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3. PROJECT NEED AND ALTERNATIVES

3.1 Introduction

This chapter of the EIAR explains the need for the overall Howth harbour dredging and land reclamation development in the context of the relevant planning policy framework. The main viable alternatives examined and considered during the project design process are outlined and the main reasons for choosing the proposed development are indicated.

3.2 Need for the Proposed Development

3.2.1 Introduction

Howth harbour bed was last dredged in the early 1980s during wider development works as discussed in **Chapter 2 Description of the Proposed Development**. Since that time, the bed levels have gradually risen as a result of sediment deposition onto the bed. Some dredging has occurred in late 2020 with the Middle Pier works but it is minor and does not address the main siltation issue. The need for the development is based around current and future issues. Current issues impacting the harbour due to the sedimentation are as follows:

- Together with increasing vessel drafts, the bed levels are becoming an increasing hazard to vessels using the harbour. This hazard is relevant to the commercial fishing fleet, the RNLI life boat and the pleasure craft that use the harbour.
- The shallow water depths due to sediment, in the vicinity of the RNLI slipway, constrains access to the water for the inshore lifeboat (rib) and the public during spring low tides.
- The use of the boat lift for the ship yard is currently restricted due to siltation under the lift itself.

The harbour will be impacted in the future by the sedimentation due to the following:

- The proposed project is necessary as without action the harbour will lose its functionality over time. The loss of functionality will impact on the commercial aspect of the whole harbour, the pleasure craft within the harbour and the functioning of the RNLI lifeboat station.
- Due to increased draft size in fishing vessels, in order to maintain vessel safety and the commercial viability of the harbour into the future, increased depths are required beyond previous designed harbour depths.

The Department of Agriculture, Food and the Marine (DAFM) is now proposing to dredge the harbour and to reuse the dredge spoil in the reclamation of an area of land on the west side of the west pier.

This sub-section outlines the current data that shows the need to dredge the harbour and the extent of the dredge required for it to be addressed.

3.2.2 Bathymetric Data.

Bathymetric data is available for the West Trawler Basin, the Moorings area, east of the East Pier and the Approach channel (see **Figure 3.1** below). Originally, the only seabed level data that was available for the Marina Area and for the seabed west of the West Pier was from the Admiralty Chart covering

Howth Harbour. In order to more accurately ascertain levels in these areas, further bathymetric surveying was undertaken.

Bathymetric data was used with design dredge levels given below to establish the total volume of dredging material.

3.2.3 Design Dredge Levels

Design dredge levels were established based on discussions with DAFM representatives, including the Howth Harbour Master (See **Figure 3.2** below). The levels chosen were based on existing tide levels and the provision of water depths appropriate to the harbour users in the various areas of the harbour.

Tide Levels in the Harbour are given in **Table 3.1** below. They have been obtained from the Admiralty Tide Tables for Astronomic tides. It should be noted that meteorological conditions can cause actual tide levels to be higher or lower than Astronomic tides.

Table 3.1: Howth FHC - Tide Levels

Tide	Water Level m Chart Datum	Water Level Meters Ordnance Datum Poolbeg (mODP)	Water Level Meters Ordnance Datum Malin Head (mODM)
Highest Astronomical Tide (HAT)	4.49	4.69	1.98
Mean High Water Spring (MHWS)	4.1	4.30	1.59
Mean High Water Neaps (MHWN)	3.3	3.50	0.79
Mean Low Water Neaps (MLWN)	1.3	1.50	-1.21
Mean Low Water Spring (MLWS)	0.5	0.70	-2.01
Lowest Astronomical Tide (LAT)	-0.37	-0.17	-2.88

Proposed dredge levels are given in **Table 3.2** below, as is the current sea bed depth range.

Table 3.2: Howth FHC Dredging - Design Dredge Depths

Location	Proposed Design Dredge Level mCD	Current Sea bed Depth range mCD
West Trawler Basin	-4	-1.3 to -5
Harbour Approach Channel	-4	-0.7 to -3.3
Moorings	-3	-0.1 to -2.5
Marina Approach Channel	-3	0.6 to -2.9
Marina	-3	-1 to -1.5

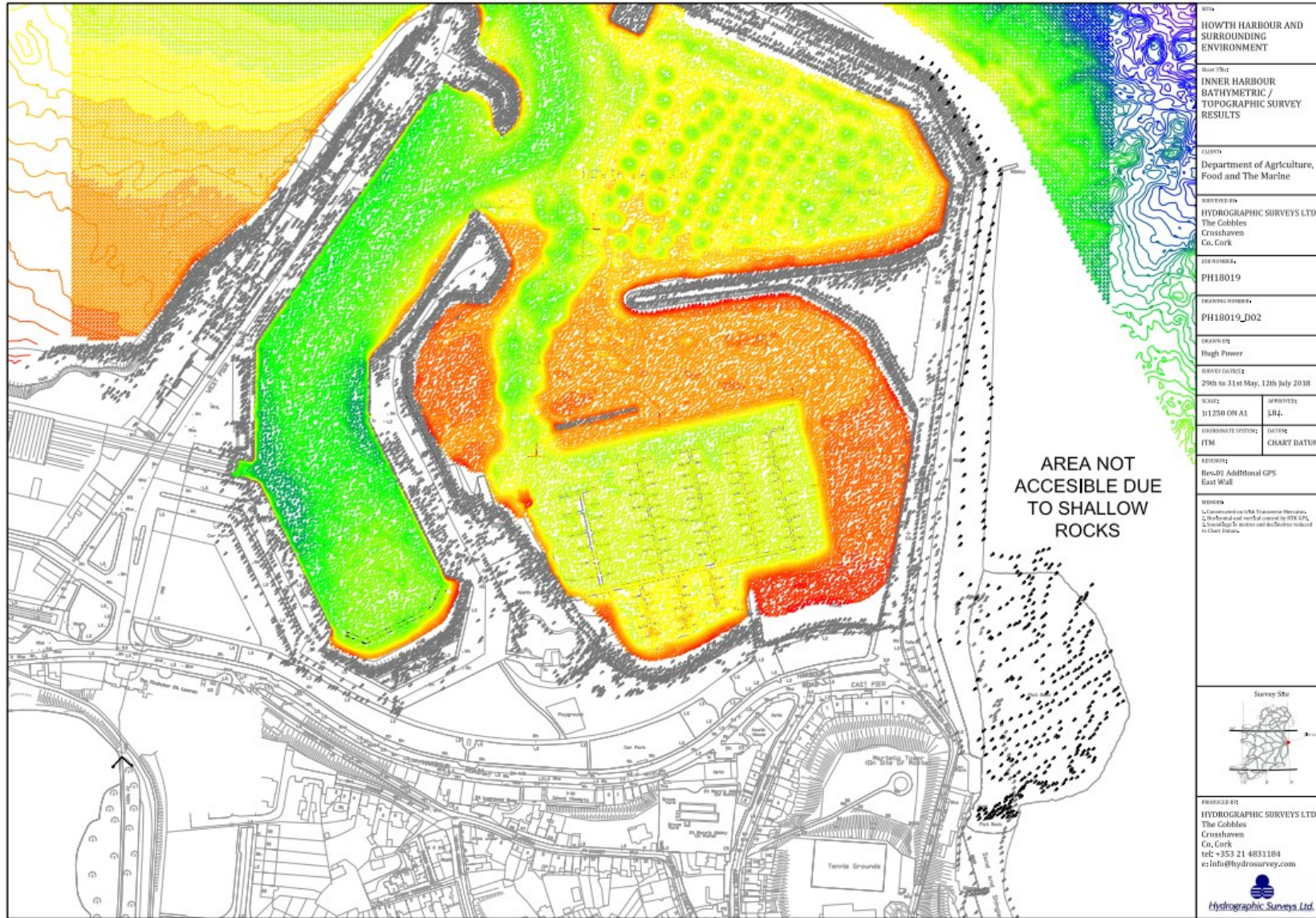


Figure 3.1 shows the latest bathymetric survey within the harbour.

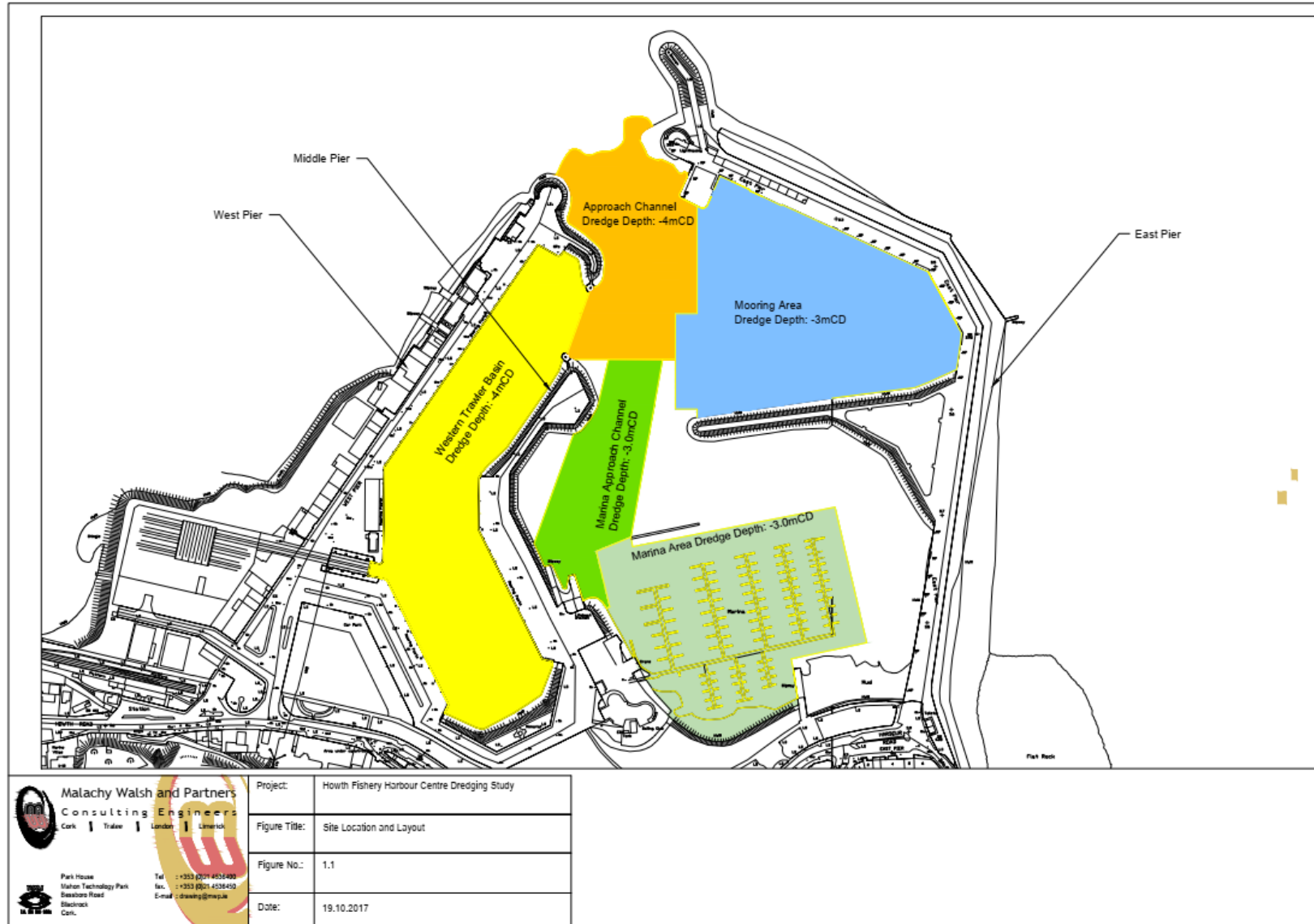


Figure 3.2 shows the design dredge levels by harbour area.

3.2.4 Ground Investigation Data - Rock Levels

The total volume of dredge material above the design dredge level includes overburden (sediment) and rock material. To estimate the various volumes of overburden and rock in the areas to be dredged an assessment was made of rock levels from a ground investigation undertaken in 2015 (See **Figure 3.3** below). These rock levels were then used to estimate rock volumes in the above design dredge levels. The volume of overburden to be dredged was then estimated by subtracting the rock volumes from the overall volume of material. It is estimated that 24,000m³ is rock and 216,000m³ is overburden. A total of 240,000m³ of material is to be dredged of which an estimated 10% is rock.

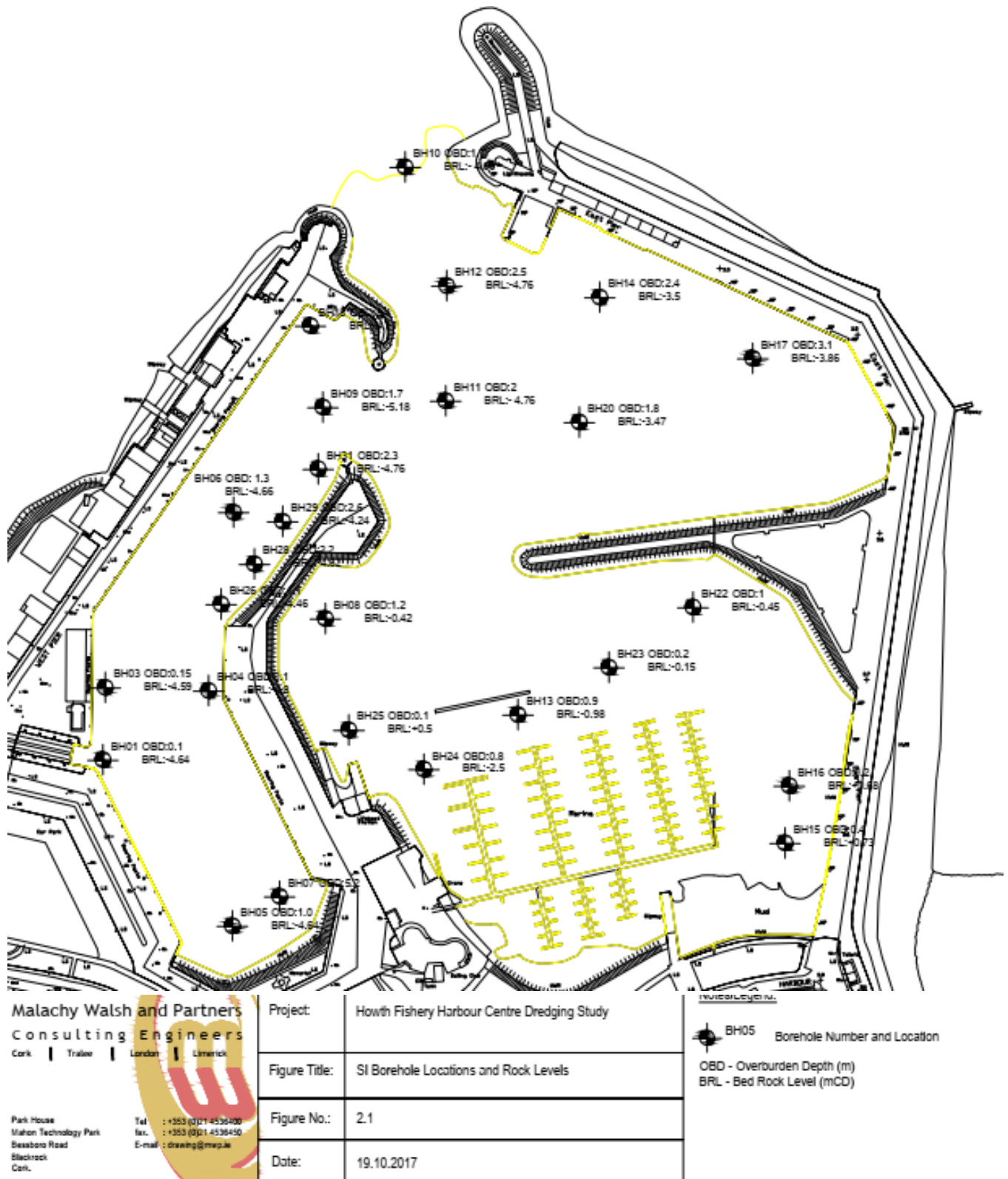


Figure 3.3 shows borehole locations and rock levels within the various harbour areas.

3.3 Alternatives Considered

3.3.1 Introduction

The following alternatives were considered with respect to the project and are discussed further in this chapter:

1. Do Nothing Scenario;
2. Disposal at Sea;
3. Burial of Dredge Material at Sea;
4. Disposal at a licensed landfill facility in Ireland;
5. Disposal of the Dredge Spoil at a Contaminated Dredge Spoil Facility Abroad;
6. Reuse of the dredge spoil locally through land reclamation.

Alternatives were considered under the following key categories:

- Feasibility;
- Cost;
- Environment;
- Beneficial re-use.

3.3.2 Do Nothing Scenario

The do nothing scenario would be not to dredge the harbour. Continued deposition of sediments in the harbour will further increase the bed level and decrease the available water depth for navigation in/out and around the harbour.

This option is not considered feasible as the harbour would lose its functionality in time.

3.3.3 Disposal at Sea

The EPA permitting criteria with regard to the disposal of dredge spoil at sea have been set down in guidance issued by the Marine Institute. Dredge material can be classified into three categories:

- **Class 1:** contaminant levels are so low that material can be disposed of at sea.
- **Class 2:** contaminant levels are above the class 1 criteria but below Class 3. In this case it is recommended that further testing could be undertaken - with a view to showing that the material is Class 1. If further testing does not show the material to be Class 1 the material is not suitable for disposal at sea.
- **Class 3:** contaminant levels are so high that material cannot be disposed of at sea.

Surveyed contaminant data was compared with the Marine Institute class limits. Based on sediment sampling and testing results, the dredge material has been found to contain both Class 2 and Class 3 contamination levels. Contaminant levels are such that the vast majority of the material cannot be disposed of at sea directly. There are pockets with lower levels of contaminants so there is a possibility that some of this material could be disposed of at sea. However, the volumes involved are small in the context of the overall dredging and it is likely to be technically difficult to prevent contaminated material from adjacent areas mixing with suitable material.

The class of contamination of the dredge material could cause biological effects to marine organisms. The Marine Institute recommends that alternative options are considered for Class 3 material.

It is therefore considered that direct disposal at sea is not a feasible option.

In addition, dumping at sea is not considered beneficial re-use of dredge material.

3.3.4 Burial of Dredge Material at Sea

Dumping at sea could be permitted if the contaminants can be contained.

There are two methods for the burial of sediments at sea, Level-Bottom Capping (LBC) and Contained Aquatic Disposal (CAD). Both methods involve capping of the contaminated sediments which consists of the controlled accurate placement of contaminated material at an open-water disposal site, followed by a covering or cap of clean isolating material.

Level-Bottom Capping (LBC) is defined as the placement of a contaminated material in a mounded configuration and the subsequent covering of the mound with clean sediment.

'Burial at sea' or Contained Aquatic Disposal (CAD) is similar to LBC but with the additional provision of some form of lateral confinement (e.g., placement in natural-bottom depressions, constructed subaqueous pits, or behind subaqueous berms) to minimize spread of the materials on the bottom.

Only the option of Contained Aquatic Disposal (CAD) will be further analysed. The theory behind this 'unlined' burial solution is that when the contaminants are attached to the sediment; and the sediment is surrounded by water on all sides so there is little chance of leachate generation as there is no hydraulic gradient.

Subaqueous capping is an attractive alternative for disposal of contaminated sediments from both an economic and environmental standpoint, given that the geochemical environment for subaqueous capping favours long-term stability of contaminants as compared with an upland environment where geochemical changes may favour increased mobility of contaminants.

There are limitations in relation to this option, because of the extent of environmentally designated areas around the Irish coast. Moreover, the Irish seabed is often rocky which makes excavation of a pit difficult. Long term monitoring of the condition of the stockpile is difficult and there is a risk of disturbance to the capping from vessels anchoring, bottom trawling etc and storm damage.

In February 2019, MWP consulted with the Marine Institute (MI) in relation to the burial at sea option for the Howth harbour contaminated sediments. In general, the MI would not object to the burial at sea option, subject to certain surveys being conducted and environmental factors assessed. The MI recommended that hydrodynamic surveys be undertaken at the disposal site and an assessment of the potential impact on the marine ecology, including spawning grounds, fish farms and marine mammals and an underwater archaeology. The MI also recommended that a report be prepared and submitted on the design of the burial pit, details of the proposed cap, construction methods and proposed ongoing monitoring.

It was decided not to carry out further detailed environmental investigations as this alternative was not considered the most cost effective or sustainable use of resources.

3.3.5 Disposal at a licensed landfill facility in Ireland

The options and permitting requirements for disposal of dredge spoil to landfill or other land based options depend on the material classification for disposal as per the Waste Acceptance Criteria (WAC) for the following class of landfills:

- Inert;
- Non hazardous;
- Hazardous.

Most of the 2015 samples were found to be within the non-hazardous range. However, a small number of samples (hotspots) were found to be potentially in the hazardous range. The principal concern related to the levels of zinc in the 2015 samples. If the origin of the zinc is inorganic the zinc levels are in the hazardous range. However, further sampling was undertaken in the vicinity of these hotspots and analysed to establish the origin of the zinc. It was found that the zinc levels did not relate to TBT's and as a consequence were organic in origin and the levels are therefore considered to be non-hazardous.

There were also some samples with potentially hazardous levels of TPH. However these levels were considered non-hazardous again, given that their origin is diesel rather than petrol.

Contaminant concentrations within the material to be dredged are therefore such that the material can be considered to be non-hazardous.

The non-hazardous nature of the dredge spoil means that the materials can potentially be disposed of to a landfill that is licenced to accept non-hazardous material. However, given the large quantities involved, the feasibility of such an option would depend on locating a non hazardous licenced facility with a large capacity to accept material.

There are some landfill facilities in Ireland that can accept the dredge spoil from Howth under their waste licences. The closest landfill to Howth is the IMS inert landfill in Naul, north County Dublin. IMS (formerly Murphy Environmental Hollywood) operate an inert landfill (EPA Licence W0129-03), just outside the Naul, in north County Dublin. IMS received approval from the EPA to increase their WAC limits for specific metals, salts and organics by 2/3 times.

The material would need to be transported by road in trucks and this would mean the material would require dewatering in advance.

Pre-treating of material may also be necessary to prevent leaching of the contaminants. The treatment would involve the mixing of the dredge material with cement in a temporary storage area and then removal to landfill site.

Material would be transported by licenced hauliers to licenced landfill sites satisfying the required environmental constraints.

Based on the estimated cost of disposal to landfill in Ireland, this is not considered the most cost effective option.

In addition, the off-site disposal to landfill of site-won material at Howth Harbour, which could alternatively be used as a valuable resource in the redevelopment works is in direct conflict with European and National legislation and European and National Policy, as outlined above. Disposal to landfill is not considered beneficial/sustainable re-use of dredge material.

3.3.6 Disposal of the Dredge Spoil at a Contaminated Dredge Spoil Facility Abroad

In Germany and the Netherlands, special facilities have been built to store contaminated dredge spoil. They are known as Confined Disposal Facilities (CDFs). As a result of new dredging practices, such as more precise dredging techniques, these facilities have surplus capacity and are accepting contaminated dredge spoil from abroad.

Regulating the movement of waste between EU Member States and between the EU and other countries is referred to as "transfrontier shipment", or TFS. Movement of waste between Member States is subject to Regulation (EC) No. 1013/2006 of the European Parliament and of the Council of 14th June, 2006 on shipments of waste. This Regulation is supported in Irish law through the Waste Management (Shipments of Waste) Regulations, S.I. 419 of 2007. Dublin City Council is the designated the National Competent Authority for the export, import and transit of waste shipments under the Waste Management (Shipments of Waste) Regulations, 2007. All transfrontier shipments of waste originating in any local authority area in the State that are subject to the prior written notification procedures must be notified to and through Dublin City Council at the National TFS Office established to implement and enforce the Regulations.

Due to the transport distances, the overall carbon footprint of this solution is likely to be greater than for solutions that deal with the material in Ireland or locally. Additionally, the cost of transporting material to the landfill sites abroad is much greater. A further concern identified with this option is the licensing required for transborder shipment of contaminated material and the double handling required allowing for shipment over longer distances.

Material would be transported by licenced hauliers to licenced landfill sites satisfying the required environmental constraints.

Based on the potential carbon footprint and the estimated cost this is not considered a cost effective option.

In addition, disposal to landfill abroad is not considered a beneficial/sustainable re-use of dredge material.

3.3.7 Reuse of the dredge spoil locally through land reclamation

The re-use of dredge spoil for the purpose of land reclamation is one of the most common beneficial uses of dredge material. Information provided in the *Guidance on the Beneficial Use of Dredge Material in Ireland* produced by Cork Institute of Technology in 2013 on behalf of the EPA was considered.

Such a reuse option would in this case involve treating of the dredged material to achieve necessary engineering and environmental properties. The sampling and testing of sediments completed in 2015

and 2019 showed that the dredge material is non-hazardous. Treating and reuse of non-hazardous material requires licensing by the EPA.

A number of potential areas of reclamation were considered:

- Reclamation to the west of the West Pier;
- Reclamation to the east of the East Pier;
- Reclamation on east section of Marina Area.

Proposed reclamations will require erosion protection works:

- Reclamation off the West Pier can be protected by a relatively inexpensive rock armour revetment.
- Reclamation off the East Pier would require the use of more costly concrete armour units. Other construction costs would also be greater for an east pier reclamation because of the greater exposure to wave action.
- Reclamation within the harbour would require the construction of vertical quay walls to minimise loss of harbour area and to maximise the area for deposition of material.

The East Pier is in need of structural repairs and overtopping volumes need to be reduced to improve public safety, structural integrity of the pier and to allow any further development of the Moorings and Marina Areas within the harbour. However, such measures could be implemented in a more suitable and cost effective way without the need for additional land reclamation.

There is a relatively shallow depth area on the east side of the Marina which could be partially reclaimed to provide land based facilities, such as vehicular access to future development in the Moorings area. However the area is likely to take only a fraction of the total volume of dredge spoil in the order of at most 10%. It is noted that improved vehicular access to the Moorings Area could be provided with a much smaller reclamation, using only 2 to 3% of the total dredge spoil volume. It is also considered that there is sufficient car parking available in the immediate vicinity of the FHC that infilling of harbour water is not preferred at present.

In terms of beneficial use and development of the harbour, reclamation to the west is preferred. This is due to the existing uses on the West Pier. The East Pier is used almost exclusively by the public for leisure and social use whereas the West Pier can be further developed for commercial and fisheries use. Development off the west pier also provides sufficient volume to deposit the full dredge quantities.

Figure 3.4 below shows the potential extent of a reclamation area to the west of the West Pier based on dredge volumes from the different areas within the harbour.

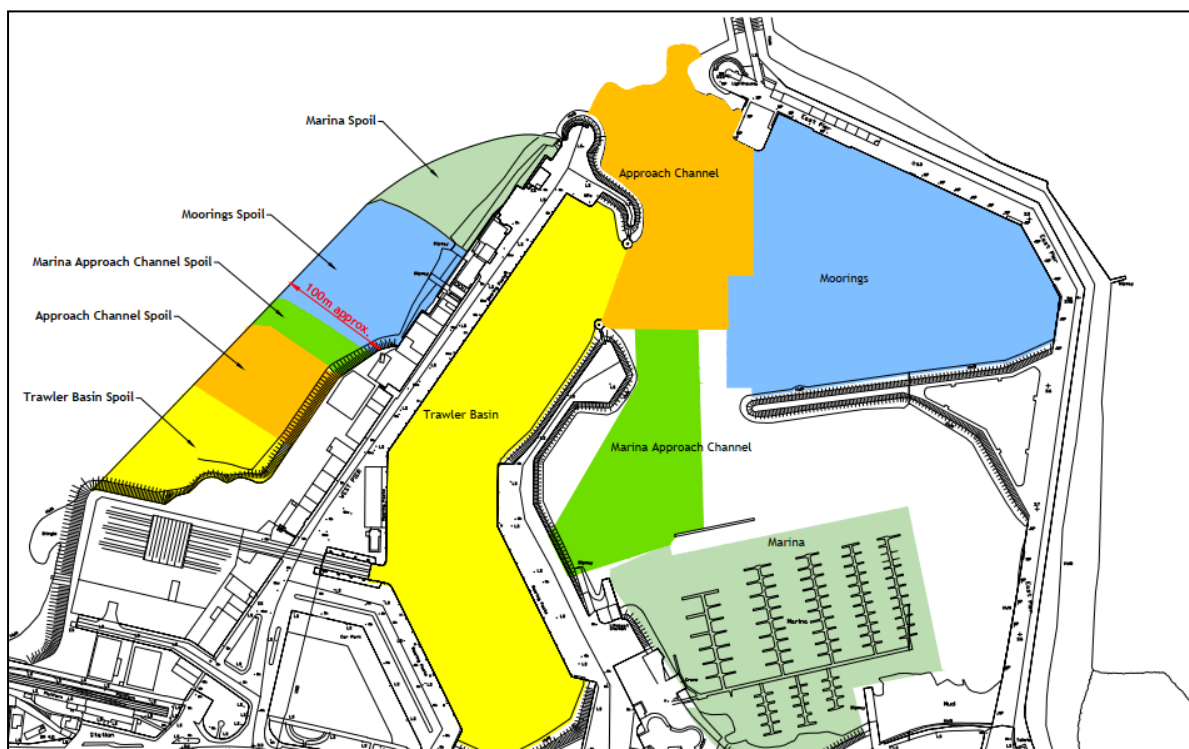


Figure 3.4 - Potential extent of a reclamation area to the west of the West Pier

This option re-uses the dredge material in a beneficial manner. New land (approx. 4.8Ha) is created for mixed use in Howth. The other alternatives investigated dispose of the material in different ways. This method is a sustainable use of resources.

Based on the cost estimate and the sustainable re-use of dredge material this option is considered the preferred option.

3.4 Alternative Layouts of the Reclamation Area on the West Pier

Nic de Jong and Associates carried out an assessment of a number of layout options for the West Pier reclamation based on land uses e.g. marine related, mixed use, open space etc. Layouts were assessed based on planning policies, natural heritage context, built heritage context, preliminary photomontages and harbour character.

The proposed layout was finalised as the preferred layout.

3.4.1 Summary of Alternatives

Several options were considered for the management of proposed dredge material from Howth Harbour. These included the beneficial re-use and disposal of material. Disposal of dredge material either to landfill or to sea is not considered a beneficial re-use of material. The international trend is now towards more sustainable use of dredge material which has been driven by economic and environmental considerations.

Reclamation to the west of the West Pier was selected as the preferred method of disposal of dredge spoil for the following reasons:

- Disposal at sea is not feasible;
- Disposal to land/landfill is not considered to be feasible, cost effective or sustainable;
- It is considered to be of greater benefit in terms of future development of the harbour;
- It is less exposed than the East Pier and therefore less costly to reclaim and to protect;
- Measures to improve the structural integrity and reduce overtopping of the East Pier can be implemented in a more suitable and cost effective way without recourse to land reclamation.
- Reclamation of areas within the harbour would reduce the water area potentially reducing the value of the harbour.

3.4.2 Governing Legislation and Policy

3.4.2.1 National Legislation and Policy

Fishery Harbour Centres Acts 1968

DAFM owns and directly manages six Fishery Harbour Centres. The centres, located at Castletownbere, Dunmore East, Howth, Killybegs, Rossaveel and Dingle, are managed and operated in accordance with the provisions of the Fishery Harbour Centres Acts 1968 which requires the Minister to manage, control, operate and develop each of the Harbours. It also places specific responsibility on the Minister in relation to maintenance, repair, improvement, extension and modification of the harbours including buildings and road access.

If dredging works are not carried out, the Fishery Harbour will not be able to provide for larger vessels with consequential detrimental effect on the local economy from fishing, leisure, vessel repair, emergency services and contrary to the Ministers responsibility.

National Marine Planning Framework Baseline Report (DHPLG, 2018)

The report has highlighted issues for the delivery of the framework. The framework is majorly targeted at the ports but harbours are within the remit. Below are the most relevant sections;

17.0 Ports, Harbours and Shipping

Part 2: Issues for Delivery

- *17.16 Dredging is essential to maintain channels and deepen berths especially as the sector is moving to ever larger ships with greater capacity. Dredged material may be disposed of at marine sites licensed by the EPA or, if possible, used for alternative purposes such as land reclamation or beach nourishment to minimise disposal at sea. Locations of disposal sites may change over time for a variety of reasons – exhaustion of site capacity, monitoring requirements, need for new sites in additional locations. Designated areas are required to dispose dredged material to ensure that ports subject to silting can be kept operational and maintain their depths, in particular when urgent dredging is required after storm activity.*
- *17.25 Dredging and disposal of the dredged material may impact on other uses and activities on a temporary basis. Dredging activity and disposal sites may not be compatible with other specific uses.*
- *17.30 Dredging and disposal are licensed activities and their environmental impacts are assessed by DHPLG/EPA during licensing procedures*

National Planning Framework, Project Ireland 2040.

National Policy Objective 40. Ensure that the strategic development requirements of Tier 1 and Tier 2 Ports, ports of regional significance and smaller harbours are addressed as part of Regional Spatial and Economic Strategies, metropolitan area and city/county development plans, to ensure the effective growth and sustainable development of the city regions and regional and rural areas.

3.4.2.2 Waste Policy and legislation

Waste Framework Directive (WFD)

The WFD [Directive \(EU\) 2018/851 of the European Parliament, amending Directive 2008/98/EC on waste](#) (WFD) (2008/98/EC) outlines the basic concepts relating to the management of waste material, including what defines waste, waste recovery and recycling. The following points outline some of the key aspects of the WFD, relevant to the proposal:

- The WFD *“establishes a legal framework for treating waste in the EU. This is designed to protect the environment and human health by emphasising the importance of proper waste management, recovery and recycling techniques to reduce pressure on resources and improve their use.”*
- The legislation establishes a waste hierarchy: prevention, re-use, recycling, recovery for other purposes such as energy and disposal.
- It makes a distinction between waste and by-products. Under the Directive, a by-product is defined as the result of a production process that was not the primary aim of that process. Unlike waste, it must be able to be used afterwards. The Directive allows the [European Commission](#) to set criteria to be met by substances so as to differentiate by-products from waste.
- Article 28 of the WFD sets out the grounds by which a material which is recovered or recycled from waste can be deemed to be no longer a waste.
- Competent national authorities must establish waste management plans and waste prevention programmes.
- It introduces recycling and recovery targets to be achieved by 2020 for construction and demolition waste (70%).

The waste hierarchy is regarded as the cornerstone of European and National waste policy and legislation, and epitomises the fundamental principle of Circular Economy.

European Communities (Waste Directive) Regulations 2011 (S.I. 126 of 2011)

These Regulations amend the Waste Management Act 1996 which implements a large part of the WFD Directive 2008/98/EC of the European Parliament and of the Council on waste and provide measures to prevent or reduce the adverse impacts of the generation and management of waste in Ireland. The Regulations seek to reduce the overall impacts of waste recycling and re-use and to improve the efficiency of the use of waste. The regulations concern waste prevention and re-use of waste as by-product and end-of-waste.

A Resource Opportunity – Waste Management Policy in Ireland 2012

The Waste Framework Directive (Directive (EU) 2018/851 of the European Parliament, amending Directive 2008/98/EC on waste (WFD) (2008/98/EC) outlines the waste hierarchy in order of priority: prevention, re-use, recycling, recovery for other purposes such as energy and disposal. The hierarchy

is regarded as the cornerstone of European and National waste policy and legislation, and epitomises the fundamental principle of the circular economy.

In 2012, The Department published the most recent Waste Policy Document entitled 'A Resource Opportunity – Waste Management Policy in Ireland'. This policy provides a roadmap on how Ireland will disengage from an over-dependence on disposal in landfill, by putting in place the most appropriate technologies and approaches to reduce waste, while at the same time maximising the resources that we can recover from waste. The Circular Economy, which aims to reduce waste and ensure that materials are used as efficiently as possible. Every year, Ireland generates over 100 million tonnes of material. A huge proportion of this material is treated as waste, being disposed of in landfill or being incinerated after only a short period of use (*A Resource Opportunity, 2012*). The WFD and the government drive for a circular economy condemns this consumer based throwaway culture whereby material which has the potential for use as a valuable resource is otherwise disposed of.

The proposal to re-use the suitable site-won material on the site of origin with a beneficial end use is in accordance with the aims and objectives of this Policy.

Closing the loop - An EU action plan for the Circular Economy COM/2015/0614

The value of the Circular Economy is fully recognised by the UN, OECD and EU. 'Closing the Loop' An EU Action Plan for the Circular Economy 2015 considered the whole lifecycle of products and adopted a systemic approach that promotes partnerships along the entire value chain and across different sectors. The EU Action Plan identified five priority sectors, including construction and demolition. The target for C&D non-hazardous waste to reuse, recycle or recover, including beneficial backfilling operations using waste as a substitute of 70% by weight.

Waste Action Plan 2019

In line with EU policy, the Department of Communications, Climate Action and Environment is currently undertaking public consultation on a new Waste Action Plan for a Circular Economy. Circular Economy is defined as one in which we keep resources in use for as long as possible, extracting the maximum value from them while in use, then recovering and regenerating products and materials at the end of each service life. Preventing waste, including construction waste, not only makes environmental and economic sense, it also reduces the pressure on our waste infrastructure to manage waste. Less waste will mean less demand on finite resources and helps us transition to a circular economy.

The consultation paper on the Waste Action Plan for a Circular Economy states that *"We need to increase the recycling of construction waste radically and replace our reliance on the recovery of waste at landfill in order to comply with the waste hierarchy and our 70% recycling/recovery EU target. At the same time, the success in reducing the number of municipal landfills has meant that there are currently limited outlets for certain C&D waste streams which were traditionally recovered by being used as cover or used for engineering purposes at landfill"*.

There are only two landfills in Ireland that are licensed for the acceptance of C&D waste; Integrated Material Solutions (IMS) in Hollywood, North County Dublin and Walshestown Landfill in Naas, Co. Kildare. Costs associated with landfill of material from the proposed project are prohibitive and landfilling is not the preferred option in terms of the waste hierarchy.

Eastern-Midlands Waste Management Plan 2015 - 2021

The Waste Management Plan for the Eastern Midlands Region is the framework for the prevention and management of wastes in a safe and sustainable manner. The waste management plan is a statutory document prepared by the local authorities in the region: Dún Laoghaire-Rathdown, Dublin City, South Dublin, Fingal, Louth, Offaly, Meath, Wicklow, Westmeath, Dún Laoghaire, Kildare, Laois & Longford.

The implementation of the Eastern-Midlands waste plan must ensure that European and national mandatory targets are achieved and, in doing so, that the health of communities in the region, its people and the environment are not compromised.

The strategic vision of the regional waste plan is to rethink the approach to managing waste, by viewing waste streams as valuable material resources. Making better use of resources and reducing the leakage of materials, as wastes, from economies will deliver benefits economically and environmentally to the region. The move to a circular economy, replacing outdated industrial take–make–consume and dispose models, is essential if better use is to be made of resources and become more resource efficient. The strategic approach of the plan places a stronger emphasis on preventing wastes and material reuse activities.

The proposal to re-use the suitable site-won material in the reclamation site is in line with the objectives of the Eastern-Midlands Waste Management Plan.

3.4.2.3 Local Planning Policy

Fingal Development Plan 2023-2029 Strategic Issues Paper (Fingal County Council, 2021)

Key issues within the paper that are relevant to this project are as follows;

- *The new Development Plan will build on and further enhance Fingal's network of high-quality recreational spaces which range from regionally important public demesnes to smaller pocket and local neighbourhood parks (pg27). The new development plan will look to increase recreational space.*
- *The impact of climate change (pg 59). The project design chosen is considered the one with the smallest carbon foot print amongst all the alternatives.*
- *Land development, urban planning, transport infrastructure, environment protection, and agriculture all have a direct and detrimental impact on the archaeological heritage. Town and village centres are historic places with their own distinct identities. Sustaining these is a complex process that in many cases involves the conservation and re-use of existing buildings, the care of public spaces, the provision of community facilities, and the communication and interpretation of what makes the place interesting and unique. The ongoing challenge is to facilitate development while protecting our heritage resource (pg 59). The protection of Heritage will be important in the next plan and is assessed within this EIAR.*
- *The beaches in Fingal are stunning natural amenities for example, that are visited by many thousands of people every year. Similarly, the coastal pathway in Howth attracts around half of million people a year. The opportunities for healthier living and developing a much wider tourism offer in Fingal need to be balanced with wildlife disturbance and damage issues caused*

by recreation to ensure that the designated sites and their associated species are not significantly impacted upon (pg 63). The impact upon wildlife from the project is assessed within this EIAR.

- *Fingal has been and continues to be impacted by coastal erosion. The National Coastal Change Management Strategy Steering Group was set up and had its first meeting in September 2020. The group, tasked with considering the development of an integrated, whole of Government coastal change strategy. These recommendations, when published, will play an important part in any Coastal Change Management Policy of the Development Plan. Best practice in coastal zone management suggests non-interference with the coast and coastal processes if at all possible. This is mainly due to the often complex and unforeseen consequences on other parts of the coast that can be caused by protective measures and the costs associated with the installation and future maintenance of coastal protection structures (pg 63). The impact of coastal erosion from the development is assessed within the EIAR.*

Fingal Development Plan 2017-2023 (Fingal County Council, 2017)

Howth has been given an Urban Place Designation of a Town and District Centre (TC). Under this designation the objectives relevant to this project are:

- Objective PM01, support the development of sustainable low-carbon climate resilient communities.
- Objective PM06, protect the primacy and maintain the future viability of the existing major towns in the County and develop them with an appropriate mix of commercial, recreational, civic, cultural, leisure, tourism and residential uses.
- Objective PM07, ensure each Rural Village develops in such a way as to provide a sustainable mix of commercial and community activity within an identified village core which includes provision for enterprise, residential, retail, commercial, tourism and community facilities.

Howth development plan is outlined within the Fingal Development Plan 2017-2023. The Howth development plan states that today the harbour is important for the fishing industry and the marina is an important amenity. Objective 5 for Howth is to continue to encourage the development of the harbour area for fishing and marine related industry and tourism. The proposed works support this Objective 5.

Figure 3.5 below, outlines the zones within the Fingal Development Plan 2017-2023. The design of the reclamation area has specifically taken into account the preservation of the views at the end of the western pier. The general employment zone on the west pier has also been preserved with the potential in the future to increase onto the reclaimed land.

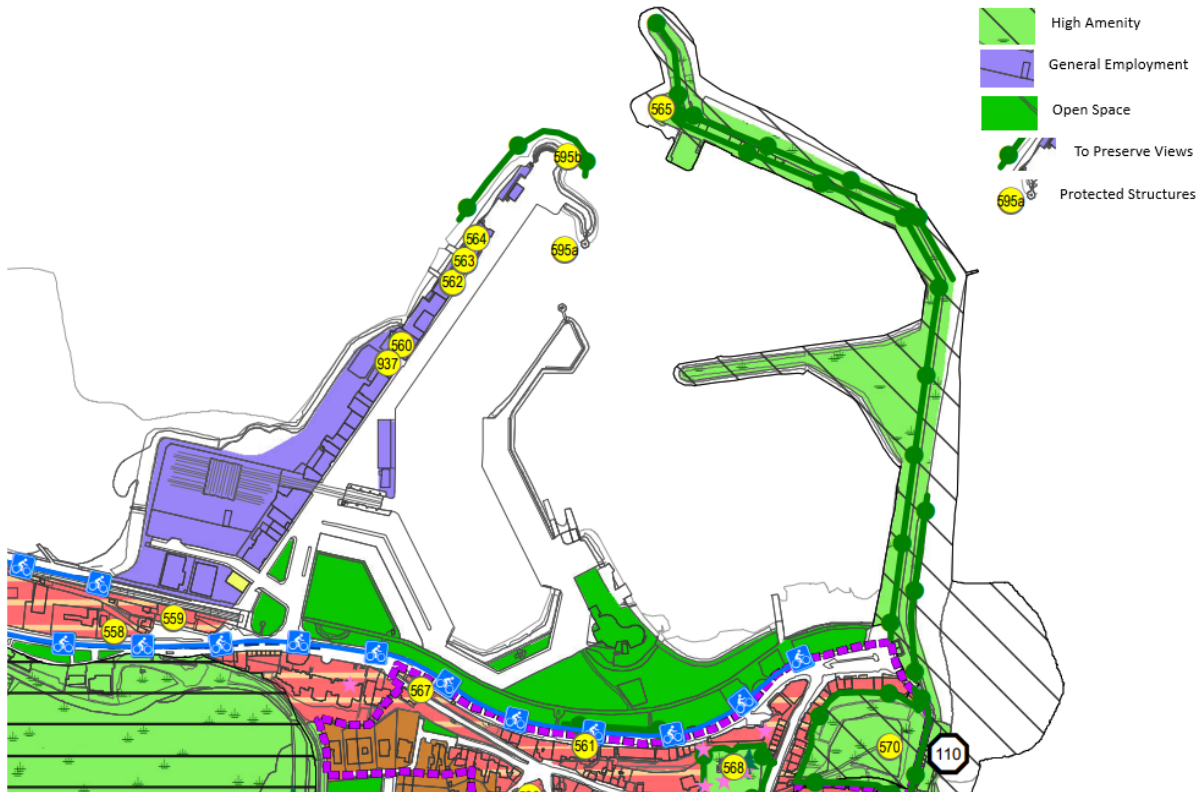


Figure 3.5 Fingal development plan 2017- 2023, Zoning Objectives

3.5 References

European Communities (Waste Directive) Regulations 2011 (S.I. 126 of 2011).

Fingal Development Plan 2017-2023 (Fingal County Council, 2017)

Fingal Development Plan 2023-2029, Strategic Issues Paper (Fingal County Council, 2021).

Fishery Harbour Centres Acts 1968

National Marine Planning Framework Baseline Report (DHPLG, 2018).

National Planning Framework, Project Ireland 2040.

Waste Action Plan 2019, Department of Communications, Climate Action and Environment, 2019.

Waste Framework Directive (WFD) The WFD [Directive \(EU\) 2018/851 of the European Parliament, amending Directive 2008/98/EC on waste](#) (WFD) (2008/98/EC)