8876834 or 01 7040834
Fax Number	01 8876057

FIRE WARDENS

Name	After Hours Phone	Direct line
Oleg Rezapkins	086 3463349	01 8559010
Anthony McGovern	085 7332223	
Phillip Fitzgerald	086 6634246	
Niall Duffy	086 8401075	
Michael Graf	086 3901926	

HELICOPTER HIRE PROVIDERS:

Irish Helicopters
Knocksedan Hangar, County Dublin

T: 01 890 2895
F: 01 895 6812
Mob: 087 6898186
e: info@irish-helicopters.com
e: iain@irish-helicopters.com

IAA Approved Drone Operators

List available at
www.iaa/general-aviation/drones
T: 01 6031100

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Appendix 1 to Annex B: EOC Equipment Schedule

- A conference table with sufficient seating for the EMT.
- Telephones, both internal and external direct line.
- Wi-Fi connectivity to allow receiving international TV news.
- Radio.
- VHF and UHF and intrinsically safe radios, with batteries.
- PC with large screen display – network enabled and equipped with video conferencing.
- Connection point for laptop.
- A shredder and photocopier (adjacent).
- Information management Boards.
- A secure cabinet containing the following.
 - Copies of the DPC EMP.
 - Maps and drawings of the Port Facilities and office buildings.
 - Chart(s) of Dublin Bay.
 - Copies of the tenant company off site emergency plans, as appropriate.
 - Drawings showing where Hazardous materials are transported stored and processed within the port.
 - Public relations material relating to the Company's activities.
 - Inventories of firefighting equipment and oil spill equipment.
 - MSDS sheets for petroleum and gas products.
 - HP Base radio unit.
 - Marine VHF base unit.
 - Chargers for VHF handheld radio systems.
 - Mobile phone chargers.
 - HR to be contacted if staff / NoK contact details are required.

It is not essential that all of the above-mentioned equipment and documentation is in the same room, but it should be readily accessible nearby. It should also be possible to remove all critical information and plans at short notice, e.g. an 'emergency case'.

For the EOC to operate effectively it is essential that senior management representatives from the premises involved or emergency services, i.e. Gardaí, Fire Service and HSE, are represented and work in partnership with the DPC EMT in the EOC.

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Annex C – EMT Contact Details

Appointment/ role	Name	Office Phone	Mobile Phone	E-mail Address
Chief Executive Officer	Barry O’Connell	8876001	085 1158359	boconnell@dublinport.ie
Alternate	Eamonn O’Leary	8876003	086 8225251	eoleary@dublinport.ie
Emergency Management Marine Coordinator (EMMC)	Capt. Michael McKenna	8876045	086 2230352	mmckenna@dublinport.ie
Alternate	Capt. Steven O’Mara	8876009	086 8097151	somara@dublinport.ie
Emergency Management Land Coordinator (EMLC)	John Fairley	8876008	087 2928888	jfairley@dublinport.ie
Alternate	Thomas Kavanagh	8876377	087 9393289	tkavanagh@dublinport.ie
Infrastructure and Services Coordinator	Ken Rooney	8876323	086 3840540	krooney@dublinport.ie
Alternates	Nikos Anastasopoulos Stephen Collier		086 0318958 086 4120729	nanastasopoulos@dublinport.ie scollier@dublinport.ie
Personnel and Welfare Coordinator	Ursula Sherlock	8876004	086 0665117	usherlock@dublinport.ie
Alternate	Celine Ryan	8876011	0867869585	cryan@dublinport.ie
Communications Coordinator	Lar Joye		086 8605678	ljoye@dublinport.ie
Alternate	Charlie Murphy	8876320	087 6790414	cmurphy@dublinport.ie
I.T Coordinator	Sean Loughman	8876032	085 1743926	sloughman@dublinport.ie
Alternate	Keith Nolan	8876080	086 8173920	knolan@dublinport.ie
Facilities Coordinator	Cormac Kennedy	8876397	087 6777246	ckennedy@dublinport.ie
Alternate	Tom McNiff		086 1021540	tmcniff@dublinport.ie
EMT Administration Support Officer	Cindi Kearns	8876041	087 7817944	ckearns@dublinport.ie
EHS Specialists	Anne-Marie McLoughlin Keith Halpenny Keith Faller Paul Hogan		086 4108318 086 8378001 085 1132159 086 3781219	amcloughlin@dublinport.ie khalpenny@dublinport.ie kfaller@dublinport.ie phogan@dublinport.ie
EHS Admin	Maria Kavanagh	8876330	0867869584	mkavanagh@dublinport.ie

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Annex D – EMT members roles and responsibilities checklists

EMT LEADER – DPC CEO (Alternate – CFO)

- Chair all EMT meetings and oversee the DPC response to the incident.
- Control the liaison between DPC and its key stakeholders, including Emergency Services and other authorities.
- If alternate brief the CEO and provide regular updates throughout the incident.
- Prioritise the issues to be managed by DPC throughout the response phase.
- Appoint or be prepared to act as DPC spokesperson as appropriate.
- Liaise at senior/ strategic level with the emergency services.
- Ensure an incident log is maintained throughout the incident.
- Ensure appropriate liaison between DPC and the regulatory authorities, including HSA, EPA and others as required.

EMT Member: EMMC – Harbour Master (Alternate – Deputy Harbour Master).

- Act as the emergency response coordinator for the duration of marine based emergencies.
- Direct, control and monitor all marine operations during response to a marine emergency.
- Continuously assess the situation and develop appropriate response plans in consultation with the EMT.
- Act as or nominate a Site Incident Controller for all marine-side emergencies.
- Liaise with the Principal Emergency Services and other regulatory bodies as required (IRCG, HSE, EPA, DOT, etc.)
- Advise and Control all shipping in the port area.
- Implement the appropriate EMP Marine based scenario response.
- Direct marine rescue and marine emergency response procedures.
- Ensure appropriate equipment and resources are deployed to marine incidents.
- Keep the DPC CEO and EMT apprised of the situation.
- Act as the Pollution Officer for DPC when required.
- Be prepared to act as DPC spokesperson as directed by CEO.
- Ensure evidence is preserved for subsequent investigations.
- Ensure relevant weather information is supplied to EMT.
- Consider the Health & Safety of all staff deployed during an emergency.
- *Ensure a formal debrief is arranged on closure of marine emergencies.*

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EMT Member - EMLC: Head of Land Operations (Alternate - Operations Manager)

- Act as the emergency response coordinator for land-based incidents.
- Direct, control and monitor all land operations during the response to an emergency within the port estate.
- Continuously assess the situation and develop appropriate responses in consultation with the EMT.
- Act as or nominate a Site incident controller for all shore-side emergencies.
- Implement the appropriate EMP land scenario response.
- Ensure the emergency management and evacuation plans are activated as appropriate and brief HP/PS and Gardaí.
- Control and assess road access and egress through the port.
- Ensure evidence is preserved for subsequent investigations.
- Ensure access to the Port Operations Centre (POC) is restricted to essential personnel.
- Consider the Health and Safety of all staff deployed during an emergency.
- Ensure a formal debrief is arranged on closure of the emergency.

EMT Infrastructure & Services Coordinator – Head of Engineering & Sustainability (Alternate – Oil Zone Manager & Technical Manager)

- Ensure the availability of technical maintenance personnel to assist in managing the situation throughout an emergency.
- Ensure DPC resources are delivered to the incident/emergency scene.
- Ensure all DPC emergency equipment is maintained and stored, ready for use.
- Brief Emergency services regarding location of utilities and services control points on site and ensure utility and service maps of DPC are available in the Emergency Operations Centre (EOC).
- Ensure up to date contact details of technical personnel are maintained in the plan.
- Consider the Health and Safety of all staff deployed during an emergency.
- Ensure a report is prepared for the formal debrief (After Action Review AAR).

EMT Member - Personnel & Welfare – Head of Human Resources (Alternate: HR Officer)

- Ensure up to date DPC staff details are available to the EMT.
- Ensure arrangements are made for DPC responder rostering and welfare.
- Arrange for the management of calls from relatives of employees and ensure call handlers are appropriately briefed.
- In the event of any incident with a high number of casualties, liaise with Emergency Services regarding the management of relatives and friends.

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- Be prepared to liaise with the relatives of DPC employees directly affected by an incident.
- In an incident involving casualties identify the DPC personnel affected and keep EMT briefed.
- Make arrangements for hospital liaison in the event of an incident involving casualties.
- Identify a panel of emergency call takers and liaise with the EMA regarding appropriate training.
- Consider the Health and Safety of all staff deployed during an emergency.
- Arrange for the provision of counselling services to DPC employees affected by an incident.
- Participate in the formal review of the incident.

EMT Member – Communications; Port Heritage Director (Alternate Communications Manager or Media consultant)

- Act as the DPC Media Liaison officer throughout an emergency in the port.
- Be prepared to act as the DPC spokesperson if required.
- Make appropriate arrangements for the hosting of a press briefing if required.
- Liaise directly with the EMT and CEO regarding formal DPC media statements throughout an emergency.
- Make arrangements for media monitoring throughout an emergency, including social media.
- Manage the DPC social media presence throughout an emergency.
- Manage communications with employees, in consultation with the EMT.
- Manage communications with key external stakeholders throughout an emergency.
- Advise the EMT regarding communications issues throughout an emergency.
- Liaise with external PR advisors as required.
- Ensure a media pack is maintained as part of the DPC EMP including media contacts.
- Liaise with the PR spokespersons of DPC tenant companies during incidents on a tenant site.
- Brief DPC Emergency Call Takers.
- Ensure the Community Liaison Officer is fully briefed.
- Prepare a report for the formal debrief (AAR).

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EMT Member - Information & Technology – CTO (Alternate IT Officer)

- Ensure the EOC is resourced with adequate communications equipment.
- Coordinate the setup of radio base stations by emergency services in the POB during an emergency.
- Ensure the DPC IT infrastructure remains operational throughout an incident.
- Coordinate with Maintenance and Services regarding electronic systems for access control and head count of DPC personnel during an emergency.
- Ensure that key electronic equipment in the POB remains functional throughout the duration of an incident.
- Make appropriate arrangements for back-up power as required, i.e. generator(s).

EMT Member – Facilities Coordinator – Head of Property (Alternate Facilities Manager)

- Provide the EMT with the relevant information and knowledge pertaining to all facilities and tenants.
- Act as the liaison officer between DPC and all facilities and tenants impacted by the emergency within the port.

EMT Member – Environment, Health and Safety – EHS Specialists (Alternate EHS Admin)

- Advise the EMT regarding requirement for notification and liaison with regulatory agencies such as the HSA and EPA.
- Act as the liaison officer for regulatory agencies responding to an emergency within the port.
- Ensure that Environmental and health and safety regulations are observed and reported by DPC and its operatives throughout the response to any emergency.
- Ensure adequate H&S PPE is available to DPC personnel for emergency operations.

EMT Member - Administration Support Officer. (Administrative/Clerical officer)

- Provide all administrative support required in by the EMT, including but not limited to:
 - The setting up of the EOC on activation of the EMT
 - Maintain an incident log throughout the emergency.
 - Acting as a conduit between the EMT and the administrative support personnel (call takers, secretarial support etc.)

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Information Management Officer (IMO).

The IMO is responsible for maintaining the information display boards in the EOC. This role should be filled by an EMT member who has been trained in the role but can be filled by any EMT member if a trained IMO is not available. The panel of EMT IMO's should receive refresher training every four years and should be practiced in the role when the EMT is exercised.

Other DPC Personnel, not on the CORE EMT.

VTS Operators

- Refer to the emergency sub-plans at Annex A.

Marine Operatives

- To crew the pilot cutters, or any other marine craft as required, (including the tugs).
- To act as and back up VTS as required.
- To undertake any marine related task as required by the HM.
- To respond to environmental issues (Team leaders are trained by the IRCG for oil spill response, including Oil boom launching and positioning
- Manning the Harbour Function van as required.
- River Patrol - Enforcement of regulations on the water under direction of the HM.
- Delivery of notices, byelaws etc. to ships as directed by the HM.

Harbour Police and Port Security

The following duties of the HP/PS during emergency response is a guideline only. HP/PS officers should refer to the action checklist in the associated Sub-Plans at **Annex A**. The following should be considered during the response:

- Control and coordinate the initial response to an incident by directing HP/PS staff to investigate, taking cognisance of their safety and health.
- Notify the relevant Emergency Services by dialling 999/112.
- Deploy available staff and resources as appropriate.
- Notify the EMLC and/or EMMC and be prepared to notify other EMT members.
- Ensure the site wide alarm is activated if required.
- Despatch HP/PS mobile unit to meet the emergency services at the ESRVP and guide them to the location of the incident.
- Implement actions as per appropriate sub-plan, Annex A refers.
- Liaise with VTS duty operator throughout the incident.
- Liaise directly with the incident site coordinator as required.
- Ensure access to the incident site is controlled.
- Communicate with the SIC throughout the incident.

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DPC Fire Wardens

- On hearing the local or site-wide alarm, Fire Wardens will contact POC HP/PS control room to establish and/or confirm the situation.
- Brief Common Oil Pipeline users via the UHF radio, as required/ directed.
- On hearing the local or site-wide alarm, Fire Wardens will brief or provide directions to all ships at berth in the Oil Jetties via the VHF radio.
- Account for all the personnel in their designated area in accordance with the evacuation plan for the building or area of operation.

DPC Fire Marshals

- On hearing the local or site-wide alarm, Fire Marshals will account for all the personnel in their designated area in accordance with the evacuation plan for the building or area of operation.
- Liaise with the EOC prior to further evacuation.
- Keep incident site coordinator and/or EOC informed re evacuation status.
- Ensure First Aid personnel are accounted for before they are deployed elsewhere.

DPC First Aiders

- Qualified FAR's report to Fire Marshall to be accounted for prior to deploying elsewhere.
- Following reporting to the Fire Marshall, and on approval of the EMT, report to the incident coordinator.
- Provide first aid to injured personnel at the scene.
- Be prepared to assist the Emergency Services on request.

Emergency call takers

The panel of emergency call takers may be activated to assist the receptionist in managing the expected volume of incoming calls once an emergency occurs within the port. The role of this panel of call takers is to

- Record details as appropriate for later follow up by EMT, using the call log proforma at Annex F-1, OR
- Pass call directly to EMT member if appropriate, or
- Pass details to caller as directed by the EMT Communications Coordinator
- Keep the EMT updated regarding the volume and nature of the calls being received?

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Annex E - Dublin Port Company Evacuation Plan



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Dublin Port Company Evacuation Plan

DPC has circa 155 employees located at the following locations.

- Port Centre, Corner of East Wall Road & Alexandra Road.
- Maintenance & Services Building, Bond Drive Extension
- Oil Jetty Control Room, Jetty Road
- Port Operations Centre, Breakwater Road
- Terminal 1 Building, Terminal Road South

All locations have individual emergency evacuation Standard Operating Procedures including assembly points. Due to the nature of business carried out within the port via the common oil pipeline and the bulk storage of petroleum products, LPG and molasses there is always the potential for a serious event to occur, which could require a full or partial evacuation. *Also refer to Port Wide Alarm Activation, paragraph 6 of main plan.*

Six evacuation and or alternative routes to exit/enter the port environs have been designated for all port users, including emergency services in attendance.

1. Promenade Road
2. Tolka Quay Road (locked gates, keys held by HP/PS)
3. Alexandra Road
4. Port Operations Centre (facilitated by HM via Marine Operatives)
5. East Oil Jetty (lifeboat capsule)
6. West Oil Jetty (lifeboat capsule)

In addition to the above, Alexandra Road (DFT terminal between Breakwater Road & Terminal Road) is a designated evacuation route. Keys to the locked ISPS security gates are held in POC HP/PS control room and approval to open the gates must be given by one of the following DFT management – Alec Colvin 087 2245124. In addition to the above, DPC acknowledge there are other alternative evacuation routes available to be utilised, however the nature or extent of the event, along with the directions of emergency services would dictate the actions of all parties involved.

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Annex F - Communications.

Annex F.1 - Telephone Message Log

This form will be used by the receptionist and the emergency call takers to record all incoming calls related to an emergency.

Name of call taker		
Date / Time of Call		
Callers Name		
Company / Organisation		
Telephone Number		
DPC Person Requested		
Message or query Received:		
Response Provided:		
Message Passed To (DPC)		
Media query Passed to EMT liaison or Comms Coordinator?	YES	NO
Date / Time Passed		
Signature		

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Annex F.2 – Typical Media Questions

The following list is designed to act as a prompt to any DPC spokesperson prior to an interview.

QUESTION	ANSWER
What actually happened?	
What are DPC doing about it?	
How do you feel about what has happened?	
How could an accident/incident like this be allowed to happen?	
Who is responsible?	
What is DPC policy in this area?	
What measures have the company put in place to prevent such incidents from occurring?	
Is there any danger to the public?	
Has there been damage to the environment?	
Why were the public not advised / warned about this earlier?	
What advice do you have for people living in nearby neighbourhoods?	
Is this the first incident of this type to occur within Dublin Port?	
What did you do in the past?	
What are you going to do next?	
What effect will this event have on operations in the rest of the port?	

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Annex F.3 – Rules for Effective Communication with the Media

DO
Be calm, confident (<i>not overly so</i>) and firm.
Speak calmly and deliberately, demonstrating that a professional is in charge of the situation.
Assume that each response could be the one that will appear as an edited 'sound byte' on the News Programme.
Tell the truth (<i>even if it hurts</i>).
Talk from the viewpoint of the public's interest rather than the company's.
Where there have been injuries or fatalities commence the interview by conveying sympathy to the family / wishing them a speedy recovery etc. Use 'valued member of our team' rather than 'employee'.
Speak in personal terms whenever possible.
State the most important fact(s) at the beginning.
Emphasise as appropriate DPC's positive safety / environmental / employment creation / etc. record.
Explain complex or technical details in layman's terms.
If a reporter asks a direct question, try where possible to give a direct answer.
Tell the reporter if you do not know the answer to a question and promise to supply them with the information as soon as possible.
Give the same information to all members of the media. Follow-up with previous interviewers (by either fax or telephone) where additional details have been given to subsequent interviewers.
Ensure notes (& video footage) of all interviews are taken.
Review notes / videos of previous interviews (relating to the same incident) prior to commencing follow-up interviews. This will be important in order to maintain consistency and particularly in the case where an alternative spokesperson is doing follow-up interviews.

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DO NOT
Answer any question with a "No Comment". Always explain why you cannot answer (e.g. for legal reasons, not enough information, investigation in progress, etc.)
Make a statement, if you do not want something quoted – even if it is "off the record".
Offer possible causes or other speculation in the absence of the facts.
Be offensive or flippant.
Argue with the reporter or lose your cool. (<i>You may win the battle but you'll lose the war</i>)
Exaggerate the facts, even those favourable to you.
Deliver an 'overkill' response where a reporter has 'got it wrong'. (<i>There will be other interviews and such a response may encourage a more aggressive attitude</i>).
Use complex or technical language.
Provide the names of any victims.
Ask to review the reporter's notes.
Favour some reporters over others.
Fail to respond to any negative impressions.

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Annex F.4 – Key Messages in Incident Communications Media Response

- We deeply regret that this incident has happened.
- Our immediate concern is for our colleagues in DPC and members of the public who are involved in the incident.
- Our emergency response plan has been/ is being implemented.
- All emergency services have been informed and DPC is co-operating fully with the emergency services.
- No effort has or will be spared in responding to the situation.
- A thorough investigation will take place and reports will be given to the relevant authorities.
- DPC place great emphasis on maintaining emergency response systems, which work to eliminate the negative impact of incidents on people and the environment. DPC has an excellent Health, Safety and Environment record.
- We are grateful to the emergency services, local Authorities and our employees for their prompt action and assistance.

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Annex F.5 – Media Contact Details

Media Channel	Address	Email	Phone
National Broadcast			
RTE	Donnybrook Dublin 4	donal.byrne@rte.ie	(01) 208 2177
Virgin Media	Unit 5 Westgate Business Park Ballymount Rd Upper Dublin 12	news@virginmedia.ie	(01) 419 3344
Today FM	Marconi House, Digges Lane, Dublin 2	news@todayfm.com	(01) 804 9064
Newstalk	Marconi House, Digges Lane, Dublin 2	johnkeogh@newstalk.ie	(01) 644 5100
BBC Northern Ireland	Broadcasting House, Ormeau Ave., Belfast BT2 8HQ	bbcnewslines.ni@bbc.co.uk	(048) 9033 8000
UTV Northern Ireland	Level 8, City Quays 2, 2 Clarendon Rd., Belfast BT1 3FD	info@u.tv	(048) 9026 2000
National Print			
Press Association	37N Wharf Rd., Paddington, London W2 1AF	dublin@pressassociation.ie	(01) 678 9830
Irish Examiner	4th Floor Irish Times Building, Tara St., Dublin D02 CX89	news@examiner.ie	(021) 480 2212
Evening Herald	27-32 Talbot St., Mountjoy, Dublin D01 X2E1	hnews@independent.ie	(01) 705 5720 / 705 5333
Irish Independent	27-32 Talbot St., Mountjoy, Dublin D01 X2E1	inews@independent.ie	(01) 705 5710/1 (01) 705 5333
Sunday Independent	27-32 Talbot St., Mountjoy, Dublin D01 X2E1	snews365@independent.ie	(01) 705 5333
Irish Times	PO Box 74, 24-28 Tara St., Dublin D02 CX89	newsdesk@irishtimes.com	(01) 675 8000 (01) 920 3900
Irish Daily Star	Level 5, Building 4, Dundrum Town Centre, Dublin 16	news@thestar.ie	(01) 4901228
Irish Daily Mail	DMG Media Group, 3rd Floor, Embassy House, Herbert Park	news@dailymail.ie	(01) 637 5811

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	Lane, Ballsbridge, Dublin 4		
Irish Daily Mirror	27-32 Talbot St., Dublin 1 D01 X2E1	news@irishmirror.ie	(01) 868 8602
Irish Sun	2nd Fl., Macken House, 39-40 Mayor Street Upper Dublin D01 C9W8	irishsun@the-sun.ie	(01) 479 2597
The Times (Irish Edition)	24-28 Tara St., Dublin 2 D02 CX89	news@the-times.ie	(01) 4792400
Dublin Region Broadcast			
FM 104	Macken House 40 Mayor St Upper, Dublin D01 C9W8	news@fm104.ie	(01) 500 624
98 FM	Marconi House, Digges Lane Dublin 2 D02 TD60	news@98fm.com	(01) 670 8989
Spin 103.8	North Block, The Malt House, Grand Canal Quay, Dublin 2	news@spin1038.com	(01) 656 4600
NEAR FM	Northside Civic Centre, Bunratty Rd., Bonnybrook, Dublin 17	northsidetoday@nearfm.ie	(01) 867 1190
Phoenix FM	Unit 333, Services Centre, Blanchardstown Centre Dublin 15 D15 TY31	info@phoenixfm.ie	(01) 822 7222
West Dublin Access Radio	Ballyfermot Rd., Cherry Orchard, Dublin 10 D10 W449	wdar@eircom.net	(01) 620 7139 (085) 1245961
Tallaght FM	Level 3, The Square Tallaght, Dublin 24	wdar@eircom.net	(01) 620 7139
Q 102	Macken House 40 Mayor St Upper, Dublin D01 C9W8	news@q102.ie	(01) 8506512
Dublin South FM	DATE Complex Level 5, Dundrum Town Centre, Sandyford Rd., Dublin 16	info@dublinsouthfm.ie	(01) 296 0939
Classic Hits 4FM	Block A, Castleforbes House, Castleforbes Rd., Dublin D01 A8NO	news@classichits.ie	(01) 4255445
Sunshine	Ground Floor, Castleforbes House, Dublin D01 A8NO	news@radiocentre.ie	(02) 8652140
Radio Nova	Block A, Castleforbes House,	news@nova.ie	(03) 524 1100

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	Castleforbes Rd., Dublin D01 A8NO		
DublinCityFM	Docklands Innovation Park, East Wall Road Dublin 1	mickhanley@dublincityfm.ie	(01) 8658020
Liffey Sound	Ballyowen Castle Community Centre, Ballyowen Land, Lucan, Co Dublin.	news@liffeysoundfm.ie	(01) 6219425
LMFM	Broadcasting House, Rathmullan Rd., Drogheda, A92 T274	lmfmnews@lmfm.ie	(041) 9836693
Media Channel		Email	Phone
Dublin Region Print			
The Local News	331 South Circular Rd., Saint James, Dublin 8	frank@localnews.ie	(01) 453 4011
Dublin Inquirer	The Digital Hub Development Company, The Digital Hub, Thomas St., Dublin 8	info@dublininquirer.com	087 3924796
Dublin Voice	9 Upper Mount St., Dublin 2	info@dublinvoice.ie	(01) 9015556
Dublin Gazette	Suite 15, The Cube, Sandyford, Dublin 18	news@dublingazette.com	(01) 6010240
The Northside People	Unit 3, Robinhood Ind Est., Robinhood Rd., Dublin 22	jack@dublinpeople.com/news@dublinpeople.com	(01) 816 2923
The Southside People	Unit 3, Robinhood Ind Est., Robinhood Rd., Dublin 22	neil@dublinpeople.com/news@dublinpeople.com	(01) 862 1611
Citywide News	29 Whitworth Rd., Drumcondra, Dublin 9	lifetimesnewsdesk@me.com	(01) 862 3939
Fingal Independent	9 Shop St., Drogheda, Co Louth	editorial@fingal-independent.ie	(01) 840 7107/8
The Echo	The Edge, Avonmore Rd., Tallaght, Dublin D24 K07Y	emer@echo.ie	(01) 466 4500

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Annex F.6 – Draft Initial Holding Statement 1

GENERAL

(GUIDANCE ONLY)



Date: _____

For Immediate Release

Following an incident that occurred today at a facility within the Dublin Port Area, the premises at (_____) was evacuated in accordance with DPC's Emergency Procedures. All employees, visitors, and members of the public on the premises are being / have been accounted for.

The incident consisted of a *[brief description]* -----

-----.

The Emergency Services were alerted at *[time/date]* and are at present on site. The incident is being *[investigated / dealt with etc.]* -----

-----].

[Short account of /facility history including the number of employees, main activities etc. from fact-file] -----

-----]

For further background information on *[incident/accident]* please contact the company's media spokesperson (or PR consultants) *[name]* at *[telephone number(s) (mobile/landline)]*.

Signed: _____
Appointment/ Role _____

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Annex F.7 Draft Initial Holding Statement 2

ACCIDENT INVOLVING DEATH / INJURY TO ONE OR MORE PERSONS

[For Guidance Only]



Date: _____

For Immediate Release

DPC regret to announce that following an [*incident/accident*] at its facility in (address), a number of persons have sustained injuries.

The incident occurred at approximately [*date/time*] and our EMP was implemented immediately. The emergency services are at present on site and our local emergency team is assisting them.

At this stage, specific information about the casualties is not known, but a detailed press statement will be issued as soon as this information becomes available and the families and relatives of those affected have been informed. It is expected that this will take place within [*time*].

Members of the media are requested not to telephone the switchboard at DPC's facility as the line is heavily committed to emergency calls relating to the [*incident/accident*] (or because the premises has been completely evacuated).

Signed: _____
Appointment: _____

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Annex F.8 – Draft Initial Holding Statement 3

MAJOR ACCIDENT / FIRE / EXPLOSION

[For Guidance Only]



Date: _____

An *[accident / incident]* involving a *[nature of incident, i.e. fire / explosion /spill etc.]* occurred at a facility within the Dublin Port Complex at *[time /date]*.

This *[accident / incident]* was caused by *[details if known]*. In accordance with the DPC's Emergency Procedures, the emergency services were immediately notified and responded to the *[incident / accident]*.

DPC *[wish to confirm that there were no casualties / regret to inform that there were (number) casualties]*.

DPC will be providing a 24-hour information service for the duration of this *[accident / incident]* and wish to advise that a spokesperson *[Name]* can be contacted at the following telephone number(s):

[(land line) ----- -]

[(mobile) ----- -]

Members of the media are requested not to telephone the switchboard at the DPC Port Centre as it is heavily committed to emergency calls relating to the *[incident/accident]*. Instead, all requests for information should be directed to the spokesperson.

At this stage, specific information about the *[accident / incident]* and the damage caused / casualties sustained is not available. A detailed statement will be issued as soon as this information becomes available.

Your co-operation at this time is greatly appreciated.

Signed: _____
Appointment: _____

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Annex G - EMT Initial Meeting Agenda

1. INITIAL BRIEFING - EMT member with most information to update the team

- Confirm whether MARINE OR LAND incident.
- Appoint appropriate Coordinator.
- Confirm EMT members present and their roles.

2. ASSESS POTENTIAL IMPACTS:

Threat to Life - DPC Personnel, customers, contractors, public, others

Environmental impact: - Spill; slick; Toxic gas/cloud: effect on local communities

Physical – what is affected? DPC Site, Tenant site; Ship with passengers/ cargo?

Operations – how are port operations affected and for how long?

Financial impact - Insurance cover, compensation?

Regulatory liaison - HSA, EPA, Customs, Dept. of Health, Dept. of Transport, Tourism & Sport

3. INFORMATION NEEDS

What do we need to know as a priority?

WHERE can we get the information?

WHO on EMT is tasked with getting it?

WHEN will we have an update?

List these on the information boards.

4. COMMUNICATIONS & MEDIA CONSIDERATIONS:

Do DPC need to liaise with regulatory agencies?

Have we informed Department?

Do we need to prepare holding statement – release proactively/ reactively? Use draft from manual – **Annex F**

Do we need to monitor media?

Have Emergency services appointed a Media Liaison Officer – are we liaising?

Are we/ do we need to be proactive on social media regarding this incident

5. POINTS FOR CONSIDERATION BY EMT

Do other personnel (internally or externally) need to be involved, if so, whom?

Have the telephonists/ receptionists been briefed?

Have we identified the DPC priorities?

What is our action plan?

Consider the need for external specialists?

Time for next update briefing is ____.

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Annex H – Plan Amendment Record

DUBLIN PORT EMERGENCY MANAGEMENT PLAN – AMENDMENT RECORD

This should be maintained by the EMA.

Amendment No.	Date Issued	Section/ page No.	Amend by:
Version No. 0.19	16/03/12	EMT Members Pg. 9 & 13 HP/PS & Fire Wardens Pg. 37	JF
		Amend DOT to DTTAS & RVP to ESRVP	
		Amend EMT duties re fire water run-off Pg. 86 Amend Ramps 4, 7 & 8 Pg. 107	
External review of EMP and update to version 2.0	Feb 2013	ALL	JF
Annual review of EMP and update to version 3.0	Aug 2014	Amend personnel changes and job descriptions in plan Annex A-14 Incident involving the transportation or storage of Dangerous goods Pg. 81-87	JF
Annual review of EMP and update to version 4.0	Dec 2015	Intro to SEVESO III Pg. 3; DPC EMT structure Pg. 9;HP/PS contact details Pg. 12; Fire Wardens Pg. 12; Emergency Services Pg. 13; Port Wide Alarm Activation Pg. 14; Training Exercise & Maintenance Plan/Annual training requirements Pg. 20-21; Updated all Annex A7- A14 re the duties of different roles e.g. Duty Operator, HP&PS, EMLC, EMMC, EMT etc.	JF
Annual review of EMP and update to version 5.0	Dec 2016	Introduction Pg.4; EMT Team Structure Pg.9; EMT Command Chart Pg.10; DCC/EPA/HAS Contact details Pg. 23,27,31,36,57,62,66,70,74,77,87; Annex C EMT Contact details Pg. 92; EMT Facilities Coordinator P.96	JF
Annual review of EMP and update to version 6.0	June 2018	Abbreviations Pg. 7; DPC EMT Structure Pg. 9; Site Incident Coordinator (SIC) Pg. 11; DPC OFA Pg. 13; Emergency Services Pg. 13; Port Wide Alarm Activation Pg. 14; Communications Pg. 17; Press Conferences Pg. 18; Annual Training Requirement Pg. 19-20; Check SWM Pressure Pg. 24; Annex A7 – EMT Pg. 53; Command & Control Pg. 53; General Considerations for EMT Pg.	JF

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Amendment No.	Date Issued	Section/ page No.	Amend by:
		53-54; Post-Incident Actions Pg. 54; Check SWM Pressure Pg. 54; Annex 8 – EMT Pg. 57-58; Command & Control Pg. 58; Post- Incident Actions Pg. 58-59; Annex 9 – EMT Pg. 62; General Considerations Pg. 62-63; Check SWM Pressure Pg. 63 (also Pg. 24, 54, 67, 74 & 94); Post-Incident Actions Pg. 63; Annex A10 – EMLC & EMMC Pg. 65; Command or Control Pg. 66; General Considerations & Post-Incident Actions Pg. 66-67; Check SWM Pressure Pg. 67; Annex A11 – Duty Operator-Action Points Pg. 68; EMMC Pg. 69; Command & Control Pg. 70; General Considerations Pg. 70-71; Post-Incident Actions Pg. 71; Annex A12 – Duty Operator – Action Points Pg. 72; EMLC &, EMMC Pg. 73; Check SWM Pressure Pg. 74; EMT Pg. 77-78; Command and Control & General Considerations Pg. 74; Post-Incident Actions Pg. 75; Annex A13 - Objective Pg. 76; EMMC Pg. 77; EMT Pg. 77-78; General Considerations Pg. 78-80; Post-Incident Actions Pg. 80; CA Points of Contact Pg. 81; Duty VTS-Action Points Pg. 84; Control Room Operator-Action Points Pg. 84-85; Harbour Police/Port Security Pg. 85; EMLC Pg. 86; EMT Pg. 86-87; General Considerations for the EMT Pg. 87-88; Contacts Checklist Pg. 88; Fire Wardens & Helicopter Hire Providers Pg. 90; Annex C- EMT Contact Details Pg. 92; Check SWM Pressure Pg. 94; EMT Member EHS Role Pg. 96; Annex F5 – Media Contact Details Pg. 106-108;	
Annual review of EMP and update to version 6.0	August 2018	Pg. 11 Insert "Function". Pg. 4 Marine and land based port limits. Pg. 7 Enter PRA. Response Roles enter PRAs & PESs. Pg. 12 enter tugs. Pg. 95 enter DTTAS Marine Annexes standardise VTS actions. Remove "Mobilise EMT via HP/PS on HMs instructions".	MM'K

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Amendment No.	Date Issued	Section/ page No.	Amend by:
External Review and update to version 7.0	November 2018	<p>Pg. 4 – inclusion of line indicating daily volume of vehicular transport through port estate.</p> <p>Pg. 4 No. of lower tier sites included.</p> <p>Pg. 4 Ref to Seveso III regs updated.</p> <p>Pg. 5 – Objective A amended to include 'arrangements'</p> <p>Pg. 5 – Scope and Assumptions amended to include 'alternates'</p> <p>Pg. 6 'Marine and Land Emergencies' – Severe Weather Event included.</p> <p>Pg. 6 assumptions – amended to reflect that contact details are up to date at the time of the plan revision</p> <p>Pg. 7 Abbreviations amended to include SWEAT and SWEP.</p> <p>Pg. 10 – Diagram amended from 'Command' chart to 'Organisation chart' and font size increased.</p> <p>Pg. 12 (and subsequent) – Full wording used prior to use of abbreviations (e.g. Port Operations Centre (POC))</p> <p>Pg. 14 – Amended to reflect that EMT 'Chair' selects location of alternate EOC</p> <p>Pg. 14 – term 'multi-agency response' included</p> <p>Pg14/15 – blank page deleted.</p> <p>Pg17 – deleted 'existing' in relation to salt water main and replaced with 'former'</p> <p>Pg. 19 – primary point of contact tenant companies – deleted 'should be...' in favour of 'contact listed at Annex J;</p> <p>Pg.23 – page numbers for Annex A9-14 amended.</p> <p>Pg. 24 & 29 – re-ordering of VTS actions to inform IRCG in first instance</p> <p>Pg. 25 and subsequent – Department of Transport now Department of Transport Tourism and Sport (DTTAS)</p> <p>Pg. 28 Appendix 1-1 & Pg. 32 Appendix 2-1 & P35 3-1 updated to include time IRCG notified</p> <p>Pg. 31 – HSA and EPS included as investigating authorities to be contacted</p>	JB

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Amendment No.	Date Issued	Section/ page No.	Amend by:
		<p>Pg. 34 Annex A 3 amended to include notifying DTTAS</p> <p>Pg. 35 – ‘EMMC to arrange AAR’ added</p> <p>Pg. 38 – VTS operator duty to include ‘instruct HP/PS to activate EMT.</p> <p>Pg. 39 and - 45 – EMMC duties amended to include ‘notification of the EPA, as required’.</p> <p>Pg. 40, 47 – under general considerations for EMT – added <i>consider use of a ‘drone’</i></p> <p>P 48 Appendix 5-1 reformatted</p> <p>Pg51 A-6 Objective amended to read ‘Responding effectively’ & deleted ‘dealing with’</p> <p>Pg. 52 – A6 – Added ‘EMMC to liaise with EMLC’</p> <p>Pg. 60 – A-8: Duty operator actions amended re activation of the EMT to ‘when instructed to do so by EMMC’</p> <p>Pg. 66 Annex 9 – amended to reflect fact that EMMC is the SIC when at the scene of the incident.</p> <p>Pg. 74 –A-11 (and A-12 p 78 & A-13 P 83)_Amended to task EMMC with arranging AAR</p> <p>Pg. 80 A-13 Amended to reflect HPSC and NEOC details for alerting HSE.</p> <p>Pg. 84 – table contact details updated</p> <p>Pg. 85 A-14 amended to include reference to ADR</p> <p>Pg. 88, 89, 90 amended to include EMMC, EMLC and EMT to ‘seek expert advice re substances involved’</p> <p>Pg. 107 – Annex B amended to include contact details for commercial drone companies</p> <p>Pg. 112 – Duties of EMT member communications amended to include ‘manage DPC social media presence’</p> <p>Pg. 113 – EMT admin to ‘maintain an incident log throughout’ included</p> <p>Pg. 114 – Role and duties of IMO included.</p> <p>Pg. 101-102 – blank page deleted</p> <p>P119 Annex F-1 table amended</p> <p>Pg. 124 Annex F-5 table contact details updated</p>	

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		<p>Pg. 130 – Annex G – Meeting agenda amended to include consideration of social media</p> <p>Annex 15 – Severe Weather Event Plan inserted on Pg. 93 of V 0.7</p> <p>Pg. 16 removed reference to six evacuation areas of the port and Figure 1 map of 6 evacuation areas. Cover page and Annex F DPC logos updated.</p>	
Annual review of EMP and update to version 8.0	Dec 2019	<p>Pg. 7 – amend OFA to FAR</p> <p>Pg. 13 – amend OFA to FAR</p> <p>Pg. – 22, 27, 31, 36, 37, 55, 59, 64, 68, 72, 76, 89 & 91 – Update DCC contact phone numbers</p> <p>Pg. – 24, 28, 33, 39, 45 & 51 Update IRCG email address</p> <p>Pg. 56 – Annex 7 General considerations re use of No.1-4 BRS</p> <p>Pg. 60 – Annex 8 General considerations re use of No.1-4 BRS</p> <p>Pg. 63 – amend OFA to FAR</p> <p>Pg. 65 – Annex 9 General considerations re use of No.1-4 BRS</p> <p>Pg. 69 – Annex 10 General considerations re use of No.1-4 BRS</p> <p>Pg. 73 – Annex 11 General considerations re use of No.1-4 BRS</p> <p>Pg. 76 – Annex 12 General considerations re use of No.1-4 BRS</p> <p>Pg. 80 – Ambulance Control contact number added</p> <p>Pg. 83 – Points of contact & numbers</p> <p>Pg. 90 – Amended MSO email address</p> <p>Pg. 91 – Amended organisation detail & contact numbers</p> <p>Pg. 91 – Amended RSA contact number</p> <p>Pg. 106 – Annex 15 DPC contact list</p> <p>Pg. 107 HP&PS contact list</p> <p>Pg. 107 – FW contact list</p> <p>Pg. 107 – Irish Helicopters contact mobile number added</p> <p>Pg. 109 – EMT member contact details (EHS & E&F)</p> <p>Pg. 111 – EMT members (HR)</p> <p>Pg. 113 – EMT members (E&F)</p>	JF

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Amendment No.	Date Issued	Section/ page No.	Amend by:
Annual review of EMP and update to version 8.0	Dec 2019	<p>Pg. 115 – First Aid Responders</p> <p>Pg. 124, 125 & 126 – Media contact details</p> <p>Pg. 1 HM Soft and hard copies (4)</p> <p>Pg. 12 VTS as contactable for all marine and oil related incidents.</p> <p>Pg. 23 Add MSO as a contact for DTTAS.</p> <p>Pg. 60, 64 & 77 Insert “Liaise with Head of Engineering to assess need to close intercepts.”</p> <p>Pg. 92. DPC Oil Spill Plan (2018)</p>	M.M’K
Annual review of EMP and update to version 9.0	Feb 2021	<p>Change Footer on all page from 8.0 to 9.0 Feb 2021</p> <p>Change cover date re approval date of version 9.0</p> <p>Pg.9 DPC EMT Structure – change HR & HR Alt; Pty Alt, IT Alt etc.</p> <p>Pg. 10 EMT Org Chart – move FW to Infrastructure Coordinator and insert Facilities</p> <p>Pg. 14 Port Wide Alarm Activation</p> <p>Pg. 21, 26, 30 insert including private tug operators</p> <p>Pg. 21 A1 Duty VTS Op Action Points</p> <p>Pg. 21 EMMC</p> <p>Pg. 26 – A2 Duty VTS Op Action Points</p> <p>Pg.30 – A3 Duty VTS Action Points</p> <p>Pg. 31 EMMC</p> <p>Pg. 55 Annex 7 – Post Incident Actions</p> <p>Pg. 77 A13 – insert objectives to include the DPC Covid-19 Response Plan</p> <p>Pg. 77 Duty Op Action Points</p> <p>Pg.78 update HP/PS – Actions</p> <p>Pg.78 update EMLC – Actions</p> <p>Pg.78 update EMCC – Actions</p> <p>Pg. 79 Port Health Watch Alert</p> <p>Pg.80 update EMT – Actions</p> <p>Pg.80-81 update – General considerations</p> <p>Pg.102-105 – Annex 15 App3 all snow ice response details updated</p> <p>Pg. 106 – IAA Contact number inserted re helo provider</p> <p>Pg. 107 EOC equip updated</p>	J.F M.McK

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Amendment No.	Date Issued	Section/ page No.	Amend by:
		Pg.108 Annex C – EMT contact details Pg.110 EMT Member – HM, Personnel & Welfare and EHS Pg.112 – EMT Member – EHS Specialists, Facilities Pg. 123-125 Media contact details updated	
Annual review of EMP and update to version 10.0	January 2022	Pg. 1 + Footer updated to version 10.0 and date. Pg. 2 Contents updated to add Annex 16 – Cyber Security Incident, Annex J-1 and Notes Pg. 6 Update Marine & Land Emergency schedule Pg. 7-8 Update abbreviation list Pg. 10 EMT structure -EHS Specialists Pg. 11 EMT Org chart updated Pg. 21 Insert Annex 16 (as above) Pg. 32,36-37,43,54,58,63,67,71,75,89 & 91 Update DCC contact details Pg. 32,37,58,63,67,71,75 & 89 Update EPA contact details Pg. 32,75,89 & 91 Update HSA contact details Pg. 78 insert hyperlink to Notice to mariners and update ref to NtM 31.1 of 2022. Pg. 81. Insert Equipment List Pg. 83 Update HSE, Customs & Dept. of Agriculture contact details Pg. 91 update MSO email address mso@transport.ie Pg. 91 – Update RSA contact details Pg. 107-112 Insert Annex 16 Pg. 114 removed all ref to staff contact details and NoK stored at EOC – kept securely at HR. Pg. 113 Annex C EMT contact details updated Pg. 130-132 Media details updated Pg. 143 Annex H Plan Amendment record updated Replace DTTAS with DOT all entries Pg. 146 Annex J-1 – SEVESO site diagram updated drawing re Top Yard 1 (pending)	J.F/M.McK

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Amendment No.	Date Issued	Section/ page No.	Amend by:
Annual review of EMP and update to version 11.0	January 2023	Pg. 1 Distribution list & CEO details updated, and footer updated to version 11.0 and date. Pg. 2 Contents updated. Pg.7 Abbrev – IMO Information Management Officer Pg.10 EMT structure – Infrastructure & Services Alternates Pg.15 IMO training changed from 2-4 years. Pg.20 Annual Training Requirements – Call-takers Pg. 22 Annex 1 – HP & FW action points. Pg.22, 27, 32, 37 & 45 VTS Action Points Pg.23, 28, 32, 58, 63, 73, 75 EMT re EPA details Pg.28 Annex 2 – HP Action Points Pg.32 Annex 3 – HP Action Points Pg.37 Annex 4 – HP Action Points Pg.43 & 49 OSR equipment Pg.52 Annex 7 – Duty Ops Action Points Pg.57 Annex 8 – Duty Ops Action Points Pg.61 Annex 9 – Duty Ops Action Points Pg.65 Annex 10 – Duty Ops Action Points Pg.69 Annex 11– Duty Ops Action Points Pg.73 Annex 12 – Duty Ops Action Points Pg.78 Annex 13– HP Action Points Pg.83 Competent Authority Points of contact (Customs & Excise) Pg.87 Annex 14– HP Action Points Pg 91 EMT re EPA details Pg.106 External Contractor List – Snow & Ice response Pg. 115 Appendix 1 to annex B: EOC Equipment Schedule. Add video conferencing equipment and remove requirement for dedicated camera. Pg.116 EMT Contact Details – CEO and Infrastructure & Services Coordinator alternates. Pg.121 Information Management Officer – 4 years refresher training	

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Amendment No.	Date Issued	Section/ page No.	Amend by:
		Pg. 123 Annex E Evacuation litho to be updated. Pg. 131, 132 & 133 Media contact details Pg.146 Annex J Tennant Company contact details (GISGRO) Pg. 147 Annex J.1 SEVESO site map (to be updated)	
Annual review of EMP and update to version 12.0	January 2024	Pg. 1 Title page & version text Pg. 10 DPC EMT structure Pg. 11 DPC EMT Org Chart Pg. 17 Communications: Social Media section to be updated in 2024 Pg. 116 Annex C EMT Contact details. Pg. 117 Annex D EMT Leader Alternate Pg. 117 Annex D EMT EMMC Alternate Pg. 118 Annex D EMT EMLC Alternate Pg. 118 Annex D EMT Infrastructure & Services Alternate Pg. 119 Annex D Comms Alternate Pg. 120 Annex D Info & Tech Pg. 122 Annex E updated Pg. 123 Annex E DPC Evacuation Plan (updated map) Pg. 128 to Pg. 130 – Media Contact Details Pg. 22, 23 & 28 Update DCC main contact phone number. Pg. 32, 36, 37, 43, 54, 58, 63, 67, 71, 75, 89 & 91 Update DCC 24hr contact phone number. Pg 23, 28, 32, 37, 58, 63, 71, 75, 89 & 91 Update EPA contact phone number Pg. 83 Update Competent Authority Points of contact Pg 91 Update contacts checklist phone numbers & email addresses Pg 101 Update Met Eireann phone number & costs at Jan 24 Pg 101-105 Update Appendix 3 to Annex – 15 Snow/Ice Response Pg 128-130 Update Annex F.5 – Media Contact Details	J.F

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Amendment No.	Date Issued	Section/ page No.	Amend by:
		Pg 22, 27, 31, 36, 43, 49, 53 & 87 VTS Actions edited to contact HM in first instance on each relevant Annex.	M.McK

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Annex J – Tenant company locations and contact details.

Listings of the port tenants and the contact details for each are available in hard copy in the following locations:

- The EOC in the POC.
- The alternate EOC in the Port Centre.
- On the DPC IT system: See DPC Management x drive/emergency management folder.
- GISGRO Digital Map: See Assets, buildings, and relevant contact information.

The details are also available to EMT members in hard copy on request from the EMA.

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Appendix B

Dublin Port Ship's Waste Management Plan

DUBLIN PORT SHIP'S WASTE MANAGEMENT PLAN

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PREAMBLE

AIMS AND OBJECTIVES

The overall aim of this port waste management plan for Dublin Port Company is to protect the marine environment by reducing discharges into the sea of ship generated waste and cargo residues; to improve the availability and use of reception facilities and strengthen the enforcement regime.

Its objectives are:

To reduce illegal discharge of waste from vessels

To fulfil legal duties with regard to waste management

To consult with users, agents, operators, contractors and regulators in the development and implementation of waste management strategies and measures

To minimise the production of waste wherever possible

To re-use or recycle waste wherever possible

To dispose of waste so as to minimise negative environmental effects

1. THE PORT

OVERVIEW OF PORT ACTIVITIES

1.1 Constitution

Dublin Port Company was established on 3rd March 1997 under the Harbours Act 1996 and operates as a commercial company under company Law. The Company has 8 Directors. The CEO is an ex officio director, there is an employee director nominated through an election process in accordance with the Harbours Act and the Minister for Transport, Tourism and Sport, with the consent of the Minister for Public Expenditure and Reform, appoints the remaining 6 directors, to include a Chairperson, complying with current Government and legislative guidelines for the appointment of Directors.

1.2 Jurisdiction and Conservancy

Under the 1996 Act, the limits of Dublin Port comprise the waters of the River Liffey commencing from and including Matt Talbot Memorial Bridge and extending to an imaginary straight line drawn from the Baily Lighthouse on the north in the County of Dublin and extending through the North Burford Buoy, through the South Burford Buoy, and to Sorrento Point on the south including all bays, creeks, harbours and tidal docks within that area; excluding Dun Laoghaire Harbour and extending 0.3 n. miles into the bay from the pier heads.

The anchorage is exposed particularly to winds from North East through to South East.

The approach is well lighted and of easy access: vessels drawing up to 7m can enter at any state of the tide.

Verification of depths should be obtained from the Harbour Master's Department.

Dublin Port Company is the pilotage authority for the Dublin pilotage district. It also provides towage in the form of two diesel tugs of 55 tonne bollard pull, and a full contracted diving service is available. Eight private companies are licensed by Dublin Port Company to provide stevedoring services within the port.

1.3 Facilities

The lift on/ lift off (Lo-Lo) traffic accounts for 18% of total tonnage throughput and is handled at two dedicated terminals in the port catering for a range of services between Dublin and the United Kingdom, mainland Europe, and further afield to such locations as Egypt, Lebanon and Israel as well as worldwide trans shipment services. Dublin Ferryport Terminals and Marine Terminals Ltd operate the lo/lo terminals. In addition CLDN operate a Dublin to UK/ Continent service carrying mainly container units arriving into Dublin 5 days a week.

The roll on/roll off (Ro-Ro) traffic is serviced by five ferry companies operating up to 18 sailings daily to the UK, connecting Dublin with Heysham, Holyhead, Liverpool, and Douglas (freight and tourism). The operators are Irish Ferries, I.O.M. Steam Packet Company, Seatruck, Merchant Ferries, P&O Irish Sea, Sea Containers Irish Sea and Stena Line.

The port has discharging facilities for oil, bitumen, chemicals, liquid petroleum gases and molasses. A 41 hectare oil zone with storage capacity for 330k tonnes of product (including 6k tonnes LPG) is linked to four oil berths by a common user oil pipeline system, incorporating 36 pipe lines. Facilities are available at the oil jetties for obtaining bunkers from the various oil companies and bunkers may also be obtained at berths by means of road tankers.

Waste oils can be removed on the Western Oil Jetty by arrangement by means of a recently installed waste pipeline.

Dry bulk facilities are provided to cater for the loading and discharging of concentrate, peat, coal, grain, animal feedstuffs, fertilisers and sand.

Break bulk accounts for <1% of total throughput, but includes an area dedicated to the storage of imported trade cars and commercial vehicles.

2. LEGISLATIVE SUMMARY

[This list is not intended to be exhaustive – it is for reference purposes only.]

EU Directive 2000/59/EC on port reception facilities for ship generated wastes and cargo residues

S.I. No. 117 of 2003: European Communities (Port Reception Facilities for Ship-Generated Waste and Cargo Residues) Regulations 2003

Directive 2002/84/EC amending the Directives on maritime safety and the prevention of pollution from ships

S.I. No. 659 of 2003: European Communities (Port Reception Facilities for Ship-Generated Waste and Cargo Residues) (Amendment) Regulations 2003

Commission Directive 2007/71/EC of 13 December 2007 amending Annex II of Directive 2000/59/EC of the European Parliament and the Council on port reception facilities for ship-generated waste and cargo residues

S.I. No. 376 of 2009: European Communities (Port Reception Facilities for Ship-Generated Waste and Cargo Residues) (Amendment) Regulations 2009

Commission Directive (EU) 2015/2087 amending Annex II to Directive 2000/59/EC on port reception facilities for ship-generated waste and cargo residues

S.I. No. 550 of 2016: European Communities (Port Reception Facilities for Ship-Generated Waste and Cargo Residues) (Amendment) Regulations 2016

Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements

Directive 2009/123/EC amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements

S.I. No. 542 of 2010: European Communities (Ship-Source Pollution) Regulations 2010

Directive 2002/59/EC establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC

Directive 2009/17/EC amending Directive 2002/59/EC establishing a Community vessel traffic monitoring and information system

S.I. No. 573 of 2010: European Communities (Vessel Traffic Monitoring and Information System) Regulations 2010

Commission Directive 2011/15/EU amending Directive 2002/59/EC of the European Parliament and of the Council establishing a Community vessel traffic monitoring and information system

S.I. No. 71 of 2012: European Communities (Vessel Traffic Monitoring and Information System) (Amendment) Regulations 2012

Commission Directive 2014/100/EU amending Directive 2002/59/EC establishing a Community vessel traffic monitoring and information system

S.I. No. 367 of 2016: European Communities (Vessel Traffic Monitoring and Information System) (Amendment) Regulations 2016

Directive 2012/33/EU amending Council Directive 1999/32/EC as regards the sulphur content of marine fuels

S.I. No. 361 of 2015: European Union (Sulphur Content of Marine Fuels) Regulations 2015

Sea Pollution Act, 1991

Sea Pollution (Amendment) Act, 1999

Sea Pollution (Miscellaneous Provisions) Act, 2006

[Statutory Instrument(s) giving effect to MARPOL Annex I]

S.I. No. 788 of 2007: Sea Pollution (Prevention of Oil Pollution) Regulations 2007

S.I. No. 282 of 2008: Sea Pollution (Prevention of Oil Pollution) (Amendment) Regulations 2008

S.I. No. 664 of 2010: Sea Pollution (Prevention of Oil Pollution) (Amendment) Regulations 2010

S.I. No. 365 of 2011: Sea Pollution (Prevention of Oil Pollution) (Amendment) Regulations 2011

S.I. No. 275 of 2014: Sea Pollution (Prevention of Oil Pollution) (Amendment) Regulations 2014

S.I. No. 461 of 2016: Sea Pollution (Prevention of Oil Pollution) (Amendment) Regulations 2016

S.I. No. 578 of 2016: Sea Pollution (Prevention of Oil Pollution) (Amendment) (No. 2) Regulations 2016

S.I. No. 582 of 2016: Sea Pollution (Prevention of Oil Pollution) (Amendment) (No. 3) Regulations 2016

[Statutory Instrument(s) giving effect to MARPOL Annex II]

S.I. No. 217 of 2008: Sea Pollution (Control of Pollution by Noxious Liquid Substances in Bulk) Regulations 2008

[Statutory Instrument(s) giving effect to MARPOL Annex III]

S.I. No. 510 of 2013: Sea Pollution (Harmful Substances in Packaged Form)

Regulations 2013

S.I. No. 459 of 2016: Sea Pollution (Harmful Substances in Packaged Form) (Amendment) Regulations 2016

[Statutory Instrument(s) giving effect to MARPOL Annex IV]

S.I. No. 269 of 2006: Sea Pollution (Prevention of Pollution by Sewage from Ships) Regulations 2006

S.I. No. 281 of 2008: Sea Pollution (Prevention of Pollution by Sewage from Ships) (Amendment) Regulations 2008

S.I. No. 372 of 2008: Sea Pollution (Prevention of Pollution by Sewage from Ships) (Amendment) (No.2) Regulations 2008

S.I. No. 492 of 2012: Sea Pollution (Prevention of Pollution by Sewage from Ships) (Amendment) Regulations 2012

[Statutory Instrument(s) giving effect to MARPOL Annex V]

S.I. No. 372 of 2012: Sea Pollution (Prevention of Pollution by Garbage from Ships) Regulations 2012

[Statutory Instrument(s) giving effect to MARPOL Annex VI]

S.I. No. 313 of 2010: Sea Pollution (Prevention of Air Pollution from Ships)

Regulations 2010

S.I. No. 383 of 2011: Sea Pollution (Prevention of Air Pollution from Ships) (Amendment) Regulations 2011

S.I. No. 596 of 2011: Sea Pollution (Prevention of Air Pollution from Ships) (Amendment) (No. 2) Regulations 2011

S.I. No. 35 of 2013: Sea Pollution (Prevention of Air Pollution from Ships)

(Amendment) Regulations 2013

[Statutory Instrument(s) giving effect to other international legislation]

S.I. No. 82 of 2008: Sea Pollution (Control of Harmful Anti-fouling Systems on Ships) Regulations 2008

[Other legislation]

Waste Management Act 1996 [No. 10 of 1996]

Waste Management (Amendment) Act 2001 [No. 36 of 2001]

Protection of the Environment Act 2003 [No. 27 of 2003]

Diseases of Animals Act 1966

S.I. No. 153 of 1985: Diseases of Animals (Feeding and Use of Swill) Order 1985

S.I. No. 133 of 1987: Diseases of Animals (Feeding and Use of Swill) (Amendment) Order 1987

S.I. No. 597 of 2001: Diseases of Animals Act, 1966 (Prohibition on the Use of Swill) Order, 2001

S.I. No. 252 of 2008: European Communities (Transmissible Spongiform Encephalopathies and Animal By-Products) Regulations 2008

S.I. No. 12 of 2009: Diseases of Animals Act 1966 (Prohibition On the Use of Swill) (Amendment) Order 2009

Regulation (EC) No 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation)

Commission Regulation (EU) No 142/2011 of 25 February 2011 implementing Regulation (EC) No 1069/2009 of the European Parliament and of the Council laying down health rules as regards animal by-products and derived products not intended for human consumption and implementing Council Directive 97/78/EC as regards certain samples and items exempt from veterinary checks at the border under that Directive

Animal Health and Welfare Act 2013

S.I. No. 187 of 2014: European Union (Animal By-Products) Regulations 2014

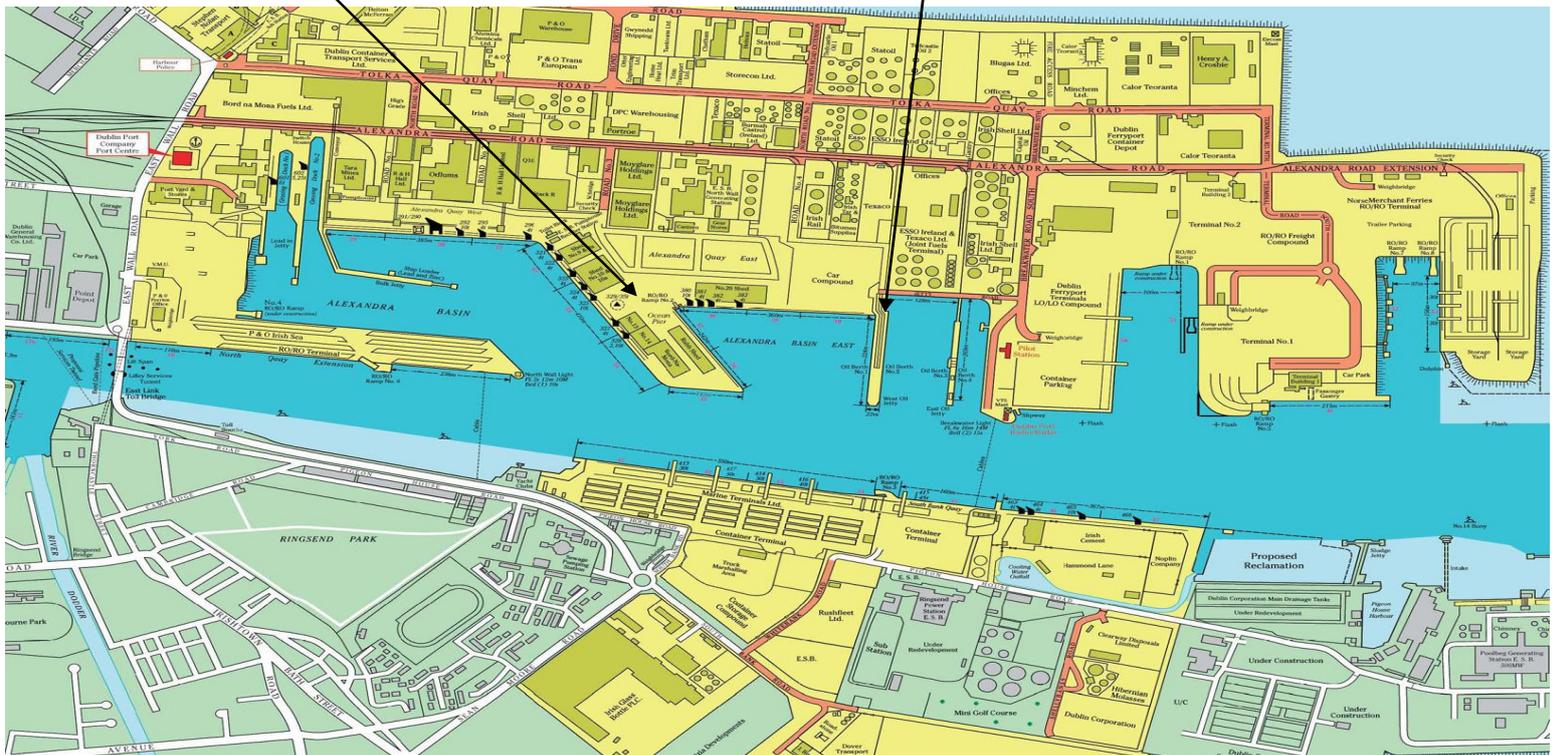
S.I. No. 126 of 2011: European Communities (Waste Directive) Regulations 2011

2 a. MAP AND DETAILS OF JURISDICTION

The jurisdiction of Dublin Port Company is indicated on the attached map by the area/s coloured in yellow.

Alexandra Basin Ocean Skip

Oil Jetty Skip



3. DEFINITION OF WASTES USE THE DEFINITIONS IN MARPOL 73/78 REGULATIONS

3.1 MARPOL ANNEXES

- **Annex I – Oily Wastes (bilges, sludge, ballast, slops)**
- **Annex II – Noxious Liquid Substances Carried in Bulk (dirty ballast, slops, tank washings)**
- **Annex III – Pollution by Harmful Substances Carried by Sea in Packaged Form**
- **Annex IV – Sewage**
- **Annex V – Garbage**
.... which includes - hazardous waste, food waste, glass, metal, plastics, paper/cardboard, wood, paint tins, batteries
- **Annex VI – Prevention of Air Pollution from Ships**

The categories under consideration at Dublin Port Company are Annexes I, II and V, there being no general requirement for Annex III (such pollution would be dealt with by way of an appropriate response to an isolated incident). Facilities are available at Dublin Port for the discharge of sewage if required.

4. SECTION I

PROCESS UNDERTAKEN BY DUBLIN PORT COMPANY TO ACHIEVE LEGISLATIVE COMPLIANCE

4.1 CONSULTATION

Purpose

To ensure that the needs of potential users and waste regulators are taken into account when planning and operating port waste reception facilities; to ensure that all mariners are aware of the location, cost and procedures for using the facilities, and also of the consultation arrangements for the future development of adequate facilities within the port.

The port has recently and continues to have on-going consultation both with the national authority and locally with the port users (ships), through their shipping agents or shore representatives.

Objective

Dublin Port Company has taken its obligations seriously and has engaged in a consultation exercise with all links in the waste management chain in order to discuss and explain the implications of the Directive and the Statutory Instrument bringing it into effect nationally. The objective has been to effect an exchange of information and to gain an understanding of the perspective of other parts of the waste management chain in order to devise a flexible and workable system.

To ensure the adequacy of the process, Dublin Port Company has consulted:

- Ships' Masters
- Ships' Agents
- Waste Contractors
- Waste Regulators
- Central Government
- Regional Government

Process

Ships' masters have been consulted as part of the exercise to analyse types and quantities of wastes landed and this information has been obtained by questionnaires issued by Dublin Port Company and through ships' agents. The process is described in the appropriate paragraph below.

Dublin Port Company held a series of consultation meetings during June 2002. A copy of the presentation given at those meetings (supplied to all those attended) and a copy of the Minutes of the meetings) can be viewed on application to the Harbour Master, Dublin Port Company.

5. ANALYSIS OF NEED FOR WASTE RECEPTION FACILITIES

5.1 Purpose

To assemble information to allow the port to assess what facilities should be provided.

5.2 Methodology

Reproduced below is the questionnaire used to gain information in order to analyse types and quantities of wastes landed during March 2002, issued through the ships' agents. The results are analysed *infra*.

6. THE QUESTIONNAIRE

DUBLIN PORT COMPANY

SURVEY ON MARPOL 73/78 REGULATIONS AND THEIR EFFECTS

To help us improve waste management at this port, we would be grateful if you would answer the following questions and return the form to your agent before departure.

Date:

IMO Number:

I. SHIP CHARACTERISTICS

1 Name:

2 Berth/Wharf visited:

3 Number of days since last port:

4 Number of crew:

5 Number of passengers:

6 **Ship Type:**

Container ship

Dry cargo

Bulker

Gas tanker

Oil tanker

Oil tanker with segregated ballast tank

RoRo vessel

Other (please specify)

II WASTE HANDLING OPERATIONS AND FACILITIES

Annex I – Oily wastes (bilges, sludge, ballast, slops)

7 Give size of on board facilities for storage of oily wastes (cu.m):

8 If you have on board processing facilities please tick:

9 Describe quantities of waste which

will be handled in this port (cu.m):

- Dirty ballast
- Slops
- Tank washings
- Bilges
- Sludges
- Other (please specify) _____

- 10 If you discharge only to shore facilities please tick:**

Annex IV – Sewage

- 11 Give size of on board facilities for storage of sewage (cu.m):** _____

- 12 If you have on board treatment facilities, please tick:**

- 13 Describe quantities of waste which will be handled in this port:**

Annex V – Garbage

- 14 Give size of on board facilities for storage of garbage (cu.m):** _____

- 15 Describe quantities of waste which will be handled in this port (10kg sacks):**

- Hazardous waste
- Food waste
- Glass
- Metal
- Plastics
- Paper/cardboard
- Wood
- Paint tins
- Batteries
- Other (please specify) _____

- 16 Which of the following do you segregate:**

- Hazardous waste
- Food waste
- Glass
- Metal
- Plastics

- Paper/cardboard
- Wood
- Paint tins
- Batteries
- Other (please specify) _____

17 Do you have any cargo waste to dispose of in this port?

- Dunnage
- Sweepings
- Other (please specify) _____

18 Which of the following do you have on board?

- Compactor
- Incinerator
- Comminuter
- Grinder

III ADDITIONAL INFORMATION

19 Who makes arrangement for shore facilities and disposal of waste?

- Ships personnel
- Terminal operator
- Agent
- Company representative
- Port

20 How do you rate the cost of disposal in this port?

- High
- Low

21 How do rate reception facilities in this port?

Annex I

- Excellent
- Good
- Average
- Poor

Annex V

- Excellent
- Good
- Average
- Poor

7. ANALYSIS OF PRIMARY DATA AND RESULTS

7.1 Limitations and constraints

In a sample conducted over one month period (March 2002) 54 returns were received.

7.2 Research Methodology

The questionnaire derived from past research and amended to suit Dublin Port Company. It sought basic information about the vessel and numbers of people. Questions were asked about the segregation of waste types and any provision for on-board storage and treatment facilities. Additional information as to how facilities were rated for efficiency and cost was ascertained.

7.3 Statistical Analysis

The data received was analysed to ascertain total oily wastes and garbage discharges for 54 ships. The quantity for one ship could therefore be calculated and multiplied by monthly/annual vessel total.

7.4 Results

10 ships out of the 54 discharged oily wastes. The sample size therefore discharged 1436 cu m oily wastes. 1 ship can be estimated to discharge 26.59 cu m (average).

By the same method, the average garbage discharge per vessel was calculated as 14 kg.

7.5 Credibility

It is impossible to comment whether the garbage figure is accurate or not. European research data suggests using a waste factor of 1.5kg of garbage per person per day. However, data has been received showing tonnes of garbage collected from ships 2000-2001 (477 tonnes) and January - October 2002 (80 tonnes). It is the view of Dublin Port Company that the amount will rise with the increase in visits by cruise liners and that 500 tonnes per annum is not an unreasonable assumption. The current figures represent wastes received from cruise liners and navy vessels: no Ro-Ro or Lo-Lo vessels have discharged.

8. STUDY OF WASTE HANDLING CHAIN

In the course of the consultation exercise, Dublin Port Company had discussions with Greenclean, Ipodec, Department of Agriculture, Department of Communications, Marine and Natural Resources, Dublin City Council, and Fingal County Council.

9. SECTION II THE PORT WASTE MANAGEMENT SYSTEM

PROCEDURES FOR THE USE OF THE PORT WASTE RECEPTION FACILITIES AT DUBLIN PORT COMPANY

9.1 Mandatory Provision

Dublin Port intends to make available the following system of port reception facilities for ship generated waste

9.2 Mandatory Discharge

All vessels **MUST** discharge ship-generated waste before leaving Dublin Port **unless** it can be demonstrated that either storage space for such waste is sufficient, **or** the vessel has applied for and has been granted an exemption, thereby meeting the 3 criteria as outlined in Section 9.3

If retaining waste on board, a legitimate reason for not using the port reception facilities must be given, (such as having sufficient storage space on board). In such circumstance, the Master must apply (using the appropriate form), for the retention of “ship generated” waste on board. This completed form to be sent to the Harbour Master, Dublin Port Company via the Ship’s Agent, or directly if no ship’s agent has been appointed.

Failure to do so may result in detention in port until waste has been discharged. If there is reason to believe that there is a risk of waste being discharged into the sea because adequate facilities are not available at the next port of call; or if that port of call is unknown, these will also be grounds for detention.

9.3 Definition of an Exempt Ship

Ships that meet the 3 criteria indicated below, may apply for an exemption from the port waste management system. Applications for exemptions must be made to Dublin Port Company and be approved by the Minister prior to an exemption being granted. There are three grounds for the granting of an exemption and they must **ALL** be satisfied:

SCHEDULED traffic operating along a regular route

Evidence of DELIVERY in one port along the route

Evidence of PAYMENT in one port along the route

9.4 Notification Requirement

The following information is required from **ALL** vessels prior to arrival:

- Name/call sign/IMO number
- Flag state
- ETA/ETD
- Previous/next port of call
- Last port and date when ship generated waste was delivered
- Whether delivering all/some/none of ship generated waste into facilities

- Type and amount of waste to be delivered/stored on board plus maximum storage capacity
- The unit of measurement is cu m/kg

9.5 Notification Mechanism

The checklist is to be completed by the Master and submitted to Dublin Port Company via the ship's agent 24 hours prior to arrival. All commercial vessels are also required to set notification to the Department of Transport, Tourism and Sport (DTTAS), by means of “Safe Seas Ireland”, which has become the central source of all shipping notifications for vessel arrivals into Irish ports. In relation to Ships waste declarations, this is the key means of vessels declaring their waste situation on board. By default therefore Dublin Port is no longer the main recipient of such waste notifications.

In relation to the Ships Waste collection in the Alexandra Quay and Oil Jetties undertaken by Panda Waste (10 bags or less), records to be held centrally in the Harbour Office and be available for auditing, or statistical gathering purposes for 3 years as required under S.I. No 117 of 2003.

Failure to submit a checklist MAY result in delay in entry. It is to be noted that this will be called a SCHEDULE 2 WASTE CHECKLIST to avoid confusion with the convention that Schedule 2 checklist refers to hazardous cargo.

9.6 Records

In relation to Ships waste landed in Dublin Port, the Ship’s Agents to maintain records of all ships waste landed in the port and to hold copies of all records, as supplied by the waste removal contractors. In relation to the Ships Waste collection in the Alexandra Quay and Oil Jetties undertaken by Panda Waste (10 bags or less), records to be held centrally in the Harbour Office and be available for auditing, or statistical gathering purposes for 3 years.

9.7 Charging System

In relation to the provision of Waste skips, Dublin Port Company does not provide the waste removal services directly, and accordingly has no control over the charges involved. These charges are levied by the licensed contractors (who are approved by the local authority), and will vary dependant on the type and quantity of waste involved. For limited quantities however, Panda Waste along with the port provides 2 locked skips for small amounts of ships waste (up to 10 bags). Dublin Port Company are satisfied that adequate waste reception facilities are available within the port.

9.8 Fees

The fees currently cover the provision of a security officer who attends when the ship’s waste is transferred from the ship to the skip. The officer supplies “red bags”, to better identify the ships waste which is then “double bagged”. The officer will

unlock the skip and relock it after loading. He/she will ensure that the ship's waste docket book is completed by the ship's crew, clearly listing the name of ship and number of bags delivered.

This process is self-financing and there is a minimum €50 charge for one bag up to 5 bags, greater than this number, each bag will be charged an additional €10 each, up to a maximum of 10 bags or €100. Waste in excess of 10 bags will require the ship to order its own skip and control their own waste management. The Waste Contractor will bill the Ships agent directly for this service.

9.9 Pricing

A list of prices, relating to the provision of waste management services, is readily available to the ship, from the waste removal contractors, through the Ship's Agent. The receipts for the service to be supplied by both the contractor and by the local authority, and such receipts to be held by the relevant Ships Agent, for a period of a minimum of 3 years.

The waste company will levy the €10 per bag for the service (Use of the bins, removal of bins under licence & deep burial)

9.10 Waste Oil

An approved waste oil removal contractor to be engaged, and the waste oil to be removed to an approved recycling facility. Records to be kept by both the contractor and the Ship's Agent and the Ship's Agent to hold such records for a minimum period of 3 years.

10. GIVING EFFECTIVE INFORMATION TO USERS

10.1 Purpose

Is to ensure that all vessels are aware of the services and procedures for within the port.

10.2 System

Twenty four hours (24hrs) prior to arrival the vessel will be instructed by the agent to complete the Schedule 2 (Waste) checklist.

The system will be publicised through the agents and all parts of the waste management chain will have copies of this plan and an accompanying Contact Directory (with an amendment and update procedure).

11. DUTY OF CARE/WASTE TRANSFER/WASTE DISPOSAL

11.1 System

Reception and storage are the key elements to the successful management of port waste reception facilities.

It is intended that oily wastes (MARPOL Annexes I), will be collected by an authorised contractor licensed to collect and dispose of such material. The charge raised for the service is dependent on the charge, which the contractor makes for this service.

It is of fundamental importance that all ship-generated waste be dealt with as outlined in this waste management plan.

11.2 Waste Disposal

For vessels with a small amount (Max. 10 bags), of Galley Waste in the Alexandra Basin common user area:-

There are 2 lockable skips for galley waste in the Port, one will be located in the common user area and the second will be located in the oil jetty.

These are of “standard size”, each of 6 cubic metre capacity. One is located at Ocean Pier adjacent to the No. 2 Ramp, Berth 38. The second is located on Jetty Road servicing the oil berths.

Upon applying to land the bags of “galley waste”, the ship to specify the time and number of bags to be delivered. Security will meet a representative from the ship at the ship and escort them with the bags to the skip, and oversee transfer of the bags after each being “double wrapped” in separate red bags prior to then being deposited into the lockable skip.

When the skips are full or near full the waste contractor will be notified by port security, and the waste contractor will arrange with the Department of Agriculture, Food and the Marine (DAFM) to provide an inspector to be on site to escort the load from the quay to the licenced disposal facility. On a land-fill facility, the waste is sprayed and “deep buried” by means of a bull-dozer or similar machine. This process is followed where ever the vessel has arrived from, however by the very nature of our business, most of our vessels are “short haul” from Europe, Dublin being very much a transit port, rather than a “Hub Port”, such as the very large and deep mainland ports.

All skip locations are covered by the Port security CCTV system and are reasonably close to all berths.

For Ships such as cruise liners or naval vessel with a large amount of Galley Waste required to be discharged:-

Vessels will used approved contractors which are organised directly by the Ship’s Agent, or Terminal Operator. In relation to Waste Oil and Sludge, an approved waste provider to be contracted via the Ship’s Agent or Terminal Operator. All other

waste to be treated as galley waste and dealt with in accordance with the DAFM ICW procedures.

Dublin Port Company will maintain a current up to date permit for Landers of Swill/ Galley waste.

11.3 Process

For vessels with a small amount of Galley Waste in the Alexandra Basin common user area:-

If a ship requires to dispose of galley waste in the common user area the ships agent will contact Port Operations (01-8876858) giving a minimum two hours notice. Port Operations will then advise Port Security for the common user area or in the case of the oil jetty the Fire Warden.

Port Security / Fire Warden will meet ship personnel at the designated skip and ship staff will then double wrap the waste with an identifiable outer bag supplied by the Port and then place the waste bags in the skip. Note all bags must be double wrapped with the designated identity bag on the outside (the outer bags are biodegradable). Port Staff are responsible for maintaining the units locked at all times.

Port Staff will issue two dockets to the ship indicating the number of bags deposited and their identity reference (the second copy is supplied for the benefit of the ship's agent). This docket will also note both the ships and the agent's name. A copy will be retained in the Port Operations station for collection by the waste contractor on a weekly basis and the final copy will be maintained for waste management records that may be audited at any stage e.g. by the Department of Agriculture, Food and the Marine (DAFM).

Operating to a documented standard operating procedure (SOP) the waste contractor will inspect the satellite bins weekly and remove the bags to the compactor. The waste contractor will maintain a log sheet 'Galley Waste Contractor Variance Report Log' as per attached as evidence of no variance between actual and recorded amounts. As required the compactor will be removed inline with the permit/licence conditions for deep burial.

The main contractor must ensure compliance with appropriate regulatory requirements. This would include the requirement to hold a mover licence from the DAFM, an advance permit per skip from Dublin City Council, a commercial document to remove each skip with Category 1 waste and a burial document. A full up to date record must be maintained at all times ready for any third party independent audit. These procedures must be documented in the galley waste SOP.

11.4 Charges

This process is self-financing and there is a minimum €50 charge for one bag up to 5 bags, greater than this number, each bag will be charged an additional €10 each, up to a maximum of 10 bags. Waste in excess of 10 bags will require the ship to order its

own skip and control their own waste management. The Waste Contractor will bill the Ships agent directly for this service.

This system will be continuously monitored to ensure that it meets best waste management practices.

If this process is acceptable the Port waste management plan will be updated and the Harbour Master will issue a 'Notice to Mariners' advising them of this new procedure.

11.5 Pre-treatment of ships Waste

In relation to the pre-treatment of Ship's Waste by the port, there is currently no waste pre-treatment equipment in the port.

11.6 Cargo Residues

Cargo residues, in terms of cargo waste, to be treated in the same manner as others ships waste.

12. GRIEVANCE PROCEDURE

12.1 Format for reporting Alleged Inadequacies

The Master of a ship having encountered difficulties in discharging waste to reception facilities should forward the information (on relevant form), together with any supporting documentation, to the administration of the ship's flag state and, if possible, to the competent authorities in the port state.

The appropriate form will be supplied to the ship through its agent within the port.

There is to be regular and ongoing consultation between the port and the Ship's Agents in relation to waste management issues and the waste management plan.

12.2 Grievance Procedures

Under Article 12 (f) of the Waste Management Directive 2000/59/EC, any report or complaint of alleged inadequacy of waste reception facilities to be reported to the Harbour Master of Dublin Port Company, who then forwards such complaints to the Maritime Services Division of the Department of Transport, Tourism and Sport.
See appendices for a copy of the Report or Complaint of Alleged Inadequacy of Waste Reception Facilities Form.

13. AUDIT AND REVIEW

13.1 Purpose

To ensure that port waste management facilities are relevant and are up to date, and that plans are implemented effectively.

13.2 Compliance and Monitoring

The Harbour Master is the designated responsible person for Dublin Port Company nominated to implement the Dublin Port Company Ship's Waste Management and to keep it up to date and relevant. He may carry out spot checks on vessels likely not to meet the requirements as set out in the regulations. Spot checks can be undertaken on vessels deemed unlikely to use facilities as outlined in this plan.

Additionally, there will be an inspection of a fixed proportion of vessels (25%) by the relevant Port State Control authority. Vessel logbooks of all waste generated during a voyage, plus disposal data, will form part of the inspection.

APPENDICES

1 SOP-DPC-ENV-022 Discharging Waste Oil & Sludge on Western Oil Jetty

2 SOP-HBR-OPS-009 Galley Waste Management

3 Format for reporting alleged inadequacies of port reception facilities

FORMAT FOR REPORTING ALLEGED INADEQUACIES OF PORT RECEPTION FACILITIES¹

The master of a ship having encountered difficulties in discharging waste to reception facilities should forward the information below, together with any supporting documentation, to the Administration of the flag State and, if possible, to the competent Authorities in the port State. The flag State shall notify IMO and the port State of the occurrence. The port State should consider the report and respond appropriately informing IMO and the reporting flag State of the outcome of its investigation.

1 SHIP'S PARTICULARS

- 1.1 Name of ship: _____
- 1.2 Owner or operator: _____
- 1.3 Distinctive number or letters: _____
- 1.4 IMO Number²: _____
- 1.5 Gross tonnage: _____
- 1.6 Port of registry: _____
- 1.7 Flag State³: _____
- 1.8 Type of ship:
- Oil tanker Chemical tanker Bulk carrier
- Other cargo ship Passenger ship Other (specify) _____

2 PORT PARTICULARS

- 2.1 Country: _____
- 2.2 Name of port or area: _____
- 2.3 Location/terminal name: _____
(e.g. berth/terminal/jetty)
- 2.4 Name of company operating the reception facility (if applicable): _____
- 2.5 Type of port operation:
- Unloading port Loading port Shipyard
- Other (specify) _____
- 2.6 Date of arrival: ___/___/___ (dd/mm/yyyy)
- 2.7 Date of occurrence: ___/___/___ (dd/mm/yyyy)
- 2.8 Date of departure: ___/___/___ (dd/mm/yyyy)

¹ This format was approved by MEPC 53.

² In accordance with the *IMO ship identification number scheme*, adopted by the Organization by Assembly resolution A.1078(28).

³ The name of the State whose flag the ship is entitled to fly.

3 INADEQUACY OF FACILITIES

3.1 Type and amount of waste for which the port reception facility was inadequate and nature of problems encountered

Type of waste	Amount for discharge (m ³)	Amount <u>not</u> accepted (m ³)	Problems encountered Indicate the problems encountered by using one or more of the following code letters, as appropriate. A No facility available B Undue delay C Use of facility technically not possible D Inconvenient location E Vessel had to shift berth involving delay/cost F Unreasonable charges for use of facilities G Other (please specify in paragraph 3.2)
MARPOL Annex I-related			
Type of oily waste:			
Oily bilge water			
Oily residues (sludge)			
Oily tank washings (slops)			
Dirty ballast water			
Scale and sludge from tank cleaning			
Other (please specify)			
MARPOL Annex II-related			
Category of NLS ⁴ residue/water mixture for discharge to facility from tank washings:			
Category X substance			
Category Y substance			
Category Z substance			
MARPOL Annex IV-related			
Sewage			
MARPOL Annex V-related			
Type of garbage:			
A. Plastics			
B. Food wastes			
C. Domestic wastes (e.g. paper products, rags, glass, metal, bottles, crockery, etc.)			
D. Cooking oil			
E. Incinerator ashes			
F. Operational wastes			
G. Cargo residues			
H. Animal carcass(es)			
I. Fishing gear			
MARPOL Annex VI-related			
Ozone-depleting substances and equipment containing such substances			
Exhaust gas-cleaning residues			

⁴ Indicate, in paragraph 3.2, the proper shipping name of the NLS involved and whether the substance is designated as "solidifying" or "high viscosity" as per MARPOL Annex II, regulation 1, paragraphs 15.1 and 17.1 respectively.

3.2 Additional information with regard to the problems identified in the above table.

3.3 Did you discuss these problems or report them to the port reception facility?

Yes No

If Yes, with whom (please specify)

If Yes, what was the response of the port reception facility to your concerns?

3.4 Did you give prior notification (in accordance with relevant port requirements) about the vessel's requirements for reception facilities?

Yes No Not applicable

If Yes, did you receive confirmation on the availability of reception facilities on arrival?

Yes No

4 ADDITIONAL REMARKS/COMMENTS

Master's signature

Date: __/__/____ (dd/mm/yyyy)

CONTACT DIRECTORY

Users, contractors, regulators, Government agencies

NAME	ADDRESS	PHONE NO.
Feargal O’Cuinnegain	Dept. of Agriculture, Food & the Marine Kildare Street, Dublin 2.	01 8658248/9 01 8741250 01 6076228
Eithne Gore or John O’ Farrell Maritime Services Division, Dept. of Transport, Leeson Lane, Dublin2	Dept. of Transport & Sport. Leeson Lane, Dublin 2.	Eithne Gore at (01) 6783422, or John O’ Farrell at (01) 6783461, or shipsourcepollutionprevention@dtas.ie
Frank Murphy Pat Cartney Vivian Aherne	Dublin City Council, Environmental Section, Eblana House 68-70 Marrowbone Lane Dublin 1	01 2224374 012224235 012224276
	Environmental Protection Agency, Mc Cumiskey House, Richview, Clonskeagh Road, Dublin 14.	053-9160600 1890335599 01-2680100 Emergency Numbers Dublin Inspectorate 01-2852122
Mr. P.J. Howell Director of Services for the Environment	Fingal County Council, Environmental Section, Main Street, Swords, Co. Dublin.	01 8905000 or 01 8906261
	Enva (Waste Oil), JKF Industrial Estate, Naas Road, Dublin 10	01-4508111

	Thorntons Recycling Centre, Killeen Road, Dublin 10	01- 6235133
	Greyhound Waste Disposal Ltd., Head Office, Craig Ave., Clondalkin Indus. Estate, Dublin 22.	01- 4577777 option 2
Mr. Leo Stafford	Panda, Business Beauparc Park, Navan, Co. Meath.	01-8438855 086-2772083 046 9024111 1890 626262
	Greenstar Customer Services Centre, Millenium Park, Ballycoolin Road, Dublin 11	1890 500 800 1890 600 900
Dublin City Council Emergency Phone Number		01 6796186

Amendment record sheet

(Amendments are shown in Italics)

Amendment Number	Date	Amended by	Pages amended
0001	15 th May 2008	Capt. F .Britton	Number 21
0002	22 nd March 2010	Capt. F .Britton	18.19.20.21, 22 & 23
0003	29 th Nov 2011	Capt. F. Britton	23
0004	16 th May 2013	Capt. F. Britton	Pages 5 -15 & 20 & 32
0005	May 2014	Capt. F. Britton	Sections on Red & Blue
0006	January 2017	Capt. F. Britton	Waste Oil facility on Western Oil Jetty for Tankers page 4 Contact Sheets pages 35 & 36. Legislative Summery pages 15 -18. Index page updated
0007	August 2017	Capt. F. Britton	Format for Reporting alleged inadequacies page 41 Animal Health and Welfare Act 2013 & S.I. No. 187 of 2014: European Union (Animal By-Products) Regulations 2014 added on page 25 Index page numbers updated.
0008	September 2017	Capt. F. Britton	Section 1.1 Constitution Pg. 3 Section 11.2 Waste Disposal Pg. 21 Section 12.2 Grievance Procedures Pg. 22 Appendices Pg. 24
0009	November 2017	Capt. F. Britton	Page 10 - Map, Pages 19,20, 21,22&29 Page 25 Appendices - SOP's