Shannon Foynes
PORT COMPANY

Shannon Foynes Port Company
VISION 2041

Shannon Foynes Port Company - Vision 2041

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Foreword

The expansive deep waters of the Shannon Estuary affords much economic potential in an important bio diverse environment. Accordingly, it is important that any long term plan for the development of the Shannon Estuary carefully considers the natural environment and that the correct balance is attained between these often perceived conflicting objectives. It is in this context that we approached preparation of this Plan and it was clear that this plan should be informed by the opinion, concerns and requirements of all the stakeholders. Our stakeholders include individuals and entities such as port users and customers, the public and communities directly affected by our activities, government departments and agencies to name some.

Encouraged and inspired by the scale of feedback we received from the consultation phase we have endeavoured to prepare a visionary plan entitled Vision 2041 that will dramatically enhance our ability to unlock the immense economic potential afforded by the naturally occurring deepwater of the Shannon Estuary. The analysis has demonstrated, inter alia, that the port of Foynes will experience significant growth and expansion. In this regard, Foynes has the advantage of being the only port in the country with the deepwater capable of facilitating post Panamax vessels with a direct rail line to the national rail network thereby accommodating sustainable and efficient trade distribution.

Vision 2041 is a thirty year plan setting out a port development strategy that is aligned with all stakeholder interests. We are confident that Vision 2041 will promote the ports as a key economic driver for the region and will influence the development strategies at the national, regional and local level thereby enhancing the attractiveness of the Shannon Estuary for marine related industry and investment. Vision 2041 recognises the importance of a consistent plan led or integrated approach to future development and it will require the assistance from all the stakeholders, particularly, in areas such as the promotion and implementation of the Ocean Energy Hub for the Shannon Estuary or the Marine Energy Park for surplus lands at Limerick Docks.

Vision 2041 is structured around the main geographical areas of the Shannon Estuary, Foynes Port and Limerick Docks. It has taken account and is consistent with the outputs of the Shannon Integrated Framework Plan. Vision 2041 identifies many exciting opportunities as represented by the projected doubling of annual trade from 10m tonnes today to 20m tonnes by 2041. Improved accessibility for trade together with better integration of the ports with the urban fabric so that the communities and ports can operate in harmony are equally important targets of Vision 2041.

This growth in trade will bring its own challenges but we are confident that these can and will be successfully managed. Vision 2041 identifies the key actions needed to achieve the targets such as;

- The provision of a new deepwater berth (circa 15m draft) at Foynes and the continued expansion of existing infrastructure at Foynes in order to capitalise on the trend toward larger vessels
- The promotion of the nine strategic deep water sites identified in the SIFP for marine related investment
- The reinstatement of the Limerick to Foynes rail line
- The Upgrading of the N69
- The attainment of land zoning to facilitate port expansion
- The diversification of noncore assets at Limerick by promoting a themed designation such as the Marine Energy Park
- Effective utilisation of existing assets will be a key component in future land strategy and in planning the expansion of Port infrastructure
- Improving the visual appearance of Limerick Docks and Foynes Port as well as enhancing our relationship with local communities by introducing various public awareness initiatives

The implementation of Vision 2041 while guided by SFPC will require stakeholder involvement and support. We are confident that resulting from the extensive consultations undertaken during its preparation that all stakeholders are equally excited and committed to assisting where possible the implementation of Vision 2041. Vision 2041 is intended to be a dynamic plan and periodic reviews will be facilitated in order for it to evolve in line with changing circumstances.

Shannon Foynes Port Company appreciates the time taken by all those who contributed to Vision 2041. Whether by attending the open days or making submissions or attending various meetings, your thoughts and views are important to us. As stated earlier this feedback has shaped Vision 2041 and will continue to do so during its implementation in the years ahead.

Patrick Keating
CEO Shannon Foynes Port Company

Executive Summary

Strategy Overview

The location of SFPC on the Shannon Estuary, an international gateway that is recognised at a national level as being fundamental to Ireland's economic prosperity and global trading links is a key driver of the company's growth strategy. Recognising that the Port of Foynes is the only Port in the Republic of Ireland capable of accommodating Panamax and Post Panamax vessels with a dedicated rail line, places SFPC in a pivotal position going forward.

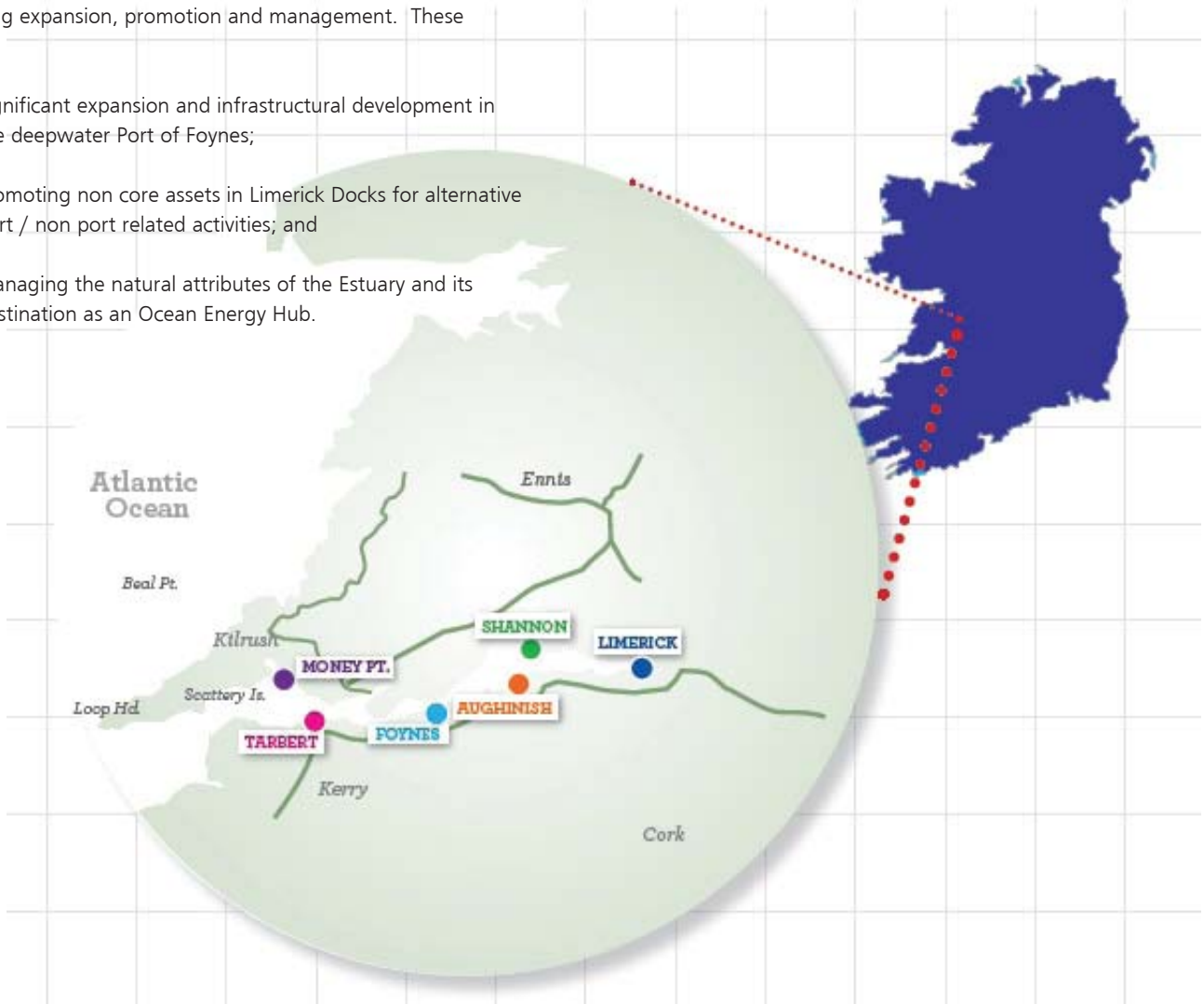
The strategic development of SFPC is focused upon driving growth across all sectors but in particular in the area of dry bulk. Entry into new sectors and expanding existing sectors in line with international and national growth forecasts, including biomass, energy, offshore renewables, waste to energy and recycling are also key targeted growth areas. In driving economic development SFPC encourages more "added value" business to its facilities through a number of initiatives including development of single and multi user port centric logistics and development of more customer-focused operating practice

In addition to driving more added value activities across the Port, there are a number of key strategic business drivers within the period of Vision 2041, focused around three key objectives including expansion, promotion and management. These include:

- Significant expansion and infrastructural development in the deepwater Port of Foynes;
- Promoting non core assets in Limerick Docks for alternative port / non port related activities; and
- Managing the natural attributes of the Estuary and its destination as an Ocean Energy Hub.

The Port facilities are of national importance and this is reflected in the fact that 37% (CSO 2011) of Ireland's bulk traffic now transits the Estuary, making SFPC the largest bulk port in the country and the second largest port based on tonnage. SFPC handles the largest vessels entering Irish waters, and handled some 10 million tonnes of cargo in 2011 (an increase of 8% between 2010 and 2011) and 22%[1] of total goods traded into and out of ports in Ireland in 2011.

Recognised internationally and nationally as one of the three core ports on the island of Ireland, SFPC's location provides for a highly accessible port with good road connectivity and rail access which shall be available in the short term. Its central location on the west coast facilitates efficient distribution to internal markets and ensures a highly accessible port.



1 *Census of Population, Ports Facilities 2011*

Trends and Policy

The ports sector operates within an extensive policy framework encompassing planning, transport and marine matters at a national, regional, and local level. The policy context is critically important to the ongoing operation and future expansion plans of SFPC, as policies set the framework against which specific development projects are evaluated.

The significance of SFPC within the Irish port sector is recognised at national and European level. Significantly, SFPC is recognised by the European Commission as one of the three core ports in Ireland under the Trans-European Transport Network[2] (TEN-T). Nationally the key policy driver for the ports' sector is the Government's Ports Policy document The Ports Policy Statement, Department of Transport (2005). The Ports Policy Review Consultation Document, Department of Transport (2010) forms part of the initial consultation phase in the review of the Ports Policy Statement. It acknowledges that new capacity will be required in the medium to long term, and that given the long lead time for planning that such expansion needs to be planned for now.

The status of SFPC as one of the three main ports on the island of Ireland is significant and this is recognised in a number of regional policy documents. The Shannon Estuary, Limerick and Foynes Ports are identified in the National Spatial Strategy (NSS) as a "strategic international access point" within Ireland's transport system. The Mid West Regional Planning Guidelines (RPG's) seeks to protect the capacity of the ports and also seeks to improve access to them as a regional priority. At a local level the relevant policy context for the consideration of ports and their future expansion is a matter for the Local Authority. Their development plan and local area plans include objectives that recognise the importance of SFPC to the economic life of the region as well as zoning objectives for Port lands.

Perhaps the single most important regional document to be prepared in terms of the Shannon Estuary is the inter-jurisdictional Strategic Integrated Framework Plan (SIFP). This document recognises the Estuary as a strategically important site within the Irish Economy and provides a coherent spatial plan to recognise the economic potential of the Estuary. It aims to support the multifunctional nature of the Shannon Estuary and facilitate the diversification of the economy, through the promotion of commercial/industrial employment and maritime energy over a thirty year horizon.

The commercial, technological, and regulatory environment in which Irish ports operate is changing rapidly, both domestically and globally. SFPC has identified a number of challenges which it needs to address in planning for the future, including:

- The continuing trend towards larger ships requiring deep-water ports;
- Increasing integration of maritime transport into the door to door global logistics and supply chain;
- The emergence of the concept of port-centric logistics;
- Intensified inter-port competition due to improved landside hinterland connections;
- The growth and opportunities associated with the energy industry; and
- Growing importance of maintaining a high environmental, security and safety standards.

Vision 2041 seeks to embrace these challenges through the planned and managed sustainable growth of port infrastructure on the Shannon Estuary, in particular at the deepwater Port of Foynes.

Trade Growth and Land Requirements

SFPC has several key sectors, including dry and liquid bulk cargos from the agricultural, energy, mining and construction sectors. SFPC also handles project cargoes - typically large scale structural components for wind farms.

SFPC anticipates a positive trajectory of growth over the period of Vision 2041 having regard to the:

- Focus by the Irish Government to re-establish Ireland as an export driven economic growth model with a target on the emerging economies of India and China;
- Strength of the multinational manufacturing and energy sectors;
- Contribution that food and drink exports will make to Ireland's future growth model as set out in the Food Harvest 2020 Strategy;
- Structural changes in the energy sector; and
- Likely consolidation in the port sector as recommended in the McCarthy Report.

Over the period of Vision 2041 it is anticipated that cargo throughput will:

- Increase substantially through the Port of Foynes as the primary general user terminal on the Estuary, and the opportunities presented by available infrastructure and resources including deep water sites 20m+ and the rail line
- Remain constant in Limerick Docks with potential for increases arising from the demands of the regional hinterland; and
- Will increase on the wider Shannon Estuary as opportunities arise from the promotion of the Estuary as an Ocean Energy Hub and as the 'Shannon Energy Valley'.

2 The ultimate policy objective of the TEN-T is the establishment of a single, multimodal network covering both traditional ground based structures and equipment (including intelligent transport systems) to enable safe and efficient traffic. Some 31.7 billion will be invested between 2014-2020 in TEN-T and seaports feature prominently in the framework.

	2011	2025	2041
Base Line	1,663,000	3,094,000	3,208,000
Mid Line	1,663,000	3,270,000	4,142,000
High Line	1,663,000	3,820,000	5,571,000

Table 1.0 Anticipated Growth in Tonnage at General Cargo Ports

	2011	2025	2041
Base Line	9,899,000	11,537,524	11,651,524
Mid Line	9,899,000	14,813,524	15,585,524
High Line	9,899,000	15,263,524	20,014,524

Table 2.0 Anticipated Growth in Tonnage on the Shannon Estuary

Limerick Docks has adequate infrastructure capacity to maintain its existing cargo throughput and the provision of additional infrastructure shall be considered as throughput grows.

It is anticipated that the existing four facilities on the Shannon Estuary will adapt to changing demands and requirements, when and if they arise. However Vision 2041 does seek to ensure that large areas of land on the Estuary are identified and protected for marine related industry.

With changes in international shipping and with significant projected increases in tonnage throughput,the Port of Foynes will necessitate significant expansion and infrastructure development. It is anticipated that the Port of Foynes will require an additional 127 hectares of port development land over Vision 2041, with additional requirements for berthing facilities and deep water berthage capable of accommodating Panamax and post Panamax vessels.

Delivering Capacity & Land Optimisation

The options presented in Vision 2041 are not exhaustive nor are they prescriptive. Rather, they are a discussion on possible options that need to be evaluated and are subjected to a review of the relevant business case, environmental assessments, planning and consent requirements at the appropriate time.

Port of Foynes

The Port of Foynes is the one SFPC facility on the Estuary most likely to experience significant change over the period of Vision 2041.

Port Estate Expansion

In order to accommodate projected tonnage throughput it has been estimated that some 127 hectares of additional lands will be required to facilitate port operations up to 2041 (high growth scenario). In addition to the existing 10 hectares of undeveloped land within the Port of Foynes, the Limerick County Development Plan has identified an additional 28 hectares of land for industrial use associated with the expansion of port activities thus leaving a requirement for an additional 89 hectares of suitability zoned land. Spatially the only logical expansion area is to the south east of the existing port.

In addition to expanding activities at the Port of Foynes there is also an opportunity for remote operations at the 92 hectare State owned land bank at Askeaton Business Park.

Additional Berthing Facilities

There will be a need for new berthing facilities in the medium term. SFPC acknowledge that operational and physical constraints exist in the inner port area requiring substantial investment to service parcel sizes ranging from 3,000 – 40,000 tonnes. Subject to capital appraisal, SFPC commits to invest in this facility over the short, medium and long term.

Providing Deep Water Berthage

The consultation phase of Vision 2041, highlighted that a Panamax capability should be provided as close as possible to existing customer facilities at Foynes. Following an initial preliminary assessment, Foynes Island has come to the fore as the preferred option from a navigational and capacity perspective. The Island traditionally facilitated port operations with an operational oil jetty until the late 1970's. With extensive access to natural deep water (occurring between 12.5m to 20m depths), the island provides immediate access to the main navigation channel of the Estuary with no capital or maintenance dredging required.

Limerick Docks

Limerick Docks is presently operating as a viable port and commercial entity which continues to be a core contributor to SFPC's profitability. It is anticipated that Limerick Docks will continue to maintain its existing cargo throughput with potential for significant projected new business and the facility will be actively managed in this regard.

Whilst the Port Estate comprises 75.1 hectares, existing port operations only utilise circa 11 hectares (Ted Russell Dock). Whilst a significant area of land is in third party ownership and is utilised for non port related activities, some 15.12 hectares of land, in the ownership of SFPC, has been identified as surplus to current operational requirements. Four sites within Limerick Docks have been identified as'non core' assets and are available for alternative use To facilitate an understanding of the potential of each asset, a contextual appraisal of each property is provided in Vision 2041 which examines zoning and amenity designations, access opportunities, service provision and potential uses that are compatible with existing planning policy and guidance.

There is a need to bring effective commercial use to these non performing assets, to generate a commercial return for SFPC. Whilst the non core assets could accommodate similar type uses to those already existing within the wider Port Estate, SFPC are cognisant of the proximity of the land to Limerick city centre and the potential of the lands to contribute to the future economic development of the city.

Whilst Vision 2041 encourages the individual sale of each of these four properties, it also promotes the alternative and collective consideration of the properties. In full support of

the Shannon Energy Valley concept, SFPC considers that there is potential for Limerick Docks and its non core assets to be promoted as a Marine Energy Park, serving three distinct but mutually interdependent functions:

- As a research cluster to advance research, strengthen the region's economy and develop technology;
- To deliver ground-breaking renewable energy and energy efficiency projects with thriving local supply chains; and
- To provide a prototype demonstrator sites, promoting renewable energy and educating the public.

The locational qualities of Limerick Docks proximate to the city centre but with immediate access to the national road network are recognised along with its access to sheltered and protected waters for testing and experimenting purposes.

Shannon Estuary

Within the Shannon Estuary, there are a number of large, global maritime industries operating along the coastline. Notwithstanding the presence of such large global players, the Shannon Estuary as a whole remains relatively undeveloped from a maritime shipping perspective.

SFPC shall continue to support and service existing privately operated facilities on the Shannon Estuary at Moneypoint, Askeaton and Tarbert and facilitate their expansion and diversification as required. SFPC shall also facilitate the exploration and formation of new business opportunities to the benefit of the wider region at two other locations on the Estuary including Innishmurry / Cahiracon and the Ballylongford Landbank.

These sites have been thoroughly assessed as part of the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary, have been identified as strategic sites and are considered to be appropriate in principle for the provision of marine related industry.

The overall aim for marine related industry in the SIFP is to "capitalise on the natural deep water potential and existing Port and maritime infrastructure, by facilitating and proactively encouraging the development of maritime industries at appropriate locations within the Shannon Estuary". This document is significant in that it has 'buy in' from all relevant stakeholders and policy makers and therefore paves the way for future appropriate development on the Estuary.

Vision Statement

The vision of SFPC, as a statutory and commercial entity, is;

"...to position Shannon Foynes Port as a key economic driver by enhancing and leveraging its asset base to accommodate offshore and onshore investment within and adjacent to its harbour. SFPC will champion the improvement of connecting road and rail infrastructure, so that customers can be offered improved, competitive and efficient services and will focus on the provision of services and infrastructure in a manner providing sufficient return on capital whilst safeguarding the sensitive environmental context within which it operates".

Transport & Connectivity

Whilst SFPC do not in themselves own any freight nor take decisions as to the preferred mode of transport to be employed, the transport strategy is focused on promoting"choice" and therefore it is important that the necessary infrastructure is either in place or can be implemented to be able to effect modal shift.

Port of Foynes

The Port of Foynes is accessed via the national secondary road network, which joins the Motorway Network at Limerick, some 40km to the east, providing high capacity access to many of the country's major towns and cities

Road

The expansion of the port in line with Vision 2041 projections will undoubtedly lead to a significant increase in HGV movements along the N69 and other routes which serve as the main access routes to the port. Growth of the Port could potentially result in up to an additional 1,370 HGV vehicle movements to and from the Port of Foynes per day by 2041.

It has been a long-term objective of SFPC to support the development of a new link road between the N69 and the N21, which would provide for a high quality link between the routes. The deferral of key projects such as the Adare bypass, N21 upgrade and the Atlantic Corridor, has resulted in a deterioration of traffic conditions on the N21 at the same time as improvements along both the N69. Consequently, there is currently a reduced demand for the provision of a new link road between the N69 and the N21. In the longer-term, it is envisaged that the N69 will be upgraded to a

suitable standard to be capable of fully accommodating the growth along the Shannon Estuary and at the Port of Foynes.

Rail

The rail line within the port extends directly up to the East and West Jetties. Although discontinued in 2000, the 26-mile long rail route between Foynes and Limerick remains a key asset to the port, as the route corridor itself and the permanent way remains intact. Of the three major Ports in Ireland, the Port of Foynes has the most potential to realistically implement a viable rail freight connection, which can be reinstated with a minimum capital investment. Through the upgrade of the section of track from Foynes to Limerick, the Port of Foynes will have access to the National Rail Network.

Limerick Docks

In the active management of Limerick Docks, there is a significant opportunity to better integrate the port facilities into the urban area of Limerick City. The fact that Limerick Docks is within easy walking distance from Limerick City would allow the lands to immediately benefit from the existing public transport facilities within the city centre. Access to planned high-quality public transport facilities, including green routes, BRT proposals and park and ride sites will also benefit any redevelopment proposals within the Docklands, resulting in sustainable development with aggressive modal share targets.

Social & Community Integration

Whilst SFPC seek to maximise the potential of the Shannon Estuary and its ports from a commercial and economic perspective, the Vision 2041 strategy seeks Port operations to be responsive to their settlement locations and achieve social and community integration. Over the Vision 2041 period, it is envisaged that the number of people employed in port activities could increase by 25% with the economic benefits extending towards a much larger economic system.

It is a key objective of Vision 2041 and a policy imperative for SFPC that the development and operation of the Ports must benefit the wider community and in particular those living in the town of Foynes and Limerick City. Societal integration of the Port of Foynes and Limerick Docks is seen as an integral part of the corporate social responsibility (CSR) of SFPC. and Vision 2041 contains proposals to ensure such integration. There are also significant enhancement proposals to the interface of both the Ports at Foynes and Limerick Docks and the built environment thereby ensuring greater visual integration and enhancing the amenity of the area.

Environmental Considerations

SFPC are monitored, inspected and vetted by the relevant statutory authorities. In recognition of the importance of environmental and emergency response matters there is regular dialogue with a number of key agencies. Such liaison seeks to ensure that SFPC are complying with all relevant environmental and safety legislation and carrying out their duties responsibly.

SFPC are committed to continuing compliance with all applicable environmental legislation and other relevant requirements in the pursuit of its duties and powers and will take these fully into account in all of its actions and decisions. In addition to these statutory requirements, SFPC seeks to improve the environment for staff, customers and neighbours.

The range and diversity of environmental matters applicable to SFPC are illustrated below. The purpose of Vision 2041 is not to go into the same degree of detail that would be necessary for an Environmental Statement accompanying either a planning or harbour application, but to signpost the key considerations including:

Air Quality	Biodiversity
Climate Change	Contaminated Land
Dredging	Energy Efficiency
Flooding	Heritage
Odour	Noise
Visual Impact	Waste Management
Water Quality	

Implementation & Review

The status of Vision 2041 is essentially a non statutory document produced by SFPC. However, it has a great and pressing significance as it was prepared in the context of extensive public consultation and importantly under the umbrella of international, national, regional and local strategies and guidance documents. It provides a framework for setting out the Port's aspirations, including for the medium and long term, and will assist in informing the consideration of projects and planning applications made as and when necessary.

The ports industry is a dynamic sector and hence whilst Vision 2041 looks at longer term time horizons to 2020 and 2040, it is a working document and hence it is imperative to undertake review of its contents. Vision 2041 will be subject to regular monitoring and a formal review every six to ten years, which is likely to entail further public consultation.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Chapter 1

Vision 2041 - An Introduction

1.1 Introduction

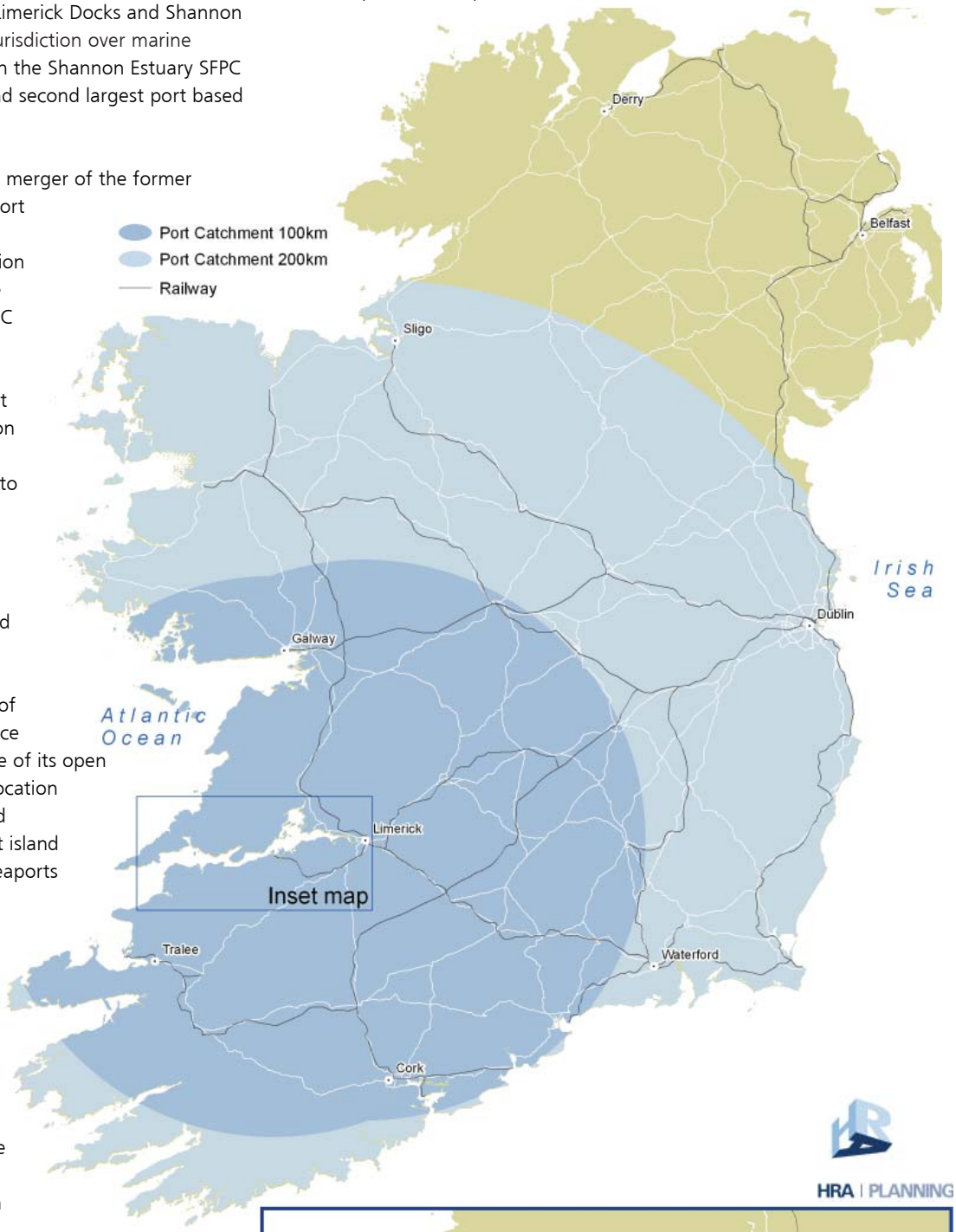
Shannon Foynes Port Company (SFPC) facilitates an international gateway on the Shannon Estuary that is recognised at a national level as being fundamental to Ireland's economic prosperity and global trading links. With port facilities at Foynes, Limerick Docks and Shannon Airport and with commercial jurisdiction over marine activities on a 500 km2 area on the Shannon Estuary SFPC is Ireland's largest bulk port and second largest port based on tonnage.

SFPC was established from the merger of the former Shannon Estuary and Foynes port companies as part of the ports rationalisation and modernisation programme undertaken by the Irish government in 2000. SFPC handles the largest vessels entering Irish waters, which are up to 225,000 dead weight tonnes and handled 10.1 million tonnes of cargo in 2011 and 20%[1] of total goods traded into and out of ports in Ireland in 2011.

The essential role of ports to the Irish economy is highlighted within the Ports Policy Review Consultation Document 2010. Port and shipping services are of major and increasing importance to the island of Ireland because of its open economies and its peripheral location relative to European and World markets. As a trade dependent island nation, Ireland's commercial seaports play a vital, yet often unheralded, role in facilitating economic growth and prosperity.

Irish seaports are vital economic gateways to the world and it is estimated that almost 99% of the volume of goods traded into and out of Ireland are handled through ports[2].

As Irelands' future growth relies on an export-led recovery, improving competitiveness in a global market becomes a priority which includes efficient, reliable and cost effective ports and airports.



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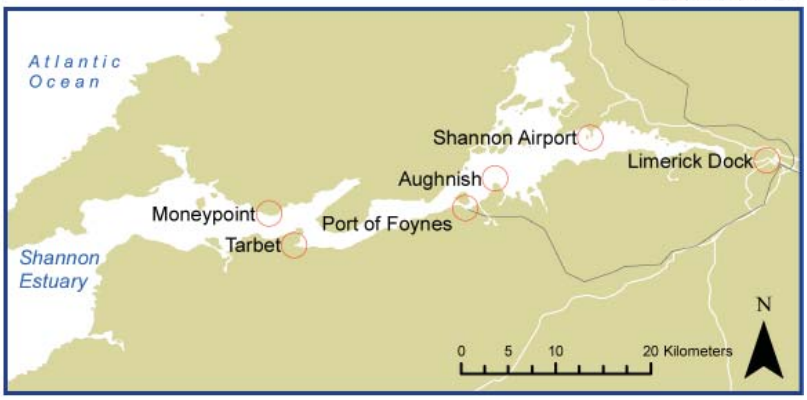


1 Census of Population, Port Facilities, 2011.
2 Department of the Marine and Natural Resources (2002); Report of the Task Force on Transport Logistics in connection with Ports; pp. 1

1.2 The Need for a Vision

Ireland's national ports policy (The Ports Policy Statement 2005 and the Ports Policy Review Consultation Document 2010) recognise the crucial role ports will play in facilitating future economic growth.

While the most recent analysis pushes out the timeline within which substantial additional port capacity will actually be required, it is nationally recognised that new capacity will be required in the medium to long term, and this needs to be planned for now.

National ports policy supports a market driven approach to port investment and acknowledges that commercial port operators are best placed to make decisions about such investments. Whilst the role of ports policy is to create an environment in which such investment is facilitated and encouraged, the ports policy encourages ports to generate viable port capacity projects to ensure the availability of adequate modern facilities and to promote competition between ports.

The European Commission's Communication on a European Ports Policy[3] notes that ports should be ruled by long term strategic vision and planning. Furthermore, port masterplanning is recognised in national ports policy as a transparent method of aiding the engagement of local communities in the long term planning of ports. Therefore, best practise would indicate that a strategic vision for ports should be prepared to frame and guide future port development.

Within this context, SFPC has developed a thirty year strategic vision for the provision of port infrastructure and services for their operations on the Shannon Estuary.

1.3 Purpose

The purpose of the SFPC's Vision 2041 is to:

- Clarify SFPC's strategic planning and vision for medium to long term port development;
- Ensure that the port and its infrastructure requirements remain at the heart of national, regional and local planning policy
- Inform port users and the local community of the Port Development Strategy;
- Attract future investment with a clear and concise development strategy;
- Establish a platform for future developments, which will reduce the lead time for individual projects; and
- Provide a clear understanding of the sensitive environment that comprises the Estuary.

Vision 2041 has been informed by the Guidance on Port Master Plans Consultation Document[4].

3 Commission of the European Communities, Communication from the Commission 'Communication on a European Ports Policy', 2007
4 Minister for Regional Development in Northern Ireland and Guidance on the Preparation of Port Master Plans published by the Department of Transport in the UK (23rd December 2010 update)

1.4 Legal Basis

Vision 2041 is a non-statutory document that has been framed within the context of EU, national, regional and local spatial and development policies and strategies.

Vision 2041 provides an evidence based framework setting out the ports' future aspirations for the medium and long term. It concentrates on the intensification, expansion and management of SFPC operations and facilities and on the future possibility of accommodating development at other locations on the Shannon Estuary. It will be used to guide future specific proposals and to inform investors and policy makers of SFPCs approach in response to the strategic and national ports policy.

Vision 2041 is not a prescriptive land use plan but rather sets out a future development path for SFPC. Any projects arising from this strategy need to be examined against a number of economic, environmental and business demand criteria and will also be subject to the normal statutory planning and environmental assessment and consents.

1.5 Study Area

Vision 2041 encompasses the entire operational area of SFPC. This includes operational ports and other lands owned by or within the control of SFPC as well as the extent of the Shannon Estuary for which they also have responsibility for navigational safety. The geographical extent of the SFPC navigational remit is shown in Figure 1.1.

Whilst the Vision is cognisant of the strategic management and use of the wider Shannon Estuary, the study focuses specifically on the development and rationalisation of the two significant port facilities at Foynes and Limerick City.

The strategic spatial management of the wider Shannon Estuary has been examined in the context of the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary - a plan jointly prepared by neighbouring local authorities positioned along both sides of the estuary, statutory bodies and other agencies and organisations including SFPC. Recommendations emanating from the SIFP study have been incorporated into this document where they specifically affect SFPC and this Vision.

1.6 Environmental Considerations

In preparing this Vision strategy, SFPC is mindful of environmental assessment obligations set out in EU Directive 2001/42/EC regarding Strategic Environmental Assessment (SEA) and, the obligations set out in The Habitats Directive5 (92/43/EEC) and The Birds Directive (2009/147/EC) in respect to the Appropriate Assessment (AA) of plans and programmes. Developing the SEA in conjunction with Vision 2041, has demonstrated how environmental considerations and sustainable development decisions have been integrated into the process of preparing Vision 2041. Vision 2041 is not subject to preparation and / or adoption by an authority at

national, regional or local level, and is also not required for adoption through a legislative procedure by Government. On this basis, Vision 2041 is not defined as a plan or programme under the SEA Regulations and accordingly, does not fall within the remit of the SEA Regulations. The SEA Environmental Report is, therefore, a non-statutory voluntary assessment, which has been commissioned by SFPC. Notwithstanding this, the SEA Environmental Report has been prepared in accordance with the provisions of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. 200 of 2011).

The Vision 2041 has also been prepared in the context of the outcome of the AA process and the findings of the Natura Impact Report [NIR]. The purpose of the NIR is to:

- Provide a strategic approach to mitigation which may result from the development of the Vision 2041 engineering options; and
- Provide a framework within which future development projects arising from Vision 2041 can be advanced, particualrly as they are progressed to the development stage in accordance with Article 6.3 of the European Union (EU) Habitats Directive (92/43/EE C).

The SEA and the Natura Impact Repot (NIR) are appended as separate documents to this report and are discussed further in Chapter 10.

1.7 Consultation

An extensive consultation programme was carried out to inform the Vision strategy which included engagement with statutory, community and commercial stakeholders as detailed further in Chapter 4.

1.8 Strategic Objectives Underpinning the Vision

Vision 2041 has been prepared to meet a number of strategic objectives identified by SFPC, its customers and other interest groups as necessary to facilitate the effective operation of the Port in the period to 2041.

The key objectives are set out in the opposite box:

These strategic objectives have framed Vision 2041 and have clearly influenced the content and scope of each of the subsequent chapters.

Strategic Objectives

Port Functions

- Provide appropriate infrastructure and facilities to meet future demand and address the needs of existing and new customers.
- Optimise the use of existing port lands and reconfigure service facilities as required.
- Use new and developing technology to increase throughput to its maximum.
- Identify configurations for extending berthage and storage that mitigate impact on adjacent environmentally sensitive /designated areas.
- Provide adequate deep water berths 20m+ to accommodate larger/deeper draught vessels in accordance with environmental /licencing requirements.

Awareness and Growth

- Utilise Vision 2041 as a framework for investment and growth based on SFPC's projected demand forecasts.
- Ensure that the port and its infrastructure requirements remain at the heart of national, regional and local planning policy
- Inform port users and the local community of the Port Development Strategy
- Attract future investment with a clear and concise development strategy

Movement and Access

- Promote the provision of future transport infrastructure that facilitates shipping and related Port activities.
- Optimise internal port movements and traffic
- Protect and promote the use of rail transport for goods to and from the Port of Foynes

Environment and Heritage

- Ensure a development framework that is compatible with the adjoining areas with particular regard to areas on the Shannon Estuary which are designated under the Habitats Directive and the Birds Directive.
- Promote a balanced and sensitive approach to port development
- Integrate new development with the built and natural landscapes of the surrounding area.
- Secure the preservation of all Protected Structures within the Ports

Integration with the Built Environment

- Enhance the general aesthetics / visual impact of port activities around the interface of Limerick and Foynes.
- Integrate port activities into the community and enhance visual linkages and connectivity.

Security

- Ensure that key areas of the Port retain good security provision in accordance with ISPS requirements.

Monitoring

- Monitor objectives and targets set out in Vision 2041
- Identify a strategy for future review of Vision 2041 against Port performance and business opportunities.


SAM FALCON
NO SMOKING

Chapter 2

Shannon Foynes Port Profile

2.1 Introduction

SFPC as Ireland's largest bulk port authority, is a limited company with the Irish State as sole shareholder. With a fully independent commercial mandate and headquartered in Foynes, SFPC is a major bulk deepwater port catering for liquid bulk, dry bulk and break bulk. The company's strategic direction is governed by a state appointed board of directors and executed by a full-time professional management team.

Situated on the West Coast of Ireland, the Shannon Estuary is Ireland's largest Portal area and Ireland's premier deepwater resource, routinely catering for ships up to 200,000 dwt. The Estuary is one of Ireland's greatest natural maritime assets and is strategically located in the Mid West region within easy access of a significant business hinterland. Recognised as a significant economic driver in the region, the Shannon Estuary has the capacity to effectively develop and expand its existing assets and commercial maritime activities and services in line with growing demand and expectations.

SFPC has statutory jurisdiction and responsibility for all commercial maritime activities on the Shannon Estuary between Shannon Bridge in Limerick City and an imaginary line at the mouth of the estuary joining Loop Head in County Clare to Kerry Head in County Kerry. Measuring a distance of 100 kilometers and encompassing an area of 500km^2 SFPC manage all pilotage, ship movements and marine safety as well as maintaining and developing port infrastructure, handling equipment, landside storage and distribution facilities.

The Shannon Estuary boasts many natural deepwater sites 20m+ and presently accommodates six main facilities. The Port of Foynes and the Port of Limerick (Limerick Docks) are the two main generalised cargo handling facilities owned and operated by SFPC. The other four facilities on the Shannon Estuary include Tarbet; Moneypoint; Aughinish; and Shannon Airport.

2.2 Port Development - A History

The River Shannon is the longest river in Ireland and Britain and steeped in methodological and modern history. Since the strategic positioning and suitability of its berthage and navigation was exploited by Viking invaders in the 9th Century AD, the role and function of the Shannon Estuary has continued to evolve in response to market and industrial requirements and technological advances.

The natural and locational characteristics of the Shannon Estuary has led to the unique development of the Estuary as an important centre for industry, imports and exports, and energy generation.

The naturally occurring deep water in the Estuary in excess of 20m$^+$ has provided deep-water berthage for commercial shipping on an international scale. Assets and skill-sets have been established through the development of existing facilities and resources on the Estuary and these skills can be advanced to promote the Estuary into the future. Facilities on the Estuary have evolved over time with specific aims and functions and a brief historical overview of each facility is provided to set the context,

Port of Foynes

Foynes Harbour was first identified and surveyed in 1837 as a potential port. Construction works commenced in 1846 and significant expansion continued through to the 20th Century. The inner port area of Foynes comprises of two distinct jetties including the western jetty and the eastern jetty

Originally partially constructed in 1968, followed by an extension in 1984, the existing berthage face at the eastern jetty is 296m, accessed via an existing viaduct. Planning permission was recently secured in 2012 for a 2.5 hectare land reclamation project behind the jetty. The western jetty was originally constructed in 1934 and then completely upgraded and extended in 1998, with 271m of quayside berthage.

Limerick Docks

Rapid expansion of Limerick city and the docks occurred between 1750 and 1840 with the construction of the quays on the north and south sides of the river completed in 1840. A new dock was completed in 1853 and this was enhanced with a new dock gate and entrance, to facilitate the increasing size of vessels in 1955.

Other Shannon Estuary Facilities

The jetty at Tarbert was commissioned in 1969 to serve the oil-fuelled power station constructed there. The Moneypoint terminal was established as a dedicated facility for coal, used to fuel the ESB-owned generating station on site, which went into full production during 1987. The jetty at Aughinish Island is provided for bauxite and alumina cargoes and was constructed to serve the alumina producing plant which went into production in 1983. Finally the Shannon Airport facility was commissioned in 1973 to service aviation fuel imports.

"...the Shannon Estuary, one of Ireland's greatest natural maritime assets has the capacity to expand in line with demand..."

2.3 Port Activities - Today

Currently the activities of SFPC helps facilitate international trade valued at over six billion euro per annum through its six port facilities on the Shannon Estuary. The Port facilities are of national importance and this is reflected in the fact that 37% (CSO 2011) of Ireland's bulk traffic now transits the Estuary, making SFPC the largest bulk port in the country.

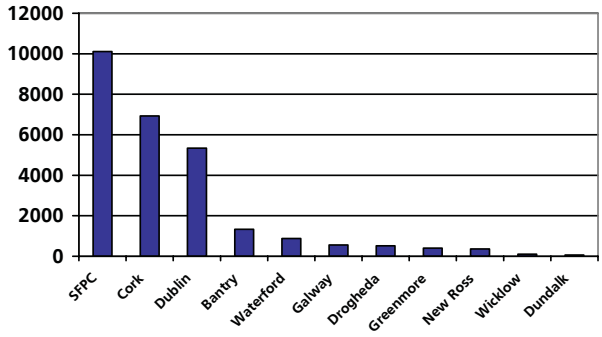


Figure 2.1 Irish Ports Bulk Throughput 2011 (000's Tonnes)

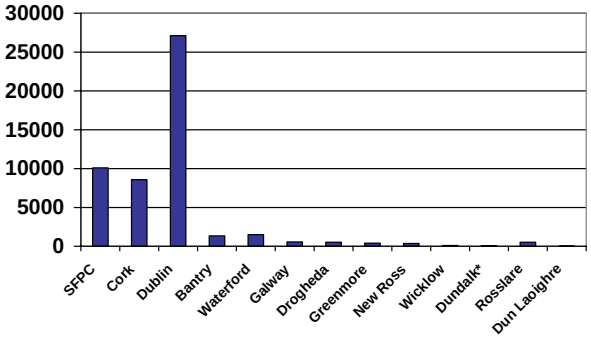
In 2011 SFPC handled almost 10 million tonnes of cargo which increased by 8% between 2010 and 2011 (see Table 2.1). Whilst total throughput on the Estuary is boosted by the large scale facilities at Aughinish and Moneypoint, the main generalised cargo handling facilities including the Port of Foynes and Limerick Docks, handled 1,663,000 tonnes in 2011. This confirms SFPC position as one of the largest Irish ports in its own right in terms of bulk cargo throughput.

When examining total throughput including unitised trade, SFPC is Ireland's second largest port based on tonnage (Figure 2.2).

Year	Liquid	Dry	Break	Total
2011	1,130,000	8,694,000	76,000	9,899,000
2010	1,082,000	7,965,000	87,000	9,134,000
2009	1,035,703	6,397,970	146,091	7,579,764

Table 2.1 Total Tonnage Handled by SFPC

Geographically, SFPC facilitates access to the vibrant economy and population of not only the immediate Limerick and Mid West region, but also a large part of Ireland. With some 2,000 ship movements per annum, SFPC caters for all



** Note: Only traffic data for the first half of 2011 was provided by Dundalk Port*

Figure 2.2 Irish Ports Throughput 2011 (000's tonnes) - including unitised

cargo types through its facilities including the largest vessels trading into Ireland. Cargos include:

- Liquid bulk products (oils and chemicals);
- Dry bulk products (fertilizers, animal feedstuffs, coal, construction materials);
- Break bulk products (timber and steel);
- Recyclables and renewables
- Cruise Liners; and
- Once-off project cargoes involving heavy lifts and out-of-guage type goods.

"...The Shannon Estuary is Ireland's largest Portal area and deepwater resource routinely catering for ships up to 200,000 dwt..."

2.4 Port Operations and Logistics

SFPC offers a variety of services from controlling navigation and marine safety to warehousing, logistics and cargo handling.

SFPC services six facilities on the Shannon Estuary. The facilities at Foynes, Limerick Docks and Shannon Airport are owned by the company. The other three dedicated terminals are privately owned, including the Moneypoint coal transhipment facility, Tarbert Island for heavy fuel and Aughinish for bauxite imports and alumina exports.

In addition to the six main facilities, the Port has several designated anchorages on the seaward side of Scattery Island in the Lower Estuary. The depths of these anchorages range between 6-32 metres catering for vessels ranging between 8 – 17.4 metres draught.

SFPC provides a stevedoring service (loading and unloading of cargo) through Limerick Cargo Handling (LCH) - a fully-owned subsidiary. LCH also provides a full range of logistics solutions, from inventory management and dispatch functions to onward road-haulage management and coordination.

Short or long-term storage and warehouse solutions are provided by SFPC at Limerick Docks and the Port of Foynes including;

- on-quay and near-quay open facilities;
- 12,077sqm of warehousing at Foynes, including 6,968sqm of new purpose-built bulk storage; and
- 5,667sqm of warehousing at Limerick Docks, including 2,787sqm of new purpose-built bulk storage

Further storage solutions are available through private operators including 3,716sqm of modern high bay warehousing, including 1,858sqm with insulated roofing suitable for the storage of packaged foodstuffs.

Port Facility	Length of Quay/Jetty (m)	Max Vessel Length (m)	Max Vessel Draught (m)	Max Draught at Berth (m)	Max Draught for Channel (m)	Max Beam (m)	Unloading Rate (tph)
Moneypoint	380	300	20+		16.3 + tide	43	1500
Tarbert	317	250	14	14.0	16.3 + tide	N/A	1500
Foynes	657	200+	10.5	10.5	7.8 + tide	32.2	Depends on Commodity
Aughnish	405	235	12.5	12.5	13 + tide	32.2	1000
Shannon	130	115	7	7.0	4 + tide	N/A	450
Ted Russell (Limerick)	914	152	Dependant on Tide	Subject to Tide	1.2 + tide -0.5	19.0	Dependant on Commodity
Foynes Island	1,000	300+	20+	20	16.3 + tide	50	TBC
Other:	4 deep water anchorages off seaward side of Scattery Island						

Table 2.2 Port Accommodation

'..6 main port facilities and designated deepwater anchorages with depths between 6-32 metres...'

2.5 Port Character Areas

Whilst the study area includes all of the SFPC operational area on the Shannon Estuary, the Vision 2041 strategy focuses in particular on the two general cargo facilities owned by SFPC; the Port of Foynes and Limerick Docks.

Thus for the purpose of Vision 2041, the study area is broken into three distinct Port character areas; the Port of Foynes; Limerick Docks and the Shannon Estuary


Figure 2.3 Foynes Port


Figure 2.4 Limerick Docks


Figure 2.5 Foynes Island


Figure 2.6 Aughinish Island


Figure 2.7 Tarbert


Figure 2.8 Shannon Airport Jetty


Figure 2.9 Moneypoint

2.5.1 The Port of Foynes

The Port of Foynes (including Foynes Island) is the main deepwater facility on the Estuary catering for vessels up to 200+m in length, a draught of up to 10.5m and vessels from 3,000 to 40,000 deadweight tonnes (dwt). It is the only Port in the country with deepwater in excess of 20m. The Port is approached by a channel, with a minimum width of 100m and with a maintained depth of -7.8m.

The Port Estate comprises 53.31 hectares with 42.5 hectares of land in the ownership of SFPC and 10.7 hectares in third party ownership. Of the land that is in SFPC ownership, some 18.7 hectares is presently leased to port users, 5.8 hectares is occupied by warehousing and offices and 10 hectares remains available for development. (The remaining 8 hectares comprises roads and infrastructure).

There is some 41,000sqm of warehousing within the Harbour facility, with 12,077sqm within the ownership of SFPC and 28,800sqm under the control of other port stakeholders. Significant open dock space is available and handling equipment to cater for a variety of cargoes. The main products handled are bulk solids, liquids and general cargo. Modern tugs, craneage and hoppers with dust suppression units are available. Access to and from the Port is via the National Road Network - N69 Limerick to Tralee Road.

Accommodating a significant industrial base including multi-national corporations and industries the N69 has been identified at national and regional level as a strategic road from a transport perspective. A new primary access road was developed between The Port Estate and the N69 at the eastern side of the Port and this compliments the Port access on the western side. Although presently unused, there is a direct rail line serving the Port linking Foynes with Limerick City that provides connectivity to the national rail network.

There are two identified Seveso[1] sites within the Port of Foynes. One of these sites is operated by Irish Bulk Liquid Storage Ltd. [1] and the other is operated by Atlantic Fuel Supply Company Ltd.[2] Both sites have a consultation distance of 500 metres, meaning that the Health and Safety Authority will be consulted in respect to new proposals to ensure compliance with the Major Accidents Directive and to ensure good practise risk minimisation.

'....the only Port in the country with existing facilities and deepwater in excess of 20m with a direct rail line linking Foynes with Limerick City and the national rail network...'

1 A Seveso site is an industrial premise that has notified the Health and Safety Authority (HSA) that it meets a specific threshold for quantities of hazardous substances as outlined in the EC (Control of Major Accident Hazards Involving Dangerous Substances) Regulations. These Regulations give effect to Council Directives 96/82/EC and 2003/105/EC, which aim to limit the consequences for human beings and the environment of major accidents involving dangerous substances.

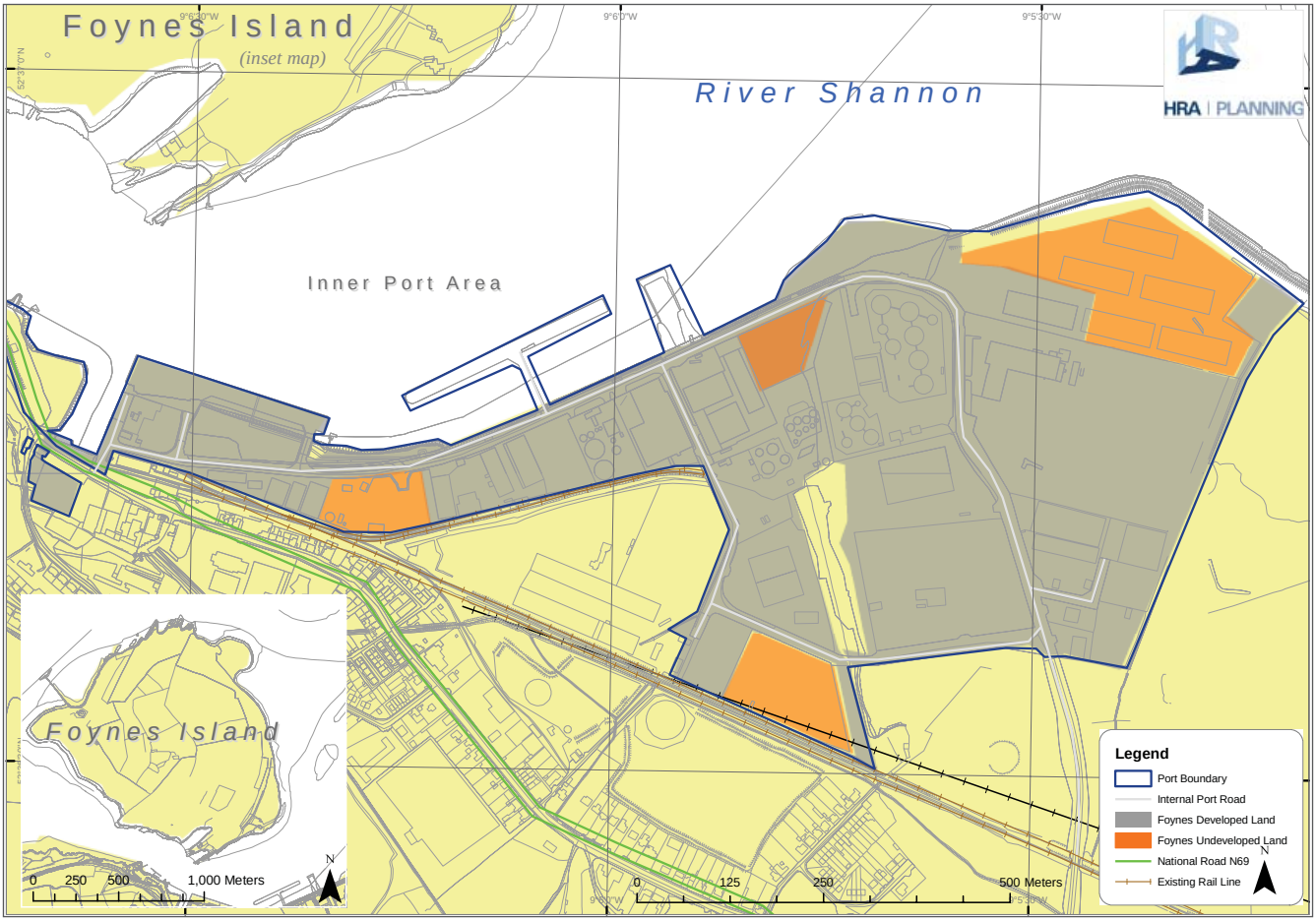


Figure 2.10 The Port of Foynes and Foynes Island

2.5.2 Limerick Docks

Limerick Docks enjoys a city-centre location. Whilst the Port Estate comprises 75.1 hectares, the operational port area – 'The Ted Russell Dock' comprises c.11 hectares and has a quay length of almost 1km . The Ted Russel Dock can accommodate vessels up to 152m long with a beam of up to 19.8m. With some 5,667sqm of warehousing, the Ted Russell Dock Dock handles a range of dry bulk, break bulk and liquid cargoes with modern handling equipment serving specific locational requirements. The Port also facilitates inland craft which can access Ireland's Inland Waterways above Limerick City giving access to the Upper River Shannon and River Erne waterway systems.

In addition to Ted Russell Dock, there is substantial additional land and buildings in the ownership of SFPC which are used for both port and non port related activities, some of which are surplus to operational requirements (non core assets).

From the 1980's through until the end of 2000 the throughput of agri-business inputs at Limerick Docks has remained relatively constant. Energy related cargoes, primarily petroleum based, also remained constant until imports started to migrate to the larger storage facility in Foynes, a pattern which is expected to grow such that over time the petroleum based facility is not expected to remain operational in Limerick Docks. However, this migration was offset by a growth in other cargoes, predominantly exports of recyclables.

Limerick Docks has direct access onto the N69 (Dock Road) and is positioned in close proximity to the Limerick Tunnel providing direct connections to Dublin, Cork and Clare via the M7, M21 and M18.

There are two identified Seveso sites adjoining Limerick Docks including Irish Shell which extends to Ashbourne Park and Summerville Avenue. This has a consultation distance of 500 metres. The other Seveso site is Grassland Fertilizers in Corcanree Business Park on the Dock Road which has a consultation distance of 700 metres. The consultation distance requires consultation with the Health and Safety Authority in respect to new projects within the consultation distance to ensure compliance with the Major Accidents Directive and to ensure good practise risk minimisation for certain classes of development.

'...a 75 hectare Port estate occupying a city centre location with 1km of quay wall and over 5,500m² of warehousing and with land and property assets surplus to operational requirements...'

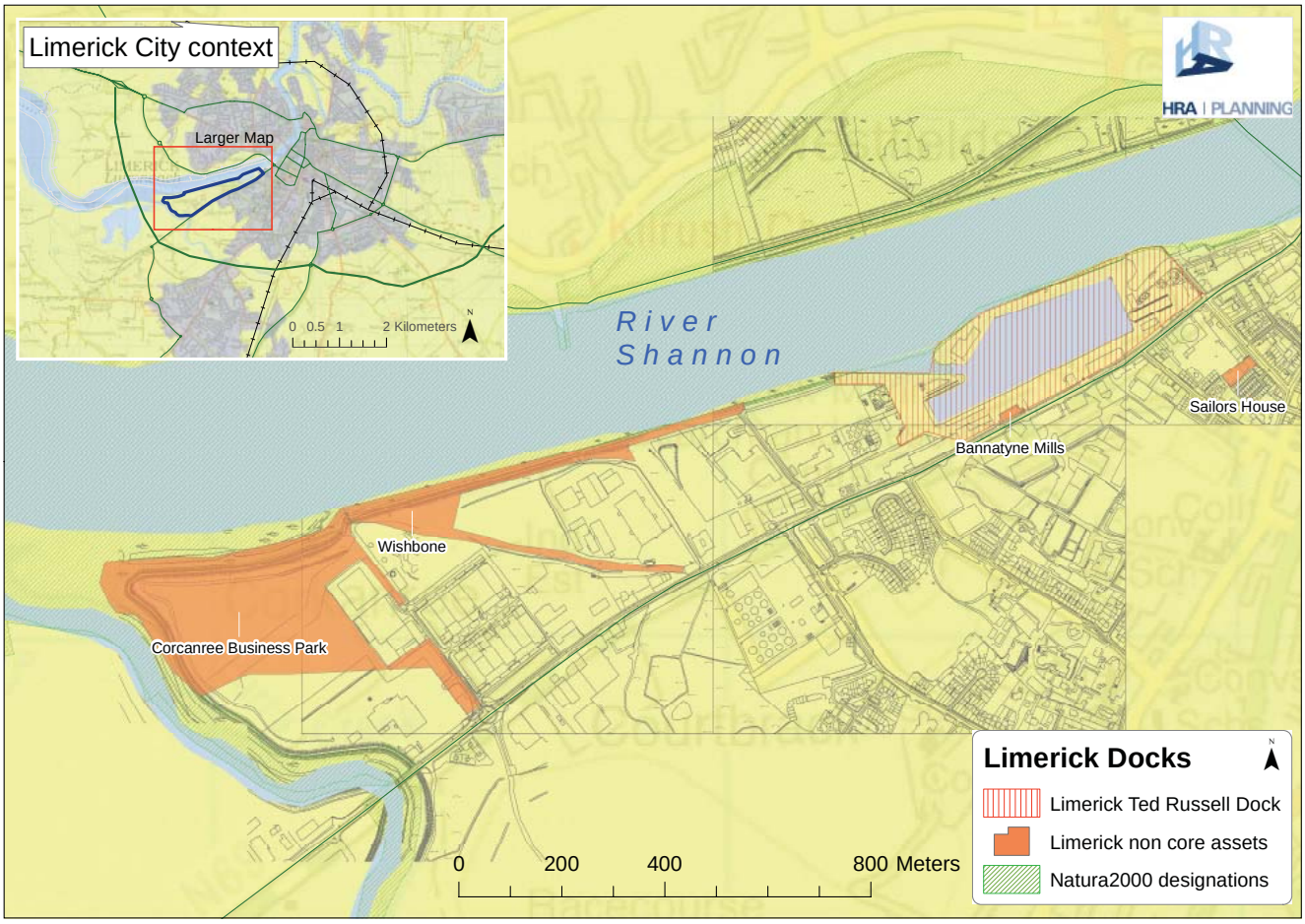


Figure 2.11 Limerick Docks

2.5.3 The Shannon Estuary

The Shannon Estuary with its naturally occurring sheltered deepwater 20m+ is the envy of many European States.

Together with the maritime experience and competencies provided by SFPC, the Shannon Estuary is an attractive and obvious location for industries reliant on maritime transport. In addition to the multi-user (and main) ports at the Port of Foynes and Limerick City, the Shannon Estuary accommodates four other dedicated facilities which are user specific including facilities at Aughinish, Moneypoint, Tarbert and Shannon Airport.

Aughnish
Aughinish Alumina is the largest alumina refinery in Europe and the largest of the alumina facilities operated by UC RUSAL. The Aughinish facility imports bauxite to process into alumina and alumina hydrate, which is then exported. The annualised capacity of the plant is equivalent to 6.5 million tonnes of cargo which also necessitates the export of hydrate via the Port of Foynes.

Moneypoint
Moneypoint is one of Ireland's largest electricity generating stations. The primary fuel for generating electricity at Moneypoint is coal and the facility has the ability to handle and store large quantities of coal on site. The coal handling equipment is of a significant scale including a jetty capable of accepting vessels up to 250,000 DWT and a 600,000 tonne storage area. A typical coal shipment is of the order of 140,000 tonnes. The site is a major hub for electricity transmission with a 440kv transmission station on site, connecting into the National Grid system. There are three individual generating units in the station each capable of producing 305MW, giving a combined station output of 915MW.

Tarbet
Tarbert Island imports heavy fuel oil specific to serve the oil fired power plant which has a rated output of 590 MW. As the plant maintains limited operations its 160,000 tonne tank farm is underutilised. The Irish National Oil Reserve Agency (NORA) has leased four of the existing heavy fuel oil tanks at the power station for the storage of gas, oil, diesel and kerosene.

Shannon Airport
Shannon Airport is one of the few international airports to have its fuel requirement supplied directly by ship. This facility is dedicated to the import of aviation fuel and demand is determined exclusively by the level of activity at the airport.

Other facilities
In addition to the four existing facilities, there is 240 hectares of zoned land located between Tarbert and Ballyongford on the Shannon Estuary in proximity to deep water (in excess of 17 metre depth), readily available to accommodate maritime related industry. Zoned for industrial use, over 100 hectares of this land is optioned to Shannon LNG who has secured planning permission to construct an LNG importation terminal and storage facility. The terminal is supported by the Government as a means of providing additional security of supply for Ireland in that it would bring diversity to gas supply sources and give connectivity to the global LNG market.

The Estuary has a number of natural features and attributes that are recognised as valuable assets to the development of marine related industry including:

- Natural Deep Water locations throughout the Estuary;
- Existing Ports at Foynes and Limerick Docks as International Trade Gateways;
- Its location on the Atlantic Seaboard with excellent connection into the Altantic Corridor Transport Network;
- Existing energy infrastructure within the area with potential linkages to the gas network; and
- A strong economic base and skilled labour force with strategic alliance to national third level institutions

The growth of maritime industries within the Estuary has served to create a synergism focused on the natural waterway of the Estuary. Large-scale coal, oil and gas generating stations at Moneypoint, Tarbert and Aughinish along with existing 400 kV, 220 kV, 110 kV and 38 kV grid and the liquid natural gas (LNG) terminal which has been granted planning permission, facilitates the growth of energy infrastructure. These synergies are forming a strong basis for attracting further economic development, trade and investment, all based on the 'unique selling point' of the proximity to deep water.

There are two visible or emerging clusters of maritime industry on the Shannon Estuary with the first cluster concentrated broadly around Moneypoint / Tarbert / Ballylongford, and the second cluster focused around Foynes /Aughinish / Cahiracon. They have become broad focal points for the concentration of marine related industrial development. Business on the Estuary is supported by an important transport link, a ferry crossing which facilitates the movement of people between the northern and southern shores of the Estuary and effectively connects the N67 with the N69.

The Estuary is recognised as a significant economic driver in the region with strong economic and development policies focused on growing its potential. This is very much recognised by the Universities in the region as they have launched a suite of complementary undergraduate energy programmes thereby expanding the population of skilled workers and graduates with energy knowledge/training. They have also signed a memorandum of understanding with a group of leading firms in Silicon Valley with the aim of creating a "world-class cluster" of sustainable and renewable energy companies between Galway and Limerick. This initiative has been named the Shannon Energy Valley.

The Shannon Estuary, although relatively undeveloped does have a number of naturally occurring deepwater sites 20m+ which present future opportunities for user specific maritime activities, including renewables and energy industries. Recognising such opportunities, an inter-jurisdictional Strategic Integrated Framework Plan (SIFP) for the lands adjoining the Shannon Estuary and the estuary itself has been prepared to identify the nature and location of future development that can be sustainably accommodated within the Shannon Estuary whilst safeguarding natural habitats and species afforded designation under EU Directives.

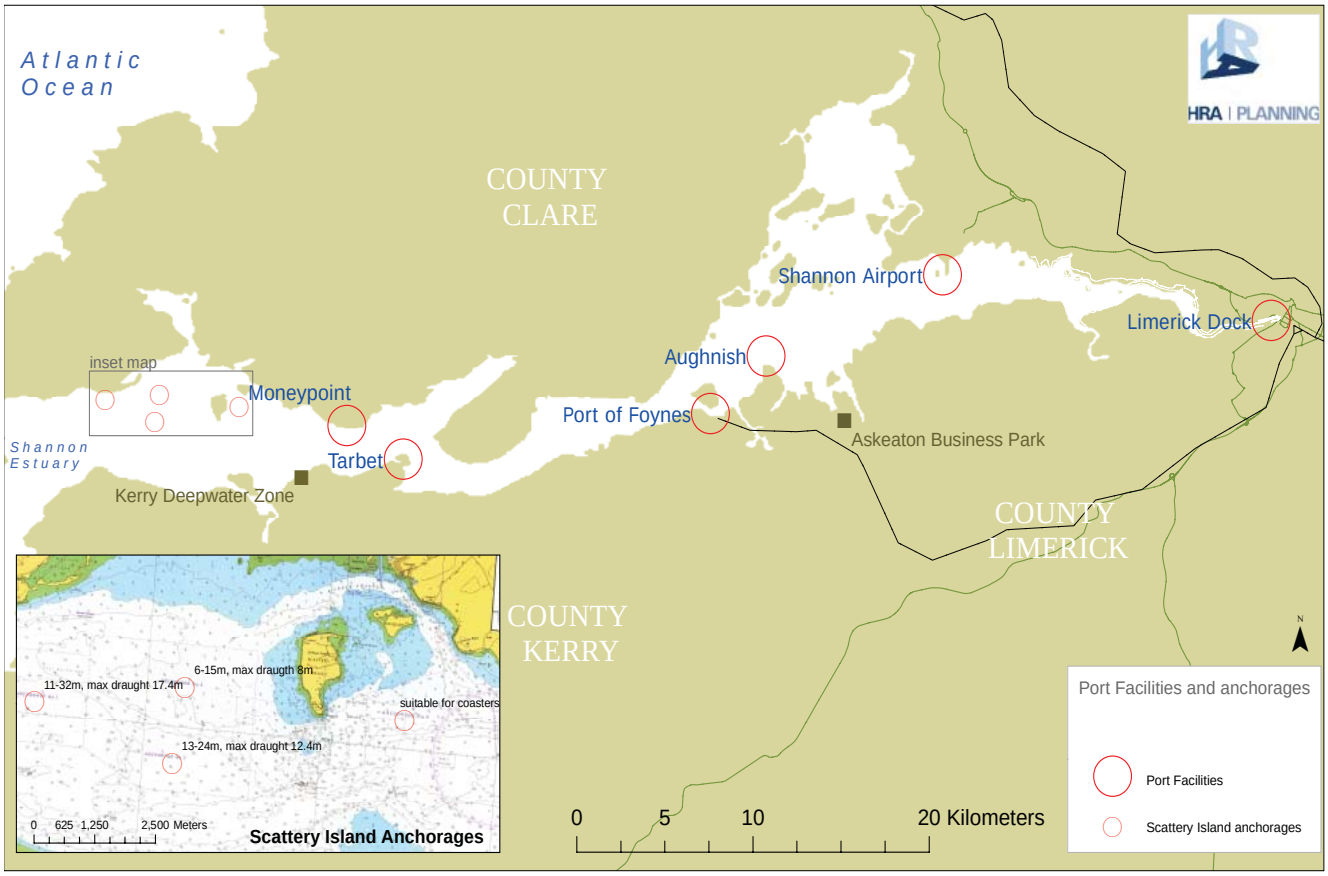


Figure 2.12 Port Facilities & Anchorages

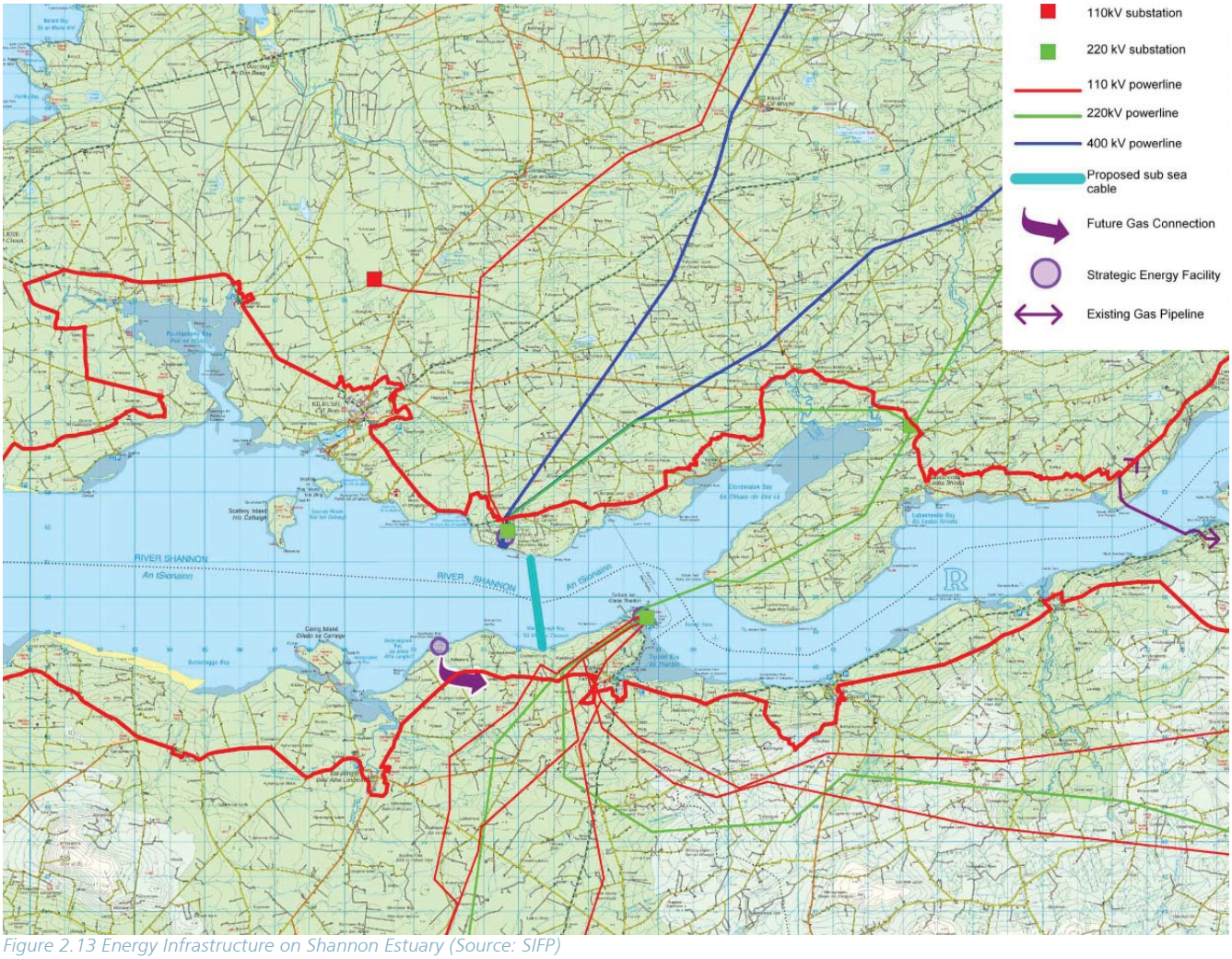


Figure 2.13 Energy Infrastructure on Shannon Estuary (Source: SIFP)

KEY ISSUES

- SFPC specialises in bulk cargoes, which constitute more than half the cargoes transiting Irish ports.
- The Port facilities are of national importance and this is reflected in the fact that 35% of Ireland's bulk traffic now transits the Shannon Estuary, making SFPC the largest bulk port in the country.
- SFPC manage all pilotage, ship movements and marine safety on the Shannon Estuary.
- As one of Ireland's greatest natural maritime assets the Shannon Estuary has capacity to expand in line with demand.
- There are six main facilities on the estuary including The Port of Foynes; The Port of Limerick (Limerick Docks); Tarbert; Moneypoint; Aughinish; and Shannon Airport.
- The Port of Foynes, Limerick Docks and the Shannon Airport facility are owned and operated by SFPC.
- The other three dedicated facilities at Tarbert, Moneypoint, Aughinish are user specific and serviced by SFPC.
- The Port of Foynes is the only main general cargo deepwater facility (20m+) on the Estuary which is rail connected.
- The Estuary is recognised as a significant economic driver in the region with strong economic and development policies focused on growing the potential of the Estuary and the industries which have evolved from it.
- In addition to existing facilities, there is 240 hectares of zoned land located between Tarbert and Ballylongford on the Shannon Estuary in proximity to deep water readily available to accommodate maritime related industry
- Limerick Docks enjoys a city-centre location some 100km inland from the mouth of the Estuary but is restricted in the size of vessel it can accommodate.


YIANNIS B

Chapter 3

Trends and Policy

3.1 Introduction

SFPC must maintain competitiveness and be responsive to changing and emerging internal and external conditions. To shape the direction of future port operations and development, it is important that Vision 2041 understands the dynamics of existing port operations trends and changes along with national, regional, and local policy and guidance. These are critically important to the ongoing operation and future expansion plans of SFPC, as they set the framework against which investment decisions are made and specific development projects are evaluated.

3.2 European and National Recognition

The significance of SFPC within the Irish port sector is recognised at national and European level. Significantly, SFPC is recognised by the European Commission as one of the three core ports in Ireland under the Trans-European Transport Network (TEN-T)[1] . The TEN-T network seeks to integrate land, sea and air transport infrastructure components. This network consists of a total of eighty-three ports and port clusters across Europe and provides funding opportunities and other support measures to identified TEN-T ports.

Whilst SFPC is recognised as a significant port operation at a European level by TEN-T, its potential for future expansion of activities is also supported at a national level in the context of The McCarthy Report (Report of the Review Group on State Assets and Liabilities, April 2011) which recommends that state owned ports should be restructured into several competing multi-port companies, built around Dublin, Cork and Shannon Foynes. The status of SFPC as one of the three main ports on the island of Ireland is significant given that there are nine other state commercial port facilities in the country and the need to 'plan' for future expansion of activities.

Recognition of SFPC at a European and national level is important in the context of facilitating future growth and accommodating expansion of its facilities. It elevates the Port from a 'public interest' perspective and facilitates its future development particularly as it seeks to accommodate new port trends and changes.

3.3 Port Trends and Changes

The commercial, technological, and regulatory environment in which Irish ports operate is changing rapidly, both domestically and globally. There are a number of key trends impacting on port operators in Ireland and around the world and in order to maintain competitiveness, it is important that the ports sector and SFPC addresses these challenges, including:

- The continuing trend towards larger ships requiring deep-water ports, and the reduced availability of ships to serve smaller ports;
- Increasing integration of maritime transport into the door to door global logistics and supply chain, blurring the traditional division of tasks within the logistics chain;
- The emergence of the concept of port-centric logistics as a key driver for future port development;
- Intensified inter-port competition due to improved landside hinterland connections, even among more distant seaports; and
- Growing importance of maintaining a high environmental, security and safety standards in order to comply with regulations and maintain community support for port developments.

3.3.1 Vessel Size

The trend in international shipping has always been towards larger vessels to exploit economies of scale. Analysis of Central Statistics Office (CS0) data indicates that the number of vessels up to 5,000 GT in size calling at Irish ports declined from a peak of almost 7,500 per annum in the early 2000's to about half this number by the end of the decade. Even allowing for the general economic downturn, this pattern illustrates the decline in demand for smaller vessels. By the same token, vessel numbers in the 40-80,000 GT category increased by a factor of eight between 1999 and 2010 from 200 vessels to 1600 vessels per annum.

According to a recent IBEC Report[2] larger ships will be seen in Ireland after 2015 as operators seek economies of scale and smaller ships become scarcer and more expensive. This may be brought to a head in 2015 when the price of fuel rises as a result of the enforcement of the Sulphur Emissions Control Areas.

Other influencing factors include changing factors affecting the Panama Canal and the Suez Canal, representing two of the most significant shipping routes due to their geographical and operational circumstances. The Panama Canal is currently undergoing a significant expansion program and when completed in 2014 will facilitate larger vessel sizes, and consequently, the New Panamax vessel size.

"Vessels in the 40 - 80,000 GT category calling at Irish Ports increased from 200 vessels per annum in 1999 to 1,600 vessels in 2010."

1 The ultimate policy objective of the TEN-T is the establishment of a single, multimodal network covering both traditional ground-based structures and equipment (including intelligent transport systems) to enable safe and efficient traffic. Some 31.7 billion will be invested between 2014-2020 in TEN-T and seaports feature prominently in the framework.

2 Freight Friendly Ports and the Capacity Challenge, 2011, STS International, IBEC - CBI Joint Business Council

The upgraded Panama Canal and subsequent capacity for larger commercial vessels effectively modernises international merchant shipping and port operational logistics which Ireland must respond to.

Whilst SFPC currently accommodates Panamax size vessels, these facilities are limited to the Moneypoint and Aughinish facilities. The Port of Foynes does not presently have the infrastructure to accommodate the standard Panamax or Post Panamax vessels at existing quayside berths but there is naturally occurring deep water sites 20m+ adjacent to the Port thereby providing the opportunity to develop deep water sites in the future. Moreover, the Port of Foynes is the only port in the Republic of Ireland capable of accommodating Panamax and Post Panamax vessels with a dedicated rail line. As Ireland seeks to maintain port capacity, the potential of the Port of Foynes with its natural deep water and its rail line must be recognised as being of national significance as the country seeks to maintain international competitiveness.

"the Port of Foynes is the only Port in the Republic of Ireland capable of accommodating Panamax and Post Panamax vessels with a dedicated rail line"

3.3.2 Access to Ports

The European Maritime Transport Strategy 2018 (2009), presents a ten year strategy for European Transport and outlines key objectives for the advancement of competitiveness in the European shipping sector. Enhancement of connectivity between the Port of Foynes and the strategic road network is critical to the efficient movement of goods to and from the Port. Currently 100,000 Heavy Good Vehicle (HGV) loads move through the Port of Foynes annually and this is forecast to increase to 150,000 HGV loads by 2020. Of the current 100,000 HGV loads that leave the port, 95% head due east on the N69 with 65% of these going directly into Limerick city and onward and 30% connecting to the national roads network at Newcastle West. The remaining 5,000 loads leave the port and head due west along the N69 to Kerry. Thus upgrading works to the N69 need to be considered to promote and enhance the efficient and effective movement of goods to and from the Port of Foynes.

The European Transport Policy White Paper *Roadmap to a Single European Transport Area – Towards a Competitive and Resource Efficient Transport System* (2011) is a comprehensive strategy for an improved competitive transport system in Europe. It proposes an efficient core network integrating and linking existing transport networks including seaports, railways and roads (TENT-T). One specific goal identified is to ensure that all core seaports are sufficiently connected to rail freight and, where possible, the inland waterway system by 2050.

The 2030 Rail Network Strategy Review (2012) published by Iarnród Éireann focuses on the future development requirements of the Iarnród Éireann Intercity Network and the regional services. The potential for rail freight is also considered within the Strategy Review. The report does acknowledge that opportunities continue to arise for the carriage of bulk materials and unit load traffics, where relatively long distances and port orientated traffics are involved. It also notes that Foynes Port has a rail connection that can be made operational in a short time period.

Currently, rail access plays a limited role in the movement of freight within the Irish State - although growing environmental concerns over carbon emissions are leading to a renewed focus on rail freight within the EU.
This renewed focus by the government was evident in an An Bord Pleanála decision to refuse planning permission for the relocation of port facilities by the Port of Cork in 2008 which was based on environmental considerations, the lack of a rail connection and inadequate road infrastructure.

Currently a rail network links Foynes to Limerick City with the railhead extending up to the East and West jetties within the Port of Foynes Estate.

Figure 3.1: Limerick-Foynes connection to the National Rail Network

This line, active up until 2000, still remains intact but in need of some remedial work in order to accommodate rail traffic. The cost of recommissioning the Foynes Rail link is relatively modest in capital investment terms, estimated by Irish Rail to be in the region of €8 million. This rail link is considered to be of strategic national importance, as it serves the Shannon Estuary which is the only body of water in Ireland that has deepwater 20m+ which can be accessed and served by a sustainable rail link.

In contrast to the other two core ports in Ireland, the Port of Foynes links to the National Rail network at a point where existing line flows are low and where rail freight could be readily introduced without disruption to passenger rail timetable and for a modest cost. The rail freight link to Foynes Port also connects with the entire National Rail Network, enabling goods from throughout the country to be transported to the Port by rail as detailed in Figure 3.1

3.3.3 Planning & Environmental Legislation

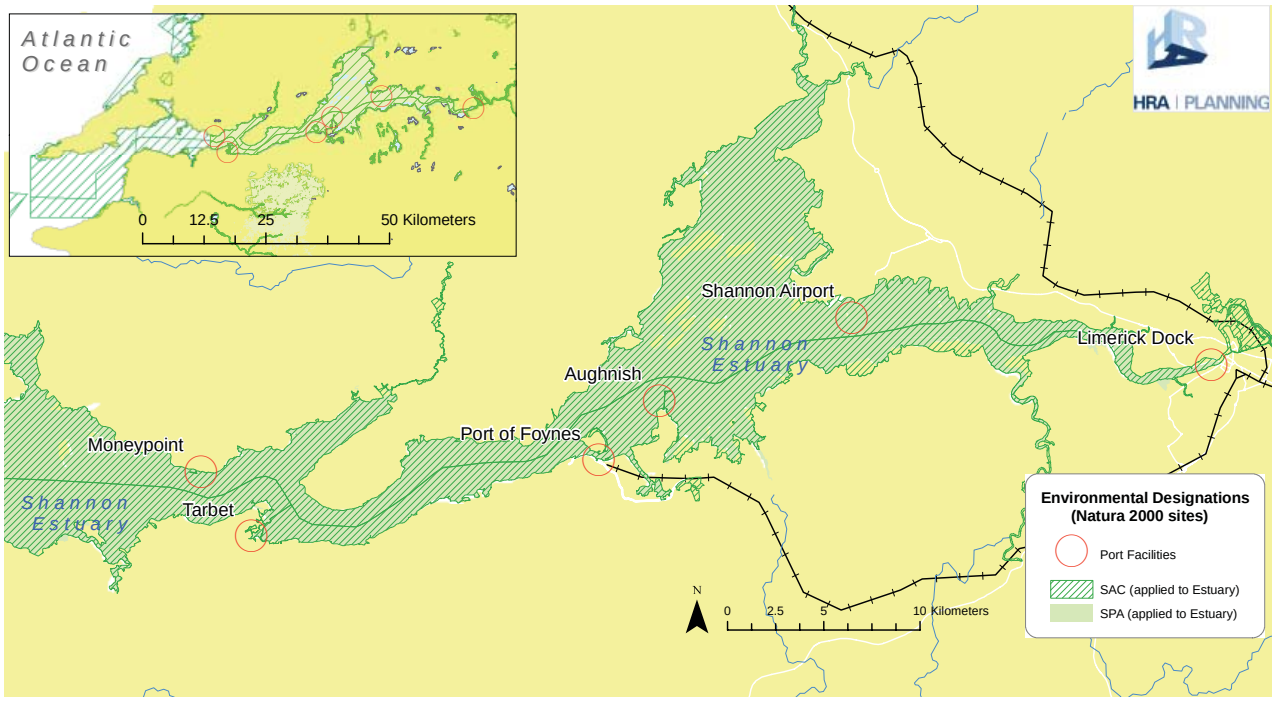
Significant new legislation relating most notably in relation to planning and to environmental protection has been enacted over recent years and will influence port development and future port operations.

At a European level, the Habitats Directive[3] (92/43/EEC), together with the Birds Directive[4] (2009/147/EC) form the basis of European nature conservation policy. Based on the principles of biodiversity, the Habitats Directive established obligations for the creation of an EU wide network of (Natura 2000) sites designated for certain terrestrial and marine environments. Two such designations apply to the Shannon Estuary and are detailed in Figure 3.2 – the Lower River Shannon Special Area of Conservation (SAC site code 002165) and the River Shannon and River Fergus Estuaries Special Protection Area (SPA site code 004077).

Although these sites are designated on the basis of nature conservation, it is accepted at a European level and in European guidance[5] that a balanced approach is required and is achievable between conservation of biodiversity and economic port development and activity.

The European Commission Communication on a European Ports Policy (2007) provides a framework to help concentrate the efforts of port development in a sustainable manner. This document aims to increase the carrying capacity of ports by providing an assessment of the role of ports in the transport chain, of the current use of port capacity and of the way forward for a proper use of the existing infrastructure and its development.
This policy paper recognises the demand for increased port activity and provides guidelines on how to expand port capacity while respecting the surrounding environment.

"...the rail freight link to Foynes Port connects with the entire National Rail Network, enabling goods from throughout the country to be transported to the Port by rail..."



3 Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora
4 Council Directive 2009/147/EC on the conservation of wild birds

5 European Commission Guidance Documents, Integrating Biodiversity and Nature Protections into Port Development (2011) and the Implementation of the Birds and Habitats Directives in Estuaries and Coastal Zones (2011

A key recommendation of the European Commission Guidance Documents, Integrating Biodiversity and Nature Protections into Port Development (2011) and the Implementation of the Birds and Habitats Directives in Estuaries and Coastal Zones (2011) outline how to effectively integrate biodiversity with the development of Ports They advocate the 'working with nature concept'; that the design of plans or projects should always be based on mutually beneficial strategies with a view to achieving dual goals of the Natura 2000 objectives and socio-economic development. They advocate a better understanding of the context, improved planning of projects, integration of SEA and EIA into plans and projects, in addition to the better management of dredging. They also highlight how in the field of waterways and ports, the EU TEN-T status or other national priorities should help projects to qualify as being of overriding public interest.

The Water Framework Directive[6] (2000/60/EC) (WFD) covers estuaries and coastal water bodies. The WFD establishes a framework for the protection of all surface waters (rivers, lakes, transitional and coastal) and groundwater at EU level and aims to achieve a good ecological status (or a good ecological potential for heavily modified water bodies) and a good chemical status by 2015. Under certain strict conditions, the WFD allows for new modifications to cause a deterioration of water status, such as port extensions or interventions for improving waterway infrastructure. These conditions include a justification that no better environmental options exist and that all mitigation measures are taken.

The Marine Strategy Framework Directive (2008/56/EC) (MSFD) provides a more comprehensive view and deals also with ecosystem services in marine areas. Marine strategies must apply an ecosystem-based approach to the management of human activities. The MSFD only applies in coastal waters insofar as particular aspects of the environmental status of the marine environment are not already addressed through the WFD (e.g. litter, noise)

3.3.4 Land & Premises Utilisation

Ports are capital intensive entities. Their success or otherwise is linked to the availability and usability of land close to docks and berthing facilities. Whilst there is a general expectation that port operators should maximise the use of their existing operational area (without necessary recourse to simply expand port boundaries), there does come a stage in port planning where port estates do necessitate expansion.

Whilst Limerick Docks has some land that is surplus to port operational activities and requirements, there are very few non-port related activities within the operational area of the Port of Foynes. Limerick Docks has four sites/ areas under the control of SFPC either within or neighbouring the port facility that are surplus to port operational requirements. The Port of Foynes is operating very close to capacity with only 10 hectares remaining undeveloped to accommodate future port growth and is thus likely to require additional land to facilitate port expansion in the future.

3.3.5 Value Added & Processing

Port estates are becoming more diverse in their function. Their historical role as complexes for the import and export of cargo remains but increasingly they are attracting interest in a number of complimentary 'value added' sectors. These include processing facilities, energy generation and waste-related initiatives and wind turbine manufacture and assembly, all of which are now inextricably linked with a ports function in handling cargo.

The Port of Foynes has a number of long established companies with uses dependent upon port infrastructure. The most recent addition to port activities is a new fuel terminal, the largest new build oil terminal in Ireland for some fifty years which commenced operation in 2010. Value added and processing facilities has the potential to significantly influence the extent of land required to facilitate port expansion in the future.

3.3.6 Warehousing & Port Centric Logistics

One key ingredient required to maintain port attractiveness and efficiency is the availability of suitable storage. For bulk products, this generally means bespoke warehouses characterised by strengthened walls (typically up to six metres high) which facilitate maximum payloads for a given footprint. SFPC currently has some 12,077sqm of warehousing available in the Port of Foynes, of which 6,968sqm can be considered suitable in the medium to long term for bulk warehousing, with the balance generally unsuitable or at end of life status. A number of existing port users have their own captive (own use) warehousing. In addition, other port stakeholders have approximately 28,800sqm available for rental, although some of this would be reserved for ongoing use. In addition there is some 5,668sqm of warehousing at Limerick Docks, including 2,788sqm of new purpose-built bulk storage. SFPC warehousing enjoys a relatively high level of occupancy and it is anticipated that significant warehouse upgrade and expansion will be required to meet future demands in the medium term.

6 Council Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

Increasingly port related warehousing facilities are becoming distribution centres in their own right as the benefits of water, rail, and road accessibility (multimodality) are recognised. Port-centric logistics is emerging as a significant concept for ports going forward, allowing for distribution centres to be located on-site (or in the immediate environs) which allows freight to be incorporated into the logistics network before they leave the port. This concept can yield significant time and cost benefits as trips from ports to regional distribution centres are eliminated and the overall number of trips on the road network associated with the distribution of freight is reduced.

SFPC is well placed to accommodate port centric logistics given its central and accessible position within the island of Ireland and particularly its facility in Foynes, which is the only deepwater facility in Ireland with direct rail connection and access.

3.3.7 Renewable Energy

SFPC is intrinsically involved in the energy sector. Since 2005 it has handled the majority of wind turbine import projects in Ireland as well as importing petroleum products and coal. Nationally there are significant and exciting new opportunities including the development of tidal power, off-shore wind farms, biomass production, and energy from waste initiatives, all of which would potentially benefit from the existence of established port infrastructure on the Estuary.

To a large extent, marine renewable energy has remained unexploited and offers great development opportunities. A report on the 'Assessment of the Irish Ports & Shipping Requirements for the Marine Renewable Energy Industry' 2011 prepared by SEAI, reiterated that Irish ports and shipping vessels were "well placed to benefit from the substantial ramp-up in the development", particularly in relation to the North Sea. The value of proposed offshore wind farms in Irish coastal waters is in the order of €7 billion. The potential value of wave and tidal energy in Irish waters was estimated at €9 billion and the development of appropriate port locations is critical to Ireland becoming a base for construction and assembly of wind turbines and ocean energy devices. The production of the devices for these facilities is a key element of the market, and there will be justification to establish manufacturing centres in Ireland for this purpose with significant requirements for steel and concrete. SFPC view their location relative to the west coast of Ireland as critical, and intend to make provisions going forward to facilitate this sector. The reinstatement of the Foynes-Limerick rail line would also aid in opening up the rest of the country to the port for shipment of these large devices.

SFPC continues to work closely with national bodies and organisations to promote and market the Shannon Estuary as Europe's Ocean Energy Hub, particularly in terms of providing a land base to access and service generating platforms, including deep water. The Ocean Energy Hub is not only promoted on the facilities provided by the Shannon Estuary but also on the positive attributes of the wider region, including; access to the largest wave energy resource in Europe; access to the best wind energy regime in Europe; its close proximity to Shannon International Airport; the proximity to the Askeaton Business Park, the benefits derived from Limericks gateway designation and its advanced third level institutions; access to electricity grid and gas supplies; and supports and incentives for new enterprise.

Overall, it is the geographical position of SFPC on Ireland's west coast proximate to large serviced industrial landbanks and with a viable rail freight connection that presents notable opportunities to SFPC to promote, developing and/or service on and off-shore wind and marine projects and the renewable energy sector within its operations.

3.3.8 Environmental Monitoring & Management

Promoting port activities and protecting the environment requires a sensitive and balanced approach. From a marine perspective, protection of water quality through the requirements of the Water Framework Directive/River Basin Management Plans and the emergence of the Maintenance Dredging Protocol in line with the Habitats Directive are examples of environmental management approaches that need to be maintained and monitored by SFPC.

SFPC is very conscious of the need to manage the valuable natural resource of the Shannon Estuary and is aware of the potential effects on the environment of the various maritime activities which take place there if not conducted appropriately. In recognising this responsibility, SFPC was instrumental in establishing SEA-PT Ltd., the Shannon Estuary Anti-Pollution Response Team. This is a consortium of Local Authorities and the major oil importers in the Estuary. SEA-PT maintains a large stockpile of anti-pollution equipment at immediate notice, as well as having access to trained responders and resources including an Oil Spill Tracking Model, web based GIS, Environmental Atlas and Sensitivity Study. Annual excercise and training courses are conducted under the auspices of SEA-PT Ltd, ensuring a collaborative and co-ordinated response to any incident on the Estuary. In addition, SFPC have developed and maintain appropriate Response Plans for Oil/HNS (Chemical) incidents, those plans being approved by the Irish Coast Guard.

"...the Shannon Estuary - Europe's Ocean Energy Hub"

SFPC seeks to continuously improve its environmental standards and implement an effective environmental management system commensurate with its liabilities and responsibilities. Mindful of its Corporate Social Responsibility (CSR), tenants and operators, SFPC was the first port facility in Ireland and the UK to achieve ISO 9000 quality standard accreditation and continues to maintain this

standard. The company also operates an integrated Waste Management Strategy at its facilities to comply with present and anticipated legislative requirements.

3.4 National & Regional Guidance

Whilst SFPC is recognised at an international and national level as a strategically important Port and there are significant port trends and changes which SFPC must embrace and address to remain competitive, it is national and regional policy which will effectively guide, encourage and facilitate those changes. Port development is very much supported at a national and regional level and this support is critical in facilitating future growth in SFPC.

3.4.1 National Policy

The significance of Ireland's ports in facilitating balanced regional development is recognised at national, level. In particular the significance of the Shannon Estuary and its ports in Limerick and Foynes, are recognised as important elements of physical infrastructure in the Mid West region. Existing port facilities at Limerick and Foynes have been identified as important elements of the physical infrastructure which contributes to the designation of Limerick and Shannon as a Gateway in the National Spatial Strategy 2002 - 2020 (NSS). One of the characteristics of a Gateway (set out in figure 3.1 of the NSS) is that it is a focal point in transport and communication terms and that it has "adequate, reliable, cost effective and efficient access to port facilities". The NSS recognises that in supporting balanced regional development, Ireland's transport networks must build on Irelands transport system. In this regard the Shannon Estuary, Limerick and Foynes Ports are identified as a "strategic international access point" within Ireland's transport system. To facilitate the development of Ireland's transport system in the future and encourage balanced regional development, strategic radial corridors are promoted in the NSS including good quality road and public transport connections "between Dublin and Limerick and to the Shannon Estuary Ports".

The ports sub-programme as set out in the National Development Plan 2007 – 2013 (revised to 2016) recognises that Ireland's commercial seaports are vital transport arteries, carrying 99% by volume of the island's external trade. The strategic objective of the ports programme is to ensure that Ireland has a modern ports infrastructure capable of meeting demand and which supports international competitiveness by enhancing sea access for people, goods and services. Of note is the specific reference to the economic importance of its' Roads Programme where it is acknowledged that there are projects that can yield considerable economic benefit, with the key consideration being to improve the road transport accessibility of export orientated enterprises. Thus the policy recognised the importance of ports in terms of exports from Ireland, and the commensurate need for dedicated, high quality access to ports.

The key policy driver for the ports' sector is the Government's Ports Policy document The Ports Policy Statement, Department of Transport (2005) which seeks to provide a framework for the provision by Port Companies of port services which are efficient, effective and adequate for the needs of our growing economy. The Ports Policy Review Consultation Document, Department of Transport (2010) forms part of the initial consultation phase in the review of the Ports Policy Statement. It indicates trends, challenges and opportunities and highlights how ports are in a position to facilitate the return to economic growth. It acknowledges that new capacity will be required in the medium to long term, and that given the long lead time for planning that such expansion needs to be planned for now. Department policy clearly recognises that ports can act as engines of regional economic growth and that "significant shortfalls in port infrastructure capacity could result in serious damage to the economy".

The core objective of national ports policy as outlined in the Department of Transports' Statement of Strategy 2008 – 2010 is "to ensure investment in ports meets port capacity requirements and to facilitate the availability of commercial port services which are effective, competitive and cost efficient".

3.4.2 National Guidance

A series of formal Ministerial Guidelines have been issued under S.28 of the Planning and Development Act 2000. The following Guidelines have influenced the direction of Vision 2041:

- The Planning System and Flood Risk Management - Guidelines for Planning Authorities (2009).
- Architectural Heritage Protection – Guidelines for Planning Authorities (2004).
- Smarter Travel – A Sustainable Transport Future (2009)

3.4.3 Regional Policy

The significance of ports in Ireland and the significance of SFPC as an economic driver is recognised at a regional level.

The Mid West Regional Planning Guidelines (RPG's) recognises the significance of the Shannon Estuary and its ports as providing a major goods transport link for the region. The RPG's seeks to protect the capacity of the ports and also seeks to improve access to them as a regional priority. Ultimately, the RPG's seek to maximise the development potential of the Shannon Estuary and to facilitate provision of the transport infrastructure that will make this possible. While the Guidelines are cognisant of the importance of the major road network in the area, the Guidelines also recognise the regional importance of the national primary, national secondary, and regional road network. The RPG's stress the importance of the N69 road link between Askeaton and Adare to provide effective access to road freight traffic from Foynes to the N20/N21, linking Limerick with Cork and Tralee and highlight the upgrade of the N69 between Foynes and Limerick City as regionally important to provide efficient access to the ports in order to facilitate employment and tourism developments.

The RPG's also promote the use of the 26-mile railway line that exists between Limerick City and the Port of Foynes, which is currently held on a 'care and maintenance' basis by Iarnród Éireann for freight traffic.

Similar to the RPG's the Draft Mid West Area Strategic Plan (MWASP) acknowledges the strength of port activity in the region and recognises that the opportunities presented by the Port of Foynes as an employment hub are substantial. However, the MWASP does also recognise the infrastructural constraints facing the ports and promotes improved road and rail access to the port as a priority.

Perhaps the single most important regional document to be prepared in terms of the Shannon Estuary is the inter-jurisdictional Strategic Integrated Framework Plan (SIFP). This document recognises the Estuary as a strategically important site within the Irish Economy and provides a coherent spatial plan to recognise the economic potential of the Estuary. It aims to support the multifunctional nature of the Shannon Estuary and facilitate the diversification of the economy, through the promotion of commercial/ industrial employment and maritime energy over a thirty year horizon. The overall aim for marine related industry in the SIFP is to "capitalise on the natural deep water potential and existing Port and maritime infrastructure, by facilitating and proactively encouraging the development of maritime industries at appropriate locations within the Shannon Estuary".

This document is significant in that it has 'buy in' from all relevant stakeholders and policy makers and therefore paves the way for future appropriate development on the Estuary. In relation to maritime industry the SIFP identifies specific sites which may be suitable to accommodate future growth in the Estuary and specifically concludes that "all growth should seek to utilise where possible the existing industry connectivity and synergy, as well as the infrastructure to create a more sustainable and attractive network for further investment". More specifically the SIFP safeguards the role and function of Foynes Port as a key strategic driver of economic growth and as the premier deepwater bulk port facility offering the greatest economies of scale in Irelands bulk freight supply chain at a key Gateway in the Mid West Region (SIFP MRI 1.2.5).

3.4.4 Local Policy

Local policy, which sets out a strategy and framework for the overall proper planning and sustainable development of the area, is contained in three relevant statutory documents including the:

- Limerick County Development Plan
- Clare County Development Plan;
- Limerick City Development Plan; and
- Kerry County Development Plan

These plans represent the policies and objectives of Limerick County Council, Clare County Council, Limerick City Council and Kerry County Council for the area and include objectives that recognise the importance of SFPC to the economic life of the region as well as zoning objectives for Port lands. All plans recognise the significant opportunity to provide for enhanced maritime activities. In particular the Port of Foynes is recognised as presenting a significant opportunity given its location, its existing rail connection to the national network and the naturally occurring deep water areas of the Shannon Estuary directly adjacent to the Port. Enhancing connectivity to the Estuary is an objective of all plans and it is a specific objective of Limerick County Council to examine sustainable route options from the N69 to the national primary road network and Limerick Gateway to provide for improved vehicular connectivity.

3.4.5 Evaluation of EU Directives and Policy

Existing European Directives along with national, regional and local policy have significantly influenced the overall direction of this masterplan and have directed SFPC in planning their port facilities over the next thirty years. A review of relevant documents has determined the following facts:

- The importance and the role of SFPC as a significant economic driver and a core economic asset in the region is now widely recognised and acknowledged at not only a national, regional and local level but also internationally, through its designation as a core port in the Trans-European Transport Network (TEN-T).

- The expansion and future development of Ports is recognised nationally whilst the opportunities for significant expansion at the Port of Foynes is recognised regionally.

- Ports are in a position to facilitate the return to economic growth with their export orientated enterprises with the key consideration nationally being to improve the road transport accessibility of such facilities.

- An ecosystem lead approach to development must be taken in promoting port development where biodiversity is effectively integrated into the development of Ports.

- The need to have rail based freight access or the ability to provide same is an important consideration in relation to the development of ports. The Port of Foynes rail link is considered to be of strategic national importance, as it serves the Shannon Estuary which is the only body of water in Ireland that has deepwater in excess of 20m which can be accessed and served by a sustainable rail link.

KEY ISSUES

- With a total of nine commercial port operations in Ireland, significantly SFPC is recognised as one of the three main ports in the country.
- The trend in international shipping towards larger vessels dictates that future investment by SFPC must ensure that larger vessels can be accommodated, if operations are to remain competitive.
- The Port of Foynes is the only port in the Republic of Ireland capable of accommodating Panamax and Post Panamax vessels with a dedicated rail line and deepwater in excess of 20m..
- Enhancement of connectivity between the Port of Foynes and the strategic road and rail network is critical to the efficient movement of goods to and from the port.
- Striking a balance between conservation of biodiversity and economic development is of key importance to the proper sustainable development of Ireland and the importance of Port activity.
- Ports are capital intensive entities and their success or otherwise are linked to the availability and usability of land close to docks and berthing facilities. SFPC and particularly the Port of Foynes need to plan to accommodate future seaport capacity if operations are to remain competitive.
- Dedicated port locations are required to support large offshore renewable energy projects and SFPC is proximate to large serviced industrial landbanks which could be promoted in further developing the assembly and maintenance of wind turbine projects and marine renewable energy within its operations.
- The EU TEN-T status or other national priorities should facilitate and help projects in addressing restrictive environmental considerations and in qualifying projects as being of overriding public interest.
- The Mid West Regional Planning Guidelines seek to maximise the development potential of the Shannon Estuary and to facilitate provision of the transport infrastructure that will make this possible.
- The inter-jurisdictional SIFP aims to support the multifunctional nature of the Shannon Estuary and facilitate the diversification of the economy, through the promotion of commercial/industrial employment and maritime energy over a thirty year horizon.
- All local development plans and local area plans recognise and support the significant opportunity to provide for enhanced maritime activities on the Shannon Estuary with a specific focus on the Port of Foynes.

Chapter 4

Stakeholder Engagement

4.1 Introduction

Consistent with the principles of the Aarhus Convention[1], an extensive public participation and consultation approach was undertaken to inform the preparation of the Vision. Significant information and opinions were sourced from those with an interest in SFPC including business owners, port users, statutory bodies, public agencies, public authorities and the general public. This information has effectively shaped the overall direction of the Vision

This chapter details the extensive nature of the consultation exercise undertaken prior to formulating the Masterplan and provides an overview of the information sourced.

SFPC will continue with the consultation approach initiated in the preparation of the Masterplan and will consult and engage with interested parties as the Masterplan evolves and certain projects are implemented.

1 *The Aarhus Convention is a multilateral environmental agreement through which the opportunities for citizens to access environmental information are increased and transparent and reliable regulation procedure is secured.*

4.2 Consultation Process

A bespoke consultation process was devised for the preparation of the Vision to engage with as many diverse groups as possible. A dedicated web page was prepared to explain and guide interested parties through the process. Six different consultation techniques were utilised to engage the public including:

- The preparation of an Issues Paper which briefly outlined the purpose, objectives and process of the Vision. The Issues Paper was sent to thirty two interested parties including statutory bodies and public authorities who were invited to make a submission on the preparation of the Vision.

- A detailed questionnaires specific to the Port of Foynes and Limerick Docks was prepared which sought to understand the significance of each facility to the public in a local and regional context. The questionnaire also sought to ascertain the public's attitude towards expansion of core assets and rationalisation of non core assets in the ports.

- A breakfast meeting which was attended by twenty seven invited guests, comprising users of Limerick Docks, interested businesses in Limerick city, semi state bodies and local authorities was held.

- Workshops were held with the Port of Foynes Users, Limerick Cargo Handling, Licensed Pilots of the Shannon Estuary and the staff of SFPC to establish the significance of the Port of Foynes and the Estuary and to identify any potential opportunities, threats or concerns to possible future expansion plans in and around the Port.

- Four open consultation events with members of the public in Limerick, Kilrush, Foynes and Ballylongford were undertaken.

- Meetings were held with a number of interested groups and organisations to secure their valued input into the process.

4.3 Consultation Input

Seventeen written submissions and thirty one questionnaires were received in response to the consultation process, reflecting the excellent level of engagement with statutory, community and commercial stakeholders. A detailed consultation report is available for review online on the SFPC website (www.sfpc.ie).

These written submissions along with a number of meetings have shaped the direction of the overall Masterplan and in particular has steered SFPC in a very clear direction in terms of the need for deeper water berthage in the Port of Foynes in order to maintain competitiveness and secure the future of the Port.

92% - The Port of Foynes is a significant economic driver and asset in County Limerick

72% - the Port of Foynes was best located to serve the needs of the Mid-West Region

80% - Limerick Docks is important for the economic development of the city

85% - agreed that rail infrastructure was critical for expansion in Foynes Port

78% - considered that alternative uses should be considered for non-core assets

4.4 Leading Themes

The extensive consultation process identified a number of leading themes / issues for consideration in the Vision and it has also established a number of facts.

- SFPC and specifically the Port of Foynes are recognised by the public to be very important to the economic development of the Mid West Region.
- The Port of Foynes and Limerick Docks should expand their activity and attract new business.
- Rail and road infrastructure are vital to the future development of SFPC including improvements to the N69 road network, a direct link / connection to the N21, and protection of the existing rail link to the Port of Foynes.
- Requirement for deep water berthage greater than the current 10.5 metre is crucial in the Port of Foynes to meet new trading demands and larger vessels.
- Limerick Docks should be better integrated into the city and the interface needs to be addressed.
- Environmental issues are of significant concern to the future promotion and advancement of port related activities on the Shannon Estuary, requiring careful consideration and balance in approach.

KEY ISSUES

- Six different consultation techniques were utilised to engage the public
- Seventeen written submissions were received.
- Thirty one questionnaires were completed.
- Six leading themes were identified from the process and these themes have influenced the focus and shaped the direction of the Vision.

Chapter 5

Trade Growth and Land Requirements

5.1 Introduction

This chapter examines the likely trends in commodities handled by SFPC and considers forecasted growth scenarios arising from relevant sectors over the next thirty years and what demands these are likely to generate on Port facilities. Future trends and growth scenarios have also had regard to influential policy documents and these are referred to where relevant.

Using official maritime statistics (CSO), 2011 has been established as the baseline year for this examination. Forecast models have been devised by SFPC using a 'bottom up' commercial approach, and are presented in the context of national and regional policy and, are responsive to differing trends in various sectors and associated key performance indicators.

The SFPC forecasts are likely to influence existing and future physical infrastructure requirements. Any future requirements and implications will be explored in Chapter 7 and Chapter 8 . Unless otherwise stated, the demand assumptions considered below assume growth is unconstrained by land availability and/or transport infrastructure.

5.2 National Outlook

As Ireland readjusts following the economic shock of 2009, the economic outlook in the short to medium term remains challenging. As a small open economy, it is accepted that exports will be an essential element of the future Irish economic model. To succeed internationally, quality infrastructure and market accessibly will be a critical element. Efficiency of ports and airports will therefore become a crucial component of Ireland's competitiveness. The quality of air and sea port access must be of the highest international standards in order to facilitate merchandise trade (exports and imports) in a competitive manner.

Irish merchandise exports for 2011 were €92.94bn, up 4% from 2010, while imports were €48.24bn at 5%. This resulted in a trade surplus of €44.90bn (+3%), the highest annual surplus on record. However as a small open economy, Ireland is subject to fluctuations in global demand which has the effect of causing fluctuations in external trade flows. Although the Irish export sector is set for a challenging year with exports predicted to grow by just 3 per cent[1] in 2012, due to ongoing economic difficulties in the Euro zone and low levels of exports to emerging economies, SFPC believes that there is likely to be a positive trajectory of growth over the period to 2041 because of the:

- Focus by the Irish Government to re-establish Ireland as an export driven economic growth model with a target on the emerging economies of India and China;
- Strength of the multinational manufacturing and energy sectors, which will remain key for future economic growth;
- Contribution that food and drink exports will make to Ireland's future growth model as set out in the Food Harvest 2020 Strategy and lead by the impending changes to the EU Common Agricultural Policy from 2015;
- Demographic profile which will ensure that imports of consumer goods should continue to grow;
- Structural changes in the energy sector;
- Likely consolidation in the port sector as recommended in the McCarthy Report; and
- Relationship between economic performance and growth in the throughput at SFPC between 1990 and 2010.

The Department of Transport 'Ports Policy Review Consultation Document' 2010 highlights the need for port capacity to be planned for now. This was also highlighted in the April 2009 report of the National Competitiveness Council 'Our Cities: Drivers of National Competitiveness', where Ireland's commercial seaports and the services they provide are recognised as being vital to the country's prosperity. Furthermore the report recognises that having regard to the long lead times for the delivery of air and sea port infrastructure and services, it is critically important that we plan now to ensure that our cities are well positioned to meet the longer term needs of business.

1 Irish Exporters Association Annual Review January 2012

5.3 Existing SFPC Throughput

SFPC handled 9.9 million tonnes[2] of cargo on the Estuary in 2011 (refer to figure 2.1) and handled in excess of 2.2 million tonnes of cargo at it general use terminals in Limerick and Foynes.

In consideration of the cargo throughput for the SFPC general user terminals, there are four primary markets currently served by SFPC including agriculture, construction, and energy with modest cruise traffic. Consideration of existing and past tonnage throughput in these sectors is necessary to inform future projections in section 5.5 of this chapter. Other cargoes comprise primarily wind turbines, alumina hydrate and recyclables.

5.4 Trends in Port Commodities

The approach taken in planning for future growth considers national and international trends related to the existing SFPC business within a given sector and the impact on the broad trends resulting from competitive activity or changes in local and regional economic conditions. Some of the more pertinent sectors are analysed further;

5.4.1 Bulk Solids

Bulk Solid includes products from the agricultural, energy, mining and construction sectors. The material in bulk includes grain, animal feeds, fertilizer, cement, petroleum coke and scrap metals. SFPC also handles project cargoes – typically large scale structural components wind farms.

Agricultural cargo in SFPC comprising cereals and animal feed has been relatively stable since the mid 1990's. Nationally food exports grew by 11 per cent in 2010 and were valued at almost €8 billion with a target by Government to grow this figure to €12 billion by 2020[3] . This means continuous growth in the agricultural sector between now and then. The future for the various agricultural sectors is outlined in the national Food Harvest 2020 Strategy where the overriding objective is to increase value-added from the industry. The strategy highlights that transport costs are a key consideration with buyers in the animal feed sector and this reinforces the argument that proximity to a given port will continue to be a major factor determining consumption. SFPC is located within reach of some of the most productive parts of Ireland for agricultural output and it is envisaged that the Port of Foynes and Limerick Docks will continue to have a strong position in this sector into the future.

The construction sector, specifically relating to steel imports, timber and timber-boards and materials related to cement production, spiked in 1999 before surging again between 2004 and 2007. Much of this activity was related to clinker, an ingredient in cement production and large increases in steel imports, There is some consensus that the construction market may not reach equilibrium until 2020, taking into account the overhang of stock, credit availability and continued low economic growth in the first half of this decade. That equilibrium point equates to levels seen towards the end of 1990's and the predicted future traffic reflects this assumption.

In addition to pet coke for cement production, there are several other coal importing operations including the importation of coal for the food processing sector. Solid fuel is also an important input for electricity generation at Moneypoint, Ireland's largest electricity generating plant.

The trading of other cargoes through SFPC has been significant and it is anticipated that these cargoes shall remain relatively static over the thirty year period of Vision 2041.

In terms of new bulk commodities SFPC expects to secure some of the market share resulting from recent developments nationally and locally in the energy and industrial sectors.

To accommodate the existing and anticipated level of trade in bulk solid and to facilitate other types of freight activity over the period of Vision 2041 some improvements and consolidation of existing areas for handling these materials will be required. Some additional facilities may also be required to accommodate growth in specific commodities.

5.4.2 Energy

Most of the kerosene imported into the Estuary terminals (with the exception of Shannon airport) comprises motor diesel, petrol products and bio-fuels. The facility at Shannon is dedicated to the import of aviation fuel and demand is determined exclusively by the level of activity at the airport.

Limerick Docks as a location for liquid fuels is not expected to remain operational so the Port of Foynes will over time become the sole location for this activity. Future liquid fuels in the Port of Foynes throughput will be governed by the overall market performance, and the specific competitive position of the Foynes import facility. A new fuel terminal owned and operated by Atlantic Fuel Supply Company is the largest new build oil terminal in Ireland for some fifty years. .It is estimated that in the medium term (up to 2020) some 80 - 90% of its storage capacity will be fully utilised.

In terms of future growth areas in this sector, transformational changes are taking place in Europe and the world. In the context of a very large-scale shift to the use of renewable energy technologies, Ireland has one of the most energetic offshore wind and wave resources in the world, which will yield higher power levels than other European neighbours[4] . A number of opportunities have been identified where Irish ports might be able to benefit from the growing emphasis on the development of renewable energy-business in the marine sector, including potential as construction ports and as operating and maintenance ports (refer to Chapter 3).

2 Total throughput is boosted by the large scale facilities at Aughinish and Moneypoint.
3 ESRI Recovery Scenarios for Ireland

4 Our Ocean Wealth Towards an Integrated Marine Plan for Ireland Background Briefing Documents pp.14

Situated on the west coast, SFPC is well positioned to service tidal resources in the estuary itself, as well as wave resources off the entire west coast of Ireland[5] .

"...Ireland has one of the most energetic offshore wind and wave resources in the world which will yield higher power levels than other European Countries..."

5.4.3 Cruise Traffic

In recent years, the number of cruise liners to the Port of Foynes has been relatively modest with liners at the smaller end of the cruise vessel size range, with less than 1,000 passengers. SFPC undertook a market research project in 2005/2006 to ascertain the likely potential for the future of this sector as it relates to the Shannon Estuary and found that the potential market for such traffic on the Western seaboard was relatively small for a variety of reasons, including perceived weather conditions but principally because such calls would require a significant deviation from established routes.

SFPC has concluded that the potential market over the medium term is a maximum of 10 to 12 calls per annum and SFPC will work with local tourist promoters and bodies in the region to facilitate and develop this sector as the need arises.

The Cruise Ship "Saga Rose" at Foynes Port

5 SEAI, Assessment of the Irish Ports & Shipping Requirements for the Marine Renewable Energy Industry, 2011

5.5 Anticipating Growth

Whilst an optimistic growth scenario has been adopted in projecting future demand, based on past trends and securing market share of proposed new project sectors, SFPC is acutely aware of increased global volatility and the impact that this has had on shipping trends particularly in recent times. In anticipating growth regard has been had to historical shipping trends and growth patterns along with the trends in port commodities relating to SFPC business. For example Food Harvest 2020 published by the Department of Agriculture, Food and the Marine, anticipates a growth of 42% between 2009 and 2020 in exports relating to agriculture, fisheries and forestry and a 33% increase in the value of primary output during the same period. SFPC anticipates that it can secure some of the new business generated under Harvest 2020 given its existing customer base.

A number of independent reports highlight the significance of offshore renewable energy resources in Ireland and confirms that given the scale of development planned for the Irish Sea over the next decade, there are clear opportunities for Irish companies and Irish ports to take advantage and profit from the business. SFPC expects to secure significant new business in this area and such expectations are confirmed in the recently published Report on Irish Ports Offshore Renewable Energy Services (IPORES), by the Irish Maritime Development Office (2012). This report identifies SFPC as one of three Category A Ports in Ireland, which is a "port which offers best potential as national or regional hubs for construction, fabrication and assembly of turbines and devices". Indeed a recent governmental plan[6] seeks to double the value of our ocean wealth to 2.4% of GDP by 2030. A further report by IBEC[7] providing independent forecasts for unitised freight trade in the Republic of Ireland estimates an average 2.85% increase in units between 2010 and 2020. In line with these reports SFPC believes that merchandise trade flows in and out of Ireland should continue to expand to 2041.

With predicted growth in renewable and agricultural sectors and the future rationalisation of port operations in Ireland, SFPC believes that the anticipated future growth rates whilst optimisic are achievable assuming maintenance of market share in the key sectors and the delivery of key projects in the region relating to energy and mineral exploration.

5.5.1 Port of Foynes

Due to a number of factors, it is optimistically forecasted that cargo throughput at the Port of Foynes will grow significantly on the basis of the forecasted mid and high line approach discussed below. The rationale for this assumption is based upon inter-alia; The Port of Foynes as the primary general user terminal on the Estuary, and the opportunities presented by available infrastructure and resources including deep water sites 20m+ and the rail line.

6 Harnessing Our Ocean Wealth – An Integrated Marine Plan for Ireland, Department of Agriculture, Food & Marine July 2012
7 Freight Friendly Ports & the Capacity Challenge, STS International, 2011

	2011	2025	2041
Base Line	1,663,000	3,094,000	3,208,000
Mid Line	1,663,000	3,270,000	4,142,000
High Line	1,663,000	3,820,000	5,571,000

Table 5.1 Anticipated Growth in Tonnage at General Cargo Ports

Base Line

This scenario assumes an average annual growth rate of 3%. The existing four sectors are expected to grow with the exception of solid fuels which fall dramatically after 2020. This scenario forecasts significant new business in the energy and industrial sectors.

Mid Line

This scenario assumes an average annual growth rate of 5%. Again this scenario forecasts significant new business in the area of energy and industry. A 25% increase in the agricultural sector is estimated up to 2020 with only 1% growth estimated per annum thereafter. The construction sector is estimated to reach 2002 comparable levels by 2020 with a 1% growth per annum thereafter, with the existing liquid fuel facility reaching capacity by 2020 and growing at 2% per annum thereafter.

High Line

The high line scenario assumes an aggressive average annual growth rate of 8% per annum with the agriculture and construction sectors growing at 2% per annum after 2020 and energy anticipated to grow significantly after 2015. New business in the order of 750,000 tonnes is estimated by 2040 and this conservative estimate is based on industry trends in the ocean energy sector and offshore renewables. Recent independent reports[8] highlights the significant opportunities associated with offshore wind energy projects in manufacturing; construction and installation; and operation and maintenance. It details the significant facilities required to support the industry and highlights the very real potential for Ports as potential assembly facilities, thereby very much supporting the energy sector assumptions underlying the high line scenario.

5.5.2 Limerick Docks

It is anticipated that Limerick Docks will continue to maintain its existing cargo throughput with potential for increases arising from the demands of the regional hinterland. Maintaining Limerick Docks as a functioning and viable port in Limerick City was seen as critical by over 57% of people consulted in the preparation of Vision 2041, with 90% of those consulted indicating that Limerick Docks should expand its activity and accommodate new business.

However, the distance of the facility upstream from the mouth of the Estuary and limited navigational depths will restrict its ability to attract significant increases in bulk solid business comparable with the Port of Foynes. Nonetheless, Limerick Docks continues to operate as a viable port and commercial entity with adequate quay-side storage reserves to accommodate new business. Whilst still opportunity for expansion, this resource requires effective spatial management given its urban context. This approach is very much in line with those consulted in the preparation of Vision 2041 as 78% of people considered that more effective, better or alternative uses should be considered for non core assets in Limerick Docks.

5.5.3 Shannon Estuary

It is anticipated that the existing four facilities on the Shannon Estuary will continue to operate in response to the requirements and demands of their owners, influenced by the same trends and growth sectors discussed. The natural attributes and quality of the Shannon Estuary are desirable from a shipping and maritime perspective therefore creating the possibility for large scale port related industry locating on the estuary and close to deepwater berthage.

Many opportunities could arise on the Shannon Estuary from the promotion of the Estuary as an Ocean Energy Hub. For example, the real opportunity in the Shannon Estuary to attract renewable technologies such as turbine and potentially hydro-energy component manufacturing to Ireland to supply the offshore wind and renewable energy market. Such new activities could require up to 500 hectares of flat area for factory and product storage[9] Similarly activity on the Estuary could significantly grow on foot of its promotion as the 'Shannon Energy Valley' with associated foreign investment and international product research centres.

On the basis of these growing trends and growth sectors it is forecasted that total throughput on the Shannon Estuary will increase over the period of Vision 2041. Specifically, it is envisaged that growth will occur from 2020 under the mid and high line scenarios and that under the high line scenario growth can be expected again in 2040 as the potential for a large scale port related industry in the energy and industrial sectors increase.

	2011	2025	2041
Base Line	9,899,000	11,537,524	11,651,524
Mid Line	9,899,000	14,813,524	15,585,524
High Line	9,899,000	15,263,524	20,014,524

Table 5.2 Anticipated Growth in Tonnage on the Shannon Estuary

8 Harnessing Our Ocean Wealth – An Integrated Marine Plan for Ireland, Department of Agriculture, Food & Marine July 2012

9 SEAI, Assessment of the Irish Ports & Shipping Requirements for the Marine Renewable Energy Industry, 2011

	2020		2040	
	Medium Growth	High Growth	Medium Growth	High Growth
Covered Storage	20 hectares (15,000m2)	25 hectares (17,500m2)	40 hectares (20,000m2)	50 hectares (25,000m2)
Open Storage	10 hectares	15 hectares	15 hectares	25 hectares
Liquid Storage	20 hectares (250,000m3)	20 hectares	20 hectares	20 hectares
Quay Side Set Down	3 hectares	3 hectares	5 hectares	7 hectares
Port Centric Projects	10 hectares	15 hectares	25 hectares	25 hectares
Total	63 hectares	78 hectares	105 hectares	127 hectares

Table 5.3 Forecasted Additional Land Requirement in Foynes

5.6 Accommodating Growth

SFPC aims to operate a port facility that is efficient and cost effective and provides value for money to its customer base. Achieving optimal performance taking account of current transport methods and developing trends in merchandise trade are key objectives of the Vision 2041 in planning for the future.

The Port of Foynes does require expansion to accommodate projected growth and changes in international shipping trends. There are three defined requirements to facilitate growth in the Port of Foynes over the thirty year period of Vision 2041 including a land requirement, extended berthing facilities and a deep water berth requirement.

Limerick Docks does not require physical expansion to meet existing and future demand requirements as its existing facilities and infrastructure are adequate for projected demand

It is anticipated that the existing four facilities on the Shannon Estuary will adapt to changing demands and requirements, when and if they arise. However Vision 2041 does seek to ensure that large areas of land on the Estuary are identified and protected for marine related industry particularly related to energy activity. Connectivity with the existing grid network has served to create an energy activity hub within the Estuary (see Figure 2.13), with synergies with ESB Moneypoint and Tarbert Power Plant, the extension of the natural gas connection in the area from the Combined Gas Cycle Turbine proposal at Tarbert, the proposal for the LNG facility at Ballylongford and plans by Eirgrid and Board Gais to upgrade and further develop their transmission networks in the area to accommodate rising demand as well as providing additional capacity.

5.6.1 Port of Foynes Land Requirement

In terms of accommodating growth, Vision 2041 has taken the mid line and high line growth forecasts for 2020 and 2040, set out in Table 5.1 and has used these growth rates to inform sectoral requirements including open storage, liquid tank storage and quay side storage. The assumptions are based primarily on existing established work practices

and not on turnover of product through the port storage area as this is dependent on third parties and their customer base.
A number of different assumptions have been made dependant on each sector. For example covered and open storage land requirements are based on a straight line growth pattern tied to dry bulk tonnages on the basis that in 2010, when annual throughput was 1.6 million tonnes, warehouse occupancy was running at 99% for the six months of the agricultural season and open storage occupancy was running at 94% throughout the year.

Whilst a requirement for an additional 127 hectares of land (see table 5.3) to facilitate port expansion (high growth scenario) may at the outset appear very high, it must be considered in the context of existing port operations in Foynes. The Port of Foynes presently has a land area of 53.31 hectares. The 2040 high line figure sees tonnage increasing 3.3 times the existing tonnage levels. Therefore increasing the existing port estate by 3.3 would require an additional 160 hectares. Thus the land requirement of 127 hectares as set out in Table 5.3 must be considered reasonable.

5.6.2 Port of Foynes Additional Berthing Facilities

Due to the seasonal nature of Port operations berth occupancy levels have been examined in the context of three different work models, based on existing working averages, full utilisation of sixteen hour working days and twenty four hours per day. The increase in working hours is heavily dependent on the agreement of all stevedoring companies, cargo receivers and hauliers.

However, having regard to existing work patterns and practises, the reality is that working hours will in all likelihood fluctuate between ten and sixteen hours per day with a 24 hour day impractical from a work practices perspective

While berth utilisation at the current run-rates is below levels which would warrant adding further capacity an examination of berth occupancy rates clearly indicates the need for new berth provision within existing port facilities by 2020 assuming existing work patterns prevail and the mid line projections are realised. The situation is exacerbated when the high line projections are factored in.

Even with an increase in working hours to sixteen hours a day, the high line scenario indicates capacity issues prior to 2040. Again these predictions are extremely conservative as they do not take into consideration the fact that Berth 3 is likely to become a dedicated berth post 2020 which will in turn lead to a rapid increase in berth occupancy rates post 2020.

5.6.3 Port of Foynes Deep Water Berthage

The consultation stage of this Vision strategy identified a requirement from port users to cater for Panamax vessels in order to sustain and grow business on the Estuary. This requirement is very much in line with current international and national trends and demands and is an issue that needs to be addressed by SFPC to maintain competitiveness and to maintain its position in a national context. Whilst SFPC do handle Panamax vessels, crucially the Inner Port of Foynes can not accommodate fully loaded, general cargo Panamax vessels as it can not offer the minimum necessary depth or length required at quay walls.

The two privately owned facilities on the Estuary that can accommodate Panamax vessels, namely Moneypoint Jetty and the Rusal Jetty at Aughinish are unsuitable for general cargo trades having regard to existing jetty furniture. Furthermore, their owners have clearly indicated that general cargo trade is not consistent with their long term plans for these facilities.

Accommodating Panamax and post Panamax vessels in the Port of Foynes is a key objective of Vision 2041. In consideration of this issue, further regard must be had to the findings of the consultation stage of this process where port users strongly emphasised that Panamax capability should be provided as close as possible to existing customer facilities. This is considered an important parameter as the success of new facilities will ultimately depend on customer uptake.

5.6.4 Shannon Estuary Land Requirement

Associated with the unique qualities of the Shannon Estuary including deep water channels, fast flowing water and deep berthage 20m+, existing industries and infrastructure on the Shannon Estuary are likely to act as a catalyst in attracting new maritime industries, as they offer benefits from the existing synergism available. New industry on the Estuary is also possible arising from the promotion of the Shannon Estuary as an Ocean Energy Hub and the memorandum of understanding signed by Shannon Development, the Universities and leading firms in Silicon Valley promoting the Shannon Energy Valley Initiative. The growth of the offshore renewable energy sector presents a real opportunity for the Shannon Estuary in respect of new infrastructure and supply chain opportunities, including servicing the assembly of towers and turbines, their transport to offshore sites, installation and decommissioning engineering services, the provision of operations and maintenance services and onshore backup services. It is thus considered necessary and appropriate that strategic sites on the Estuary have been identified in the Strategic Integrated Framework Plan SIFP and are protected for marine related industry.

Identification of these sites in SIFP is significant in that the preparation of the inter-jurisdictional plan has the support of all relevant local authorities and public bodies. One of the overall objectives of SIFP is to utilise where possible existing industry connectivity and synergy, as well as the infrastructure to create a more sustainable and attractive network for further investment in the Shannon Estuary. Identification of new sites and expansion of existing industrial sites on the Estuary will require careful cosnideration and a balanced approach having rgeard to the environmetnal sensitivities of the Estuary

5.7 Port Implications

In summary:

With changes in international shipping and trends and with significant projected increases in tonnage throughput, the Port of Foynes will necessitate significant expansion and infrastructure development. With strong growth anticipated in the agricultural and liquid fuel sectors along with opportunities associated with the energy and industry sector and the potential for development associated with the ocean energy sector, it is anticipated that the Port of Foynes will require an additional 127 hectares of port development land over the thirty year period of Vision 2041, with additional requirements for berthing facilities and deep water berthage capable of accommodating Panamax and post Panamax vessels.

Limerick Docks has adequate infrastructure capacity to maintain its existing cargo throughput and to accommodate increases arising from the demands of the regional hinterland. Whilst Ted Russell Dock does not require immediate expansion, additional infrastructure provision will be considered as throughput grows.

The four existing facilities on the Shannon Estuary will continue to operate in accordance with the requirements and demands of their owners. Strategic sites on the Estuary have been identified and protected for marine related industry in SIFP and must be formally recognised and adopted into statutory documents in accordance with the recommendations and findings of the SIFP.

KEY ISSUES

- The Port of Foynes will necessitate significant expansion and infrastructure development.
- Limerick Docks has adequate infrastructure capacity but requires effective spatial management given its urban context.
- The positive and attractive natural attributes of the Shannon Estuary shall continue to be promoted to the ocean energy sectors.
- It is estimated that tonnage throughput in the Port of Foynes will increase on average by between 5% and 8% per annum up to 2040 from its existing 1.6 million tonnes (2011) to between 4.1 million and 5.5 million tonnes.
- An estimated 127 hectares of additional port development land shall be required over the period of Vision 2041 in the Port of Foynes and should be planned for now.
- While berth utilisation at the current run-rates is below levels which would warrant adding further capacity, a need for new berth provision arises by 2020, with significant capacity issues by 2040 clearly established.
- Perhaps the most significant issue relates to the need for deeper water berthage with the ability to accept larger Panamax and post Panamax vessels in Foynes. This development will be appropriately facilitated by the existing rail line serving the port.

Opposite Page: Existing (unused) deepwater terminal on Foynes Island and inset, the facility in full operation

Foynes Island deep-water terminal

Chapter 6

Port Development Strategy

6.1 Introduction

It is vital that Vision 2041 has a clear vision and Port Development Strategy that reflects future SFPC ambitions and aspirations.

The Vision and Preferred Strategy is based upon:

- The trends and changes presented and discussed in earlier chapters including; future projections in freight logistics, transportation modes and likely sectoral developments;
- Statutory and non-statutory policy and guidance at a national, regional and local level including environmental and landuse planning issues influencing existing and future operations of the Port and of the (Shannon) Estuary;
- Forecasted growth in tonnage throughput for the Port of Foynes; and
- Feedback arising from the extensive public and business consultation and engagement has also been an influencing factor on the direction of the Vision 2041 strategy.

An inherent understanding of the interaction of all of the above issues informs the Vision 2041and presents the evidence upon which to pursue the preferred strategy and objectives.

6.2 Influencing Factors

There are a number of key factors influencing the overall direction of Vision 2041, which have previously been discussed in detail. These factors emanate not only from current trends and changes in port activity and policy but also from existing physical opportunities and challenges attributable to each port facility on the estuary. The SCOT analysis summaries these issues which influence the overall vision.

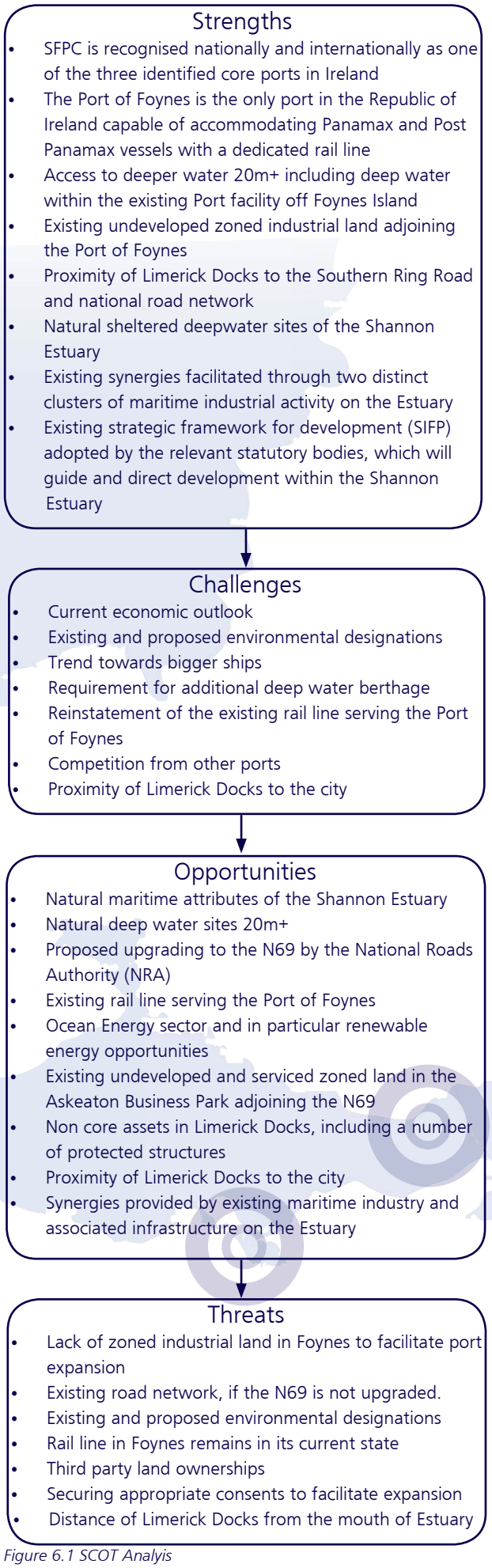


Figure 6.1 SCOT Analyis

6.3 Port Development Strategy

The Port Development Strategy derives from the analysis undertaken in the previous chapters and from the Vision statement set out in Section 6.4. It is based on the following three principles;

- Active management of Limerick Docks;
- Significant expansion at the Port of Foynes; and
- Promotion of large scale port related industry on the Shannon Estuary

6.4 Achieving the Vision

The Port Development Strategy is intended to provide clear direction and to inform:

- National, regional and local policy makers on the importance of the Port and the need to facilitate and accommodate growth;
- Port operators and users on the future direction of the Port;
- Future potential investors on the capabilities and opportunities within the Port;
- Community and stakeholders of the Port's future plans, requirements and responsibilities; and
- Future port development options.

The key components of the Port Development Strategy are not a prescriptive menu of objectives to be carried out by SFPC within a defined timeframe. Rather, they are a list of clear objectives that need to be evaluated further at the time of implementation and examined against a number of economic, environmental and business demand criteria. Some components will take time to implement whilst others may be achievable in a shorter timeframe. However, it is intended that the implementation of all objectives will occur within a holistic ecosystem approach where port demands and requirements will be balanced with environmental considerations responsive to the natural environment.

Having regard to the dynamism within the ports sector, it is anticipated that Vision 2041 will be subject to periodic review every six to ten years so that the accuracy of assumptions and objectives are responsive to sectoral developments over time.

Vision Statement

The vision of SFPC, as a statutory and commercial entity, is;

"...to position Shannon Foynes Port as a key economic driver by enhancing and leveraging its asset base to accommodate offshore and onshore investment within and adjacent to its harbour. SFPC will champion the improvement of connecting road and rail infrastructure, so that customers can be offered improved, competitive and efficient services and will focus on the provision of services and infrastructure in a manner providing sufficient return on capital whilst safeguarding the sensitive environmental context within which it operates".

"...There are a number of key factors influencing the overall direction of Vision 2041 emanating not only from current trends and changes in port activity and policy but also from existing physical opportunities and challenges attributable to each port facility on the estuary..."

Port Development Strategy

Foynes:

'Expansion'

- Secure immediate zoning on 127 hectares of land to facilitate port expansion
- Provide additional berthing facilities within existing port by 2020
- Accommodate Panamax and post Panamax vessels in / adjoining the existing Port
- Promote and encourage the appropriate upgrade of the N69 in the short to medium term.
- Reinstate the existing rail line into the Port with connection to the national rail network in the short to medium term.

Limerick:

'Proactive Management'

- Maintain and expand existing cargo throughput
- Actively promote Ted Russell Dock and its extensive berthing facilities to attract new port related business
- Provide for new warehousing as demand arises
- Promote non core assets for alternative port / non port related activities
- Integrate Limerick Docks into the city through enhanced connectivity and visual improvements.

Shannon Estuary:

'Promotion'

- Continue to operate the existing four facilities in accordance with the requirements and demands of their owners
- Promote the natural attributes of the Estuary and its destination as an Ocean Energy Hub to potetnial investors and the IDA.
- Implement the strategic spatial management of the Estuary in the context of the Strategic Integrated Framework Plan (SIFP).
- Formally recognise a number of strategic sites which must be protected for marine related industry in accordance with the provisions of SIFP

The key components of the vision / strategy provide for:

- Recognition of SFPC as a significant economic driver in the Mid West region with future development potential promoted in national, regional and local policy documents and development plans;
- Maintenance of SFPCs' role as an important source of both direct and indirect employment;
- Continuous offshore and onshore investment in new port facilities;
- Identification of the Shannon Estuary as an important location for the needs of the Ocean Energy Sector;
- Capacity for significant growth in trade in the Port of Foynes by 2040;
- A requirement for deep water berthage in the Port of Foynes, to facilitate modern trading demands and vessel size and increased berthage;
- A requirement for additional zoned lands in Foynes to facilitate port related industry and expansion;
- Alternative commercial uses (either port or non-port related) for non-core assets in Limerick Docks;
- A focused approach to the integration of Limerick Docks into the city;
- The enhancement and promotion of connectivity including road and rail infrastructure, as a key priority for SFPC; and
- An effective working relationship with local authorities to respond positively to its local community and make amenity and environmental enhancements where feasible.

Chapter 7

Delivering Capacity and Land Optimisation

7.1 Introduction

With strategic vision and objectives established for the Port for the next 30 years (Chapter 6), it is the intention of the Vision 2041 strategy - in accordance with best practise relating to Port development and environmental protection - to ensure that future land strategy and expansion of Port iinfrastructure is based on effective utilisation of its existing assets.

In achieving capacity and land optimisation the issues for consideration by SFPC include primarily;

- Options available to increase efficiencies and to provide additional throughput capacity to cater for the projected (tonnage) growth; and,

- The preferred spatial distribution of Port development taking account of operational requirements (e.g. cargo handling and commodity concentrations and vessel size constraints).

Submissions and observations received through the consultation process have influenced the options now under consideration. In particular, issues arising included; the demand by port operators for deeper water in the Port of Foynes and the priority for integration of Limerick Docks with the city centre.

It is appropriate to stress that the options presented in Vision 2041 are not exhaustive nor are they prescriptive. Rather, they are a discussion on possible options that need to be evaluated and are subjected to a review of the relevant business case, environmental assessments, planning and consent requirements at the appropriate time.

The following sections explain and justify those areas which are most likely to change over the next thirty years. The two main port facilities of Foynes and Limerick are dealt with individually, with the remaining facilities dealt with under the group heading of the Shannon Estuary.

"...the future land strategy and expansion of Port infrastructure is based on effective utilisation of its existing assets..."

7.2 Port of Foynes

As the main port facility on the Estuary with existing rail line connectivity and access to the national road network, associated with the predicted growth in tonnage over the next thirty years, the Port of Foynes will necessitate significant investment and is the one facility on the Estuary most likely to experience significant change over the period of Vision 2041.

7.2.1 Port of Foynes - Core Issues Arising

- The projected growth in tonnage (detailed in Table 5.1) along with likely demands arising from the Ocean Energy, Industrial and Agricultural Sectors necessitates an additional 127 hectares of land for port activities.
- The Port of Foynes has limited undeveloped land remaining with 10 hectares dispersed throughout the existing Port estate.
- The projected growth in tonnage necessitates an additional 9,290sqm of new warehousing with 60% of this identified for the energy and industrial related sectors
- Some 5,109m^2 of existing warehouse stock needs to be upgraded or replaced.
- There is a requirement for an extension of existing berthing facilities in the Port.
- There is a requirement for deep water berthage greater than the current 10.5 metre, to meet new trading demands and larger vessels.
- The Port of Foynes is the only Port in the Republic of Ireland that would be capable of accommodating Panamax and Post Panamax vessels with a dedicated rail line.

7.2.2 Options for Consideration

Do Nothing Scenario

It is possible that the Port of Foynes could continue to operate in its current form and function, serving its existing market sectors. However, having regard to the competitive dynamics within the overall Irish market, it is likely that the Port of Foynes would begin to lose significant market share to other port operators in Dublin and Cork, as operations become inefficient. SFPC is identified as one of the three core ports in Ireland and national policy indicates that much of the port capacity in Ireland should be provided at these three key locations. In parallel the Harbour's Act 1996 fostered a competitive and commercial regime within the Irish ports sector and under this legislation SFPC is obliged to operate as an enterprise with a clear and defined commercial mandate. Thus SFPC can not afford to sit still if it is to remain competitive in a sector comprising significant inter port competition.It is considered that the 'do nothing scenario' is not a viable or practical option.

Effective Utilisation of Existing Assets

In the case of the Port of Foynes all existing tenants and activities are dependent upon port infrastructure and shipping and therefore 'managing out' existing users to make available additional land within the Port Estate, is not an option. Investment has already taken place in the refurbishment and redevelopment of outdated premises and it is proposed to upgrade/replace the existing 5,109sqm of warehousing thereby further optimising existing assets.

An examination of work practices and procedures has also been undertaken to ensure optimal use of existing port assets. Ships arrive and depart to and from port facilities on a twenty four hour basis whilst the Port of Foynes operates every day (except for Christmas Day) from 06.00 – 24.00hrs with an average working day of between twelve and sixteen hours. An exception to these operational hours is the liquid fuel sector which can operate on a twenty four hour basis. Whilst there is potential for other sectors to operate on a twenty four hour basis to optimise the use of assets, the increase in working hours is heavily dependent on third parties and their customer base being willing and capable. The dry bulk and break bulk sector is expected to increase to a maximum of a sixteen hour day operation for the turnover of cargo that is stored within the port estate. The reality is that working hours will in all likelihood fluctuate between twelve and sixteen hours per day and SFPC has found such work practices effective to date.

The other element of shore-side facilities which needs to be examined is cargo-handling equipment, notably craneage and ancillary equipment, in order to ensure that rates of loading and discharge are optimised. In this regard SFPC makes continuous investment in its equipment to ensure optimal operating rates are achieved.

"127 hectares of additional land is required to facilitate port operations up to 2041"

Port Estate Expansion

This land bank to the south east has been identified as a strategic site within the SIFP, as an area with significant potential to provide further employment, in association with the adjacent Port. Specifically it is stated in the SIFP that this site should be safeguarded, maintained and promoted, as a key economic driver within the Shannon Estuary and Limerick City, with the ability to support and enhance the function of the Gateway.

The Port of Foynes has only 10 hectares of undeveloped/ unoccupied land remaining within its existing Port Estate. However this land is dispersed throughout the estate comprising three small parcels with the largest no greater than 7 hectares in area (Figure 7.1). Whilst this land could be used to accommodate the warehousing requirement detailed in Table 6.2, it is inadequate to meet the requirements of specialist projects related to renewables, energy, industrial and/or the ocean energy sector.

In order to accommodate projected tonnage throughput it has been estimated that some 127 hectares of additional lands will be required to facilitate port operations up to 2040 (high growth scenario). In addition to the existing 10 hectares within the Port of Foynes, the Limerick County Development Plan[1] has identified an additional 28 hectares of land for industrial use associated with the expansion of port activities.

1 Limerick County Development Plan 2010 - 2016

Excluding the existing zoned and undeveloped land in and adjoining the Port, there is still requirement for an additional 89 hectares of suitability zoned land required for industrial use / port related activities in an around the Port of Foynes.

Careful consideration must be given to the spatial location of such land particularly having regard to the provision of existing services and facilities including connection to the rai network.

Of further consideration is acknowledging the sensitive environment surrounding the Shannon Estuary and the Robertstown River and the need to take environmental considerations into account including amenity designations. Other issues including land ownership and the need to successfully negotiate with third parties, topography and physical constraints are also important factors, all influencing the potential location of the port expansion area.

Figure 7.2 details the opportunities and constraints influencing the consideration of a port expansion area and highlights that the only logical expansion area is to the south east of the existing port. Expansion of port activities to this area, whilst dependant on further environmental and topographical surveys along with third party land negotiations, is ultimately dependant on securing appropriate zoning and support from Limerick County Council in their County Development Plan. The extent of zoning required is detailed in Figure 7.1.

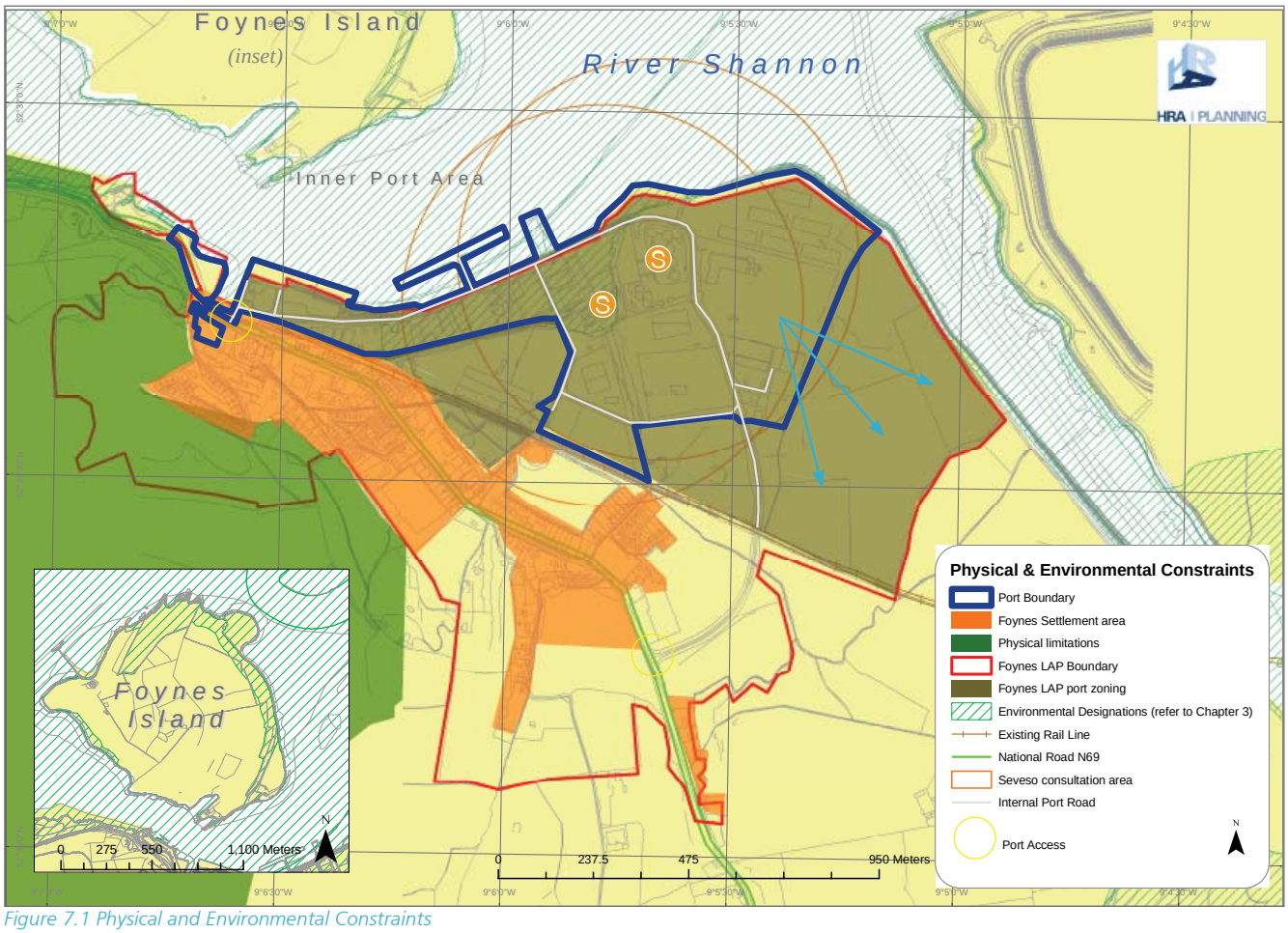


Figure 7.1 Physical and Environmental Constraints

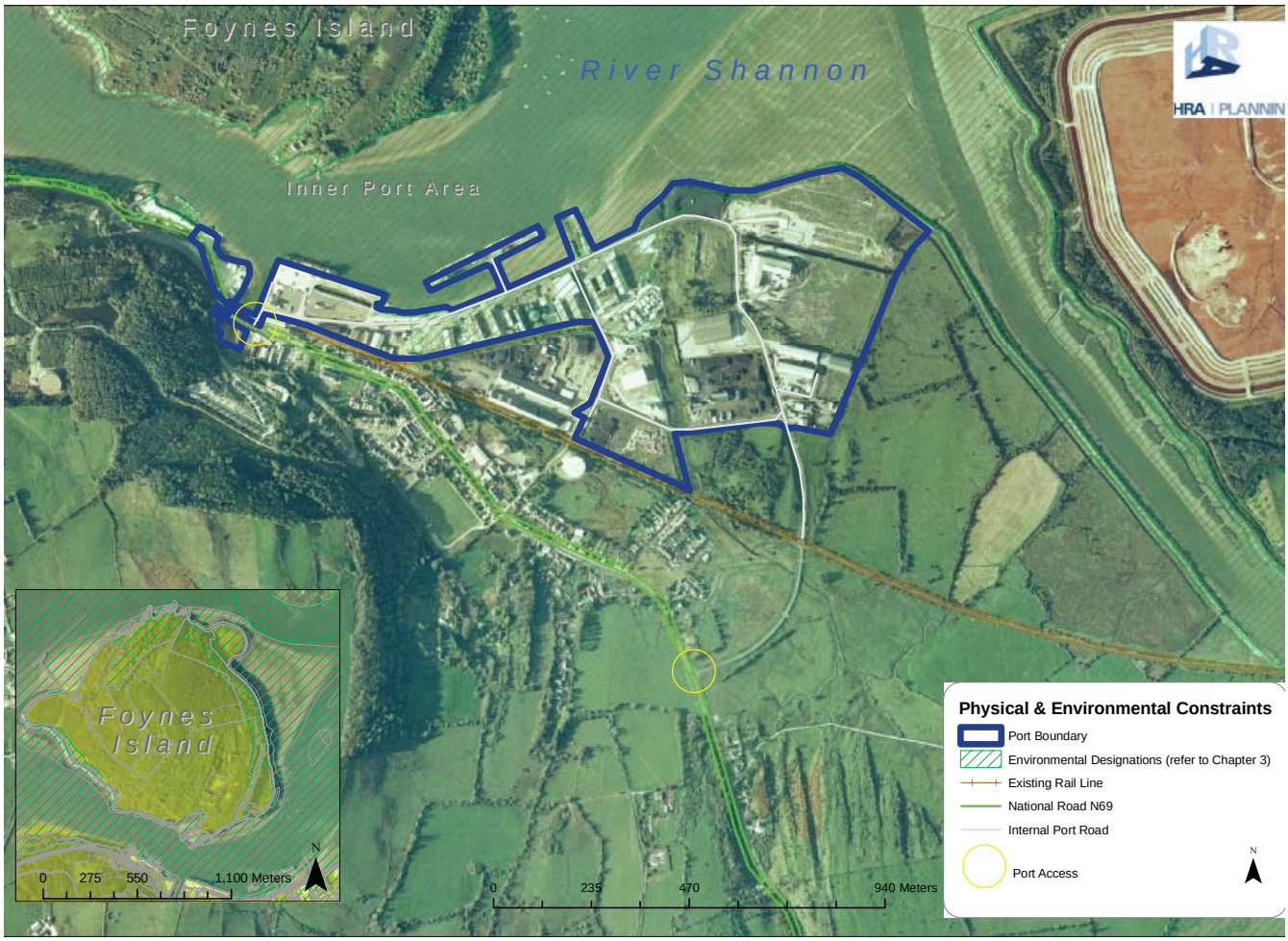


Figure 7.2 Area of Future Potential Port Expansion

Remote Operations

The use of off-site land for port related purposes would be of potential benefit where such land has an operational linkage with port operations and logistics, and can be identified and delivered. Remote sites could usefully contribute to the unidentified land requirement for renewables and / or off-shore activity or ocean energy related developments.

Whilst SFPC will continue to monitor the availability of sites that may be suitable for remote opportunities, ultimately acquisition and implementation will be dependent upon agreement with local stakeholders.

SFPC continues to work closely with interested stakeholders to explore such opportunities and to promote the positive attributes of the wider region, including; its close proximity to Shannon International Airport; the proximity to the Askeaton Business Park, the benefits derived from Limericks gateway designation and its advanced third level institutions; access to electricity grid and gas supplies; and supports and incentives for new enterprise.

The Askeaton Business Park is strategically located on the National Road Network (N69) east of the Port of Foynes with railhead access on the Foynes-Limerick route. The business park which is in state ownership, comprises over 92 hectares of land appropriately zoned for industrial and employment use. The site has been identified as an important site from a business and employment perspective for County Limerick and the wider region in the Draft Mid West Area Strategic Plan, the Mid-West Regional Planning Guidelines and the Limerick County Development Plan.

The Askeaton Business Park has also been identified as a Strategic Site in the SIFP. However, significant road alignment improvements are required between Askeaton and Foynes if this site is to become a real contender in accommodating port related activities into the future.

Figure 7.3 Askeaton Business Park relative to the Port of Foynes

Additional Berthing Facilities

Whilst existing port infrastructure, in particular berthing facilities in Foynes may be adequate for the present time, the anticipated growth in tonnage (Table 6.1) and the correlating berth occupancy predictions (Table 6.3) indicates the need for new berthing facilities in the medium term. Having regard to commercial, economic and environmental considerations, and given the long lead time for port related development, there is a need to plan for such facilities now and to commence an investigation of options. The inner port area of Foynes comprises of two distinct jetties including the western jetty and the eastern jetty, both which need to be evaluated in terms of additional berth provision.

SFPC acknowledge that operational and physical constraints exist in the inner port area requiring substantial investment to service parcel sizes ranging from 3,000 – 40,000 tonnes. Subject to capital appraisal, SFPC commits to invest in this facility over the short, medium and long term.

Providing Deep Water Berthage

The size of vessel calling at Foynes is determined by physical considerations with the 10.5m draft and 200m length limitations placing a cap on the size of vessel that can be catered for. Internationally, the trend towards larger vessels is clearly evident. Therefore for SFPC to remain competitive in this international context, significant investment is required in this area. The consultation phase of Vision 2041, highlighted that a Panamax capability should be provided as close as possible to existing customer facilities at Foynes. This requirement, outlined by the port users, is considered an important parameter particularly given that the success of new facilities will ultimately depend on customer uptake.

SFPC proposes to provide new deepwater berthage capable of facilitating Panamax vessels and next generation Panamax and in this regard undertook an initial preliminary evaluation of four potential deep water options in Foynes to accommodate larger vessels including:

- Foynes Port Inner and Western Harbours,
- Foynes Island; and
- Mount Trenchard.

Although the land at Foynes Island and Mount Trenchard are not in the ownership of SFPC they were identified as being suitable sites due to their natural deepwater characteristics.

The evaluation concluded that Foynes Island and Mount Trenchard are the only sites within the Foynes Port area and its environs capable of safely facilitating Panamax vessels[2]. Foynes Port Inner and Western Harbours were deemed unsuitable primarily due to existing harbour limitations and particularly the manoeuvrability requirements for Panamax or next generation Panamax vessels between Barneen Point and Colleen Point and the absence of any engineering solution at this location. Notwithstanding being the lowest

2 SFPC does not own land at either the Foynes Island or Mount Trenchard sites

cost option the Port of Foynes Western Harbour is also unsuitable on navigational and safety grounds. Furthermore, the berthing/unberthing stage of a Panamax vessel under either of these scenarios would impact on other ship movements in the Port.

Notwithstanding the suitability of Mount Trenchard on navigation grounds, Mount Trenchard was deemed unsuitable having regard to its location and the potential of substantial inter tidal interruption. The N69 runs adjacent to the southern boundary of Mount Trenchard, and all land would require reclamation from the Estuary - the implications of which might present substantial ecological and amenity concern. Moreover, there is no potential for rail connectivity to Mount Trenchard due to the topographical variations between the rail head in Foynes and the Mount Trenchard location. Collectively, the combination of these issues at this time do not favour port development at this location.

Following an initial preliminary assessment, Foynes Island has come to the fore as the preferred option from a navigational and capacity perspective. It has also been identified as a strategic site within the SIFP which seeks to safeguard and maintain the Island as a vital Port asset. Of further significance is the promotion of Foynes Island as a specific objective of SIFP where it seeks *"to facilitate, and promote the sustainable development of lands at Foynes Island as an optimal location for marine related industry, utilising the presence of deep water, proximity to the core commercial shipping lane, and the Port of Foynes to harness the potential opportunities within this location.*

Port related developments, or those considered complementary or compatible with the adjacent Port are likely to beacceptable in principle" (SIFP MRI 1.2.4).

With extensive access to natural deep water (occurring between 12.5m to 20m depths), the island provides immediate access to the main navigation channel of the Estuary with no capital or maintenance dredging required. On the basis of such natural attributes and assets and having regard to the provisions of the SIFP, formal zoning on Foynes Island is required to facilitate the specific provision of deepwater berthage.

Figure 7.5 Area of Potential Future Development on Foynes Island

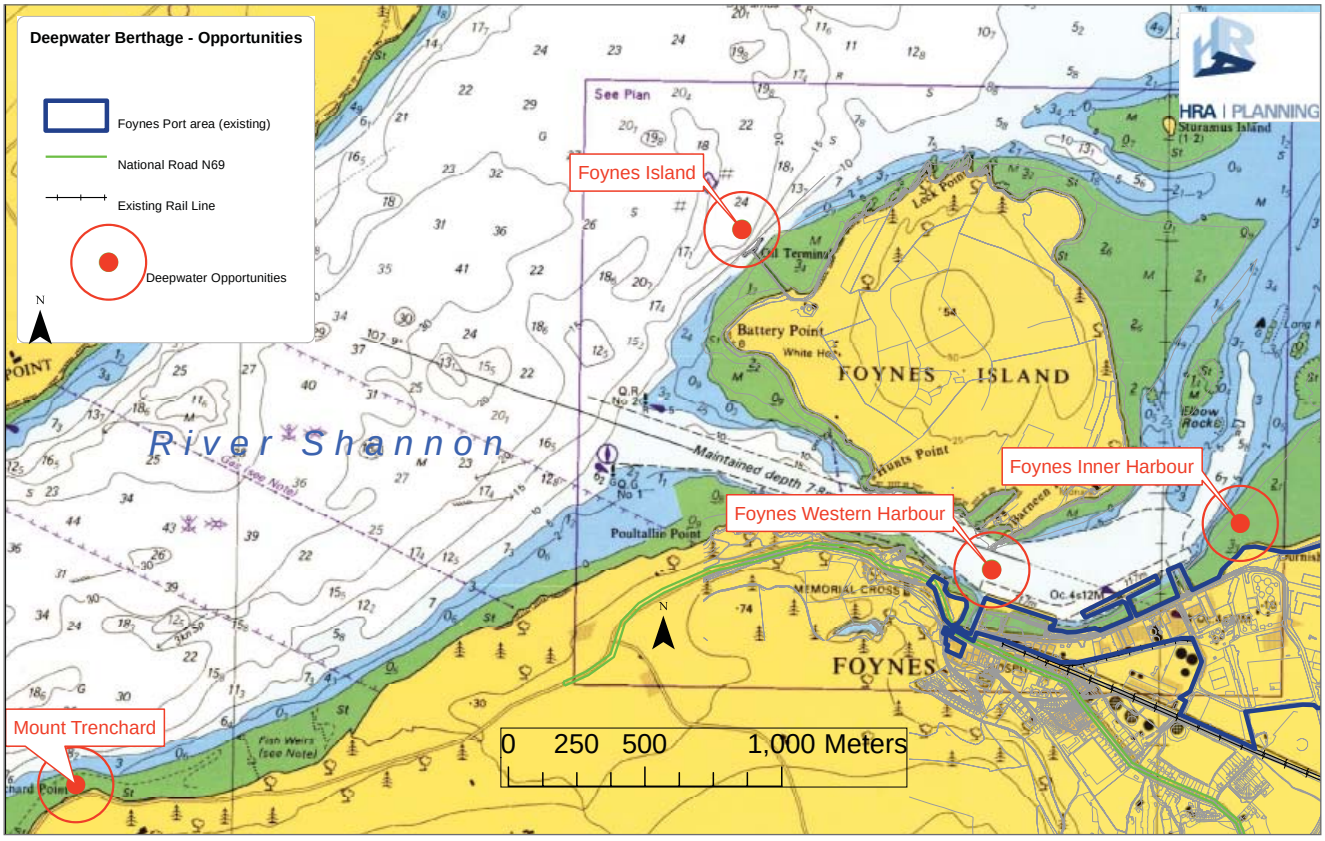


Figure 7.4 Location of Potential Deep Water Sites in Proximity to Foynes

Although the island remains in third party ownership and contains two houses used as holiday residences, Foynes Island has traditionally facilitated port operations. Until the late 1970's, an oil jetty was operational on the Island utilising a deep water berth which still exists on the north western side of the Island which was supported with infrastructural connections to the main port.

Foynes Island - like the surrounding port operations - area is located within a Special Area of Conservation (SAC) environmental designation and parts of the Island are also included within the proposed Special Protection Area (SPA) designation. Any reuse of the Island again for the purpose of deep water berthage would be subject to environmental and ecological assessment under current legislation.

On foot of preliminary site location work by SFPC there is a commitment that SFPC will undertake market research in the short term to identify potential partners to develop a deepwater berth on Foynes Island in the longterm.

The Port of Foynes, over and above other areas on the Shannon Estuary, will experience significant growth and expansion over the period of the Vision. Further development and growth of the port estate over and above other areas on the Shannon Estuary makes economic and environmental sense, particularly given the extent of existing facilities and the fact that Foynes is the only harbour in Ireland linked to the national rail network with adequate deep water to accommodate Panamax and post Panamax vessels in the future.

All the future growth options presented for the Port of Foynes are considered viable over the thirty year lifetime of Vision 2041 and have been subject to the SEA and AA process. The growth will be accommodated through a series of short, medium and long term objectives which shall require further detailed environmental and capital appraisal, along with appropriate consent at the time of implementation.

7.2.3 Port of Foynes Objectives

Port of Foynes Objectives	Timeframe
Effectively utilise existing assets including the upgrading and replacement of 5,109sqm of existing warehousing.	Ongoing
Work in cooperation with Limerick County Council to secure industrial zoning on an additional 89 hectares of land south east of existing port operations and to secure appropriate zoning on Foynes Island to facilitate deepwater berthage.	Short – Medium Term
Substantially invest in infrastructure and facilities to address the operational and physical constraints that exist in the inner port area, subject to capital approval.	Short, Medium, long Term
Further investigate the potential for deep water berthage on Foynes Island and to complete market research in order to identify potential partners.	Medium - Long Term
Continue to promote significant alignment improvement on the N69 between the Port of Foynes and the Askeaton Business Park and promote and facilitate the use of the existing 92 hectare serviced business park at Askeaton.	Ongoing – Long Term

Table 7.1 Port of Foynes Objectives

Infill of eastern jetty - Conceptual visualisation

Jetty Infill - Conceptual visualisation

Rail-line reinstatment - Conceptual visuaisation

7.3 Limerick Docks

Limerick Docks is presently operating as a viable core port and continues to be a core contributor to SFPC's profitability. It is anticipated that Limerick Docks will continue to maintain its existing cargo throughput with potential for signfiicant projected new business. Whilst berth capacity at Limerick is more than adequate for any foreseeable future demand, adequately accommodating 5000 tonne coasters, SFPC recognise that any further increase in bulk solid business will necessitate additional storage capacity which can be adequately provided for within the existing operational area of the Port Thus Limerick can continue to successfully operate with no significant land expansion required into the future.

7.3.1 Limerick Docks - Core Issues Arising

- Limerick Docks is presently commercially viable and is projected to facilitate significant new business.
- With a quay length of almost 1km Limerick Docks has adequate existing port infrastructure to accommodate existing and future new business.
- There is substantial additional land and buildings in the ownership of SFPC, which are surplus to port operational requirements (non core assets) and require alternative port / non port related activities and uses.
- Whilst existing storage capacity is adequate, additional warehousing needs to be accommodated within the port estate.

7.3.2 Options for Consideration

Do Nothing Scenario

Limerick Docks could continue to operate in its current form and function, providing a service to the regional hinterland. The current operation effectively utilises circa 11 hectares (Ted Russell Docks) of the Port Estate (75.1 hectares) for port related activity. Whist this scenario is viable and attractive in its own right, it fails to consider the use of the remaining land within the Port Estate which is under utilised, vacant or undeveloped and in the ownership of SFPC. Limerick Docks is a unique waterside facility and existing non core assets need to be effectively promoted and utilised to not only ensure a dividend for SFPC, but also to ensure that land in proximity to the city centre is sustainably utilised and existing port operations continue to work in harmony

Effective Utilisation of Existing Assets

Whilst the Port Estate comprises 75.1 hectares, existing port operations only utilises circa 11 hectares (Ted Russell Dock). The working Dock (Ted Russell Dock) has the necessary capacity and infrastructure to accommodate existing business activity and new business which SFPC is actively seeking. Notwithstanding the continued operation of port activities at Limerick Docks, there still remains15.12 hectares of land, in the ownership of SFPC, as surplus to current operational requirements. These 15.12 hectares of land comprises four distinct sites including undeveloped greenfield sites, vacant brownfield site, underutilised and vacant buildings. Whilst some of the undeveloped land shall be utilised to accommodate additional warehousing as the need arises, there is a substantial land bank that is surplus to port operation requirements.

There is a need to bring effective commercial use to these non performing assets, to generate a commercial return for SFPC. As these lands are surplus to requirements and SFPC is very much focused on its commercial mandate as a port operator, the effective use of these lands will only be realised through either their disposal or through some form of a partnership approach with other bodies and companies, or as a joint venture.

Future Use of Non Core Assets

The Docklands area is identified in the Limerick City Development Plan 2010 – 2016 as an under-utilised asset for the future economic development of the City and the City Region. The Limerick City Plan fully supports the retention of the Port and development of the surrounding lands as a strategic employment location within the City (Policy EDS.3).

There are four distinct non core assets which are in the ownership of SFPC and are presently underutilised. These assets are available for alternative use. To facilitate an understanding of the potential of each asset, a contextual appraisal of each property is provided which examines zoning and amenity designations, access opportunities, service provision and potential uses that are compatible with existing planning policy and guidance.

However, because of the unique setting and position of these assets relative to the working Docks, the city centre and complimentary business and educational establishments, along with possible synergestic opportunities on the Shannon Estuary such as the 'Shannon Energy Valley' concept, consideration must also be given to the collective use and promotion of these assets, which is dealt with in subsequent paragraphs.

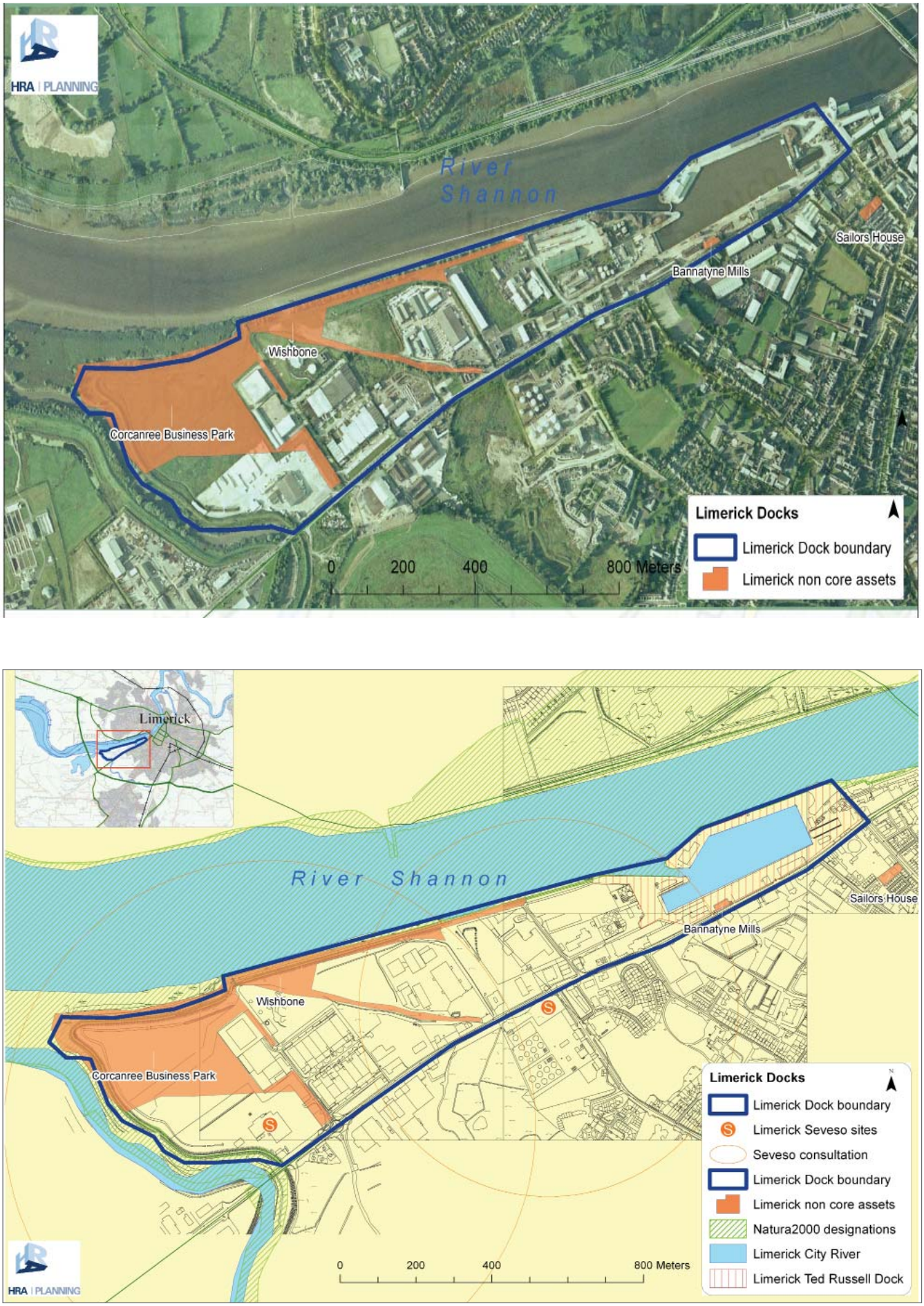
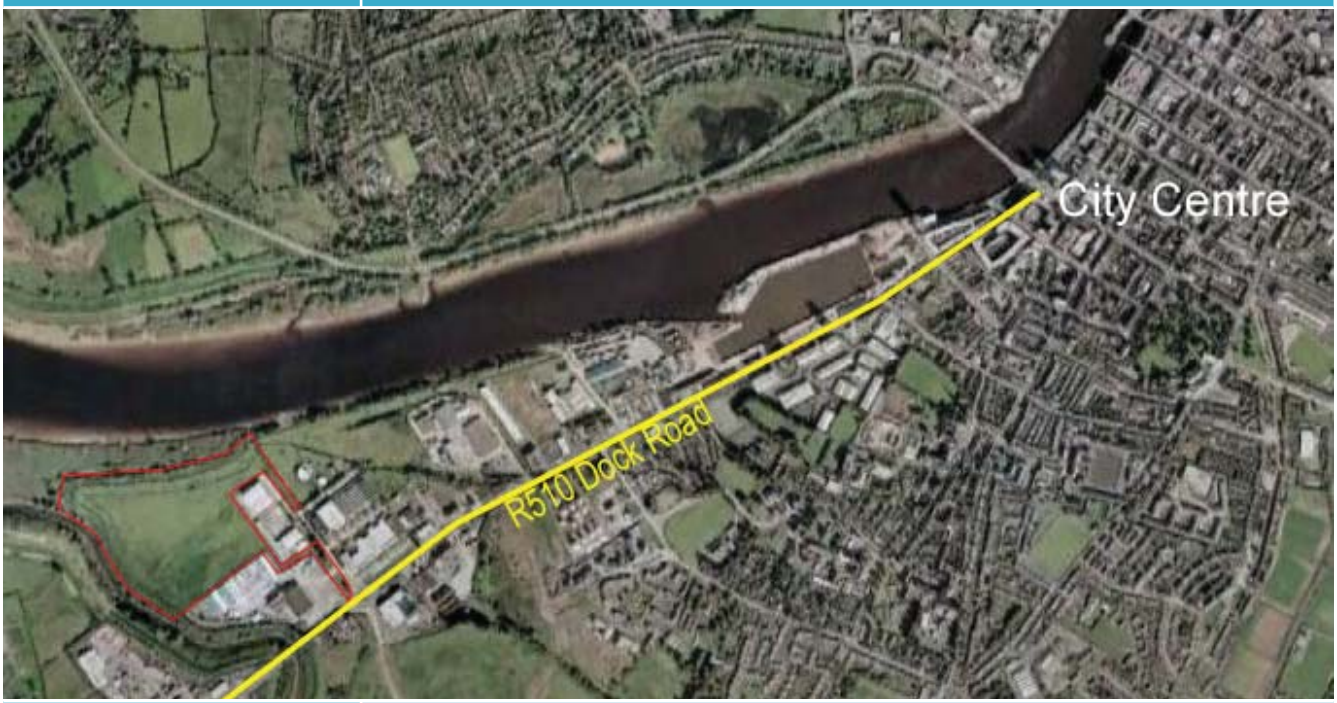


Figure 7.6 Limerick Docks

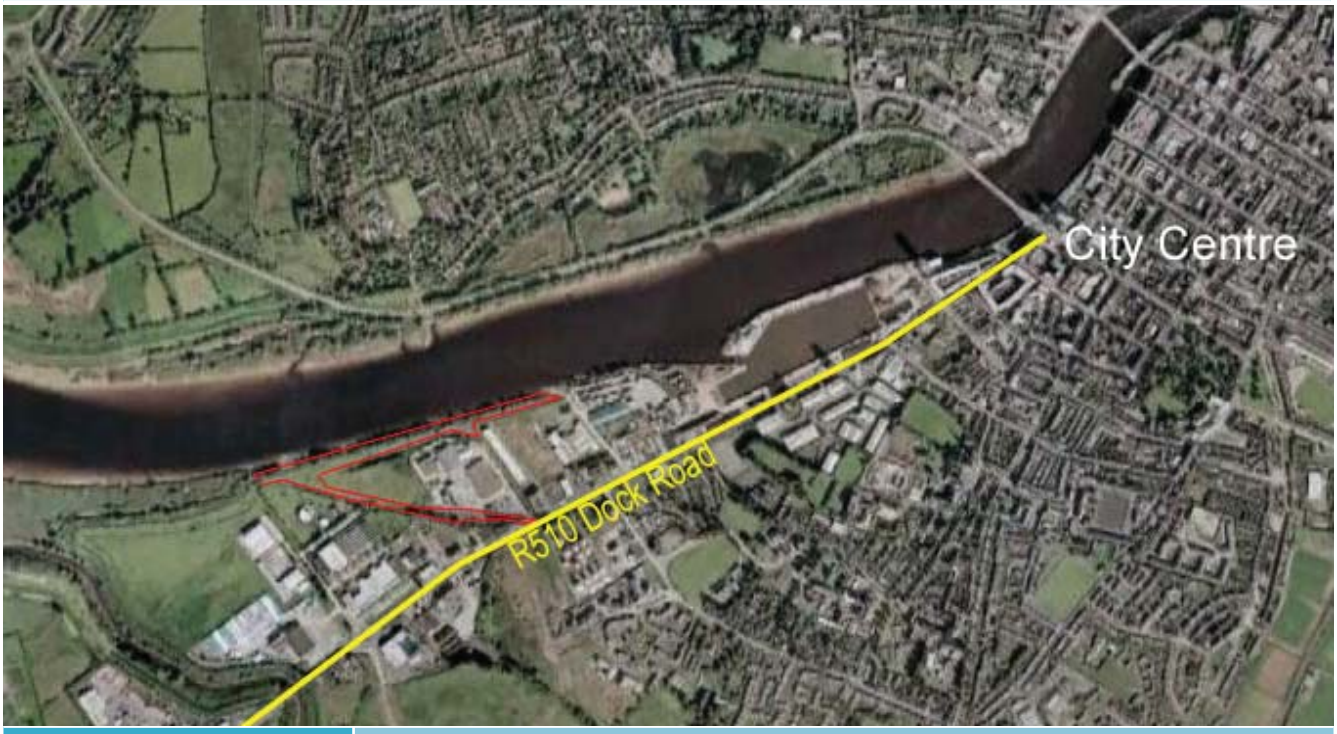
Title	Site 1: Corcanree Business Park



Description	Substantial greenfield undeveloped site located at the north west corner of Corcanree Business Park, with the River Shannon bounding the site to the north and the Ballynaclogh River defining the site to the west. Grassland Fertilisers adjoins the site to the south whilst Dutec Optical Disks occupies a substantial portion of the eastern boundary.
Size	11.73 hectares
Zoning	Mixed Use Development Permissible uses within this zone include general offices, education, commercial leisure, residential, public institutions, health services, business, light industrial uses and community/ civic uses.
Access	The site is directly accessed via an internal road within the business park which has direct access onto a roundabout on the R510 Dock Road just east of the Dock Road Interchange providing linkage to the M7, M20 and M18
Services	The site is adequately serviced with water and sewerage facilities
Designations	Located within the Grassland Fertiliser Seveso site consultation distance[1]. Located within a designated Food Zone A area[2] Located adjoining the Shannon Estuary SAC and SPA designations[3]
Rights of Way / Wayleaves	A wayleave maintained by Limerick City Council runs in an east – south west direction through the site.
Existing Planning Permissions	There is no planning history on the subject site.
Planning Policy	There is no specific planning policy affecting the land. The general area is identified as a strategic employment location in the Limerick City Development Plan
Development Potential	Most suited to light industrial / commercial use reflective of existing surrounding uses. Potential direct access to Ted Russell Docks via Site 2 The Wishbone
Other Attributes	This is the last greenfield site remaining in the Corcanree Business Park and is the only undeveloped commercial / industrial site located in such close proximity to the city centre, whilst also having direct linkages to the national road network

1 The HSA will need to be consulted on any development proposal in order to assess its societal risk in accordance with Seveso II Directive
2 A detailed flood risk assessment and study shall be required for any development proposal in accordance with the Planning System and Flood Risk Management Guidelines for Planning Authorities 2009
3 An Appropriate Assessment shall be required to assess the potential impacts arising from a development on the adjoining Natura 2000 designations in accordance with the Habitats Directive 93/43/EEC and Birds Directive 2009/147/EC

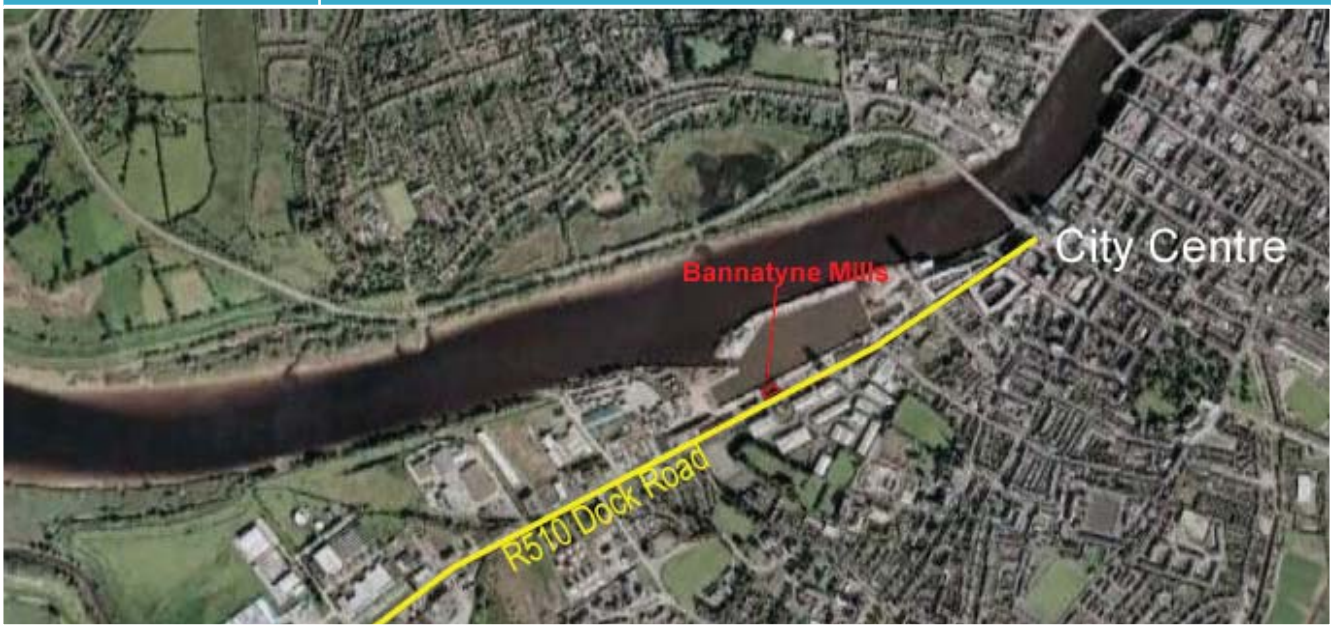
Title	Site 2: The Wishbone



Description	Comprising of two narrow strips of land which meet at the north eastern corner of Site 1 within Corcanree Business Park, the land has a v-shape (wishbone) appearance. One part of the land extends from Site 1 to Atlas Avenue along the northern boundary of the Port Estate adjoining the embankment of the River Shannon. The other leg runs south east from the R510 Dock Road to the north western corner of Site 1, sandwiched between existing industrial and commercial development.
Size	3.12 hectares
Zoning	Mixed Use Development Permissible uses within this zone include general offices, education, commercial leisure, residential, public institutions, health services, business, light industrial uses and community/civic uses.
Access	The land can be accessed directly off the N69 Dock Road or via Atlas Avenue
Services	Available
Designations	Located within the Grassland Fertiliser and Irish Shell Seveso sites consultation distance[4]. Located within a designated Food Zone A area[5] Located adjoining the Shannon Estuary SAC designation and partially adjoins the SPA designation[2]
Rights of Way / Wayleaves	None
Existing Planning Permissions	There is no planning history on the subject site.
Planning Policy	There is no specific planning policy affecting the land. The general area is identified as a strategic employment location in the Limerick City Development Plan
Development Potential	This land offers enormous potential to enhance and connect existing land banks within the Port Estate.
Other Attributes	The land does provide for good connectivity within and throughout the Port Estate and could be used to enhance connectivity with Ted Russell Dock and facilitate development on Site 1.

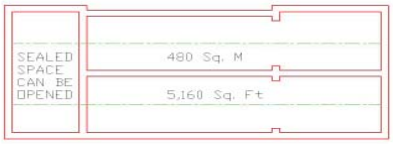
4 The HSA will need to be consulted on any development proposal in order to assess its societal risk in accordance with Seveso II Directive
5 A detailed flood risk assessment and study shall be required for any development proposal in accordance with the Planning System and Flood Risk Management Guidelines for Planning Authorities 2009

Title	Site 3: Bannatyne Mills

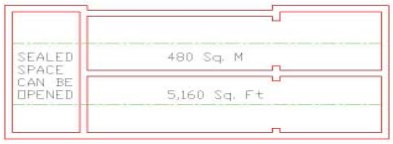


Description	An imposing building this five-storey over vaulted ground floor limestone former corn store was built between 1873 and 1874 and is a rare example of Victorian industrial architecture. Located facing onto the R510 Dock Road and onto a large industrial site which gives access to the wet dock. The Bannatyne Mill is technically significant as the building's frame is made of cast-iron and is encased in cut stone and rubble.
Size	Floor area of 3,129sqm
Zoning	Mixed Use Development Permissible uses within this zone include general offices, education, commercial leisure, residential, public institutions, health services, business, light industrial uses and community/civic uses.
Access	There are two locked gates immediately adjacent to the mill building to the west and east which provides direct access onto the R510 Dock Road. The building can also be accessed via the primary entrance to the Docks which is located further east along the N69. Adequate area within the curtilage of the building to accommodate on site car parking
Services	Available
Designations	Listed building on the Register of Protected Structures for Limerick City Listed on the National Inventory of Art and Heritage rated to be of regional importance Located within a designated Food Zone A area[6] Located adjoining the Shannon Estuary SAC designation and partially adjoins the SPA designation[7]
Rights of Way / Wayleaves	None
Planning History	The only planning history on this site relates to signage.
Planning Policy	There is no specific planning policy affecting / restricting the building. Any development permitted would need to be undertaken in accordance with best conservation standards and principles.
Development Potential	The building has enormous development potential and could be used for multiple purposes, with potential commercial/civic use on the ground floor and office / residential use overhead. Alternatively, the building could be utilised as a 'flagship' office for an FDI company looking to locate in a regenerating area in proximity to the city centre.
Other Attributes	This building will require significant investment and refurbishment and therefore could benefit from formal designations and financial incentives such as the research cluster designation (discussed in detail in subsequent paragraphs). Opportunities must also be explored in relation to the possible synergistic opportunities that could potentially arise with neighboring activities such as the University of Limerick and the Mary Immaculate Third Level Institution

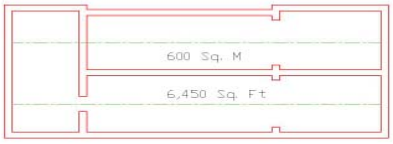
6 A detailed flood risk assessment and study shall be required for any development proposal in accordance with the Planning System and Flood Risk Management Guidelines for Planning Authorities 2009
7 An Appropriate Assessment shall be required to assess the potential impacts arising from a development on the adjoining Natura 2000 designations in accordance with the Habitats Directive 93/43/EEC and Birds Directive 2009/147/EC



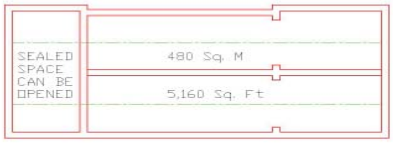
SECOND FLOOR PLAN



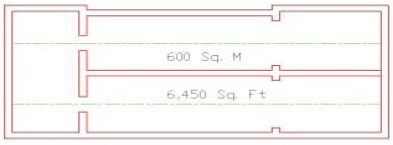
THIRD FLOOR PLAN



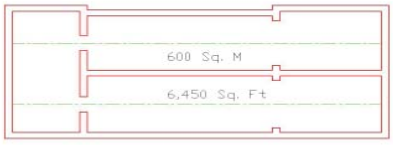
FIRST FLOOR PLAN



FOURTH FLOOR PLAN



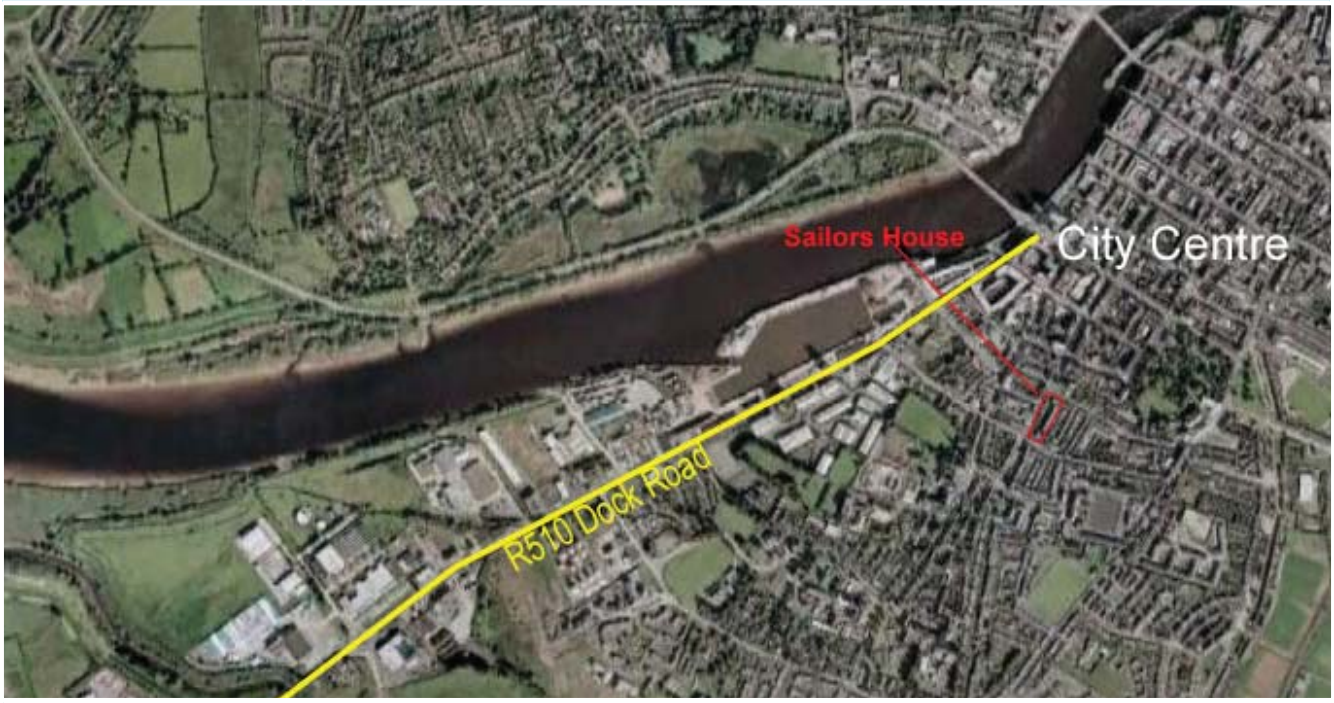
GROUND FLOOR PLAN



TOP FLOOR PLAN

Figure 7.7 Potential Future Use of the Bannatyne Mills Building

Title	Site 4: Sailors House



Description	Constructed in 1854, this is a classical two storey rendered building set back from the road on its own defined site. Constructed in 1856 the house is of significant historical interest. It neighbours existing residential property to the south.
Size	432sqm building on a site of 0.17 hectares
Zoning	Inner City Residential Neighbourhood Zoning This zoning seeks to reinforce the residential character of inner City residential neighbourhoods, while supporting the provision and retention of local services, and civic and institutional functions
Access	The site has direct access onto O'Curry Street, south of Limerick Docks and has adequate area to accommodate on site car parking
Services	The building is fully serviced
Designations	Listed building on the Register of Protected Structures for Limerick City.
Rights of Way / Wayleaves	None
Planning History	Secured planning permission for a change of use from a Garda Barracks to office use in 2011 (planning reference 11/138)
Planning Policy	There is no specific planning policy affecting / restricting the building. Any development permitted would need to be undertaken in accordance with best conservation standards and principles.
Development Potential	The building has enormous development potential and could be used for multiple purposes, including office / commercial use either in single use or subdivided into multiple uses such as serviced office suites.
Other Attributes	Significant refurbishment and maintenance work has already been undertaken on this building and the recent planning permission granted for office use is significant in the context of its location and landuse zoning.

Figure 7.8 The Sailor's House

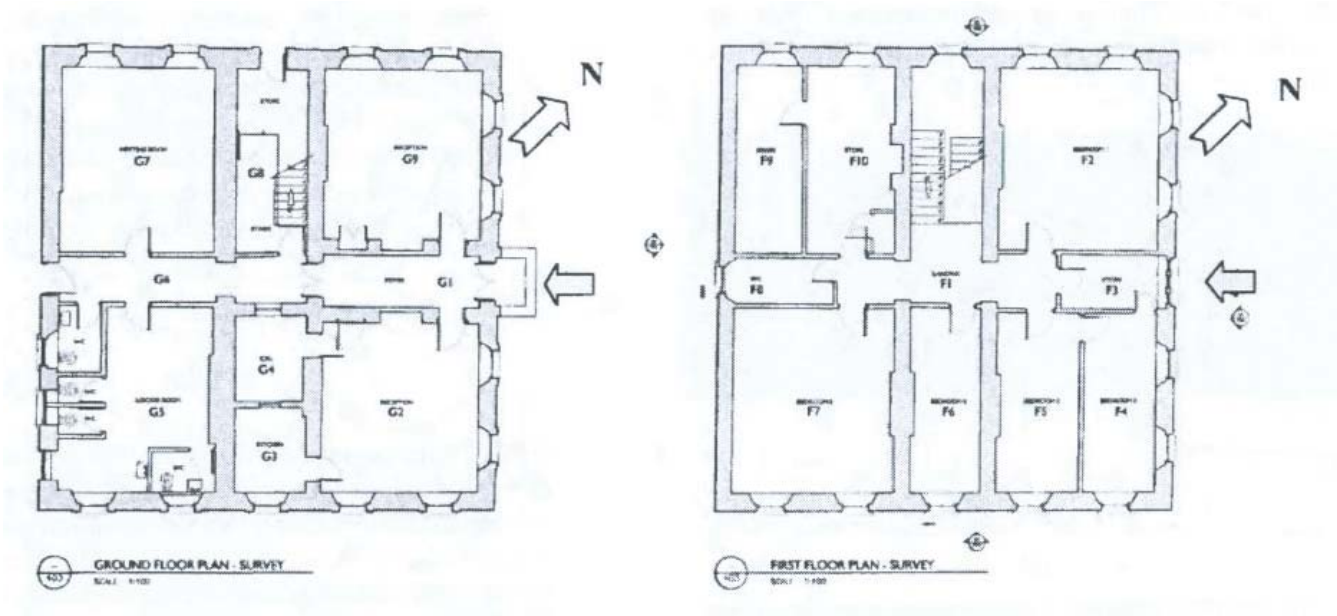


Figure 7.9 Floorplans for Sailors House

Collective Consideration of Non Core Assets

Whilst the previous paragraphs promoted the sale of each property and examined the potential of each site on its own merit, it is considered that there are other alternative and innovative uses that could be promoted in collective consideration of the non core assets. The potential uses explored for the non core assets in Vision 2041 are by no means exhaustive or definitive. Rather they present simple concepts which may be advanced to the benefit of the region.

Influencing considerations such as; proximity to the working port; a collective landuse designation for mixed use purposes; primary access off the R510; and, proximity to the city centre and the national transport network are factors which promote a collective use / purpose for the assets. In addition other synergistic opportunities could be explored including the presence of two third level institutions, the University of Limerick and Limerick Institute of Technology in the city. Existing initiatives spearheaded in the region including marketing of the Shannon Estuary as Europe's Ocean Energy Hub and the Shannon Energy Valley[1] must also be considered.

Having regard to the qualities and location of the non core assets SFPC consider that the sites could be collectively promoted as a strategic employment zone or / and a Marine Energy Park. Other potential uses for the sites may evolve over time as circumstances change and opportunities present themselves.

A Strategic Employment Location

In collective consideration of potential uses and designations for the four distinct non core assets in and around the Port Estate regard must be had to current statutory planning policy contained in the Limerick City Development Plan 2010 – 2016 and, other relevant national guidelines and Directives[2]. Whilst the City Development Plan fully supports the retention of the Port and development of the surrounding lands as a strategic employment location within the City (Policy EDS.3), the promotion of uses compatible with a working port must be explored and promoted. Whilst the non core assets could accommodate similar type uses to those already existing within the wider Port Estate, SFPC are cognisant of the proximity of the land to Limerick city centre and the potential of the lands to contribute to the future economic development of the city and the region. Consideration must also be given to the economic practicalities of securing further non port related industrial and manufacturing development to the area when other alternative purpose built business parks may be more attractive.

A Marine Energy Park

In full support of the Shannon Energy Valley concept, SFPC considers that there is potential for Limerick Docks and its non core assets to be promoted as a Marine Energy Park, serving three distinct but mutually interdependent functions:

- As a research cluster to advance research, strengthen the region's economy and develop technology vital to addressing today's most pressing needs;
- To deliver ground-breaking renewable energy and energy efficiency projects with thriving local supply chains; and
- To provide a prototype demonstrator site, promoting renewable energy and educating the public.

The locational qualities of Limerick Docks proximate to the city centre but with immediate access to the national road network are recognised along with its access to sheltered and protected waters for testing and experimenting purposes. Limerick Docks offers a unique historical city environment that is steeped in heritage with buildings of exemplary historical and architectural, and industrial significance. These qualities make Limerick Docks a desirable and attractive hub and when associated with strong research institutions such as the University of Limerick and the Limerick Institute of Technology with support from appropriate local government bodies promoting industry, the Marine Energy Park could very quickly become a reality. A Marine Energy Park at this location would provide for a high value economic activity on a site in the heart of Limerick city capable of providing a new brand image for the city and region.

The marine renewables sector is a relatively new category of economic activity which has seen an increase of activity from €18 million in 2003 to €101 million in 2007. In 2007

"Limerick Docks offers a unique historical city environment that is steeped in heritage with buildings of exemplary historical and architectural, and industrial significance."

2 A partnership between the University of Limerick, NUI Galway, Shannon Development and the Irish Technology Leadership Group (ITLG) promoting a cluster of sustainable energy-related activities in the Mid-West of Ireland, comprising industry & commerce, supporting services, research & development, and education.

2 Planning System and Flood Risk Management Guidelines for Planning Authorities, DoEHLG, 2009 and the Council Directive 2003/105/EC, Seveso II Directive

there were eight companies actively involved in the design, development, testing and deployment of marine renewable energy devices in Ireland. These companies utilise a number of facilities and services developed by the public and private sector for the testing and development of prototypes. The Irish wave and tidal energy industry is a mainly indigenous, knowledge-based and highly innovative group of companies primarily focusing on the pre-commercial design stage[3] .

Function and Objectives

A framework already exists to advance the concept of a Marine Energy Park at Limerick Docks. Promoting the Shannon Estuary as the Shannon Energy Valley is already supported by two main research institutions including the University of Limerick and the National University of Ireland, local government agencies promoting economic development in the region and the Irish Technology Leaders Group (ITLG) who are primarily based in Silcon Valley.

The Marine Energy Park proposal seeks to advance the existing Shannon Energy Valley concept through the promotion of a dedicated research and manufacturing base in the heart of the Gateway city. Whilst existing landbanks and buildings will be made available through partnership or joint venture arrangements, the Marine Energy Park will also provide a support framwork for marine energy and in particular renewables, as well as providing information to the public. In order to be effective, the Park will require a designation so that it can be recognised regionally and nationally. Securing such a designation will promote the information and support framework for businesses locating in the Park but also to the wider supply chain located externally. The information and support framework will seek to actively steer government policy, including licensing and EU designations holding up deployment of technologies and testing new technologies, and connections to the grid.

The Marine Energy Park concept is not new to SFPC as the Port already provides an information and support service to industries wishing to locate on the Shannon Estuary and works with operators to secure appropriate landbanks / premises when required. What is new, however, is the potential scale of the proposal and the formality given to the information and support framework through a designation.

Delivering the Concept

Whilst the physical deliverables of the Marine Energy Park may be readily available, securing the designation would require a partnership approach and an extensive process of engagement. Whilst the framework of the Shannon Energy Valley exists and will be critical to the support of the Marine Energy Park, support will also be required from the Regional Authority, Local Authorities, Industrial Development Authority (IDA) and other regional economic promoters, and industry. Engagement with central government will also be necessary but the concept would first need to advance through a detailed process of policy formation, governance structure and funding.
Whilst the information and support service could continue to be operated by SFPC, securing and promoting the designation could be a function too large for a company mandated with commercial port operations. In this regard it is possible that a not for profit company may need to be established as the driving force in partnership with the regional authority and local councils, applying for European funding, enterprise grants, securing inward investment and promoting concepts such as a Green Investment Bank.

Further investigation and policy formation is required to explore the concept of the Marine Energy Park in the context of the existing Shannon Energy Valley framework and in particular the most appropriate operating mechanism.

Funding the Concept

The concept of the Marine Energy Park is a supply chain which could benefit significant industry not only in the region but also nationally. Whilst the physical centre may be located in Limerick City, the information and support service could have national significance. In this regard funding could potentially be based on membership of the not for profit corporate body.

3 *Our Ocean Wealth Towards an Integrated Marine Plan for Ireland Background Briefing Documents pp.16*

Financial assistance may also be possible from other organisations and EU programs. In Ireland the Ocean Energy Development Unit in SEAI offers grant-aid to stimulate R&D in the sector through the Prototype Development Fund and has provided funding to several Irish projects. EU programs such as Horizon 2020 could also facilitate and provide financial assistance. Running from 2014 to 2020 with an €80 billion budget it aims to bridge the gap between research and the market by, for example, helping innovative enterprise to develop their technological breakthroughs into viable products with real commercial potential. This market-driven approach will include creating partnerships with the private sector and Member States to bring together the resources needed with first calls for the initiative in January 2014. The initiative focuses on three strategic pillars including Excellent Science, Industrial Leadership, and Societal Challenges which includes marine and maritime research and climate actions

7.3.3 Limerick Docks Objectives

Limerick Docks will continue to provide a service to the regional hinterland importing and exporting goods and facilitating new business as the demand arises. Whilst additional port infrastructure is not likely to be required in the short or long term there may be a need for additional warehousing, which could adequately be accommodated on operating port lands.

Funding could also be available from the EU Operational Programme "Atlantic Area 2007-2013". This programme contains four thematic fields with specific objectives regarding the enhancement of competitiveness and innovation capacities in the maritime economy of the Atlantic area; the exploitation of the renewable energy potential of the marine and coastal environment of the Atlantic area; and the promotion of short sea shipping (SSS) and cooperation between ports.

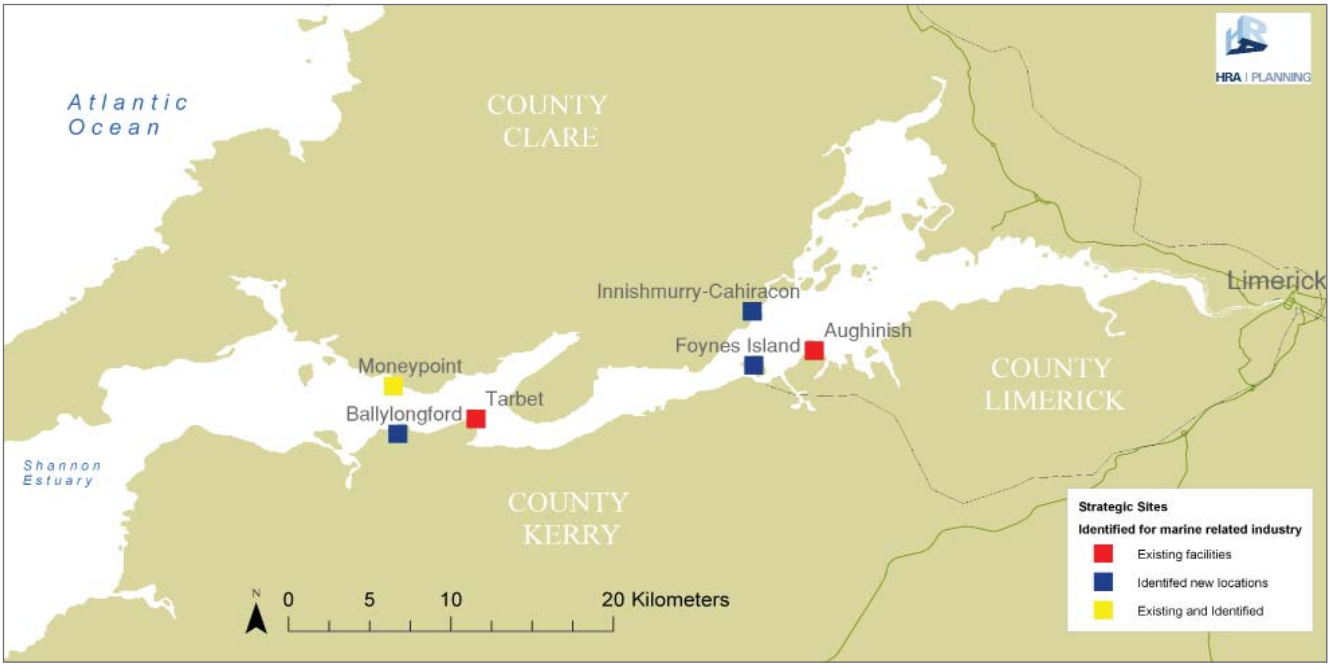
"...the Marine Energy Park will also provide a support framwork for marine energy and in particular renewables, as well as providing information to the public."

Limerick Docks Objectives	Timeframe
Maintain existing port operations around the Ted Russell Dock area.	Short – Long Term
Accommodate and provide additional warehousing and storage facilities as the need arises, subject to capital appraisal.	Medium – Long Term
Actively promote the use and development of the non core assets, including the Bannatyne Mills, through the sale or lease of the property or through the formation of partnerships or joint ventures.	Short – Medium Term
Undertake further research and policy formation into the development and designation of a Marine Energy Park at Limerick Docks and in particular the most appropriate operating mechanism.	Short Term
Undertake exploratory talks with relevant agencies and bodies to promote the Marine Energy Park concept and secure appropriate designation.	Short – Long Term

Table 7.2 Limerick Docks Objectives


SHAINNON FOYNES
PORT COMPANY

7.4 Shannon Estuary



Within the Shannon Estuary, there are a number of large, global maritime industries operating along the coastline, which depend on maritime transport to deliver their raw materials, transfer finished products to European/global markets, and to provide valuable operational services.

Notwithstanding the presence of such large global players, the Shannon Estuary as a whole remains relatively undeveloped from a maritime shipping perspective. Whilst SFPC shall continue to support and service existing privately operated facilities on the Shannon Estuary, the company shall also facilitate the exploration and formation of new business opportunities to the benefit of the wider region.

Although the sheltered water of the Estuary does contain a number of natural deepwater sites which could be suitable for user specific maritime activities, the Estuary is also subject to restrictive environmental designations. Thus in an attempt to facilitate such investment and steer potential operators to suitable sites, SFPC seeks to highlight a number of sites on the Estuary which may be suitable in principle to accommodate future development, notwithstanding the environmental sensitivities of the Estuary. These sites have been thoroughly assessed as part of the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary and are identified in Figure 7.10.

7.4.1 Shannon Estuary - Core Issues Arising

- The existing four facilities on the Shannon Estuary will continue to operate in accordance with the requirements and demands of their owners.
- There are two distinct clusters of maritime related industrial activity on the Estuary focused around Moneypoint / Tarbert / Ballylongford, and around Foynes /Aughinish / Cahiracon.
- Existing industry and infrastructure connectivity and synergy is important in further facilitating and promoting industry on the Estuary.
- Key initiatives such as the promotion of the Estuary as an 'Ocean Energy Hub' and the 'Shannon Energy Valley' offers support frameworks for renewable associated industry on the Estuary.
- The Strategic Integrated Framework Plan (SIFP), identifying strategic sites on the Estuary and facilitating appropriate and sustainable economic growth provides an appropriate platform for future growth

"... Existing industry, infrastructure connectivity and synergy is important in facilitating and promoting further industry on the Estuary..."

7.4.2 Options for Consideration

Do Nothing Scenario

Maritime activities on the Shannon Estuary could continue in its current format, controlled and regulated by different statutory bodies, local authorities and public bodies with different agendas and aspirations. However, such an uncoordinated approach could potentially lead to imbalances from an environmental and economic perspective and could lead to a lack of investor confidence and support in the Estuary. The SIFP provides a unified and balanced approach to development which has 'buy in' from all the statutory bodies and regulators and thus provides a solid basis on which to promote and advance development on the Estuary.

Effective Utilisation of Existing Assets

Whilst the terminal at Shannon Airport is dedicated to the import of aviation fuel and presents little scope for deviation, the other three sites at Moneypoint, Aughinish Island and Tarbert are identified as strategic sites for marine related industry and their future role and function is promoted and safeguarded through policies in the SIFP. Identifying existing industrial operations as strategic sites on the Estuary seeks to utilise where possible the existing industry connectivity and synergy, as well as the infrastructure to create a more sustainable and attractive network for further development.

Aughinish

Aughinish Alumina (fig 7.11) is the largest alumina refinery in Europe importing bauxite from South Africa to process into alumina hydrate, which is then exported.

It has in recent years, developed a Combined Heat and Power facility, which utilises the by products of the main industrial processes, and feeds into the National Grid.

Today, the plant has a capacity of 1.9million tonnes and employs 450 people. Growth in the primary industry is anticipated, particularly with respect to the extension to the existing berthing facilities to increase berthing efficiency and occupancy.

The alumina facility anticipates remaining as a significant working industrial plant for the foreseeable future, generating considerable contributions and employment to the local and regional economy.

Moneypoint and Adjacent Lands

Whilst Moneypoint is a strategically important energy hub (fig 7.12), both in terms of capacity and security of supply there is significant potential to facilitate the expansion of activities at Moneypoint or to consider the development of alternative marine related industry on lands adjacent which is compatible or complementary with existing activities.

The site is a major hub for electricity transmission with a 440kv transmission station on site, connecting into the National Grid system. It is also a bulk supply point for the region, and an essential component of the ESB meshed transmission system.

Figure 7.11 Area of Developable Land at Aughinish

Figure 7.12 Area of Developable Land at Moneypoint

Figure 7.13 Area of Developable Land at Tarbert

There are a number of pockets of deep water in this area, and an identified tidal energy technical resource opportunity available for exploration. Notwithstanding this potential development diversification on adjoining lands, it is important that the role of ESB Moneypoint shall be safeguarded within the region.

Tarbert

Tarbert (fig.7.13) is a strategic site in the southwest for power generation with established connections to the HV Transmission Infrastructure, currently being heavily reinforced by Eirgrid. The site also has potential access to the Bord Gais natural gas ring main at Foynes which is relatively close by (within 20km). The proposed Shannon LNG Project will bring gas within 2km of the site boundary.

Recognised nationally and regionally as a principal energy resource the Power Plant Facility is presently underutilised. Currently importing heavy fuel oil there is a desire by the operator to diversify the industry into cleaner technologies.

The facility recently received planning approval for a combined cycle gas turbine, which will be completed in two phases. Phase 1 of the proposals will support the Grid in terms of the increase in wind energy likely and Phase 2 interlinks with the upgrades to the transmission network in the area under the Grid 25 project. This project seeks to secure electricity supply and create a robust network of energy generation on the Shann

Consideration of Development Options

In addition to the consideration of existing industrial operations for expansion and diversification there are two other strategic sites on the Estuary which are considered to be appropriate in principle for the provision of marine related industry and are identified as strategic sites in the SIFP. The location of these sites (BAllylongford and Innismurry/Cahiracon) are detailed in Figure 7.10 and are discussed further:.

Ballylongford Landbank

Ballylongford benefits from a significant deepwater asset allied to the presence of the LNG plant, the availability of natural gas, the proximity to the national grid and the potential for refrigeration from the regasification process, combined with the additional physical infrastructure in terms of roads and water. This makes the lands a very attractive location for other industries to locate in the future. With the potential for gas fuelled electricity generation in the future, the location and operation of this type of natural gas facility creates an attractive catalyst within the overall land bank, and provides a ready, reliable natural gas and electric power supply to other potential industries.

Figure 7.14 Area of Developable Land at Ballylongford

Innishmurry / Cahiracon

Located off the main R473 Road on the northern shore of the Estuary the site comprises a disused building and an existing pier once utilised for shipping, as well as a small quarry operation. A large pocket of deep water is located on the edge of the site providing potential for maritime industry. Planning permission was previously granted on the site for development to facilitate the importation manufacturing storage distribution and exportation of explosive materials and included an Order for the Felling of Trees on the site.

Figure 7.15 Area of Developable Land at Innishmurry / Cahiracon

"... A number of sites on the Shannon Estuary have been identified which may be suitable in principle to accommodate future maritime development..."

7.4.3 Shannon Estuary Objectives

Whilst SFPC do not propose new general cargo port facilities at other locations on the Estuary and will not be responsible for developing new marine related activities on sites within the Estuary, SFPC does seek to promote the Shannon Estuary as a significant economic driver within the region and as an Ocean Energy Hub. Whilst SFPC promote the expansion and diversification of existing industrial sites on the Estuary, they also promote the development of new industry, particularly those dependant on the natural resources on offer in the Estuary including deepwater and excellent energy infrastructure. All the future growth options presented for the Shannon Estuary are considered viable over the thirty year lifetime of Vision 2041 and have been subject to the SEA and AA process.

Whilst any new industry or development proposal shall require detailed environmental and capital appraisal, along with appropriate consent at the time of implementation, it is considered that any potential future development on the five strategic sites detailed previously, will have the support in principle of all the decision making bodies. The sites have already undergone an initial economic and environmental appraisal in the SIFP and when considered in tandem with other alternative sites on the Estuary, were given favourable consideration. Whilst future growth of marine related industry can not be dictated by SFPC, it can be influenced through a series of short, medium and long term objectives.

Shannon Estuary Objectives	Timeframe
Continue to support and service existing privately operated facilities on the Shannon Estuary, To safeguard the role and function of the Strategic Sites identified for marine related industry.	Short – Long Term
To continue to promote the Estuary as an 'Ocean Energy Hub' and the 'Shannon Energy Valley' thereby offering support frameworks for renewable associated industry.	Short – Long Term
To support the implementation of the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary.	Short – Long Term
To continue to support and service existing privately operated facilities on the Shannon Estuary.	Short – Long Term

Table 7.3 Shannon Estuary Objectives

Chapter 8

Transport and Connectivity

8.1 Introduction

The success or otherwise of a port is inextricably linked to the ability for freight to be moved in or out in a congestion free and efficient manner and therefore port access routes (road and rail links) are of paramount importance.

The choice of transport mode is principally driven by commercial factors however there are other determinants for some supply chains that include reliability and speed and minimising carbon emissions as some transport modes are more sustainable than others. There are also practical issues with the type of freight to be moved such that some commodities will have a preferred mode.

The growth strategy highlighted in the preceding Chapters 5 and 7 is such that there will inevitably be concentrations of activity throughout SFPC and hence such activity will impact upon the corresponding Port transport strategy to be adopted. For instance the Port of Foynes will continue to be the main general cargo deepwater port with expansion opportunities to be explored during the Vision 2041 period.

Whilst SFPC do not in themselves own any freight nor take decisions as to the preferred mode of transport to be employed, the transport strategy is focused on promoting "choice" and therefore it is important that the necessary infrastructure is either in place or can be implemented to be able to effect modal shift. There will also be instances whereby decisions and investments being made by SFPC will be able to contribute positively to transportation impacts.

Good levels of accessibility are likely to encourage operators to locate at the Port facility, thereby enhancing the role and function of the facility itself, benefiting SFPC overall, whilst assisting regional competitiveness.

The following sections outline the key transportation considerations in relation to existing Port operations as may be enhanced during Vision 2041, with an emphasis upon exploring and effecting modal shift opportunities and maximising the use of the Port.

"Good levels of accessibility are likely to encourage operators to locate at the Port facility, thereby enhancing the role and function of the facility itself, benefiting SFPC overall, whilst assisting regional competitiveness."

8.2 The Port of Foynes

8.2.1 Existing Road Based Access

The Port of Foynes is accessed via the national secondary road network, with some regional road connectivity in the vicinity. The main access route is the N69 Limerick – Tralee National Secondary Route. The port also benefits from a direct rail link to Limerick City, which is currently not in use.

The port itself has two direct road accesses from the N69 – one is within the town of Foynes itself, and the second lies east on the N69, with a dedicated port access road facilitating additional access to the port, segregated from general N69 traffic. Figure 8.1 below shows the port lands and their accesses in the context of the surrounding road network.

The second most important access route to the port is the R521 Regional Road, which connects to the N69 just east of Foynes, and runs south towards Newcastlewest, where it connects with the N21 Limerick – Kerry National Primary Road. Up to 30% of the traffic exiting the port travel along the N69 and turn right onto the R521 in order to access the N21. However the recent opening of the Shannon Tunnel may have reduced the level of activity on this route, leading to a transfer of vehicular activity back to the N69.

The N69 National Secondary Route joins the Motorway Network at Limerick, some 40km to the east, providing high capacity access to many of the country's major towns and cities. Here the N69 also joins the Atlantic Corridor, which is only partially complete at present. Figure 8.2 shows the location of the Port of Foynes in the context of the National Road Network and the Atlantic Corridor.

Figure 8.2: The Port of Foynes in Relation to the National Road Network and Atlantic Corridor

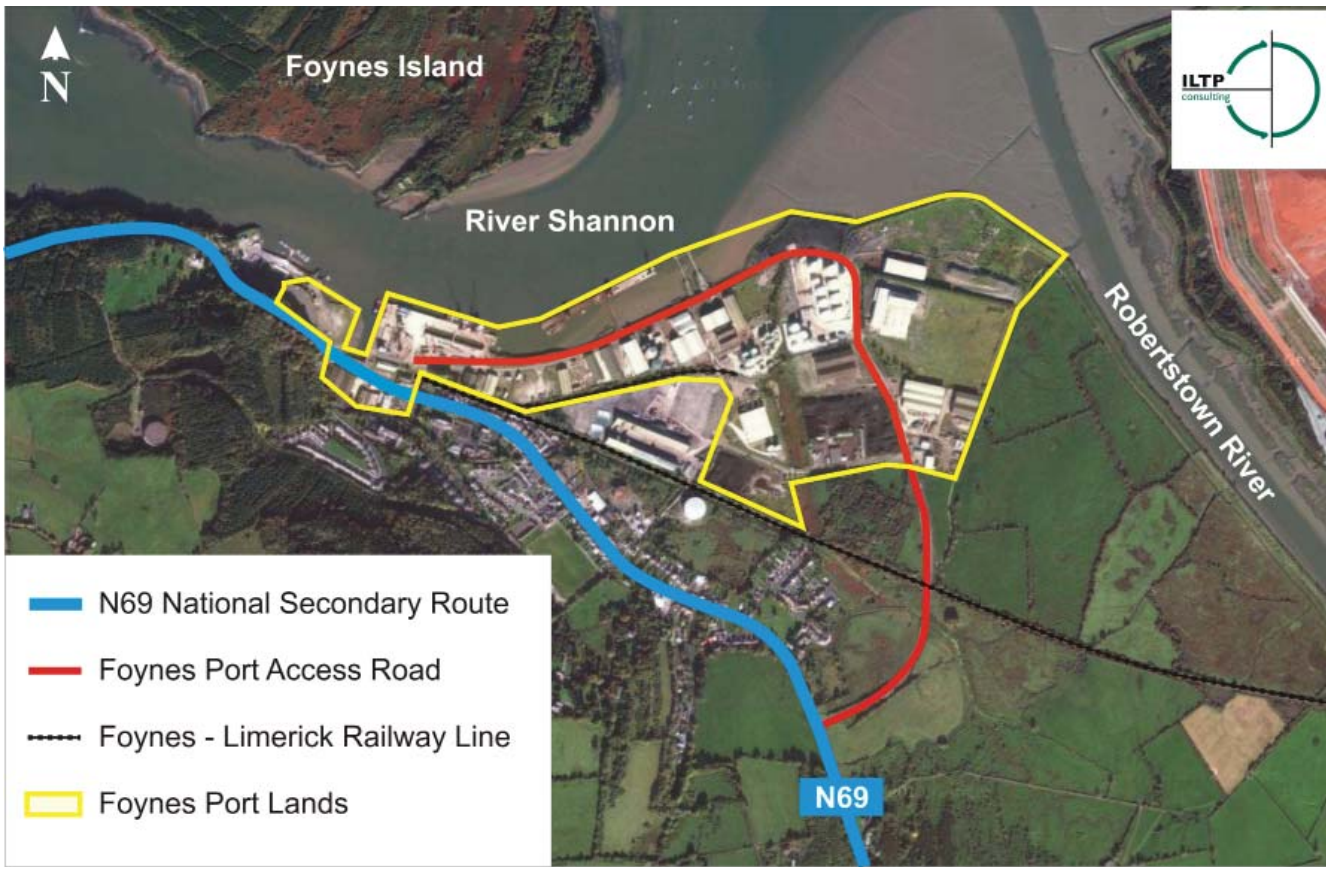


Figure 8.1: The Port of Foynes Lands and Accesses

Other Functions of N69

The N69 road fulfils several other significant roles and also acts as a:

- Major transport link for the Shannon Estuary and key employment areas
- Major link between Northern Kerry and Limerick
- Major tourist route, with large seasonal traffic variations
- Provider of access to several town and villages

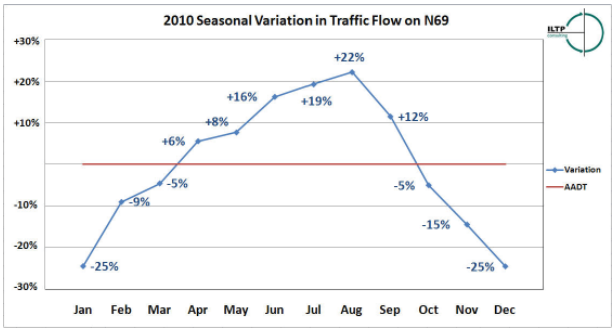


Figure 8.3: Seasonal Variations in Traffic Flows along N69

The seasonal variations in traffic flows along the N69 are shown below in Figure 8.3. It can be seen that the seasonal variation in traffic along the N69 is as much as +/- 25%, reflecting the significance of the route as a tourism corridor. This significant deviation from the Average Annual Daily Traffic (AADT) shown below indicates that the route can experience seasonal traffic flows that are substantially in excess of typical average flow readings.

8.2.2 Existing Rail Based Access

The existing Foynes – Limerick rail freight line was discontinued in 2000. The rail line within the port extends directly up to the East and West Jetties. The 26-mile long rail route remains a key asset to the port, as the route corridor itself and the permanent way remains intact. The importance of a rail connection to the port is acknowledged in the Limerick County Development Plan which seeks to safeguard the route corridor from development, as well as in the Mid-Western Regional Planning Guidelines and the Mid-Western Area Strategic Plan.

8.2.3 Planned Expansion for the Port of Foynes

As detailed in Chapter 5 and Table 5.1 it is forecasted that cargo throughput in the Port of Foynes will grow significantly on the basis of the forecasted mid and high line approach. To assess the implications of such growth on traffic movements and flows existing baseline data is taken from 2007 and extrapolated forward to 2041. Operating on a conservative estimation of 20 tonnes per HGV load, and 2 HGV movements per 'trip' (to and from the port), in 2007 approximately 1.8m tonnes resulted in approximately 100,000 HGV loads, resulting in approximately 200,000 HGV movements. This can be distilled to approximately 4,000 movements per 6-day week, or approximately 640 movements per working day.

"The 26-mile long rail route remains a key asset to the port, as the route corridor itself and the permanent way remains intact"

In 2011, 1.66m tonnes would roughly equate to approximately 83,000 HGV loads, or 166,000 HGV movements. This would equate to approximately 3,200 movements per 6-day week, or approximately 530 HGV movements per working day.

Extrapolating forward, by 2041 the High Line projection of approximately 5.6 million tonnes could theoretically equate to approximately 560,000 movements per year, or 11,200 per 6-day week or 1,870 per working day, an increase of 1,340 HGV vehicle movements to and from the port of Foynes per day.

Under the Medium growth scenario, by 2041 the projection of 4.1 million tonnes could generate an additional 410,000 HGV movements per year, or 8,200 per 6-day week, which equates to 1,370 HGV movements per day, an increase of 840 HGV vehicle movements to and from the port per day.

The Base Line projection of 3.2m tonnes could equate to 320,000 movements per year, or approximately 6,150 movements per 6-day week, or approximately 1,025 movements per working day, an increase of 495 HGV vehicle movements. Thus, the growth projections could lead to a growth in HGV movements at the port of approximately 2 to 3.5 times the existing scenario flows.

The above scenarios show that at the very least the Port of Foynes can look to double the port throughput over the lifetime of the plan, and the port will likely exceed the growth assumed in this minimalist scenario. The expansion of the port in line with Vision 2041 projections will therefore undoubtedly lead to a significant increase in HGV movements along the N69 and other routes which serve as the main access routes to the port. Growth of the Port could potentially result in up to an additional 1,370 HGV vehicle movements to and from the Port of Foynes per day by 2041.

8.2.4 Evaluation of Existing N69 National Secondary Route

The existing N69 route between Limerick City and Foynes, approximately 40km in length, suffers from a number of deficient characteristics. The route has differing cross sections at various locations, with the absence of a hard shoulder along the route in many sections being notable.

The Askeaton Bypass section of the route represents the section of the highest quality, with good carriageway widths and the presence of hard shoulders and dedicated right-turning facilities.

The traffic flow data collected at a number of locations along the N69, from south of Tarbert, through Foynes and on towards Ferrybridge, and approaching Limerick City are shown in Figure 8.4. The flows show estimated AADT (annual average daily traffic) values at these locations for the year 2011 and the projected growth at these locations, using National Road Authority (NRA) growth forecasts to 2040 (showing both medium and high growth rate assumptions). Over the lifetime of Vision 2041, traffic on the N69 may well increase to levels beyond these forecasts due to the growth in port traffic and other development along the Shannon Estuary.

Based on these predictions it is clear that the N69 will need to be significantly upgraded to accommodate these increased traffic flows. The future traffic flow forecasts suggest that the route will need to be upgraded to dual carriageway standard as it approaches Limerick, with lesser standard upgrades required further west along the N69. Figure 8.5 shows the AADT levels at the various locations referred to above, represented in graphical form, as well as showing the AADT forecasts in 2040, derived using NRA medium and high growth rate forecasts. This figure also shows the thresholds at which point road carriageway improvements are typically required to accommodate vehicle flows. Note that these flows represent the current traffic flows growth to 2040 using NRA growth rates, and do not include for additional traffic flows arising from the growth of the Port of Foynes.

Figure 8.5 shows that even with current traffic flows, the N69 requires upgrade and improvement along the route from Foynes to Limerick City. Indeed, by 2041, using both Medium and High NRA growth rates, it can be seen that significant capacity shortfalls will be present on the N69 without commensurate investment.

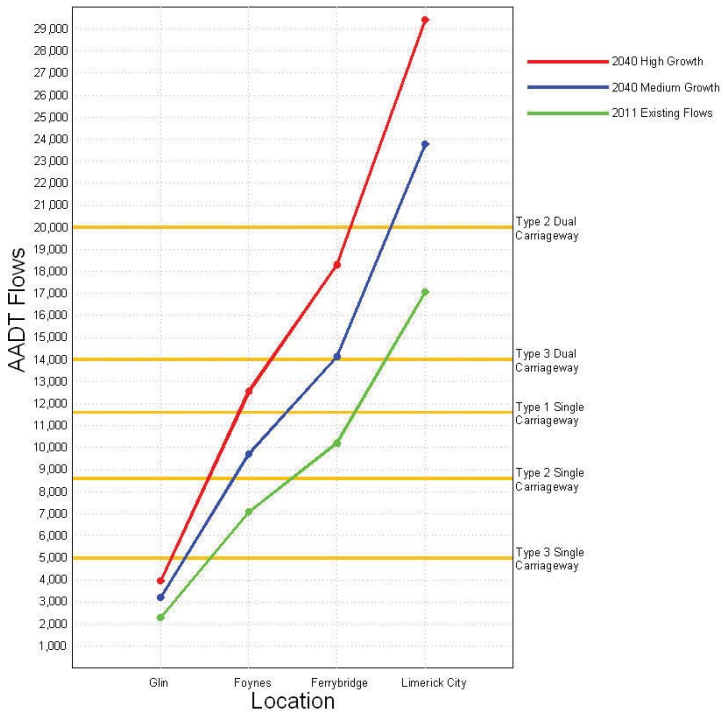


Figure 8.5 AADT Estimates & Carriageway Type Thresholds

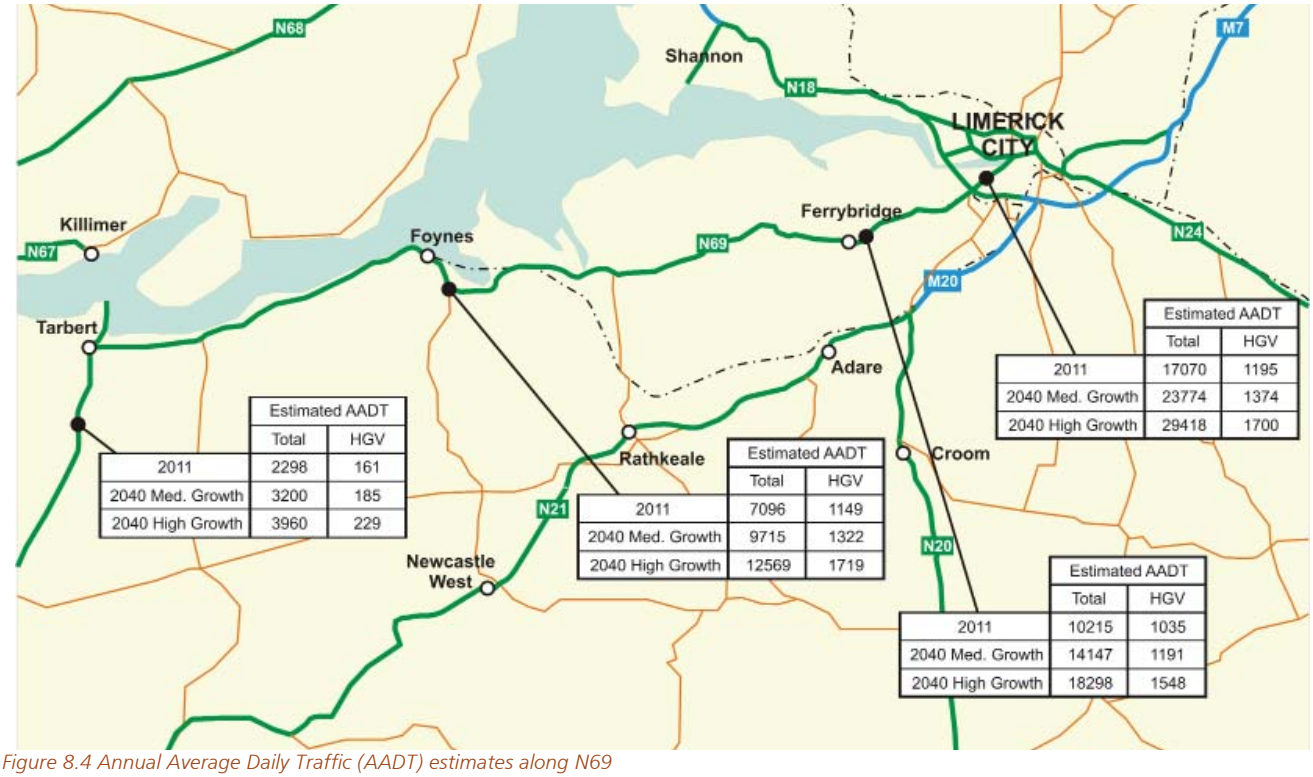


Figure 8.4 Annual Average Daily Traffic (AADT) estimates along N69

Current N69 Proposed Upgrades

Upgrades to the N69 route can occur in two distinct forms – online upgrading of the existing N69 route, or the development of a new, high-quality off-line N69 route upgrade. There are ongoing minor upgrade works being undertaken along the route at present. A recent example of this is shown below in Figure 8.6.

This proposed upgrade is welcome as it removes one sub-standard section of the N69 route. However in order to ensure that the N69 will be appropriately upgraded to meet the needs of the Port of Foynes and the Shannon Estuary over the coming decades a more comprehensive and planned upgrade of the entire route is required, which should be done in consultation with LCC and the NRA.

N69 – N21 Linkage

It has been a long-term objective of SFPC to support the development of a new link road between the N69 and the N21, which would provide for a high quality link between the routes. Traditionally, up to 35% of the traffic leaving Foynes Port would turn onto the R521 in order to access the N21 via Newcastle West. However, recent improvements in the Limerick City area, including the Limerick Tunnel and the consequent completion of the Limerick Ring Road has likely resulted in a substantial transfer of traffic flows back to the N69., The deferral of key projects such as the Adare bypass, N21 upgrade and the Atlantic Corridor, has resulted in a deterioration of traffic conditions on the N21 at the same time as improvements along both the N69 and in the vicinity of Limerick City have improved traffic conditions on the N69.

Consequently, there is currently a reduced demand for the provision of a new link road between the N60 and the N21. The existing linkages between the two roads, via the R521 and R518, provide a degree of existing linkage, and traffic flow projections do not currently provide sufficient justification for such a link road. As such, SFPC must re-direct efforts to ensure that the long-term strategy for the N69 is progressed and that upgrades and improvements along this route are progressed as a matter of priority.

In the longer-term, it is envisaged that the N69 will be upgraded to a suitable standard to be capable of fully accommodating the growth along the Shannon Estuary and at the Port of Foynes. However, a long-term objective of new or improved linkage between the N69 and N21 should be retained, and pursued if the need should arise, or if the upgrade of the N69 cannot be achieved for any reason.

8.2.5 Proposed Strategy for Improvements to Existing N69

The current Capital Investment Programme advocates a focus towards maintaining existing infrastructure and assets as opposed to investment in significant new infrastructure.

The NRA National Secondary Roads Needs Study has identified a number of road improvements along the N69 route that would be highly beneficial to the route. The principal update scheme has been identified as the upgrade of the N69 from Mungret to west of Kilcornan. This proposes the upgrading of this section of the route to Type 1 or Type 2 standard Single Carriageway, with bypasses of Clarina, New Kildimo and Kilcornan.

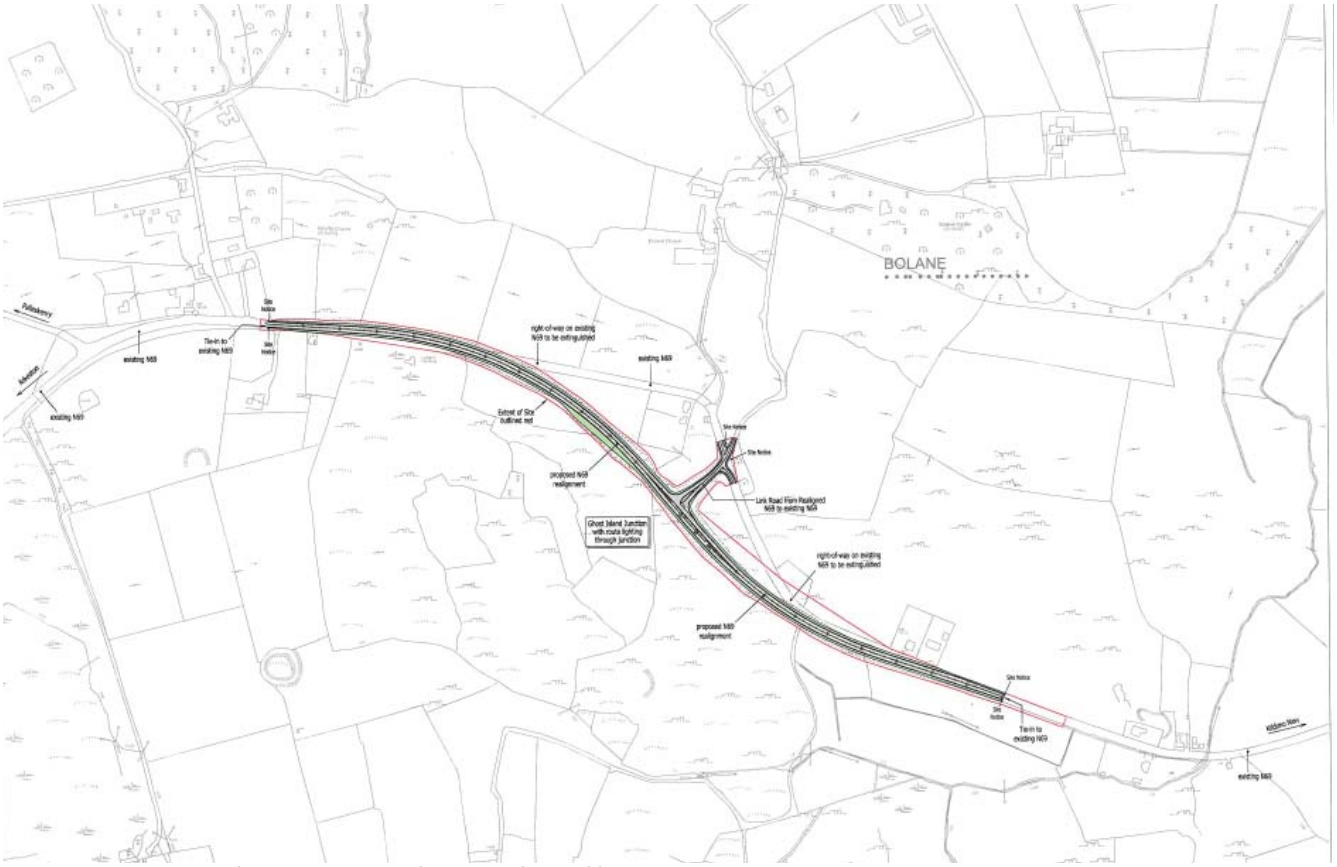


Figure 8.6 Recent N69 Online Improvement Scheme at Bolane, Kildimo

However, there are a number of additional considerations that should be included in the appraisal process, which are unique to this route, which could strengthen the economic case for upgrading of this route.

Typical HGV volume represents approximately 8% of the entire volume of traffic. The N69, being a strategic route and servicing an industrial base along the Shannon Estuary, carries a substantial portion of HGV traffic with estimations of HGV content as high as 17% in some locations.

The presence of high levels of HGV traffic, coupled with their importance as part of our export-orientated economic growth outlook means that traditional evaluation and cost benefit analysis may significantly underestimate the needs and benefits of upgrading the N69. Similarly, the higher accident rates, seasonal traffic variation, and the presence of numerous settlements along the existing route can be significantly underestimated by traditional common appraisal methodologies.

In line with the refocusing of investment in maintenance and improvement, LCC and the Mid-Western National Roads Design Office (MWNRDO) have indicated that they intend to prepare a strategy for the N69 and N24 National Routes in 2013. These strategies will inform the short, medium and long-term proposals for upgrade and improvement works along these routes.

It is proposed that SFPC enter into a working relationship with LCC and the MWNRDO to ensure that as a key stakeholder SFPC is consulted with regard to phasing and implementation of short-term on-line works being progressed along the N69. For example, implementing improvements to the N69 in the vicinity of Foynes and Askeaton may provide a greater short-to-medium term economic benefit as carriageway improvements here may act as a greater catalyst to additional development in the wider Shannon Estuary.

An upgrade strategy for the N69 will examine issues such as road safety, journey times, infrastructural requirements, phasing and cost-efficiency, amongst others. The overall goal of these strategies will be to determine what requirements will arise going forward on these key routes.

Traditional assessment methodologies for upgrade strategies and proposals may not show the 'hidden' benefits from investment in strategic routes, or where significant level of HGV traffic pass through a number of small rural settlements. Larger vehicles, for example, have a disproportionately higher negative impact on these areas than traditional assessment methodologies assume.

A more in-depth evaluation, using the S-Paramics microsimulation software and PEARS cost benefit analysis software to supplement the traditional COBA cost-benefit appraisal process, has in other jurisdictions shown to give significantly greater scheme benefits from upgrading more 'strategic' routes such as the N69. These more detailed assessment techniques better capture the economic benefits of upgrading strategically more important economic routes that provide access to major ports, airports or strategically important development areas.

It is therefore proposed that the SFPC work with LCC and NRDO in developing a route upgrade strategy and Cost Benefit Analysis for the N69. Such additional analysis could significantly strengthen the justification for an enhanced level of investment on the N69, which would be welcomed by both SFPC and LCC/MWNRDO alike.

8.2.6 Review of Port Signage

As a major port it is important that good signage, both highlighting the presence of the port, as well as directing vehicles along the best and most efficient route to the port are in place. A review of the existing signage shows that the Port currently suffers from poor or non-existent signage on the national road network, particularly on the approaches to Exit No. 2 from the Motorway network to the N69. A sample of the signage is shown in Figure 8.7.

Figure 8.7 Sample of Poor Identification of the Port of Foynes on National Road Network

8.2.7 Evaluation of Access to National Rail Network

Figure 8.8 below shows the Foynes-Limerick Rail line in the context of the National Rail Network. This shows that through the upgrade of the section of track from Foynes to Limerick, the Port of Foynes will have access to the National Rail Network.

Rail Freight Track Requirement

Not all railways are designed to carry freight. There are two principal restrictions to rail freight - weight and length. Fortunately in the case of Ireland the entire National Rail Network is capable of accommodating freight haulage. Traditionally, the rail network lines could accommodate a 15 ¾ tonne axle loading. Newer lines that may have undergone refurbishment or replacement can accommodate up to 18 tonne axle loads, while there is now an international trend towards capacities exceeding 20 tonne axle loads.

A 'TEU' is a standard sized container used for shipping unitised freight cargo, and typically can be mounted onto a Goods vehicle (HGV) for transfer to/from ports. The National Rail Network is capable of accommodating TEU's at a rate of 2 per rail carriage. Therefore by upgrading the relatively short section of rail line between Foynes and Limerick a rail freight network connecting the Port of Foynes with the National Rail Network can be delivered.

Figure 8.8 Limerick - Foynes Rail Network and National Rail Network

"...the Port of Foynes has the most potential to realistically implement a viable rail freight connection, which can be reinstated with a minimum capital investment."

The existing National Rail Network is sub-graded into Primary, Secondary and Tertiary routes. The sub-grading of the rail network reflects the quality of the routes themselves. Primary routes benefit from high-quality rolling stock, journey times that are comparable with road, limited stops, and at least hourly frequency. Secondary routes experience lesser frequencies of trains, and poorer journey times. Finally, Tertiary routes suffer from lesser-quality rolling stock, poorer journey times, frequent stops and low frequency of trains. The Dublin-Cork route is the most important element of the national rail network, as it forms a principal axis, and experiences up to sixteen services per day.

Rail Access to Major Ports

The three major ports in Ireland are Dublin Port, the Port of Foynes and the Port of Cork. Of these three the Port of Foynes has the most potential to implement a viable rail freight connection whcih can be reinstated with minimum capital investment. The proposed relocation of the Port of Cork to Ringaskiddy has resulted in the port being moved away from the National Rail Network. There are currently no plans or proposal to build a new rail line to Ringaskiddy. It is most noteworthy that the lack of access to the proposed facilities at Ringaskiddy was deemed a crucial element by An Bord Pleanála in refusing permission for the proposed relocation. Dublin Port currently has a rail connection, which is currently used for transporting ore from Tara Mine to the Port and other rail freight operations to the Port. The rail network in the Greater Dublin Area currently experiences a number of capacity issues which may restrict any potential expansion or intensification of rail freight activity.

Rail Freight & Capacity Restrictions on Rail Network

The National Rail Network is largely focused on Dublin and has effectively two separate rail networks, one to Heuston station and one through Connolly station. Connolly represents the convergence point for DART services, Western, Northern, Southern, Belfast and Sligo services, which all pass through this station and the Loop Line Bridge. This leads to congestion and restrictions on the number of services that Iarnród Éireann can provide on these lines.

The Phoenix Park tunnel connects the stations, but is seldom used for passenger services, and is primarily used for the transfer of rolling stock and locomotives.

Figure 8.9 shows the existing rail network in Dublin City centre and the various rail routes into and out of the city centre and Dublin Port. From Heuston, the port is only accessible by rail if the Phoenix Park tunnel is used, with trains re-routed around the north of the city and approaching the Docks from the northwest.

The rail capacity restrictions at Connolly Station and on the Loop Line Bridge have in part lead to the proposed development of the Dublin Interconnector, or Dart Underground proposal. This consists of a tunnel to connect Heuston station with a new station at Spencer Dock, which will connect Heuston with the Northern and Southern rail lines. This will result in significant capacity improvements in Dublin City Centre. However, this extremely high-cost proposal has been deferred at present due to revisions to the Capital Investment Program. Furthermore, these investment programmes were aimed mainly at improving passenger rail services.

Given the rail capacity issues, it is evident that increased rail freight operations cannot be readily accommodated by the existing rail network in Dublin. Heavily laden freight trains also cannottravel at higher speeds, further increasing their impact on the existing capacity of the Dublin City rail network.

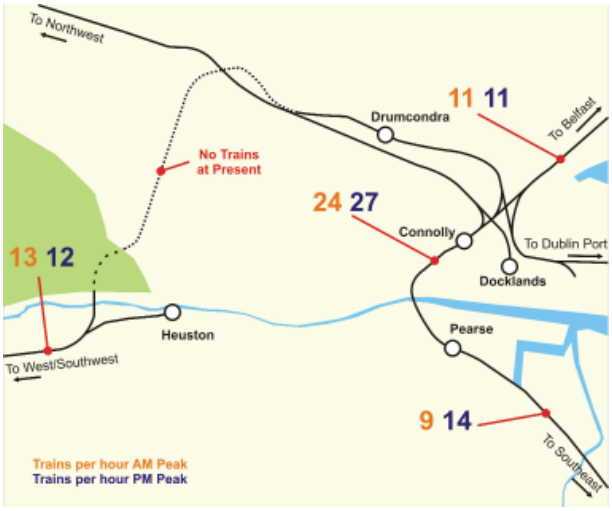


Figure 8.9 Dublin Rail Network – Passenger Trains Per Hour at Peak Times

In 2011 the NTA (National Transport Agency) published the 'Greater Dublin Area Draft Transport Strategy 2011 - 2030" which sets out the need for a major investment programme in the heavy rail network to improve heavy rail access to the city centre. The document remains in draft format and decisions on the future upgrade of the rail network are awaited.

The Port of Cork has moved a portion of its operations away from the rail network to Ringaskiddy, where deep water berths were developed. However, the lack of a rail facility and access via rail to Ringaskiddy was cited by An Bord Pleanála as one of the key reasons for not permitting the proposed re-location of the Port of Cork operations to Ringaskiddy. There are no current plans to provide a rail link to Ringaskiddy.

The Port of Foynes by contrast links to the National Rail network at a point where existing line flows are low and where rail freight could be readily introduced without disruption to passenger rail timetable and for a modest cost. The rail freight link to the Port of Foynes also connects with the entire National Rail Network, enabling goods from throughout the country to be transported to the port by rail.

Reinstatement Timeline and Costs

The estimated cost of reinstatement of the rail access to Foynes is varied. The cost of reinstating the line to operational status is dependent on a number of factors. The principal element of rail line upgrade cost is signalisation, which increases along with the complexity and sophistication of the signalisation system implemented.

"The Port of Foynes links to the National Rail network at a point where existing line flows are low and where rail freight could be readily introduced without disruption to passenger rail timetable and for a modest cost."

Reinstatement of the line would also involve either restoring the existing rail line to an operational standard or the re-laying of the line. Restoring the line using as much of the existing infrastructure would result in a line that would be subject to a lower speed limit of typically 40 mph, but would be a less expensive option. The relaying of the line to allow for higher speeds would entail an additional cost.

Recent cost-estimation studies undertaken by both Iarnród Éireann and by consultants on behalf of SFPC suggest an indicative reinstatement cost of circa €10m. Preliminary estimations also suggest that reinstatement of the line could be achieved in 6-12 months duration.

Status of Rail in Capital Investment Programme

The Infrastructure and Capital Investment Programme (2012-2016) sets out the current Government plans for capital spending in Ireland over the next four years, taking cognisance of the rapid deterioration of finances and lack of availability of alternative funding sources. The current plan does stress that the Government will invest more in new public transport than in new road projects, however the scale of investment itself will nonetheless be significantly reduced.

However, SFPC have had discussions with IE regarding the preparation of more definite proposals regarding the line, and indeed there are a number of parties in direct discussion with IE regarding a collective agreement towards reopening the line. A programme of work, costing and delivery timeframe for the re-opening of the link should be put in place immediately, so that certainty can be given to a re-opening time-frame.

Even if funding for capital improvement cannot be made in the short term, then at a minimum the permanent way to the Port of Foynes should be protected and minimum maintenance to stall further decline of the rail should be put in place.

Going forward, the SFPC should pursue a number of objectives relating to the rail line, namely:

- Protection of the permanent way of the existing line should be ensured at a minimum
- A programme of maintenance and inspection should be put in place to ensure that the line does not fall into further disrepair
- Clarification should be received from IE regarding a definitive reinstatement timeline, so that the line can have a specific re-opening timeline in place in the event of a trigger event becoming likely

Port of Foynes Objective	Timeframe
SFPC will continue to build up the profile of the N69 as a strategic national route	Short Term
SFPC will utilise the data available from the new permanent traffic flow counter in place on the N69 to supplement and support the case for increased investment and priority allocation to the N69 going forward	Short Term
SFPC will work directly with LCC and MWNRDO to prepare a medium-to-long term upgrade strategy for the N69, and will where necessary prepare alternative complementary assessments of upgrade and improvement schemes in order to demonstrate the substantial 'hidden' benefits of continued and increased investment along the corridor	Short to Medium Term
SFPC will seek to prioritise improvements to the N69 between Foynes and Askeaton as a matter of urgency, and will support the prioritisation of this section of the N69 as part of the ongoing upgrades occurring along the route	Short Term
SFPC will seek the preparation of a signage strategy for the port for the wider Mid-West region, which would seek to implement a consistent and high-quality standard of signage on the major routes in the region.	Short Term
SFPC will retain its' long-held support for direct linkage of the N69 and the N21 by way of a new link road and will pursue this objective should the need arise in the longer-term, however support for a long-term comprehensive upgrade of the N69 itself will be the priority going forward.	Medium to Long Term

Table 8.1 Port of Foynes Objectives

8.3 Limerick Docks

8.3.1 Existing Road Based Access

Limerick Docks is directly accessed from the R510 inner city regional route, known locally as Dock Road. Figure 8.10 shows the location of the existing port access from Dock Road in the context of the surrounding national road network.

Via the existing access at Dock Road, the M7, M21 and M18 are easily accessible, providing high quality accessibility to the major radial national routes from Limerick City.

8.3.2 Current Activity Levels at Limerick Docks

As detailed in Chapter 5 it is anticipated that Limerick Docks will continue to maintain its existing cargo throughput with potential for increases arising from the demands of business in the regional hinterland. However, it is acknowledged that there is limited ability to attract significant increases in bulk solid business comparable with the Port of Foynes.

The R510 Dock Road is heavily trafficked as it passes the existing Port access, with two lanes provided outbound from Limerick City and a single-lane inbound.

"Re-purposing a number of non-core assets could allow for a level of development within the Limerick Docklands that would effectively extend the urban catchment of Limerick City into the Port lands."

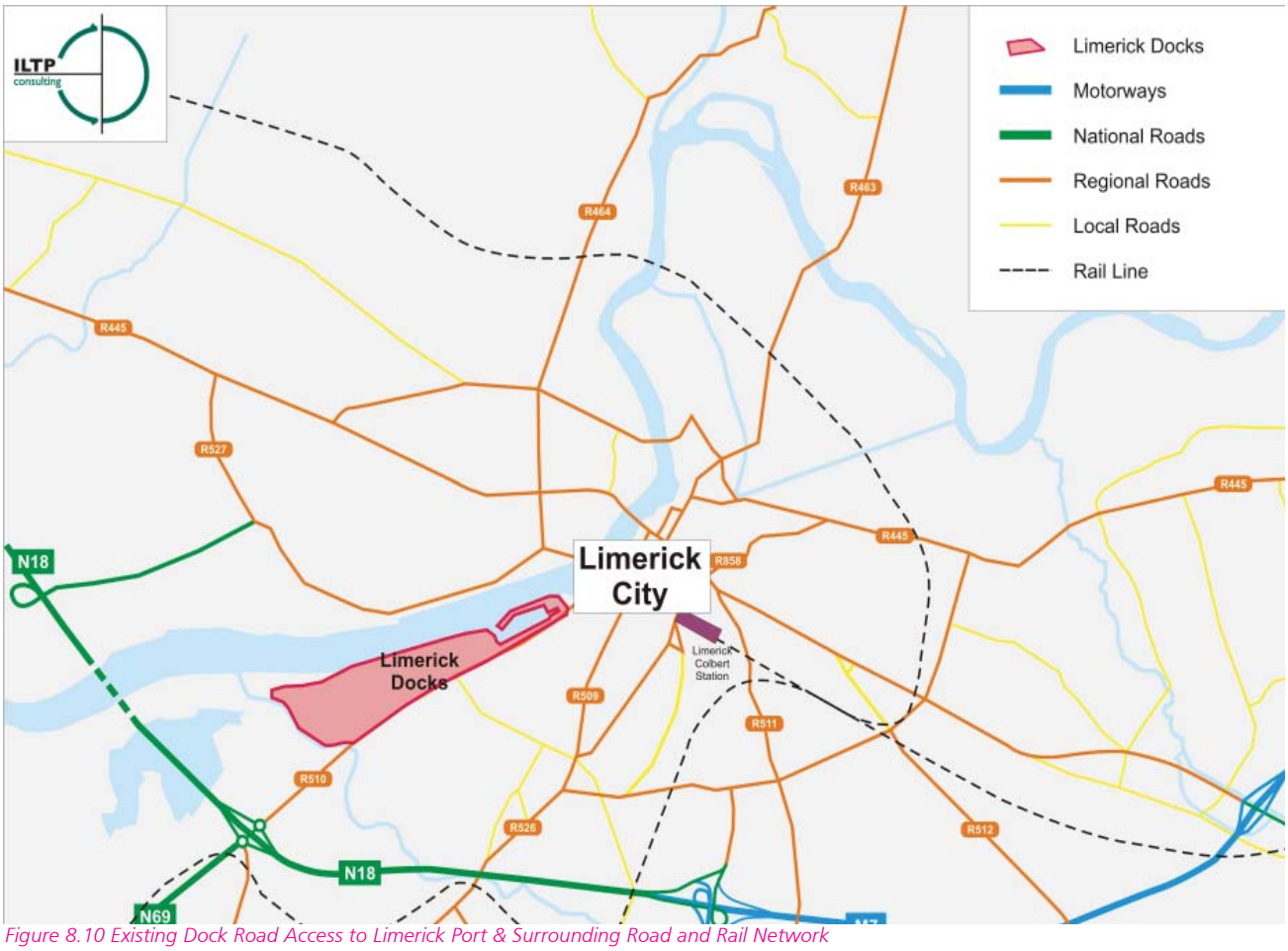


Figure 8.10 Existing Dock Road Access to Limerick Port & Surrounding Road and Rail Network

8.3.3 Integration of Limerick Docks with Limerick City Centre

The location of the facilities at Limerick Docks, by way of their location on the cusp of the inner city area, means that Limerick Port is essentially a gateway point into Limerick City. Along the R510 Dock Road, to the south-west of Limerick Port lies a substantial industrial area, while to the immediate north-east there are more urban residential and retail developments.

The lands at Limerick Docks are approximately a 1km walk from Colbert Station, the main rail and bus station in Limerick City. Figure 8.11 below shows a 500m and 1km walking catchment from the entrance to Limerick Docks, which shows that the site is within short walking distance from Limerick City Centre. This reinforces the fact that Limerick Docks acts as a transition area into Limerick City Centre.

Public Transport

The existing N69 Dock Road which fronts the lands at Limerick Docks is not currently served by any scheduled city bus routes. In order to set out a clear strategy for the achievement of the transportation objectives, Limerick City Council commissioned a Public Transport Feasibility Study (PTFS). This PTFS makes recommendations for the optimisation of existing transport infrastructure and the provision of new infrastructure where required.

The PTFS contains three major scenarios for consideration. Scenario 2 of the PTFS proposes Bus Rapid Transport (BRT) upgrade measures in a number of locations within the city. BRT facilities a high-quality bus corridor where on-street space is exclusively provided for buses.

The concept is similar to light rail, such as Luas, etc, but at a lower cost. One of the BRT routes proposed in Scenario 2 is proposed to run from Raheen to the National Technology Park, via the R510 along Dock Road and the R510 frontage of Limerick Docks. Figure 8.12 shows the BRT proposal in the context of the Scenario 2 proposals.

Park and Ride

The PTFS also identifies a number of potential locations around Limerick City which are deemed suitable for the development of Park and Ride sites. These sites would aim to contribute to a modal share change from private car to public transport. One of these proposed locations is the existing N69/N18/R510 interchange, located west of the city centre. This area lies on the existing rail line from the City Centre to the Irish Cement factory, and runs via the Crescent Shopping Centre. This corridor has been suggested as suitable for use by either Bus or Rail as part of a Park and Ride site.

8.3.4 Implications for Limerick Docks

The development of lands at Limerick Docks will significantly benefit from the public transport measures contained in the Limerick City Development Plan and the Limerick City Public Transport Feasibility Study. In addition, the extensive landholdings along the N69 would allow SFPC to incorporate extensive public transport facilities into the development of the docklands. The re-development of the Docklands would benefit further from access to high-quality public transport facilities, such as green routes, BRT proposals and park and ride sites. This would allow the development of the Docklands to be realised in a sustainable manner, with aggressive modal share targets possible as well as sustainable measures such as mobility management strategies, to form part of the Docklands development.

Limerick Docks Objectives	Timeframe
SFPC will work with Limerick City Council and other State agencies in developing pedestrian and cycle routes between Limerick Docks and the city centre to facilitate the phased re-development of the Dock Lands.	Medium to Long Term
SFPC will work with Limerick City Council and other state agencies to develop over time a Green Corridor or Bus Rapid Transit Route along the Dock Road (R510) and link the future P&R site and potential rail station to the city centre	Medium to Long Term
SFPC will seek to ensure that high quality road access to Limerick Docks is in place to ensure the strategic advantage of a city centre port facility may be fully utilised.	Medium to Long Term
SFPC will seek to ensure that sustainable transport initiatives contained within the Limerick City Development Plan and associated Public Transport Feasibility Study are incorporated in order to ensure that the potential re-development of lands at Limerick Docks can benefit from these proposals and implement modal share targets within the redevelopment proposals, while simultaneously ensuring that the lands at Limerick Docks are better integrated into Limerick City Centre.	Short to Medium Term

Table 8.2 Limerick Docks Objectives

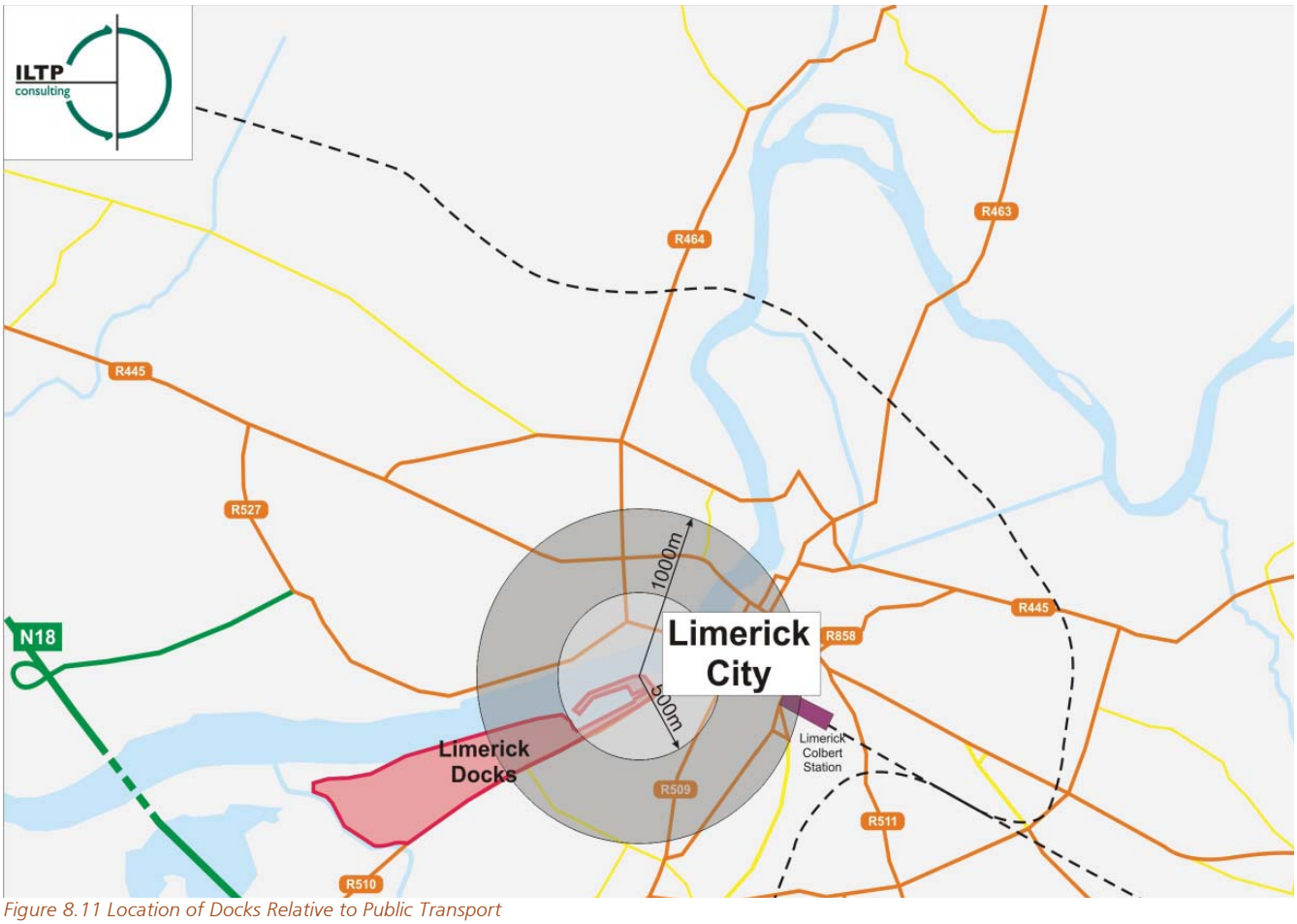
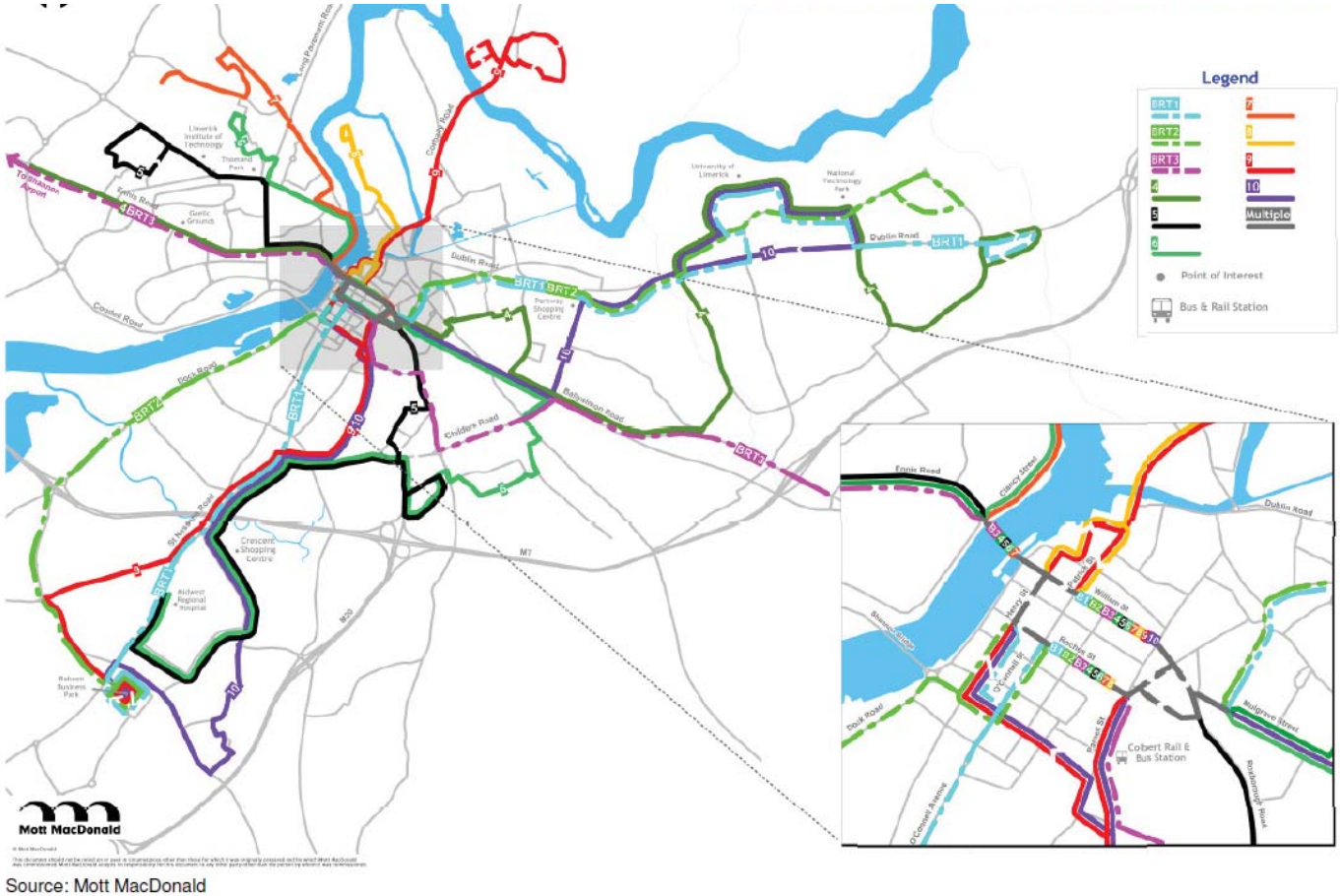


Figure 8.11 Location of Docks Relative to Public Transport



Source: Mott MacDonald

Figure 8.12 Limerick City Council PTFS Scenario 2 proposals

KEY ISSUES

Road Based Access

- The existing N69 route serving the port is the principal access route to and from Foynes Port
- Typical average daily traffic flows at Foynes Port are ~7,000 or so vehicles, with a high percentage of Heavy Goods Vehicles, up to 16%. In 2011, the port typically generated an average of ~530 HGV movements per day
- Over the lifetime of Vision 2041, SFPC will seek to increase its' operation by 2 to 3.5 times existing levels, which would equate to an increase of between 500 and 1,340 vehicles per working day onto the N69
- Even without any growth at Foynes Port, the N69 will require upgrade and improvement works in order to accommodate background traffic growth in the period to 2040
- Current Capital Investment focus is on maintaining and improving existing assets, as opposed to significant investment in major new schemes; the upgrade of the N69, as a key strategic national route, is therefore highly consistent with current expenditure focus
- The N69 fulfils the role of a strategic national route as it serves a number of nationally important objectives, facilitating the vital export trade from Ireland, acting as a key tourist route, and serving a large industrial base along the Shannon Estuary
- LCC and MWNRDO both recognise the importance of the N69 as a strategic route and will work with SFPC on the preparation of a long-term upgrade strategy for the route going forward
- LCC and MWNRDO will consider additional input from SFPC into their long-term strategy for the N69 that would strengthen the case for increased investment into the route
- Limerick Docks benefits from proximity to Limerick City Centre, and from both existing public transport facilities and proposed high-quality sustainable transport initiatives such as Green Routes, Bus Rapid Transport and Park and Ride facilities in its vicinity

Rail Based Access

- The 26-mile Foynes-Limerick rail line remains in place, extending directly to the East and West Jetties at the port, thereby laying the foundation for direct access to the National Rail Network
- Within basic weight and length criteria, the entire National Rail network is accessible from Foynes Port via the Foynes-Limerick Rail line, a fact which has been strengthened by the opening of the Western Rail Corridor in 2010
- The rail link to Foynes Port can be reinstated quickly and at moderate cost, with estimates of 10m for re-activation
- In comparison with Dublin and Cork Ports, the Port of Foynes is well placed to accommodate a viable rail freight operation, with good quality infrastructure already in place, excellent capacity and both short installation time frames and low installation cost


KELLY
SCANIA

Chapter 9

Social and Community Integration

9.1 Introduction

Port activities on the Estuary have evolved over time and have made a positive contribution to the history and economic development of the region, particularly to the town of Foynes and Limerick City. Whilst SFPC seek to maximise the potential of the Shannon Estuary and its ports from a commercial and economic perspective, the Vision 2041 strategy seeks Port operations to be responsive to their settlement locations and achieve social and community integration. Examination of the potential economic, tourism and recreational opportunities arising from port activity on the Shannon Estuary is therefore necessary along with consideration of the integration of port activities into Limerick City and Foynes Town.

9.2 Economic Competitiveness

The assessment of beneficial economic impacts should be read in conjunction with the economic trends in Chapter Three.

Though analysis of the economic contribution of SFPC to the region has not been undertaken, the economic benefits attributable to SFPC are diverse and extensive. This includes direct employment and support services to the port including cargo handling services and stevedoring companies and, indirect employment - complementary sectors, notably logistics. Presently the company directly employs fifty people and whilst there are no detailed figures on indirect employment, it is estimated to be significant, particularly in the logistics sector.

Over the Vision 2041 period, it is envisaged that the number of people employed could increase by 25%. The economic benefits of port activities expand from the local port system towards a much larger economic system[1]. The total employment effects of ports (direct and indirect/ induced) are significant and typically represent between 1% and 5% of the total employment in a country[2]. While any new development proposals at SFPC would require a specific economic assessment, it is expected that while modern technological innovations and developments in freight logistics will increase efficiencies, there will be a significant net employment gain from the development of new projects envisaged inVision 2041.

Significantly there are wider economic benefits to companies in proximity to the Ports through their ability to secure easier access to supply chains and raw materials and other products through the international Port gateways as well as access to international markets for exports. SFPC's central location within the Island of Ireland and the connectivity offered through the Port of Foynes and Limerick Docks (with road and rail linkages to the strategic transport network), means that SFPC holds a highly competitive position for the onward distribution of goods and services.

9.3 Tourism

SFPC promotes the Shannon Estuary as a Cruise Gateway in conjunction with other interested parties. It provides support and assistance in the development of call schedules and programmes to cruise liners, as well as operational execution while in port. A dedicated website[3] has been developed to support the initiative. While cruise liners do call occasionally to the Port of Foynes, the numbers have been modest and are at the smaller end of the cruise vessel size range (less than 1,000 passengers). Any liners in the next size bracket would need to use tenders to access the Port - an approach which is inclined to be avoided.

SFPC undertook a market research project in 2006 to ascertain the likely potential for the future of this sector as it relates to the Shannon Estuary. This study indicated that the potential market for such traffic on the western seaboard was relatively small for a variety of reasons, including perceived weather conditions but principally because such calls would require a significant deviation from established routes. There was also some evidence that large operators had some resistance to expending resources in developing the market for Western Ireland, as they were able to more easily "sell" calls at the bigger urban centres. Thus, SFPC has essentially catered for smaller, more specialist, operators.

Nonetheless, SFPC will continue to work with relevant bodies with responsibility for tourism in the region in order to ensure necessary marine operational resources are available to potential operators.

9.4 Leisure and Recreation

The Shannon Estuary fulfils and supports a diverse range of sport and recreational activities, for example, sailing, watersports, fishing and birdwatching. SFPC will continue to promote the Estuary as a destination for leisure and recreation activities.

9.5 Community Integration

It is a key objective of Vision 2041 and a policy imperative for SFPC that the development and operation of the Ports must benefit the wider community and in particular those living in the town of Foynes and Limerick City. Societal integration of the Port of Foynes and Limerick Docks is seen as an integral part of the corporate social responsibility (CSR) of SFPC. With a clear commercial mandate, the primary function of SFPC is to facilitate and enhance shipping on the

1 Dock Labour and Port Related Employment in the European Seaport System, European Seaports Organisation, 2010 pp.21

2 Ibid pp.28

3 (www.shannoncruises.ie)

Estuary and to develop and manage port infrastructure in Foynes and Limerick.

However, it is an objective of SFPC that these functions are facilitated along with the implementation of initiatives which are aimed at securing greater integration of the Ports into communities. The relationship between cities and their ports remains one of interdependency and should be ruled by long-term strategic vision and planning[4]. It is therefore important to both SFPC and to the people of Limerick and Foynes to strengthen their association. This policy objective will underpin both how SFPC operates its current business and any development proposals envisaged under Vision 2041. In this regard it is proposed to undertake a number of initiatives in the short term and over the course of Vision 2041 to achieve integration between the Port of Foynes and Foynes town and between Limerick Docks and Limerick city.

9.5.1 Public Access

Providing access to the public, whilst maintaining commercial port operations, requires creative solutions compatible with port security plans. Whilst opening the Ports up for independent access may be highly desirable from a public perspective, practical consideration must be given to health and safety legislation and the ISPS Code on Port security regarding the day to day working operations of the Ports.

The best way to communicate with the general public is to activate them and bring them into the Port, either in a guided way or on their own initiative [5]. This implies that the port area should be attractive and accessible for visitors, taking into account security regulations. In line with this imitative, therefore, a general cleaning up of Port activity must be promoted and which is subsequently addressed in Vision 2041.

SFPC commits to making the Ports more accessible and to build on its existing public access strategy which facilitates organised tours including school tours. Consideration will also be given to building on the concept of Limerick Docks as a Venue not only for music concerts but also as a venue for cultural activities, including open air cinema or concert performances on an ad hoc basis. Limerick Docks already hosted a tented music gig in that area of the working port, north of the main entrance gates adjoining the Clarion Hotel, in 2009.

9.5.2 Environmental and Ecological Resource

SFPC is intertwined with the dynamic natural environment of the Shannon Estuary. As the Port is located within and adjacent to Natura 2000 network, SFPC will work with environmental interests and statutory bodies where required to safeguard the integrity of the Natura 2000 designations. The controlled provision of access to the public in this regard will be managed.

4 Communication on a European Ports Policy, Commission of the European Communities, 2007, pp.12
5 Code of Practice on Societal Integration of Ports, ESPO

9.6 Integration with Urban Fabric

In line with the preservation of the maritime identity of both the City of Limerick and the town of Foynes, Vision 2041 seeks to strengthen the relationship between the Ports and their settlements and to demonstrate that both the settlement and the Port can operate and function in harmony. When considering specific enhancement proposals, there must be a realisation that SFPC does not have control to effect immediate change and can only undertake works on land within their control. Instead, SFPC must work with and through third party interests and partners.

Internationally, Port interface enhancement work is generally undertaken in collaboration with the relevant public authority. To this end, SFPC proposes to work with the relevant authorities in developing specific projects and concepts for the enhancement of both the Port activities in both Foynes and Limerick City.

As the issues facing the Port of Foynes and Limerick Docks are site specific it is proposed to deal with each Port separately. There is no doubt that economic recovery over the period of Vision 2041 will present longer term opportunity for significant Port enhancement projects including interface enhancement with Limerick Docks and the city. However, in the current climate of economic austerity, a practical and realistic approach to integration is proposed focusing on enhancing the appearance of the port through internal reorganisation, landscaping and finishes.

"...The relationship between cities and their ports remains one of interdependency and should be ruled by long-term strategic vision and planning..."

9.6.1 Port of Foynes

The main entrance to the Port located at the western end of the town, adjoining the railway station is the primary interface between the Port and the town. Whilst the visual relationship and integration of the port with the existing built environment is acceptable, there are two distinct and visually prominent areas in the control of SFPC, which could be better integrated into the built environment and visually enhanced.

Port Entrance

The primary entrance to the port facility presents visual clutter with barriers and signage and the multiple use of colours. The derelict appearance of the railway station car park and platform structure, over which SFPC has no control, reduces the amenity appearance of the Port entrance. There is a distinct lack of soft landscaping at this location which is dominated by hard industrial surface treatment.

Enhancing the appearance of the entrance to the Port requires partnership working with adjoining landowners and state bodies. SFPC proposes to enhance the overall appearance of the entrance through landscaping and planting measures and more controlled signage arrangements. Working in conjunction with Limerick County Council SFPC proposes wood coverings to the crash barriers with the planting of a low internal hedge. Liaising with Iarnrod Eireann, SFPC seeks to pursue a simple landscaping scheme to improve the visual amenities of the car parking area and the removal of the platform structure.

Figure 9.1 Existing Foynes Port Entrance

Figure 9.2 Potential Future Improvements to Foynes Port Entrance

Warehouse Buildings

Given their location on the southern side of the road, remote from the Port facility, these asbestos constructed warehouse buildings (located adjoining the SFPC offices on the Main Street), are surplus to port operational requirements and the area in front of the buildings lacks definition and present little contribution to the streetscape.

Though the preferable solution is the demolition of these buildings and use of the site for a high amenity mixed use development, the practicalities of achieving this in the short to medium term are limited due to amongst other things; the current economic climate, the lack of existing development opportunities and the associated cost of removing asbestos buildings without any commercial return. It is thus proposed to implement visual enhance measures including; painting the buildings and establishing greater definition of the area in front of these buildings with the uses of a footpath, tree planting and providing defined car park spacing for the use of SFPC staff and visitors.

Figure 9.3 Existing Warehouse Buildings

Figure 9.4 Potential Future Improvements to Warehouse Buildings

9.6.2 Limerick Docks

Limerick Docks located on the western fringe of the city centre is very much isolated with high stone walls, locked gates and warehousing creating a barrier between port activity and the city. The southern and eastern boundaries of the Port Estate, which define the working Port very much represent the interface and visual connection between the city and the port. The visual presentation of Limerick Docks could be enhanced by way of landscape treatments and a graphical representation of the potential that exists is represented in Figure 9.6.

There are three primary areas, located around the entrance gates to the Port, which require specific treatment and SFPC proposes to concentrate enhancement works in these three areas whilst also undertaking general maintenance and improvement works to the operational area of the Port as illustrated in Figure 9.6

Figure 9.5 Existing Limerick Docks

Figure 9.6 Limerick Docks with Potential Future Landscaping Improvements

Main Vehicular Entrance

The main vehicular entrance to the Port comprises an attractive stone wall and piers. However, the appearance of the entrance is dominated by the scale and finished treatment of the large warehouse building positioned behind and extending over the height of the wall with its external blue corrugated panels. The entrance piers are dominated by random signage and there is little visual evidence that this is the main entrance to Limerick Docks.

It is recommended that landscaping treatment to this location would enhance and emphasis the primary entrance to the Docks and well as contribute to the visual enhancement along an arterial route to/from the city centre. Suggested works could include; changing the external colour of the warehouse building, providing modern, attractive external signage to the rear of the warehouse, de-cluttering existing signage on the entrance piers, implement planting of mature species and raise the presence and profile of Limerick Docks through contemporary signage canopies.

Figure 9.7 Existing Main Vehicular Entrance and Warehouse

Figure 9.8 Potential Future Improvements to Main Vehicular Entrance and Warehouse

Junction of the R510 and James Casey Walk

This junction is considered to be the primary visual connection between the Port estate and the urban area of the city. Presently, the appearance of the docks from this viewpoint is relatively negative comprising a locked gate with a low stone where the appearance of the Port through the gate may be construed as derelict port with parked lorry trailers and derelict buildings.

Figure 9.10 illustrates that with appropriate hard and soft landscaping at critical locations within and on the Port boundary, the appearance of the Port could be substantially enhanced and could contribute positively to the overall appearance and quality of this edge of city centre location.

Figure 9.9 Existing View of R510 Junction with James Casey Walk

Figure 9.10 Potential Future Improvements to View of R510 Junction with James Casey Walk

Protected Entrance Gates at Steamboat Quay

This entrance comprises of gates and piers which are listed as protected structures in the Limerick City Development Plan. These gates were originally positioned at the junction of the R510 and James Casey Walk and were relocated sometime in the 1900's. These entrance gates are very much dominated by the Clock Tower (protected structure), recyclable material and the weighbridge, representing an area of the Dock which is very much in use.

Whilst the relocation of recyclable material may be desirable from a visual perspective, cognisance must be had to the practical and commercial workings of the port and particularly the quay side storage which necessitates such operations at this location. In conjunction with the operator and in the medium to longer term there may be an opportunity to explore an alternative location within the port. In the shorter term however there is a possibility that the visual impact of the recyclable material could be mitigated with appropriate hedge screening with significant planting proposed at the northern inside corner of the entrance gates as illustrated in Figure 9.12.

Figure 9.11 Existing Protected Entrance Gates at Steamboat Quay

Figure 9.12 Potential Future Improvements at Entrance Gates

9.7 Implementation

The implementation of a programme designed to address the soft values of the Port and secure greater integration between the Ports and their respective settlements and its people over the period of Vision 2041 will require considerable resources and can only be implemented as resources permit.

Nonetheless SFPC is committed to delivering on the objectives and recommendations put forward in Vision 2041 and do recognise the imperative need to integrate the Port into society in general.

Given the nature and scope of the measures identified, their implementation will be on a phased basis with some initiatives capable of immediate implementation. Of critical importance in the delivery of these objectives is the need to maintain port security and appropriate standards as all terminals and facilities under the control of SFPC have been certified as compliant by the Department of Communications, Marine & Natural Resources under the ISPS Code and EU Directive 2005/65 on enhancing Port Security.

Objective	Timeframe
Continue to work with relevant bodies to promote the Shannon Estuary as a Cruise Gateway providing support and assistance in the development of call schedules and programmes to cruise liners	On-going
Ensure public accessibility through the hosting of 'open days' and organised tours.	On-going
Improve the visual appearance of the main entrance to the Port of Foynes and the existing vacant warehouse buildings located on the southern side of Main Street beside the SFPC offices.	Short-Term
Undertake significant improvement and landscape works to the main vehicular entrance at Limerick Docks and also to the unused gated entrance at the junction of Dock Road and James Casey Walk.	Short-Term
Visually enhance the protected gateway to Limerick Docks from Steamboat Quay.	Short Term

Chapter 10

Environmental Considerations

10.1 Introduction

As a statutory port authority and a significant landowner SFPC has environmental duties laid out in statute. International EU and national policy also requires port authorities to strike an appropriate balance between the long term protection of the environment and the securing of sustainable economic growth. SFPC seeks to continuously improve its environmental standards and implement an effective environmental management system commensurate with its responsibilities.

This section highlights the range and diversity of environmental matters applicable to SFPC. The purpose of Vision 2041 is not to go into the same degree of environmental assessment as would be necessary for a planning application but to signpost key and relevant environmental considerations and the outcomes from a strategic level of environmental and ecologcial assessment undertaken to support the approach.

10.2 Environmental Obligations

In discharging its role, SFPC remains committed to continual compliance with all applicable environmental legislation, related EIA Directives and other relevant requirements in the pursuit of their duties and powers and will take these fully into account in their actions and decisions alongside its pursuit of the sustainability objectives established nationally. Whilst Vision 2041 is not a statutory plan or programme for which mandatory environmental and ecological assessment is required, strategic environmental and natura impact assessments were undertaken to assess at the earliest possible opportunity, the potential environmental consequences as a result of the Vision strateg. Such astudies were also undertaken to incorporate specific strategic environmental objectives into the Vision strategy and consequently, to influence any future site-specific projects undertaken. Through separate processes, the preparation of this Vision statement was also cognaisant of the findings of the environmental and ecological assessments (SEA and AA) carried out for the purpose of the Strategic Integrated Framework Plan (SIFP), its objectives for the Shannon Estuary and its wider environment. This approach encourages an integrated use of the Strategic Environmental Assessment and the Habitats Directive Assessment tools consistant with the EU Directives to safeguard critical environmental interests, and adds value to the project as it promotes sustainable decision making.

SFPC are currently in the process of signing up to ECOPORTS which will involve the development of an Environmental Management System (EMS) for both Limerick Docks and the Port of Foynes. It will also allow for the exchange of experiences and the implementation of good practice in respect of port-related environmental issues across Europe. By developing this EMS it also meets with recommendations outlined in the EC Guidance on the implementation of the EU nature legislation in estuaries and coastal zones.

SFPC has undertaken a Strategic Environmental Assessment (SEA) Environmental Report and a Natura Impact Report (NIR) as part of the Vision 2041 process. The SEA Environmental Report and the Natura Impact Report have examined the potential for environmental effects of the development scenarios contained in Vision 2041 and should be read in conjunction with this document. The necessary recommendations and mitigation measures identified in both the SEA Environmental Report and NIR will be reviewed and implemented in the context of future development proposals within Vision 2041.

10.2.1 Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment was undertaken for the Vision Statement in accordance with EU Directive 2001/42/EC The purpose of the SEA process is to ensure that any likely significant environmental impacts of the options proposed in Vision 2041 are identified. Developing the SEA in conjunction with Vision 2041, has demonstrated how environmental considerations and sustainable development decisions have been integrated into the process of preparing Vision 2041.

Vision 2041 is not subject to preparation and / or adoption by an authority at national, regional or local level, and is also not required for adoption through a legislative procedure by Government. On this basis, Vision 2041 is not defined as a plan or programme under the SEA Regulations. As outlined in Chapter 1, Vision 2041 is not a statutory plan and, accordingly, does not fall within the remit of the SEA Regulations. However, following consultation with the EPA during the initial SEA Scoping Stage a determination was made to undertake full SEA in accordance with the relevant legislation given the potential for significant effects to arise from the implementation of elements of Vision 2041 at project level. The SEA Environmental Report has been prepared in accordance with the provisions of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I 200 of 2011).

The findings and mitigation recommendations of the SEA process have influenced and guided this Vision strategy and where appropriate, have been incorporated within the approach and key-issues in this and other chapters. This approach demonstrates clear integration between both Vision 2041 and SIFP in terms of acknowledging the environmental resources of the estuary and seeking to minimise significant environmental effects.

“...an appropriate balance between the long term protection of the environment and the securing of sustainable economic growth...”

10.2.2 Natura Impact Report (NIR)

A NIR is prepared as part of the Appropriate Assessment process as required under the Habitats Directive (DirectIve 92/43/EEC) and with regard to plans or projects being developed within or adjacent to Natura 2000 sites. Vision 2041 provides a long term strategic vision for the future of SFPC and outlines potential development options which are subject to further investigative research and capital funding and approval. Vision 2041 is not a statutory plan and does not contain specific development proposals. Therefore, the vision document can not be described as a project under the Habitats Directive or a plan or programme. However, having regard to the sensitivities of the Shannon Estuary, a NIR has been prepared to:

- Provide a strategic approach to mitigation which may result from the development scenarios presented under Vision 2041; and
- Provide a framework within which future development projects arising from Vision 2041 can be advanced, particualrly as they are progressed to the development stage in accordance with Article 6.3 of the European Union (EU) Habitats Directive (92/43/EEC).

The findings and mitigation recommendations of the Natura impact assessment have influenced and guided this Vision strategy and where appropriate, have been incorporated within the approach and key-issues in this and other chapters. This approach demonstrates clear integration between both Vision 2041 and SIFP in terms of acknowledging the environmental resources of the estuary and seeking to safeguard its ecological integrity.

10.3 Key Environmental Considerations

10.3.1 Air Quality

There are two areas in which Port activities have the potential to impact upon air quality, including port operations and transportation movements. Certain Port operations, notably the handling of dry bulks, have the potential to generate dust, whilst transportation movements to and from the Port can impact on sensitive receptors such as residential properties.

The handling of dry bulks is an important and ongoing part of the SFPC strategy, including commodities such as coal, scrap metal, grain, animal feeds, biomass, and rock salt. SFPC is committed to working with all of the relevant agencies in addressing air quality matters both upon and adjoining their operational landholdings.

The promotion of any new Port-related project which has the potential to cause emissions and have a significant environmental impact would require a planning application and an accompanying environmental impact assessment to include a study into air quality. In cases whereby an existing site or future development project entails the storage and/or use of hazardous substances there are further legislative requirements in place for operators in compliance with the Seveso Directive. This is a matter for determination by the local planning authority taking into account any advice or recommendations of the Health Safety Authority.

In terms of managing and mitigating the effects upon air quality a number of physical and management practices are employed by SFPC and other port operators, including the minimisation of

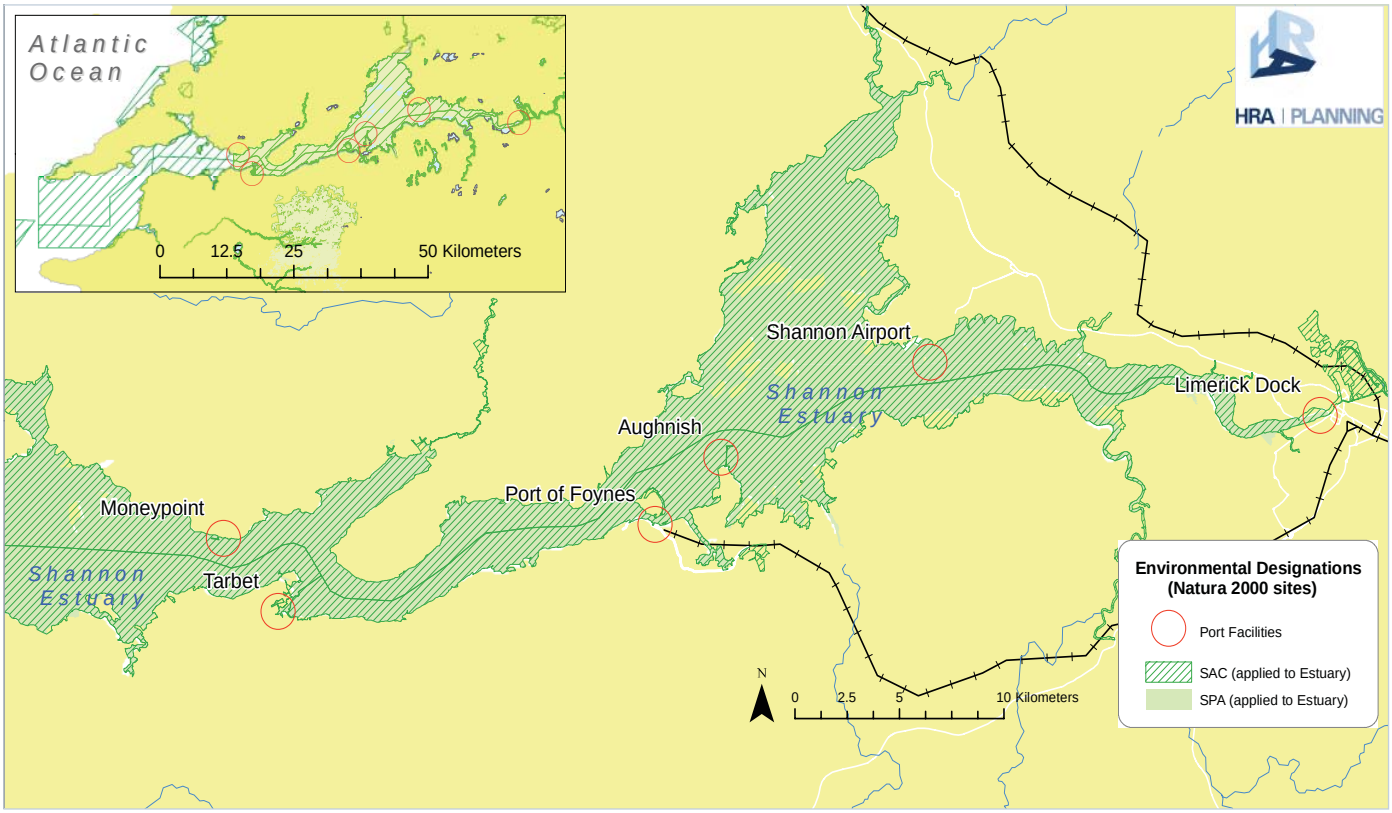


Figure 10.1 Natura 2000 Sites

dust emissions emanating from the handling of dry bulk commodities. Such practices include working bulk stockpiles on the leeward side of the wind, sheeting of vehicles, and the deployment of road sweepers for cleansing of internal roadways.

In preceding chapters the beneficial use of water freight has been highlighted including benefits around fuel efficiency which can be one-quarter that of road transport. However, notwithstanding the sustainable benefits of water freight, there are increasing concerns regarding the quantity and quality of fuel burnt by vessels whilst in Port and the implications of their emissions upon local air quality. At an international level through the International Maritime Organisation (IMO) there are discussions regarding the introduction of "cold ironing". This entails the provision and use of a portside electricity supply to replace ships generators and hence obviate the necessity for use of the vessels auxiliary engines when berthed. Whilst the detail and standards of cold ironing need to be further investigated, the principle is accepted as best practice. Thus SFPC commits to examine and provide for suitable provision for cold ironing in any future potential infrastructure projects, which may include the provision of advanced ducting as part of a terminal layout and design which would then enable retrofitting of shore side electrical connections at some future date.

10.3.2 Biodiversity

SFPC operates within an estuarine environment such that shipping activity and port operations co-exist with a number of nature conservation sites of national and international importance.

The Habitats Directive 92/43/EEC), together with the Birds Directive[1] (2009/147/EC) which form the basis of European nature conservation policy, has resulted in two international designations on the Shannon Estuary (detailed in Figure 10.1) – the Lower River Shannon Special Area of Conservation SAC (SAC site code 002165) and the River Shannon and River Fergus Estuaries SPA (SPA site code 004077).

During the timescale of Vision 2041, and taking into account the emerging policy framework applicable to the marine environment, there are likely to be further assessments and designations associated with the Shannon Estuary. SFPC will continue to work with all relevant stakeholders to inform and reconcile potential Port issues with biodiversity interests through for example, the National Parks & Wildlife Service (NPWS).

Although the designations on the Shannon Estuary are based on nature conservation, it is accepted at a European level and in European guidance[2] that a balanced approach is required and is achievable between conservation of biodiversity and economic port development and activity. SFPC seeks to maintain an acceptable balance, conducting their undertakings in such a way as to ensure the ecological designated areas are protected and their associated habitats and species are not put at risk. Over the long term horizon of Vision 2041 and in light of the proposed expansion plans in Foynes in particular, it will be essential that impacts (and mitigation) upon designated sites are properly assessed through both Environmental Impact Assessment (EIA) and Appropriate Assessment (AA).

10.3.3 Dredging

While Shannon Foynes Port Company controls approximately 200 square miles of waterway in the Shannon Estuary there are just two locations in the ownership of SFPC, which require ongoing maintenance dredging including the approach channel and enclosed Dock at Limerick Docks and the berths and channel at the Port of Foynes. Limerick Docks requires maintenance dredging annually with quantities of up to 6,000 tonnes. The Port of Foynes requires maintenance dredging of between 100,000 to 150,000 tonnes of silt, with dredging every two to three years. A Maintenance Dredging Foreshore License is secured from the Department of Environment, Community and Local Government to facilitate such works.

In accordance with Section 5(2) of the Dumping at Sea Acts, 1996 to 2009, the dumping of substances or material at sea in only acceptable when the Agency is satisfied that no other suitable alternative means of disposal is possible. As it was not found practicable to bring the material ashore for alternative use there are three approved dump sites on the Shannon Estuary. There are two approved dump sites for silt and mud dredged from Ted Russell Dock in Limerick which have been used since 1999, including a site lying just west of Cratloe Creek on the southern shore of the estuary and a site just west of the River Maigue and Mellon Point, directly in front of Sod Island in the centre of the river channel. The third dump site is located west of Foynes Island nearest the northern shore of the Shannon Estuary.

SFPC recently undertook (August 2011) an Appropriate Assessment of dredging activities with the specific aim of achieving the least impact on Natura 2000 conservation objectives through the identification of all appropriate mitigation measures. SFPC will continue to work with relevant stakeholders and statutory bodies to ensure that continued least impact is achieved. In addition to the requirements of the Habitats Directive such an approach also addresses the requirements under the EU Water Framework Directive and the EU Environmental Quality Standards Directive in respect of maintenance dredging.

10.3.4 Flooding

The effects of weather events upon land use and Port operations are likely to change as a result of climatic change and there are also likely to be potential impacts arising as a result of increased flooding from rivers and coastal waters.. Although flooding cannot wholly be prevented, its impacts can be avoided and reduced through proper planning.

The aims of planning policy as set out within 'The Planning System and Flood Risk Management – Guidelines for Planning Authorities 2009' are to ensure that flood risk is taken into account at all stages of the planning process to avoid inappropriate development in areas of risk of flooding, and to direct development away from those areas at highest risk. The Guidelines have a Vulnerability Classification including a range of water compatible developments which includes "docks,

2 European Commission Guidance Documents, Integrating Biodiversity and Nature Protections into Port Development (2011) and the Implementation of the Birds and Habitats Directives in Estuaries and Coastal Zones (2011)

marinas and wharves". The Guidelines highlight that water compatible development is appropriate in all areas of flood risk including the most vulnerable areas, thereby ensuring port activities in Limerick Docks and the Port of Foynes can continue to operate and function (see Section 4.3.3.6 of the SEA Environmental Report). In promoting Port projects for both new harbour infrastructure and new build premises or other bespoke projects, it may be a requirement for any regulatory applications to be accompanied by a Flood Risk Assessment (FRA). Such assessments would be expected to evaluate the sources of flooding from rivers and tidal waters, from overland runoff, from groundwater, and from sewers and drains. The specifics of the project and local circumstances may be such that mitigation measures may be required.

10.3.5 Heritage

Limerick Docks and the Port of Foynes have a rich and varied maritime history as referenced within Chapter Two. This history is manifest in a number of buildings, structures, and other areas of interest. There are a number of statutory designations associated with such heritage including Protected Structures (PS) and Architectural Conservation Area (ACA) designations.

Limerick Docks is steeped in maritime history with many of the historical features and buildings still remaining today. There are a total of six protected structures in and around Limerick Docks which fall under the control of SFPC including the Clock Tower, the Graving Dock, Gateway to Dock Yard and Bannantyne Mills, all located within the Ted Russell Dock. The other two protected structures include the Limestone Wall on Dock Road and the Sailors House.

In contrast the Port of Foynes has no protected structures, although port operations do adjoin the town's Architectural Conservation Area. It is noted, however that there is a Victorian Period House on Foynes Island which is a protected structure.

SFPC is fully aware of its obligations under the Planning & Development Act, 2000 as set out in the Architectural Heritage Protection Guidelines published by the Department of Environment Heritage and Local Government and will secure the preservation of all Protected Structures within the Ports.

10.3.6 Noise

There are a number of locations whereby residential properties lie in close proximity to the boundaries of the Port of Foynes whilst substantial apartment developments and a hotel are located neighbouring Limerick Docks. SFPC seeks to both minimise and mitigate the impacts arising from Port operations upon nearby residential occupiers within the parameters of operating the business. Examples of such mitigation, where practical, includes the relocation of noisiest operations away from dwellings, the incorporation of noise attenuation screening, good management practice and where practicable reducing noise at source.

In the case of significant development projects lying in close proximity to sensitive receptors, such as residential use, a noise assessment would accompany a planning application setting out background noise levels, any anticipated increases, and the provision of mitigation measures. In terms of existing Port activity and potential noise nuisance there is a protocol of engagement in place between SFPC and the local authorities to jointly investigate and remedy any such incidences.

10.3.7 Water Quality

A number of statutory bodies and the local authorities have responsibility for ensuring the protection of water quality in Ireland. SFPC also has important functions in managing water quality, whether within the Port limits or within impounded dock systems such as Limerick Docks.

As Vision 2041 transcends both transitional and coastal waterbodies under the Water Framework Directive and forms one of the most critical components of the Shannon International River Basin Management Plan it is critical that any future development which is brought forward is assessed for compliance with the Water Framework Directive (WFD). The Water Framework Directive (2000/60/EC) (WFD) establishes a framework for the protection of all surface waters and groundwater at EU level and aims to achieve a good ecological status (or a good ecological potential for heavily modified water bodies) and a good chemical status by 2015. Under certain strict conditions (Article 4.7), there are circumstances in which failure to achieve certain WFD objectives are permitted under a number of exemptions. SIFP has identified that the application of Article 4.7 can apply to the strategic sites identified for development on the Shannon Estuary where the construction of a facility itself does not cause the deterioration but the outfall or discharge does.

In meeting the requirements of the WFD, the Shannon River Basin Management Plan 2009 – 2013 (SRBMP) has been prepared setting out the ecological status of the water body and if improvements are required how they will be secured. SFPC has worked closely with the local authorities in the development of the SRBMP to secure an appropriate strategy for protection of water quality on the Shannon Estuary. At a practical level the protection of water quality is manifest upon the Port of Foynes and Limerick Docks and in this regard SFPC is committed to implementing a rolling retro-fit of interceptors throughout its own property to improve water quality and to deliver future compliance with the EU Water Framework Directive.

The Marine Strategy Framework Directive (2008/56/EC) (MSFD) provides a more comprehensive view and deals also with ecosystem services in marine areas. Marine strategies must apply an ecosystem-based approach to the management of human activities.

The provision of environmental safeguards necessary to minimise the incidence of oil pollution to "controlled waters" is an important function of SFPC, through preparation of emergency response plans to deal with oil spill incidents in its ports. In recognising this responsibility, SFPC is part of a consortium of parties in SEA-PT Limited, the Shannon Estuary Anti-Pollution Team, which maintains state of the art equipment to provide an immediate response to marine related oil pollution incidents and engages in ongoing training and development, as well as liaison with organisations world-wide, to ensure that any necessary response is world-class. This response provides the Shannon Estuary with the most effective and modern counter-pollution measures in Europe.

Key Issues

- Ensure a balanced approach between the conservation of the natural environment, biodiversity and the objectives in Vision 2041 in future development projects, in conjunction with relevant staturtory bodies.
- Develop an Environmental Management System (EMS) for both Limerick Docks and the Port of Foynes and to proactively support and work towards sustainability in the Port areas in accordance with the EPSO Green Guide (2012).
- Review and implement the necessary objectives and mitigation measures identified in both the SEA Environmental Report and the NIR in the context of future development proposals within Vision 2041.
- Safeguard the integrity of all designated Natura 2000 sites, including consideration of potential cumulative effects on such sites in accordance with relevant Directives and associated legislation, regulations and guidance.
- Examine suitability and feasibility of providing for cold ironing in any future potential infrastructure projects.
- Continue to work with relevant stakeholders and statutory bodies to ensure that continued least impact is achieved in relation to ongoing dredging and explore potential for cooperation across relevant sectors in preparing a Strategic Dredging Management Plan for the Shannon Estuary.
- Meet its obligations under the Planning & Development Act, 2000 in relation to Architectural Heritage in terms of securing the preservation of all Protected Structures within the Port.
- Minimise and mitigate the impacts arising from Port operations upon nearby residential occupiers within the parameters of operating the business, where practical.
- Continue to work closely with the statutory bodies and local authorities to protect water quality on the Shannon Estuary and to ensure that any future development does not conflict with the requirements and objectives of the Water Framework Directive.

Chapter 11

Implementation and Review

11.1 Introduction

Vision 2041 provides a thirty year strategic vision and framework for the future development of infrastructure and facilities within SFPC. SFPC will deliver its strategic vision through shorter term strategic plans adopted by the SFPC Board and from which individual projects will be brought forward, planned and developed. This Chapter outlines matters associated with the implementation and review of Vision 2041 and related procedural issues.

11.2 Legal Considerations

The status of Vision 2041 is essentially a non statutory document produced by SFPC and as such has no legal effect. However, it would be regarded as having "significance" as it was prepared in the context of extensive public consultation and importantly under the umbrella of international, national, regional and local strategies and guidance documents.

Vision 2041 has been closely aligned with the preparation of the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary. The general thrust of both documents is relatively similar in the context of promoting the Estuary as an economic driver and facilitating marine related development at strategic locations. Whilst SFPC acknowledge the potential for policies and objectives in the SIFP to change over time and support the potential for such flexibility within the document, they also acknowledge the need for Vision 2041 to remain closely aligned with the adopted SIFP.

11.3 Implementation

Vision 2041 is not an application for planning permission and will not of itself grant approval for any works, rather it provides a framework for setting out the Port's aspirations, including for the medium and long term, and will assist in informing the consideration of projects and planning applications made as and when necessary. All development projects will be subject to capital appraisal and cost benefit analysis at the time of implementation and those requiring planning and/or marine consents will be subject to full and appropriate appraisal, as may include compliance with the Habitats Directive 92/43/EEC as amended by Council Directive 97/62/EC[1] and the Birds Directive (2009/147/EC) in respect of Appropriate Assessment (AA). SFPC is responsible for preparing and submitting these types of assessments for independent scrutiny.

Along with development projects Vision 2041 recommends a number of objectives, the delivery of which are dependant on other third parties and public bodies. In particular the additional zoned land requirement in Foynes will require support from and appropriate zoning of land from Limerick County Council. In this regard it is promoted that significant aspects of Vision 2041 are fully integrated into the relevant development plans and local area plans subject to the appropriate environmental studies including Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) to be undertaken by the respective local authority.

There are of course also many initiatives outlined in Vision 2041 that can be developed directly by SFPC in consultation with stakeholders without the need for formal permitting consent.

'...Vision 2041 will be subject to regular monitoring and a formal review every six to ten years, which is likely to entail further public consultation...'

11.4 Monitoring and Review

11.4.1 Monitoring

The exercise of ongoing monitoring should take into account the assumptions originally made, particularly in relation to Port forecasting and growth, whilst taking into account the delivery or otherwise of development projects and their associated timescales.

Monitoring the performance of the Port and the achievement of the proposals outlined in Vision 2041 will be a key element in ensuring its effective implementation. Effective monitoring will form a critical tool in adjusting and fine-tuning Vision 2041 to achieve its strategic objectives. Thus maintaining effective base line operational data and the effective monitoring of performance against this information will also be critical to the reviews of the plan, which will be carried out over its term.

Similarly, the impacts positive and negative of Port growth upon the local environment, and the effectiveness of mitigation of potentially adverse impacts upon local communities should be quantified and reported. In this respect SFPC will continue to liaise closely with all stakeholders.

SFPC will monitor vision 2041 in accordance with the monitoring section of the SEA Environmental Report. It will publish five year monitoring reports and take appropriate corrective actions if adverse impacts are identified. The first such review will be published in 2017 to cover the

1 Transposed into Irish Legislation through the European Communities (Natural Habitats) Regulations, 1997 and the European Communities (Birds and Natural Habitats) Regulations, 2011

period from 2012 to 2016. All major projects are likely to be the subject of Environmental Assessment and Appropriate Assessment (AA) that will identify impacts and propose appropriate mitigation measures where warranted.

11.4.2 Review

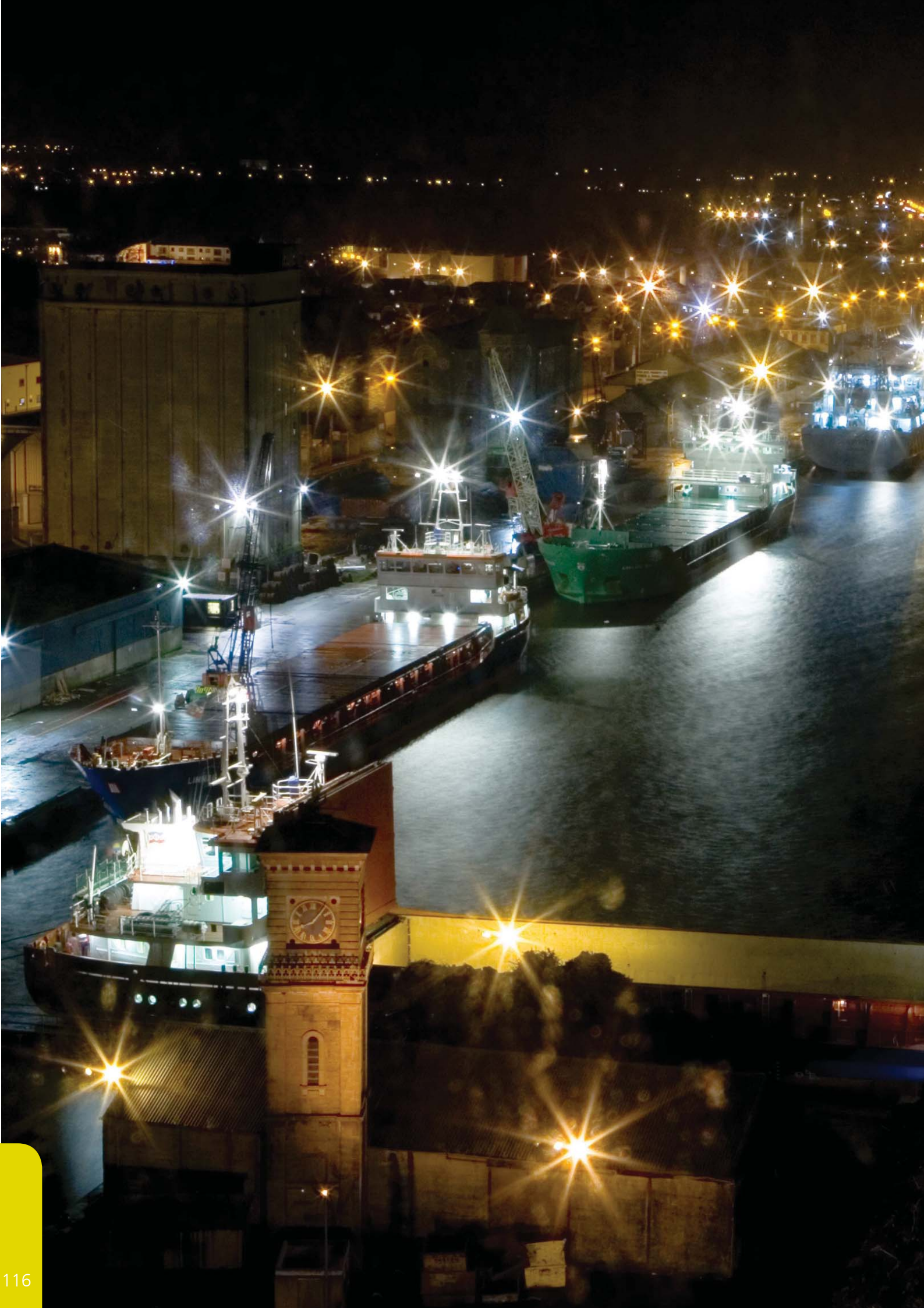
The ports industry is a dynamic sector and hence whilst Vision 2041 looks at longer term time horizons to 2020 and 2041, it is a working document and hence it is imperative to undertake review of its contents. Vision 2041 will be subject to regular monitoring and a formal review every six to ten years, which is likely to entail further public consultation.

Given the relationship of Vision 2041 with the SIFP, SFPC will seek to coordinate the review of Vision 2041 with any potential review of the SIFP in so far as is practicable. It will also seek to ensure that Vision 2041 remains closely aligned to relevant statutory development plans and local area plans and any variations thereof.

From a policy perspective the Port will continue to work closely with agencies and local authorities to ensure the importance of the ports and the maritime sector are fully enshrined within planning, transportation and marine policy both at national, regional and local levels. In parallel, the potential for expansion at the Port of Foynes will be promoted with Limerick County Council in the review of their development plan and other relevant documents.

KEY ISSUES

- Implement relevant policies and objectives related to marine related development within the SIFP in so far as they affect and influence SFPC operations and business on the Estuary.
- Review and implement the necessary monitoring measures identified in both the SEA Environmental Report and the NIR and take appropriate corrective actions if adverse impacts are identified.
- Undertake a formal review of Vision 2041 every six to ten years and coordinate the review of Vision 2041 with any potential review of the SIFP in so far as is practicable.
- Continue to work closely with agencies and local authorities to ensure the importance of the ports and the maritime sector are fully enshrined within planning, transportation and marine policy both at national, regional and local levels.



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