



Port of Immingham

Master Plan 2010-2030



View of the
Port of Immingham



Foreword

The Port of Immingham is the UK's largest port in terms of tonnage handled. Benefiting from its prime deep-water location on the River Humber, the UK's busiest trading estuary, Immingham provides excellent access to global trade routes. The Port's shipping links extend worldwide, throughout Europe to North and South America, Africa, Australia, the Middle and Far East.

Despite the worldwide global downturn the Port still handled over 48 million tonnes of cargo in 2011, representing roughly 10% of all UK sea-borne trade. The ability to begin recovery relatively quickly can be largely attributed to the Port's strong geographical advantages and the continued infrastructure investment programme.

Immingham has a dynamic and vital role to play in sustaining the local, regional and UK economy. The Immingham port community directly employs 4,700 people and supports over 15,000 of the South Humber work force.

The successful port that we see today owes a huge debt of gratitude to our Edwardian forefathers. These pioneers had the vision and foresight to construct quays and docks on a scale that continues to serve us well in the 21st century.

For many years, Associated British Ports (ABP) has followed the same strategic approach – long-term investment to secure the Port's future. It is the company's intention to continue to do so. In the last ten years ABP has invested over £250 million in capital expenditure towards the development of the Port. This has provided Immingham with some of the UK's most advanced handling facilities, ensuring the fast and efficient turnaround times that are vital in the highly competitive world of international trade. Customers in the wider port community have also invested heavily, developing facilities and services that have further enhanced the Port's services, capacity and reputation.

However, it would be unwise to allow past achievements to overshadow the work needed to maintain Immingham's position. It is with this in mind that ABP endeavours to focus on the needs of its customers and provide facilities that meet their requirements today and for years to come.

To ensure that Immingham consolidates and builds on its current success, we now need to set out a vision of the future for the Port and work together with the port community, the wider region and with Government at all levels, to achieve it.



John Fitzgerald

The Port of Immingham has always had strong links to energy production and we believe the future will be no different. As European and UK Government legislation and policies change and we all work towards a low carbon economy, a number of exciting opportunities exist in the renewable energy sector which the Port is ideally placed to take advantage of.

This master plan sets out what we consider needs to be done in the interest of the Port and the community it serves, over the period 2010-2030.

When preparing the plan we have borne in mind three key goals:

- The need to continue to attract investment and create jobs;
- The need to promote environmental and economic sustainability; and
- The need to support the community that depends on us.

Shared vision and commitment have made the Port of Immingham the world-class port it is today. I hope that our master plan can renew and extend that vision and commitment to ensure that the Port remains one of Britain's great gateways to the world and our gateway to a sustainable and prosperous future.

Thank you for your continued support.

John Fitzgerald
Port Director
ABP Grimsby & Immingham

September 2012



MV Oceanlight discharging 20,000 tonnes of coal from St Petersburg (Russia) on the Mineral Quay, Immingham

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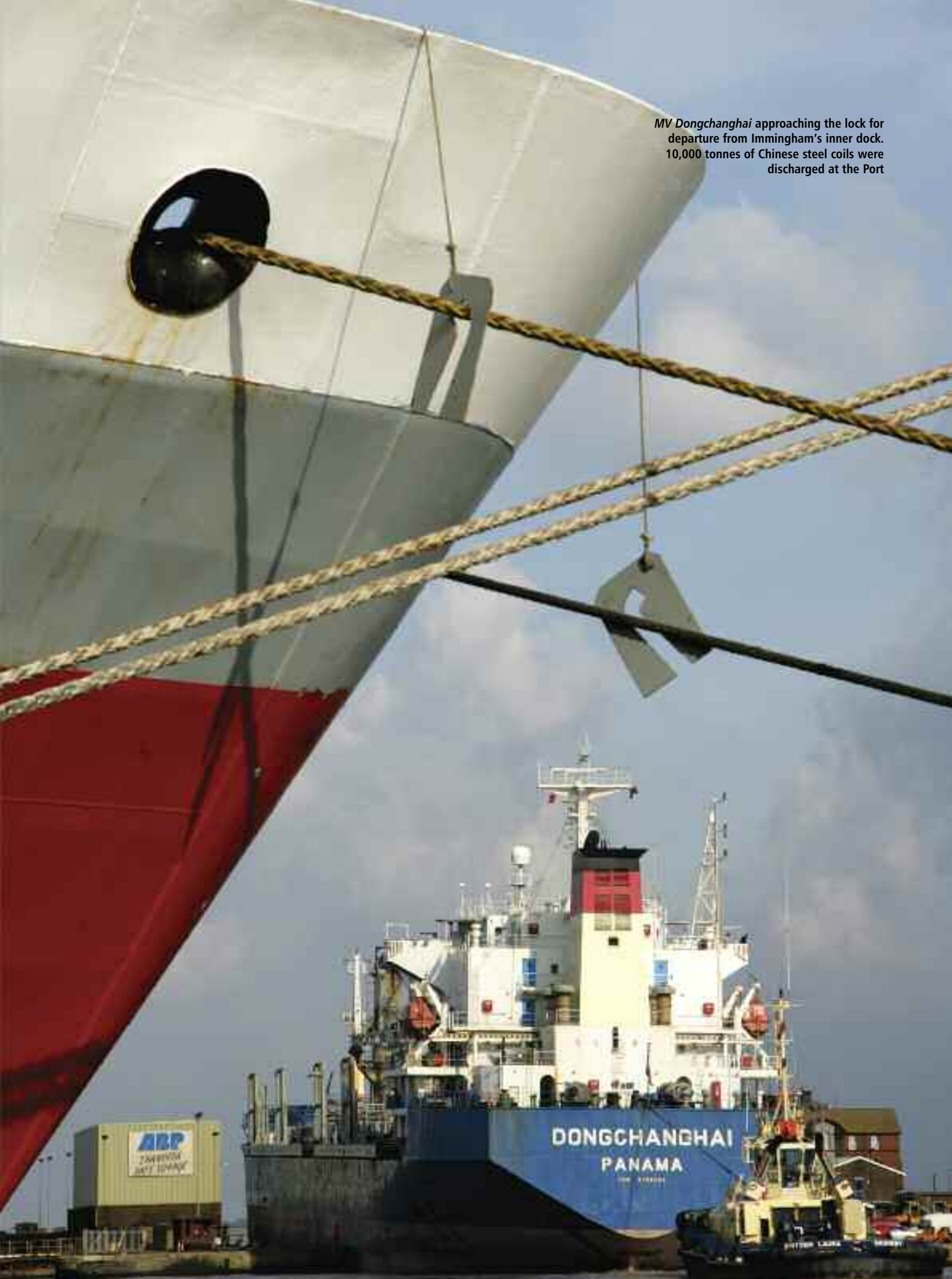
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MV Dongchanghai approaching the lock for departure from Immingham's inner dock. 10,000 tonnes of Chinese steel coils were discharged at the Port



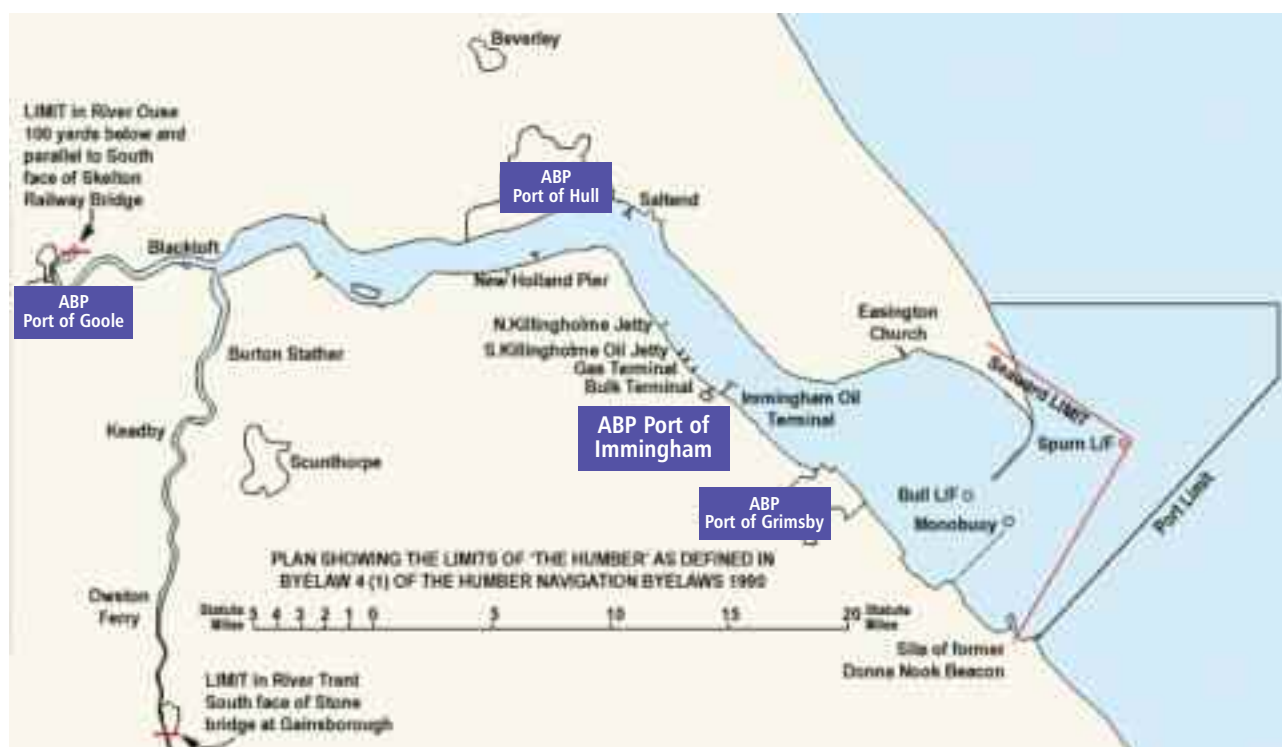
Introduction

- i.1 The Port of Immingham (the Port) is identified by the UK Government as a key international gateway. It is a critical component of the nation's transport system and the economic success of the country.¹ It is also a vital link in ensuring the security of energy supplies to the UK.
- i.2 For the Yorkshire and Humber region, the Port of Immingham is recognised as being a vital gateway for trade and travel and of significant local and national economic importance.²
- i.3 In July 2007, during the process of reviewing national ports policy, the Government recommended that the major UK ports produce master plans, and consult on them, to help co-ordinate future planning. Subsequent master plan guidance published in 2008 by the Department for Transport (DfT) indicated that such plans should be produced by major ports (defined as those handling at least 1 million tonnes) to:
 - Clarify their strategic plans for the medium to long-term
 - Assist local and regional planning bodies and transport network providers in preparing and revising their development strategies
 - Inform port users, employees and local communities of expected development over the coming years.
- i.4 The Government's guidance recognises that ports are disparate and that master plans will be prepared at different times relative to other planning and decision cycles.
- i.5 The rationale for producing a master plan for the Port of Immingham at this time is underlined by the emergence of relevant local policy for the Yorkshire and Humber area.
- i.6 At the same time as the Port's master plan has been produced, the National Ports Policy has also been published. Master plans are a way for ports to share their development aspirations within the wider context of spatial planning and transport infrastructure needs. All relevant planning strategies have been consulted in preparation of this master plan. The National Planning Policy Framework published March 2012 and Localism Act 2011 will cause changes to be made to national planning policy but such policies should not be afforded superiority to any adopted local plan policies as adopted by local planning authorities.
- i.7 Policy HE1 (Humber Estuary Sub Area Policy) of the Yorkshire and Humber Plan makes it clear that achieving this aim will require an increase in jobs and land for business development by way of "making the most of the workforce" as well as "safeguarding land north west and south east of Immingham for estuary-related purposes".³
- i.8 Within the South Humber sub-region, the Port plays a fundamental role supporting the local economy. As owner and operator of the Port, ABP directly employs 400 people; the combined port community directly employs some 4,700 people; estimates suggest that some 15,000 jobs rely on the local ports and transport sector within the South Humber sub-region area alone.
- i.9 Accordingly, this master plan plays its part in identifying what is required to ensure that the Government's strategy for the sub-region and the region as a whole is achieved.
- i.10 In pursuit of these regional objectives, local authorities may include in their local development documents, policies and proposals that maintain and enhance the role of the Port, in general conformity with regional strategy. This master plan therefore indicates to the relevant local authorities the likely future requirements of the Port to assist them in the production of their local development documents.
- i.11 In summary, therefore, from a Government policy and planning perspective, the Port of Immingham master plan has been produced to:
 - Describe and explain the Port's strategic planning for the medium to long-term and thereby assist other bodies and stakeholders in the carrying out of their functions and activities
 - Identify the future development and infrastructure requirements needed to both maintain and enhance the role of Immingham as a major international deep-sea gateway port as required by Government policy for the region
 - Set out the future needs of the Port in order that the Government's strategy for the South Humber sub-region can be achieved
 - Provide an indication to relevant local authorities of the future needs of the Port so that they may be taken into account by those authorities as they bring forward their respective development plan documents.

¹ Paragraph 4.10, Delivering a Sustainable Transport System, Department for Transport (November 2008).

² Policy T7 – The Yorkshire and Humber Plan, Government Office for Yorkshire and the Humber (May 2008).

³ Policy HE1 – Regional Spatial Strategy, The Yorkshire and Humber Plan (May 2008) – although it should be noted that at the time of the adoption of this master plan, the Government is contemplating the revocation of the RSS.



Map of the Port of Immingham and Humber Estuary approaches (ABP)

The area covered by the master plan

- i.12 The geographical area that falls within the scope of this master plan comprises the commercial port and other relevant land within the ownership of ABP at Immingham. This is subsequently referred to throughout the master plan as 'the Port', or 'the Port of Immingham'.
- i.13 In addition to owning and operating the Port of Immingham, ABP is the:
 - Statutory Harbour Authority
 - Conservancy and Navigation Authority for the Humber Estuary (including Lower Trent up to Gainsborough)
 - Competent Harbour Authority and Local Lighthouse Authority for the River Humber Harbour Authority area
 - Vessel Traffic Services Authority with responsibility for the monitoring and safe passage of all vessels within the Humber Harbour Master's jurisdiction.

Around 1,800 tonnes of petroleum coke imported from Rotterdam was discharged from the *MV Linda Marijke* at the Port



The Port's new Liebherr 944
materials handling crane



Chapter 1

Executive Summary

About ABP

- 1.1 Associated British Ports (ABP) is the UK's largest and leading ports group. ABP owns 21 ports in the UK and in 2011 handled nearly 115 million tonnes of cargo, over 22% of all UK seaborne trade.
- 1.2 All of ABP's UK ports, including the Port of Immingham, are vital transport hubs, characterised by modern cargo handling facilities and a highly skilled and flexible workforce.

The Port of Immingham today

- 1.3 The Port of Immingham is a thriving international port that operates 24 hours a day and 365 days a year.
- 1.4 Immingham is the UK's largest port by tonnage, handling over 48 million tonnes in 2011.⁴ The Port is a premier global gateway for international trade and is of national economic and strategic importance to the UK, handling key trades of national significance such as crude oil, petrochemicals, coal, iron ore, biomass, wind turbine components, agribulks and unitised cargo.
- 1.5 The Port is located on the south bank of the Humber Estuary, which is the busiest trading estuary in the UK. The Port complex ranks sixth in size in Northern Europe after Rotterdam, Antwerp, Hamburg, Amsterdam and Bergen. The Port is the pre-eminent facility on the Humber due to its natural advantage of deep water.⁵
- 1.6 ABP's land holdings at the Port total over 1,300 acres of land and 58 acres of enclosed dock.

Master plan key objectives

- 1.7 Given its significance in terms of international flows of cargo and contribution to the local, regional and national economy, ABP recognises the benefit of setting out its vision for the future development of the Port.

- 1.8 ABP also recognises that this vision needs to be shared with stakeholders in a way that best encourages their participation in shaping the Port's future.
- 1.9 The key objectives of this master plan are therefore to:
 - Describe and explain the Port's strategic planning for the medium to long-term
 - Identify how land owned by ABP may be developed or its use rationalised, as appropriate, to handle the forecast growth in maritime trade
 - Set out the approximate timescales for development and additional land requirements.
 - Assist local and regional planning bodies and transport network providers in preparing and revising their own development strategies
 - Inform port users, employees and the local community as to how they can expect to see the Port develop over the coming years.

Planning

- 1.10 The Port is located within the economic region of Yorkshire and Humber, which is home to five million people. The statutory boundary of the Port straddles the boundaries of North East Lincolnshire Council and North Lincolnshire Council.
- 1.11 The statutory development plan for the area covered by the Port of Immingham master plan consists of
 - The Regional Spatial Strategy (RSS) for the Yorkshire and Humber Regional Development Agency – albeit subject to potential revocation; and
 - The Local Plans and the Local Development Framework Documents (LDFs) produced by the local planning authorities of North East Lincolnshire and North Lincolnshire.
- 1.12 The RSS for Yorkshire and Humber is a Government document that currently sets out strategic policy for the region. The RSS recognises that the region's ports play a vital role in supporting the UK economy through trade and travel.⁶

⁴ ABP statistics as submitted to Dft.

⁵ DFT statistics. Available at: <http://assets.dft.gov.uk/statistics/tables/PORT0305.xls>

⁶ Paragraph 13.47, RSS (May 2008).

Cargo category	Units	2011 (actual) 000s	2020 (forecast) 000s	2030 (forecast) 000s
Dry bulks – energy/industrial				
Coal	Tonnes	13,040	15,500	15,000
Iron ore	Tonnes	4,822	6,000	6,000
Biomass	Tonnes	62	8,000	10,000
Dry bulks – agribulks	Tonnes	1,295	2,500	3,000
Liquid bulks	Tonnes	19,057	24,000	25,500
Unitised	Tonnes	8,244	11,660	15,811
Roll on-roll off trailers	Units	395	556	713
Lift on-lift off containers	Units	68	146	250
Trade vehicles	Units	282	350	450
General/other bulks	Tonnes	1732	2,000	2,300
TOTAL	Tonnes	48,252	69,160	77,611

Table 1.1: Forecast demand analysis for the Port of Immingham to 2030 (ABP).

Trade demand forecasts

- 1.13 ABP has analysed likely demand for port traffic in Immingham through to 2030 using work carried out by MDS Transmodal, authors of the national port demand forecasts used by the Government.
- 1.14 Between 1980 and 2011 total traffic through Immingham increased by 126%. This was in spite of three periods of economic recession in the UK during the early 1980s, early 1990s and the current economic downturn since 2008.
- 1.15 This pattern of sustained growth demonstrates why it is important to take the long-term view and why, despite recent changes in the UK's short to medium-term economic outlook, ABP continues to plan for growth.
- 1.16 A summary of the ABP demand forecast appears in Table 1.1.

The Port of Immingham and the low carbon economy

- 1.17 Since its inception the Port has played a pivotal role in the UK's energy market. The Port is a vital link in ensuring the security of energy supplies to the UK. If anything, the strategic importance of the Port will only increase with the development of the low carbon economy. There are three key elements relating to the Port's role in the development of the low carbon economy:



Blades for the wind turbines needed for the offshore and onshore wind industry are an increasing trade via the Port of Immingham

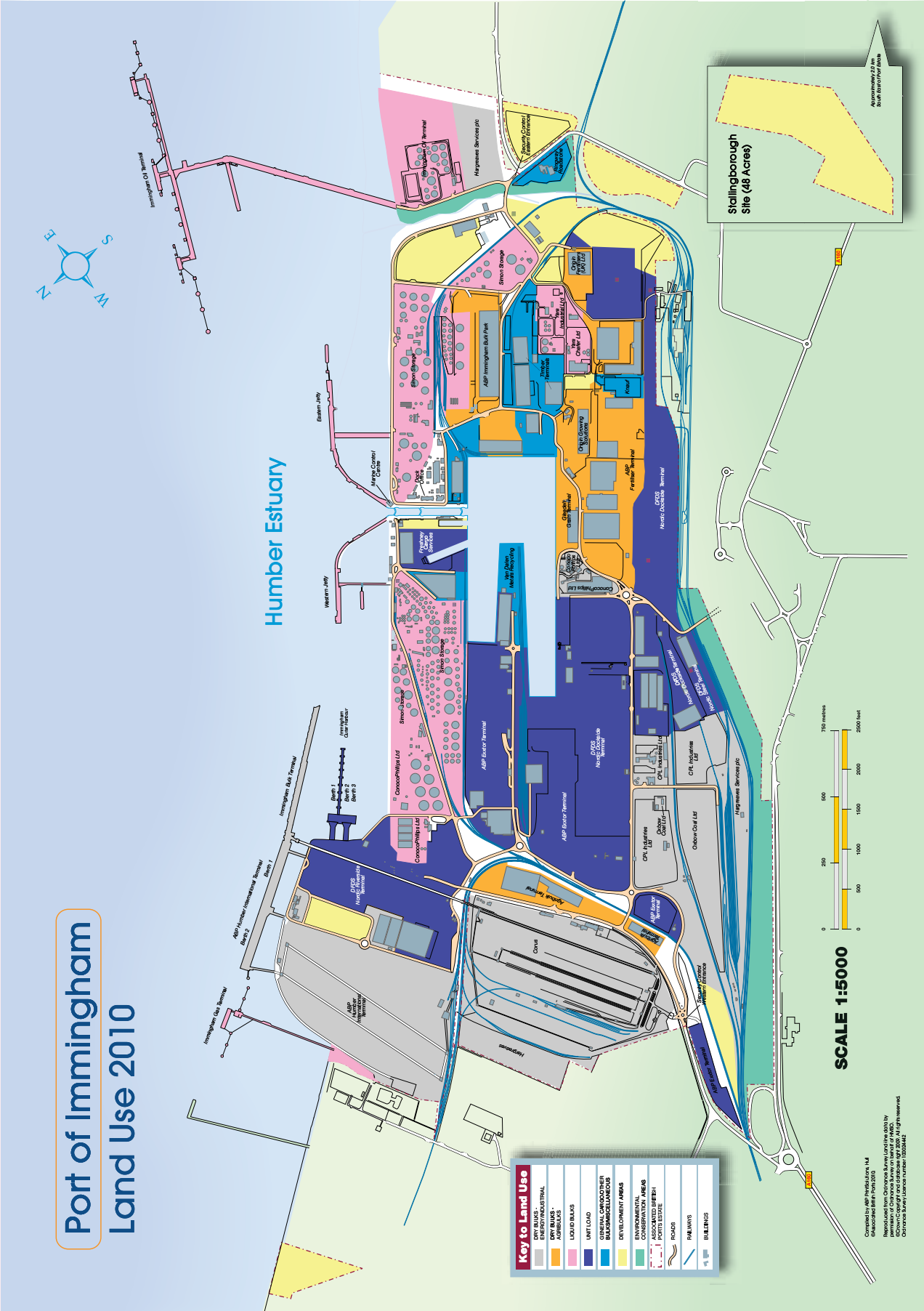


Figure 1.1: Port of Immingham land use plan 2010 (ABP)

1. The UK has committed to source 15% of its energy from renewable sources by 2020
 2. The UK is committed to reducing greenhouse gas emissions to 80% of the 1990 level by 2050
 3. The Port is ideally located to support the numerous low carbon energy initiatives either already in progress or planned.
- 1.18 The Port has long-standing links with the UK's energy industry and is pursuing opportunities to support a number of renewable energy sectors. These include:
- Renewable fuel power stations
 - Biomass co-firing
 - Carbon capture and storage
 - Offshore wind
 - Tidal
 - Onshore wind – embedded generation
 - Biofuels.

Land use trends

- 1.19 The current land use within the Port is summarised in Figure 1.1.
- 1.20 A future land use plan has been drawn up for 2030 which takes into account developments in response to changing trade demands. (Figure 7.2)

The Port of Immingham 2010 to 2030

- 1.21 The future strategic development of the Port will continue the current policy of anticipating and responding to growth in international trade.
- 1.22 Developments will be completed to meet both changing trade demand forecasts and ABP's own growth expectations and aspirations. These developments are intended to strengthen the Port's role as an international gateway to the UK and, in particular, the Yorkshire and Humber region.
- 1.23 Although there are areas of development land available within the existing port boundaries, restructuring and modernisation of existing terminal operations and rationalisation and consolidation of port uses will also be necessary to ensure that the Port operates most efficiently.
- 1.24 It is anticipated that all suitable development areas within the boundaries of the Port will ultimately be utilised. The Port will therefore eventually look to link to adjacent strategic land banks located to the east, south and west of the Port.

- 1.25 The following major developments are likely to be taken forward at the Port during the period of the master plan, many of which will form an integral part of the UK government's policy objectives of development of the low carbon economy and energy security:
- Redevelopment of Immingham Fertiliser Terminal.
 - Immingham Renewable Fuels Terminal
 - ABP Humber International Terminal Rail Extension
 - Border Inspection Post
 - ABP Humber International Terminal Berth 3
 - Western Deepwater Jetty.
 - Sunk Dredged Channel Deepening
 - Immingham Oil Terminal Developments
 - Immingham Outer Harbour new berth development
 - Agribulk Storage Developments – Expansion of Immingham Bulk Park
 - Immingham Container Terminal Redevelopment
 - Stallingborough Satellite Terminal
 - West Gate Entrance Development
 - East Gate Development



Freightliner operates a regular service to and from Immingham servicing the Port's energy trades and reducing the number of lorry journeys on the road network

- 1.26 The Port will continue to show flexibility in its development strategy while adapting to market demands. This list of developments is not exhaustive and will inevitably evolve over the course of the master plan period.

Intermodal connections

- 1.27 With its strategic location on the east coast, the Port of Immingham is a major entry point for trade into the UK.
- 1.28 Government policy recognises that the Port is a key gateway to the UK's network of Strategic National Corridors.
- 1.29 Dry bulks and liquid bulks servicing the UK's energy and industrial sectors make up the majority of the cargo that flows through the Port. The modal share of traffic moving out of the Port is heavily weighted towards these products:
- Liquids by pipeline account for around 34% of total cargo flow e.g. petroleum products to and from local refineries
 - Solid fuels and iron ore by rail account for around 23% e.g. coal and biomass to the Trent and Aire Valley power stations
 - The remainder is predominantly unit-load traffic movements by road, with a small amount of coastal shipping accounting for the balance.
- 1.30 With the modal share comprising mainly pipeline and rail traffic movements, the Port already delivers a far greater sustainable transport system than many other UK ports.
- 1.31 The Port remains committed to promoting the use of more sustainable modes of transport and increasing the modal share of rail and coastal shipping.

Environment

- 1.32 ABP places considerable emphasis on managing its responsibilities and obligations to the environment. As the UK's largest port operator, ABP recognises the need to operate and develop its ports to meet trade requirements in a way that has due regard for sustainable development.
- 1.33 The master plan identifies possible environmental issues that may arise in the context of prospective infrastructure projects and the approach which may be adopted to minimise or remove any possible effects.

- 1.34 A more detailed assessment, with identification of and agreement on enhancement, mitigation and offsetting measures, may be required as appropriate in relation to individual development projects that form part of the overall master plan, as and when they are brought forward.

Socio-economic impact

- 1.35 The ports industry makes a major contribution to the UK's economy. A study published by Oxford Economics in May 2011 estimated that the sector directly employed 112,000 people and in 2009 contributed around £6.9 billion to GDP and around £3 billion in tax revenues.⁷
- 1.36 The Port of Immingham directly employs around 4,700 people and 15,000 indirectly. Total disposable income arising from port dependent employment is estimated to be £226 million.⁸
- 1.37 The Port also contributes to the community beyond providing jobs and income. A variety of facilitated and interactive activities demonstrate ABP's strong commitment to corporate responsibility and community involvement.

Summary

- 1.38 ABP is committed to ensuring that Immingham remains a world-class port and a gateway to international trade, thereby ensuring a prosperous and sustainable future.
- 1.39 This master plan sets out the Port's requirements and intentions for the future.

⁷ The Economic Contribution of Ports to the Impact of the UK's Maritime Services Sector UK Economy, Oxford Economics (May 2011).

⁸ NELC – An Updated Evaluation of the Importance of the Port of Grimsby & Immingham to the Economy of North East Lincolnshire and the Grimsby Travel to Work Area, North East Lincolnshire Council.



Bagged fertiliser is a regular commodity imported into the Port of Immingham

Chapter 2

The master plan and the consultation process

Contents

- 2.1 This chapter explains the master plan's purpose and sets out its key objectives. It also summarises the process of public consultation that we have undertaken in producing the final version of the master plan and outlines the next steps in our master plan process.

Introduction

- 2.2 Since ports do not develop in isolation, ABP involved local and other stakeholders in an extensive public consultation exercise, all of whom have contributed to the preparation of the final version of the master plan.

The master plan

- 2.3 This master plan has been developed taking into account the guidance provided by the Department for Transport (DfT) document 'Guidance on the Preparation of Port Master Plans' (2008).
- 2.4 The master plan is designed for use as a reference document to:
- Inform and influence the statutory spatial planning process for the Yorkshire and Humber region
 - Enable interested local planning authorities to recognise the Port's future strategy in their emerging Local Development Framework.
- 2.5 The master plan covers the period to 2030, which conforms to DfT guidance on master plans, while also coinciding with
- National trade forecasts produced for the Department for Transport (2006 and updated in 2007 and 2009)
 - The National Policy Statement for Ports (January 2012)
 - Regional planning policy to 2026 as defined within the Yorkshire and Humber Plan (May 2008).
- 2.6 The strategy identified in this master plan will enable continued growth of trade at the Port over the short to medium term. However, there will be a point at which no further significant additional growth can be achieved within the existing

developed port site. Opportunities for off-site development will therefore be sought, either through land acquisition or working in partnership with other local stakeholders.

Master plan key objectives

- 2.7 The key objectives of the Immingham master plan are to:
- Describe and explain the Port's strategic planning for the medium to long-term
 - Identify how land owned by ABP at Immingham may be developed or its use rationalised, as appropriate, to handle the forecast growth in maritime trade
 - Set out the approximate timescales for development and additional land requirements
 - Assist regional and local planning bodies and transport network providers in preparing and revising their own development strategies
 - Inform port users, employees and the local community as to how they can expect to see the Port develop over the coming years.

Consultation Process and the next steps

- 2.8 The master plan was published in hard copy and online for comment on both the ABP (www.abports.co.uk) and Humber (www.humber.com) websites between 25 March and 25 June 2010. Copies of the consultation document were also lodged in the main local public libraries in North East Lincolnshire and North Lincolnshire. We also published an 8-page summary leaflet explaining, in non-technical language, our master plan visions for the Port. A two-day public exhibition was held at the Oasis Academy, Immingham, which welcomed over 50 visitors.
- 2.9 In addition, a total of 15 organisations and 18 members of the public responded formally to the consultation. Responses were received from a wide variety of organisations, including local authorities, Government Agencies and businesses from a number of Industry Sectors.



Aerial view of a ship entering the lock at the Port of Immingham

- 2.10 The themes of the consultation are summarised in a separate document (Summary of Responses to the Consultation on the Port of Immingham Master Plan 2010 – 2030) and will be made available online.
- 2.11 The final version of the master plan has been amended as appropriate to take account of the responses received.

Next Steps

- 2.12 This master plan has been adopted by ABP as our vision for the future development of the Port of Immingham to 2030.

Future Review

- 2.13 The Port master plan is an evolving document. There have been a number of market developments even since the consultation document was first produced. Following publication, it will be reviewed and updated periodically to ensure that it responds to changes and remains relevant.

Two lift-on/lift-off container ships berthed at
Immingham Container Terminal



View of the Port's Marine Control Centre, and the MV Lysfoss in the lock prior to berthing at the Immingham Container Terminal.



Chapter 3

ABP and the Port of Immingham

Contents

- 3.1 This chapter describes the Port of Immingham. It explains the development of the Port to the present day, provides an overview of its activities and discusses Immingham's position as a port of local, regional and national importance.

Introduction

- 3.2 The history of the Port of Immingham dates back to 1906, since when regular new developments have helped the Port to move with the times and maintain a strong competitive position.
- 3.3 ABP has always been committed to modernising its port facilities in response to customer requirements, growth in international trade and port labour practices.
- 3.4 The UK is reliant on ports for movement of 95% of its external trade. Immingham is the largest UK port by tonnage and has a number of facilities accommodating cargo flows of national importance.

ABP

- 3.5 ABP is the UK's largest and leading ports group. In 2011 the company's 21 UK ports handled nearly 115 million tonnes of cargo.
- 3.6 ABP's activities and operations include transport, haulage and terminal operations, ships' agency, dredging and marine consultancy. It also maintains a well-established community of port-service providers such as stevedores and terminal operators.
- 3.7 ABP was formed in 1982 as an independent statutory authority after the privatisation of the British Transport Docks Board (BTDB). The BTDB and its predecessor, the British Transport Commission, owned and operated various transport undertakings in the UK, including many docks, following nationalisation in 1948.
- 3.8 Today, all of ABP's ports, including the Port of Immingham, are vital transport hubs, characterised by modern cargo-handling facilities and a highly skilled and flexible workforce.

- 3.9 ABP has invested heavily in the construction of cargo handling, warehousing and distribution facilities at its ports, to enable goods to be stored securely and efficiently prior to onward transportation.
- 3.10 ABP owns over 12,000 acres of land and seabed in the UK, predominantly at port locations, to enable it to operate its port businesses. Strategic land banks allow for planned growth in response to customer requirements and future compensation/mitigation for the environmental impacts of development.



Associated British Ports owns and operates 21 ports in England, Scotland and Wales.

A brief history of the Port of Immingham

Key milestones in the Port's development:



1906 – Construction work started on the enclosed dock.



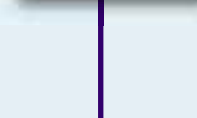
1912 – S.S. Max became the first commercial vessel to enter the enclosed dock. Combined export and import volume in the Port's first year of operation totalled over 1 million tonnes.



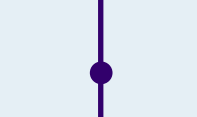
1914-18 – A fleet of Royal Navy submarines used the Port as their homeland naval base during World War I.



1928 – The tramway between Grimsby and Immingham Dock opened, providing an invaluable service between the two ports.



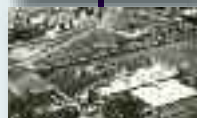
1930 – The Port's popularity as a cruise hub grew during the 1930s. Immingham welcomed many glamorous ships including S.S. Empress of Australia. The Orient Steam Navigation Company, White Star Line and Blue Star Line were among the many cruise operators that used the Port.



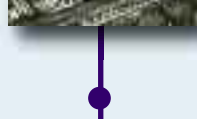
1939-45 – During World War II the Port was a naval base and headquarters for the Royal Navy's Flag Officer for the Humber.



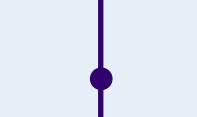
1950 – Fisons Ltd became the first company to establish a manufacturing plant on the port estate.



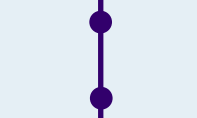
1966 – The Port's first roll on-roll off (ro-ro) berth was created to accommodate Tor Line AB's fleet of vessels, including MV Tor Anglia.



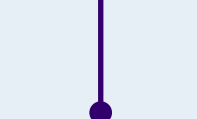
1969 – Immingham Oil Terminal was completed to service deep-sea liquid bulk tankers.



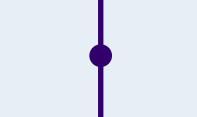
1970 – Immingham Bulk Terminal's jetty received its first vessel, which was loaded with a cargo of export coal.



1978 – A new ro-ro terminal at the south west arm of the dock was opened.



1979 – Mineral Quay was refurbished and five 20-tonne cranes installed.



1985 – Immingham Gas Jetty was built to enable the handling of imported butane and propane gases, which were stored in nearby underground caverns.



1989 – MV Nadine G was the first vessel to berth at the Port's extended No 3 Quay.



1994 – Immingham Oil Terminal's third berth was completed to service the growing demand for oil.



1995 – DFDS Nordic Terminal, a four-berth ro-ro facility with an adjoining storage area, was opened.



1997 – ABP acquired the Exxtor Terminal from Exxtor Shipping Services Ltd to service lift on-lift off (lo-lo) unitised cargo trades.



2000 – Humber International Terminal opened. Created to meet the needs of the shipping industry in the 21st century, the Terminal has become one of the Port's greatest success stories.



2005 – Redevelopment of the Exxtor Terminal commenced (completed 2009).



2006 – Humber International Terminal extension was opened, providing a second berth linked to an automated discharge, storage and rail loading facility.



2006 – DFDS Nordic Riverside Terminal at the Immingham Outer Harbour opened, which allows three ro-ro vessels to berth simultaneously.



2007 – A new grain terminal, complete with drying facility, was constructed for Gleadell Agriculture at No 6 Quay.



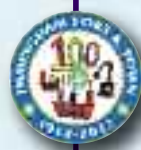
2009 – The refurbishment and construction of 23,000m² covered storage at the Immingham Bulk Park complex completed. Humber International Terminal handled its 70 millionth tonne, the majority of which have been coal imports supplying the UK's power stations.

2010 – Immingham Port Master Plan: 2010 - 2030 launched.

2012 – HIT handled its one hundred millionth tonne of cargo.

2012 – Immingham celebrates its centenary.

2012 – Immingham Port Master Plan: 2010 - 2030 published.





Aerial view of the Port of Immingham on the south bank of the Humber. In the foreground is the Immingham Oil Terminal

The Port of Immingham today

- 3.11 The Port of Immingham is the UK's largest port by tonnage, handling over 48 million tonnes in 2011.⁹ It is a premier global gateway for international trade and is of national economic and strategic importance to the UK.
- 3.12 The Port is located on the south bank of the Humber Estuary on the east coast of England, close to international shipping lanes and mainland Europe. Benefiting from a prime deep-water location, Immingham provides excellent access to the trade routes between the UK and Scandinavia, the Baltic States and mainland Europe. The Port's trade links extend as far as North and South America, Africa, Australia, the Middle East and the Far East.
- 3.13 The Port of Immingham has achieved premier status within the UK ports industry due to a combination of factors including location, connectivity, marine access and regular capital investment. Each of these is individually important. When combined, however, they provide a set of attributes that has enabled Immingham to develop into a port that now accommodates a diverse range of cargo-related activities, principally divided between specialist riverside terminals and the original in-dock facilities.
- 3.14 The board of directors of ABP is responsible for discharging its statutory Port Authority duties. These responsibilities are delegated to a local Port Director at Grimsby and Immingham. The Grimsby and Immingham management team controls local strategy for port development and the progress of commercial, operational and administrative matters.
- 3.15 In addition to being the owner and operator of the Port of Immingham, ABP is the statutory Harbour Authority; Competent Harbour Authority for the provision of Pilotage services; Vessel Traffic Services Authority and Local Lighthouse Authority for the Humber estuary.
- 3.16 Through the exercise of the duties of the Harbour Master Humber, ABP has a wide range of statutory responsibilities that include:
- Safety of navigation and regulation of vessel traffic
 - Provision of pilotage services
 - Conservation of the Harbour Area, including the maintenance of obstruction-free navigational channels

⁹ ABP statistics as submitted to DfT.

- Response to oil pollution incidents
- Conservation of flora and fauna
- Protection of water quality.

3.17 The Dock Master holds the statutory powers to control the movement of vessels within the Harbour Authority area of the Port of Immingham (which extends 200 yards beyond the berthing face of the riverside jetties). The Harbour Master Humber, via the Vessel Traffic Service, controls the movement of all vessels transiting past the Port of Immingham and has final control of vessels departing from all local port facilities.

Landside activity

- 3.18 ABP staff and independent stevedores licensed by ABP, undertake general cargo activities on the Port's common-user quays.
- 3.19 Specific companies operate terminal facilities within defined leased or licensed areas. In addition, ABP operates a number of terminal areas (notably Humber International Terminal and Immingham Container Terminal).
- 3.20 Other specialist departments within the local ABP port organisation include Engineering (maintenance activities and capital projects), Health & Safety, Personnel, Property and Sustainable Development.

Development of Immingham sea trade

- 3.21 The UK is reliant on ports for the movement of 95% by volume of its external trade. The Eddington transport study published by the Government in 2006 revealed that 28% of the UK's national income was traded and the UK economy has become increasingly reliant upon maritime trade. In 2011 an Oxford Economics study estimated that the sector contributed, in 2009, around £6.9 billion to GDP and £2.3 billion in tax revenues.
- 3.22 While the number of ships calling at Immingham has not risen significantly over the last 10 to 20 years, the quantity of cargo carried by them has increased significantly. International companies, particularly the bulk, ro-ro, oil/petrochemical and container lines, have progressively sought to achieve economies of scale, particularly on long-distance, deep-sea shipping routes. The result has been a reduction in real terms of the unit cost of delivering goods from many parts of the world,

Year	Immingham Port Tonnage (million)
1997	44.8
1998	45.1
1999	46.3
2000	48.8
2001	50.2
2002	50.7
2003	50
2004	52
2005	53.8
2006	55.6
2007	56.7
2008	55.1
2009	54.7
2010	45.3
2011	48.2

Table 3.1: Port of Immingham tonnage throughput 1997-2011 (ABP Statistics)

resulting in similar reductions in the price of many consumer goods on the high street. This has been achieved in part, through the introduction of larger vessels with greater cargo-carrying capacities.

- 3.23 The growth of the Port has been achieved by consistent investment by ABP and the Port's principal customers to maximise the advantages of its location. Consolidation within the shipping industry, operational economies of scale and the efficiency of the transport infrastructure to and from the Port have also contributed to the Port's success.

Current business

- 3.24 Between 1997 and 2011 the throughput of cargo handled at the Port grew by 8%,¹⁰ compared with a 7% decrease for the UK overall.¹¹ Despite the recent economic downturn, the Port of Immingham still increased its market share significantly during this period.
- 3.25 Table 3.1 shows the growth in the tonnage of cargo handled by the Port since 1997.
- 3.26 Immingham is the largest port by tonnage in the UK. In 2011 it handled over 48 million tonnes of cargo, representing some 9% of UK sea-borne

¹⁰ ABP statistics as submitted to DfT.

¹¹ DfT Transport Statistics Report: Maritime Statistics 1997 & 2009 / ABP statistics as submitted to DfT.

trade. It has consistently outgrown the UK ports sector since de-regulation of labour practices in 1989, growing at four to five times the rate of the combined UK ports industry.

- 3.27 The Humber estuary is the busiest trading estuary in the UK. The Port of Grimsby and Immingham (as defined by the Department for Transport) ranks sixth in size in Northern Europe after Rotterdam, Antwerp, Hamburg, Amsterdam and Bergen. The Port is the pre-eminent facility on the Humber due to its natural advantage of deep water.¹²
- 3.28 Continental Europe is less than 24 hours' sailing time from Immingham, making the Port's potential market of more than 170 million people easily accessible to UK businesses. Beyond that, the rest of the world is accessible through well-established and proven routes.
- 3.29 Immingham is a very diverse port operation, handling cargoes that include dry and liquid bulks, ro-ro and lo-lo unit cargoes plus break-bulk general cargo. This range of traffic ensures a secure base throughput with any fluctuations in a particular trade or commodity often being balanced by other port activities.

Port facilities

- 3.30 The Port has a number of facilities accommodating cargo flows of national importance critical to the industrial sectors of fuel refining and distribution, steel production, energy generation and manufacturing and retail supply chains.
- 3.31 **Immingham Oil Terminal (IOT)** – completed in 1969 with an extension completed in 1994, the facility offers three deep-water tanker berths capable of accepting vessels up to 130,000 tonnes deadweight (dwt) (290,000 tonnes deadweight part laden) and two coastal berths. The Terminal links to the adjacent Lindsey Oil Refinery (Total) and Humber Oil Refinery (Phillips 66) by pipeline and handles approximately 20 million tonnes of crude oils and petroleum products annually.
- 3.32 **Immingham Bulk Terminal** – Constructed in 1970, the Terminal offers a single deep-water berth capable of accepting part-laden vessels up to 200,000 tonnes dwt. Operated by Tata Steel UK (Tata), the Terminal is a dedicated discharge facility that supplies up to 10 million tonnes of coal and iron ore via rail links to the steel works at Scunthorpe.



An oil tanker discharging crude oil at Immingham Oil Terminal

¹² DFT statistics. Available at; <http://assets.dft.gov.uk/statistics/tables/PORT0305.xls>



Ships discharging at Humber International Terminal

- 3.33 **ABP Humber International Terminal** – this two-berth bulk handling facility was developed in two stages. Berth 1, which opened in 2000, is a flexible multi-purpose terminal equipped with three mobile harbour cranes. Berth 2 is an automated dry bulk discharge terminal with three rail-mounted cranes, which opened in 2006 following further capital investment. With a combined berth frontage of 520m, the Terminal is capable of simultaneously handling a part-laden Cape-sized vessel together with a Panamax vessel. Annual cargo throughput in 2011 amounted to a record of almost 11 million tonnes of coal, petroleum coke, minerals, biomass and animal feedstuffs.
- 3.34 **Immingham Gas Jetty** – developed originally in 1985 for the export and import of liquid propane and butane gases, with additional options for handling ‘white oil’ liquid products such as benzene and kerosene, this specialist jetty is capable of accepting vessels up to 50,000 tonnes dwt and handles approximately 750,000 tonnes per annum.
- 3.35 **DFDS Nordic Terminals** – comprising the original Dockside Terminal and the Riverside Terminal (Immingham Outer Harbour), this facility includes a two line rail terminal and can accommodate up to 7 ro-ro vessels simultaneously up to a length of 240m and width of 35m.
- 3.36 **Immingham Container Terminal** – this 45-acre site comprises two lo-lo berths with ship-to-shore gantry cranes and extensive storage facilities serviced by modern mechanical handling equipment.
- 3.37 **East and West Jetties** – part of the original port infrastructure, these modernised terminals now handle liquid petroleum and chemical traffics. Both jetties offer common-user berths and accommodate vessels up to 30,000 tonnes dwt. The East Jetty offers two berths and the West Jetty has four berths. Pipelines feed to adjacent tank farms owned and operated by Simon Storage Ltd. The tank farms offer some 570,000 tonnes bulk liquid storage to the nearby refineries and to Immingham Oil Terminal and Greenergy.
- 3.38 **The enclosed dock berths and terminals** – accessed via a single lock enclosing an impounded water area of 58 acres, the dock system offers 20 berths, including unit-load, ro-ro, lo-lo and multi-user berths serving a range of dedicated cargo-handling terminal areas. Vessels up to 30,000 tonnes dwt can access the dock up to a maximum draft of 10.36 metres.



Containers are unloaded by ship-to-shore container gantry cranes and transported from the Port

3.39 In addition to facilities for unitised cargoes, there are a number of ABP and third-party bulk handling terminals for grain, fertiliser, feedstuffs and minerals at the Port.

3.40 The construction of Humber International Terminal and Immingham Outer Harbour has enabled the Port to continue to offer berthing capacity for vessels too large to enter the dock while also relieving pressure on the berth facilities within the enclosed dock.

3.41 The Port hosts a number of stevedoring companies who can provide cargo handling for all bulk, unitised and general cargoes.

- Dry bulks – agribulks 97 acres
- Development land 56 acres
- General cargo 48 acres
- Environmental conservation 28 acres

The remaining land comprises largely road and rail infrastructure.

3.45 Previous expansion has been facilitated by acquiring additional land or by reclaiming land from the Estuary. The Humber International Terminal and Immingham Outer Harbour developments involved the creation of 50 acres of land from mudflats at the foreshore, with compensatory habitat provided at Welwick and Chowderness.

Port estate

3.42 The Port comprises over 1,300 acres of land and 58 acres of enclosed dock.

3.43 Figure 3.1 illustrates land use within the Port.

3.44 The major land use allocations within the Port today are:

- Unitised (ro-ro/lo-lo) 259 acres
- Dry bulks – energy/industrial 249 acres
- Liquid bulks 154 acres

3.46 The consolidation of areas within the port estate has been managed by the rationalisation of leases and site assembly. Reorganisation and restructuring of areas within the current boundaries of the Port has been successful in ensuring the most efficient use of the available land.

3.47 The diversity of land use on the site reflects the wide variety of trades transiting the Port. This is superimposed by the numerous leasehold and terminal agreements that have evolved over the years. The Port is served by an established internal

road and rail network, providing terminals with fast and efficient access to the national networks.

Promoting the Port

- 3.48 The Port of Immingham is one of a number of port facilities on the River Humber. ABP actively promotes the Port and the Humber region as a whole in order to maintain existing strong trade links and help secure future trade for the region. With a variety of facilities on the Humber owned and operated by ABP and other companies operating in an open market environment, ABP is actively investing in the future of both the Port and the region. This is achieved at a number of levels, including participation at specific events and, in conjunction with local councils and the Humber Local Enterprise Partnership (carrying on the work of Yorkshire Forward, the Regional Development Agency wound up on 31 March 2012), working to develop a greater awareness of the benefits that the Port of Immingham and the Humber region can offer.
- 3.49 Led by local authorities and businesses, Local Enterprise Partnerships (LEPs) were set up in 2011 to provide the vision, knowledge and strategic leadership needed to drive sustainable private sector growth and job creation in their area.¹³
- 3.50 In July 2012 the Humber LEP released its consultation draft 'A Plan for the Humber', which outlined the importance of the Humber Estuary for the region, and port facilities in particular, stating the 'Humber can establish an advantage through the rapidly emergent trend of port-centric logistics'.¹⁴

¹³ Local Enterprise Partnerships, available at; <http://www.bis.gov.uk/policies/economic-development/leps>

¹⁴ Humber LEP, 'A Plan for the Humber 2012 -2017', (July 2012)

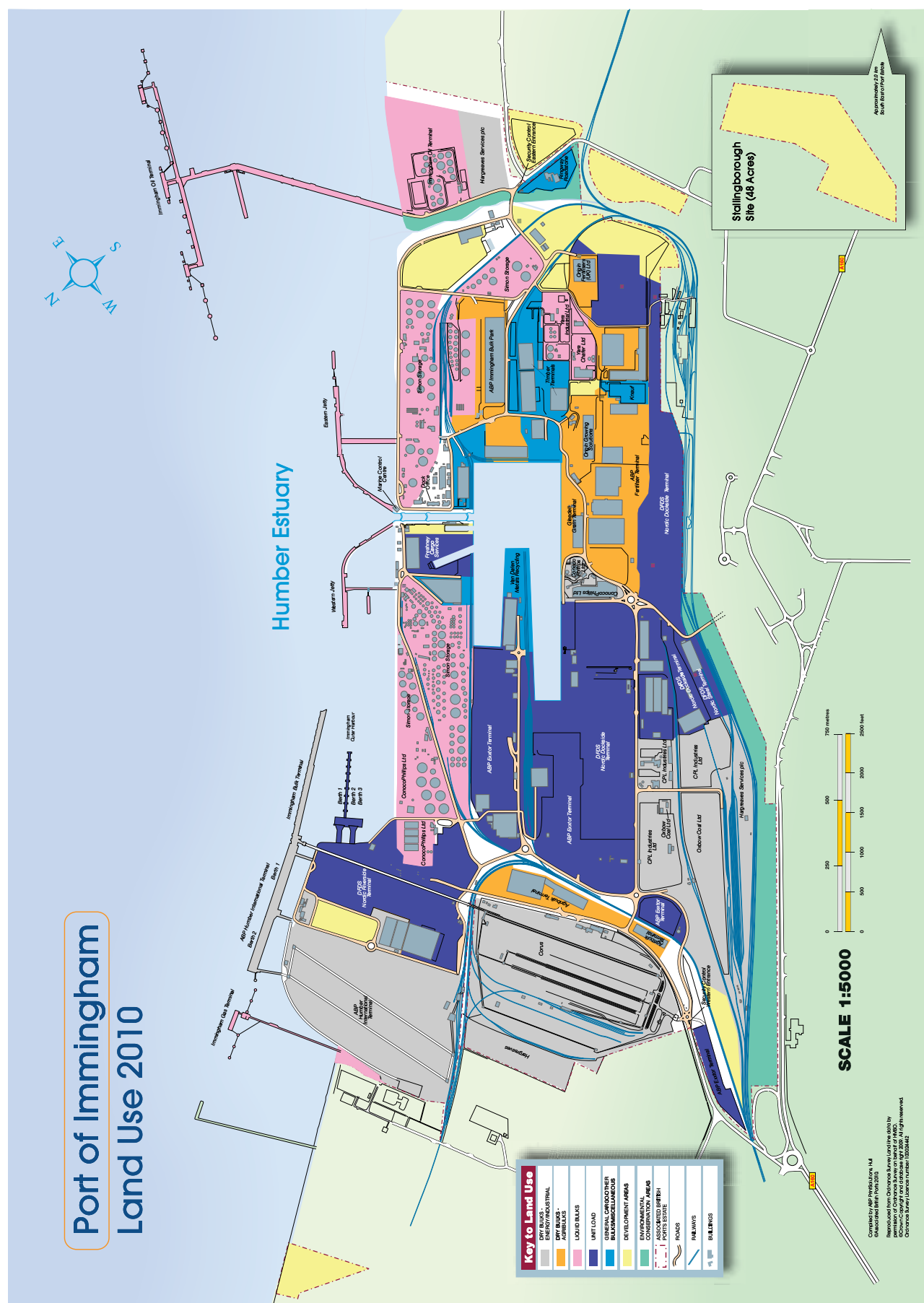


Figure 3.1: Port of Immingham land use plan 2010 (ABP)



Two DFDS Seaways ferries berthed at Immingham Outer Harbour

Chapter 4

Planning

Contents

- 4.1 This chapter outlines the current legal and planning policy framework, locally, regionally and nationally, in the context of the issues that are likely to face the Port in the planning period covered by the master plan.

Introduction

- 4.2 Major ports such as Immingham operate within a complex planning framework that reflects differences in the legislative systems relating to land and sea.
- 4.3 Port development and operations may also affect public rights of navigation and have historically required the grant of powers through a public or private Act or Parliamentary Order.
- 4.4 The purpose of this section of the master plan is to explain the legal and regulatory context and planning policy framework and relate them to the issues that are likely to face the Port in the planning period covered by the plan. In doing so it focuses on the Port's influence and importance, both in economic and environmental terms, throughout the region.

Current planning and legislative context

- 4.5 The Port of Immingham is located on the south bank of the Humber Estuary. The statutory boundary of the Port falls within the boundaries of both North Lincolnshire and North East Lincolnshire Councils.
- 4.6 As is the case with most major European ports, much of the Port's coastal and water environment is designated and legally protected for its conservation value.
- 4.7 The Port is thus an integral part of the urban area and the natural environment within which it is located.
- 4.8 The economic activity the Port generates is recognised as being of local, regional, national and international significance.

- 4.9 The region's policy framework identifies the Port of Immingham as a vital part of the Yorkshire and Humber region's economic future.

Legal and regulatory framework

- 4.10 The Port of Immingham operates within a legal framework formed by general legislation, laws that apply to all ports and harbours and the specific Port of Immingham Acts.
- 4.11 Through its ownership of the commercial port, ABP is the statutory Harbour Authority.
- 4.12 In addition, ABP is separately the:
- Competent Harbour Authority for the Humber Estuary
 - Conservancy and Navigation Authority for the Humber Estuary, including the Lower Trent up to Gainsborough
 - The Local Lighthouse Authority within the meaning of the Merchant Shipping Act 1894 by virtue of the Humber Conservancy Acts 1852-1907 and the Humber Harbour Reorganisation Scheme 1966 (Confirmation Order 1967).
- 4.13 ABP holds long leasehold interests in the bed and foreshores of the Humber and parts of the Trent and Ouse. These were granted by the Crown in 1869 and 1872, for a period of 999 years.
- 4.14 For the purposes of the Planning Acts, ABP is a statutory undertaker. In this context, it should be noted that in certain circumstances the Town and Country Planning (General Permitted Development) Order 1995 (GPDO) grants ABP deemed consent for development on operational land for the purposes of shipping or in connection with its Port and Harbour functions.
- 4.15 UK port and harbour legislation is based around the Harbours Act 1964 and the Harbours, Docks and Piers Clauses Act 1847. These Acts have been amended over the years to bring them into line with more recent relevant law such as the Transport and Works Act 1992. Together with the Port of Immingham Acts and byelaws, broadly speaking these provide the legal foundation for the development and operation of the Port.

- 4.16 Around this legislation sits the overarching requirements of the UK and European planning and environmental legislative/regulatory framework. This covers a wide variety of matters ranging from port development to nature conservation, environmental impact assessment, health and safety and environmental health.
- 4.17 The remit of terrestrial planning law, in so far as it relates to land, generally extends down to mean low water. The statutory Harbour Authority area covers the water as far as mean high water. Development proposals affecting the Harbour Authority's area, therefore, require the Harbour Master's consent.
- 4.18 The UK planning and environmental regime is continually evolving, and changes to the planning legal framework and strategy are likely to continue to take place during the master plan period which may have implications for the future development and expansion of the Port.
- 4.19 One significant development in this context is the the Planning Act 2008. This Act seeks to provide a more efficient, transparent and accessible consenting process for nationally significant infrastructure projects.
- 4.20 Under the 2008 Act, responsibility for decisions on major port development will rest with the Secretary of State, acting through the National Infrastructure Directorate (previously known as the Infrastructure Planning Commission), which forms part of the Planning Inspectorate. A single Development Consent Order will now replace the pre 2008 Act arrangements, in which applications for major infrastructure developments previously required multiple consents.
- 4.21 The Marine and Coastal Access Act 2009, introduced a new marine regulatory system and established the Marine Management Organisation (MMO), with a remit including:
- Preparation of plans for the marine areas around the UK coast
 - Consideration of applications for the marine element of port developments below the threshold for applications to the National Infrastructure Directorate
 - Streamlining of marine consents.
- 4.22 In addition, the National Policy Statement (NPS) for ports was published by the DfT and adopted by Parliament in February 2012. The NPS provides a strategic framework for port development. It is

the document against which decisions are made by the National Infrastructure Directorate in respect of qualifying new port developments. It also serves to inform port-planning decisions made by the MMO and is a material consideration, where relevant, for local planning authorities.

Policy framework

National policy framework

- 4.23 Current national ports policy is set out principally in the National Policy Statement for Ports (NPS), adopted in February 2012. The NPS recognises that:
- UK ports play a crucial role in sustaining the UK's economy and standard of living
 - The UK's success in a globalised market depends greatly on the ability of its ports to adapt and operate efficiently as gateways to international trade.
- 4.24 The NPS makes it very clear that it is the port industry and port developers who are best placed to make decisions about where and when to invest in the port sector in response to market demand.
- 4.25 In October 2007 the Government produced a discussion document 'Towards a Sustainable Transport System' (TaSTS). This document, which sets out the Government's current thinking, explains how it is:
- Responding to the recommendations made in the Eddington study to improve the contribution of transport to the UK's economic growth and productivity
 - Ensuring that transport plays its part in delivering the overall level of reductions in carbon emissions recommended by the Stern Review on the Economics of Climate Change.
- 4.26 TaSTS defines the Government's goals for the transport system, which, in summary, are to:
- Support economic growth
 - Tackle climate change
 - Contribute to better safety, security and health
 - Promote equality of opportunity
 - Improve quality of life and promote a healthy natural environment.
- 4.27 In November 2008 the Government issued its publication - 'Delivering a Sustainable Transport System' (DaSTS), which is designed to communicate how the approach set out in TaSTS is being put into practice.

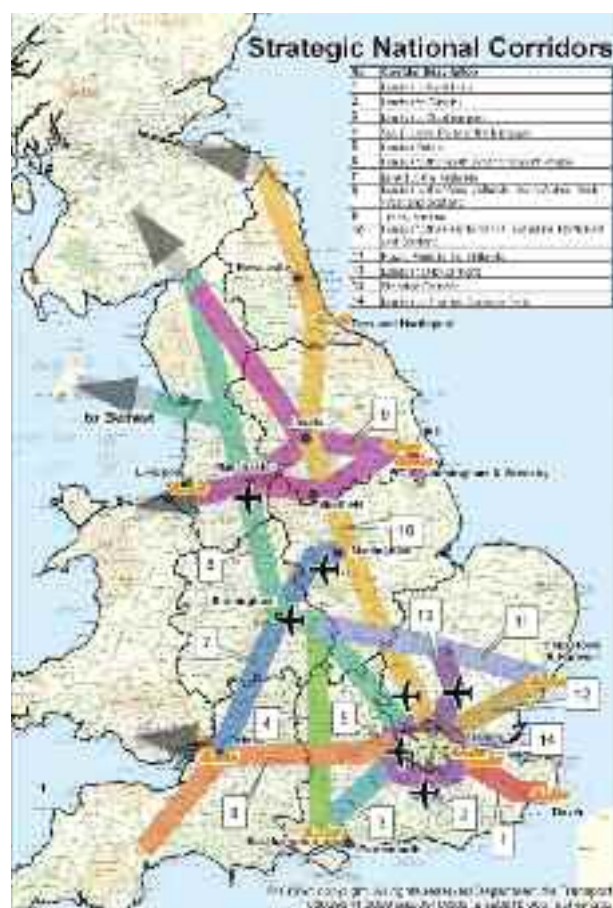


Figure 4.1: DfT Strategic National Corridors (DfT)

Core planning principles include the need to proactively drive and support sustainable economic development, taking account of market signals.

Planning framework

- 4.30 The statutory development plan for the area of the Port of Immingham currently comprises the Yorkshire and Humber Plan (Regional Spatial Strategy to 2026), Local Plans and Local Development Documents. Whilst the Government has made clear its intention to revoke the Regional Strategy, at the time of the publication of this plan, it still forms part of the statutory development plan. At the local level, North East Lincolnshire and North Lincolnshire Councils, the planning authorities for the Port of Immingham, have produced Local Plans and Local Development Documents.
- 4.31 Both Councils are currently promoting their emerging policy. The North Lincolnshire Core Strategy was adopted as part of the North Lincolnshire Local Development Framework in June 2011. Saved policies of the North Lincolnshire Local Plan (2003) also form part of the development plan for the district. North East Lincolnshire Council is in the early stages of preparing a new local plan. At present, the North East Lincolnshire Local Plan (2003) sets out planning policy for the borough.
- 4.32 At a strategic level, the RSS was adopted in May 2008 and contains several references to Immingham. For example - "The Humber Ports are a national asset and a unique resource for the Region."¹⁶ The document also contains sections on the Humber Estuary and economy.
- 4.33 The RSS expresses a vision for the Humber Estuary as "a Global Gateway with a thriving, outward looking, sustainable economy building on its unique assets of location, the estuary, the ports connectivity and physical environment, perpetually changing for the benefit of people, businesses and the environment while making significant contributions to the sustainability of regional, national and European communities."¹⁷
- 4.34 In addition, Yorkshire Forward, the Regional Development Agency that was charged with improving the Yorkshire and Humber economy, produced a Regional Economic Strategy which underlined the role of ports as economic drivers.
- 4.28 DaSTS explains that the analysis undertaken by the Government has led to the identification of a number of components of the nation's transport system which, collectively, are critical to the functioning of the system as a whole and to the economic success of the nation.¹⁵ The Port of Immingham is identified as one of these critical components, which, along with nine other ports and seven airports, make up the country's key international gateways. A national transport corridor leading from the Port is also identified as a component of this critical transport system (Figure 4.1).
- 4.29 The National Planning Policy Framework (NPPF) was published in March 2012. It sets out Government planning policy, (at the same time revoking a myriad of previously published government guidance), based on a presumption in favour of sustainable development, incorporating economic, social and environmental roles. Local authorities are required to apply the presumption in favour of sustainable development when assessing and determining development proposals.

¹⁵ Paragraph 4.10, Delivering a Sustainable Transport System, Department for Transport (2008).

¹⁶ Paragraph 2.15, The Yorkshire and Humber Plan (May 2008).

¹⁷ Paragraph 5.2, The Yorkshire and Humber Plan (May 2008).

Development plan policy framework

- 4.35 The development plan for the Port of Immingham, which for present purposes is taken to be the land owned by ABP, consists of:
- The Yorkshire and Humber Plan – Regional Spatial Strategy to 2026 (May 2008)
 - Saved policies of the North East Lincolnshire Local Plan (2003)
 - North Lincolnshire Core Strategy (June 2011) together with saved policies of the North Lincolnshire Local Plan 2003.

Yorkshire and Humber Plan - RSS to 2026

- 4.36 The Yorkshire and Humber Plan RSS (RSS) is Government policy for the Yorkshire and Humber region and provides the strategic policy context for the Port. It replaces the policies and text of the RSS Project Plan 'Shaping the Future' (January 2004).
- 4.37 The RSS recognises the Port of Immingham as "one of Britain's fastest growing ports [which] is regarded as the UK's single largest port."¹⁸
- 4.38 The RSS identifies the need to improve multimodal land access to the Port as a priority objective, but recognises that "over £100 million has been invested by ABP in the last ten years at Immingham" and that the Port provides "roll on/roll off vehicle ferry services with 60 sailings a week to the near continent and Scandinavia" as well as accommodating "just over 48 million tonnes of freight [passing] through it in 2011."¹⁹
- 4.39 RSS Policy T7 describes how the region will aim to "optimise the use of its ports and waterways" by facilitating the timely expansion of the associated infrastructure to support economic growth. The RSS looks to draw in local authorities, ports and transport agencies to achieve this through LDFs and local transport plans.
- 4.40 The RSS also contains a series of sub-regional policies.
- 4.41 Policy HE1: (Humber Estuary sub area policy) states that plans, strategies, investment decisions and

programmes for the Humber Estuary's economic development should:

- Diversify and develop the sub-area economy, with maximum use of multimodal transport links and ports
- Encourage development of port related activities and opportunities within the region, specifically referencing the land to the north west and south east of Immingham.

- 4.42 On transport, the policy states that plans should "increase rail and road accessibility to the south Humber ports".
- 4.43 To facilitate "joined up working", collaboration across the sub-area between public and private partners should be fostered to realise the potential of "the City Region and Humber Ports as the Global Gateway."²⁰
- 4.44 Policy HE1 also recognises that "the Humber Estuary sub-area has a major role to play in terms of the Region's renewable energy generation requirement," and that this must be achieved "in ways which maintain the integrity of internationally important biodiversity resources along the Humber Estuary."

North East Lincolnshire Local Plan

- 4.45 The North East Lincolnshire Local Plan refers to the port complexes at Immingham and Grimsby as "important elements to the area's economy"²¹ and explains that ABP operates a "strong development control policy, which usually limits development to dock-related employment uses."²²

North Lincolnshire Local Plan

- 4.46 The North Lincolnshire Local Plan incorporates the Port of Immingham, referring to ABP's economic contributions and development rights as statutory undertaker and port operator.
- 4.47 The section on port-related development states that "port related development within the port area designated on the proposal's map will be supported."²³ The Local Plan further acknowledges "the local, regional and national, economic and functional importance of the Port of Immingham" and states that "further development of the port area will be supported and encouraged."²⁴

¹⁸ Paragraph Fig.13.2 and explanation, The Yorkshire and Humber Plan (May 2008).

¹⁹ Paragraph Fig.13.2 and explanation, The Yorkshire and Humber Plan (May 2008).

²⁰ Policy HE1, The Yorkshire and Humber Plan – RSS to 2026.

²¹ Paragraph 5.19, North East Lincolnshire Local Plan (November 2003).

²² Paragraph 5.19, North East Lincolnshire Local Plan (November 2003).

²³ Paragraph IN4A, North Lincolnshire Local Plan (May 2003).

²⁴ Paragraph 5.37, North Lincolnshire Local Plan (May 2003).

Implications for the master plan

- 4.48 The legal, regulatory and planning policy frameworks described above are complex and subject to regular revision and amendment. It is anticipated, however, that the underlying support for the development of the Port of Immingham will continue to be reflected in national and local planning policies.
- 4.49 It is clear, therefore, that future port development proposals will need to take into account policies within the emerging Local Development Frameworks. The Port of Immingham will continue to work with the relevant authorities to ensure that future local, regional and national planning policy reflects the importance of the Port and its operational needs.

Panamax-sized ship *MV Elpis* discharging 70,000 tonnes of coal at Humber International Terminal



Chapter 5

Trade Demand Forecasts

Contents

- 5.1 This chapter looks at the likely demand for port traffic in Immingham through to 2030.
- 5.2 It also seeks to identify, where appropriate, capacity constraints that will need to be addressed from a demand perspective, taking into account existing and planned infrastructure.

Introduction

- 5.3 The Port of Immingham is critical to the local, regional and national economy.
- 5.4 Over the last century, the Port has experienced significant growth. Customer demands have been met through ongoing investment in port infrastructure and equipment. In 2011, the Port handled over 48 million tonnes of cargo, almost 10% of UK sea-borne trade.²⁵
- 5.5 Between 1980 and 2011, total traffic through Immingham increased by 125%. This was in spite of periods of economic recession in the UK during the early 1980s and early 1990s and the current downturn which began in 2008.
- 5.6 This pattern of sustained growth demonstrates why it is important to take the long-term view and why, notwithstanding recent changes in the UK's short to medium-term economic outlook, ABP continues to plan for growth.
- 5.7 In recent years the growth in traffic through Immingham has been particularly strong. Between 1997 and 2011 the throughput of cargo handled at the Port grew by 8%,²⁶ compared with a decrease of 7%²⁷ for the UK overall (Table 5.1). During these challenging economic times Immingham increased its market share significantly.

Year	UK Port Tonnage (million)	Immingham Port Tonnage (million)
1997	558.5	44.8
1998	568.5	45.1
1999	565.6	46.3
2000	573.1	48.8
2001	566.4	50.2
2002	557.9	50.7
2003	555.3	50.0
2004	572.8	52.0
2005	584.5	53.8
2006	583.3	55.6
2007	581.5	56.7
2008	563.0	55.1
2009	501.0	45.1
2010	511.9	45.3
2011	519.5	48.2

Table 5.1: UK & Immingham Port Throughput 1997-2011 (DfT/ABP)

- 5.8 Table 5.2 summarises some of the outcomes of ABP's demand forecast analysis. The demand forecast period is aligned with the DfT's national forecasts up to 2030 and uses work carried out by MDS Transmodal, authors of the national port demand forecasts used by the UK Government. The market expectations of ABP and present customers have also been taken into consideration.

Cargo Category	Units	2011 (actual) 000's	2020 (forecast) 000's	2030 (forecast) 000's
Dry Bulks - energy/industrial				
Coal	Tonnes	13,040	15,000	15,000
Iron Ore	Tonnes	4,822	6,000	6,000
Biomass	Tonnes	62	8,000	10,000
Dry bulks - agribulks	Tonnes	1,295	2,500	3,000
Liquid Bulks	Tonnes	19,057	24,000	25,500
Unitised	Tonnes	8,244	11,660	15,811
Roll on-roll off trailers	Units	395	556	713
Lift on-lift off containers	Units	68	146	250
Trade vehicles	Units	282	350	450
General / other bulks	Tonnes	1,732	2,000	2,300
TOTAL	Tonnes	48,252	69,160	77,611

Table 5.2: Forecast demand analysis for the Port of Immingham to 2030 (ABP)

²⁵ DfT: Provisional Port Statistics 2011 / ABP statistics as submitted to DfT.

²⁶ ABP statistics as submitted to DfT.

²⁷ DfT: Provisional Port Statistics 2011 / ABP statistics as submitted to DfT.

ABP approach

- 5.9 In seeking to arrive at a robust and positive view of future demand, ABP has conducted an analysis of the different types of traffic moving through the Port of Immingham, which is shown below (Figure 5.1).

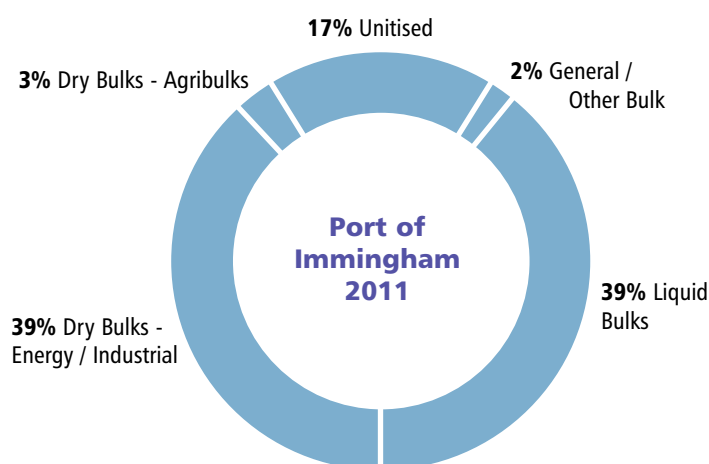


Figure 5.1: Port of Immingham 2011 throughput by sector (DfT/ABP)

- 5.10 Demand forecasts for current trades take into account the latest national demand forecasts produced by MDS Transmodal for the Department for Transport, which were produced in 2006 and updated in 2007, the market expectations of ABP and the views of present customers of the Port.
- 5.11 ABP has also performed an analysis of potential new future trades based on UK Government forecasts and targets and customer demands.
- 5.12 These forecasts seek to capture the most up to date view of economic growth going forward. The National Policy Statement for Ports published by the DfT in January 2012 concludes that despite the current downturn in trade volumes, there "is a compelling need for substantial additional port capacity over the next 20-30 years."²⁸ However given some of the uncertainty about the economic outlook projected for the UK (Figure 5.2), a cautious view of the recovery towards long-run growth trends has been taken.
- 5.13 All ports are unique in terms of their location, transport links and marine access and can be affected by market changes in different ways. Demand for the same type of traffic can differ widely from port to port. As a result, ABP's forecasts also take into account local factors that are unique to the Port of Immingham.
- 5.14 Dry bulk cargoes include a diverse range of commodities, varying from those servicing the energy and industrial trade sectors (coals, ores, biomass etc), to agribulks (grain, fertiliser, animal feeds etc) and other bulk cargoes (road salt etc).
- 5.15 In 2011, UK ports handled 103.6 million tonnes of dry bulks, representing 20% of the UK's total port tonnage. This compares with 115.9 million tonnes of dry bulks in 2002, which constituted a 21% share of total UK port tonnage.²⁹
- 5.16 With the decline of the UK coal industry over recent years, ports have seen a dramatic increase in volumes of imported coal. The largest shift towards imported coal has been in steam coal, used for the generation of electricity. It currently accounts for roughly 80% of the demand for coal in the UK. Coking coal, used in the manufacture of steel, has always been imported due to specific properties which are not found in UK coal. Levels of coking coal imports have therefore been dependent on levels of UK steel production.
- 5.17 Table 5.3 shows how the decline in UK coal production between 1993 and 2009, coupled with an increase in the use of steam coal for electricity generation, resulted in 93% growth in the level of coal imports into the UK. The Port has been able to benefit from these national trends. In particular, in the last decade the construction and development of Humber International Terminal has been undertaken in response to this shift in market demand.

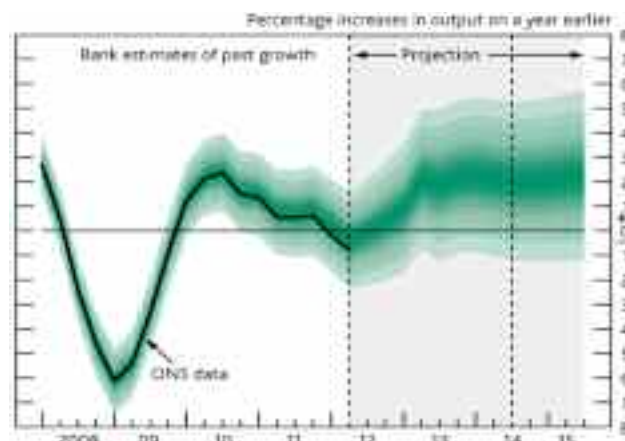


Figure 5.2: GDP projection for the UK economy to 2015 (Bank of England Inflation Report, August 2012)

Dry bulks

Market overview

²⁸ National Policy Statement for Ports (January 2012).

²⁹ DfT: Provisional Port Statistics 2011 and Transport Statistics Report: Maritime Statistics 2002.

Great Britain Coal Market Size, Major Ports, 1993-2010

Thousand tonnes

Direction	1993	1995	1997	1999	2001	2003	2005	2007	2009	% Change 1993-2011
Imports	18,988	16,714	21,285	20,548	35,685	33,515	47,153	43,590	36,605	93%
Exports	1,109	911	1,168	623	1,061	1,121	1,013	1,068	951	-14%
International Total	20,096	17,624	22,453	21,171	36,746	34,635	48,166	44,658	37,555	87%
Domestic Inwards	2,707	2,865	371	53	1,535	1,324	1,468	1,461	1,001	-63%
Domestic Outwards	2,440	3,771	1,368	1,194	1,639	1,321	2,154	1,308	1,056	-57%
Domestic Total	5,147	6,636	1,740	1,248	3,174	2,645	3,622	2,769	2,057	-60%
Grand Total	25,243	24,260	24,193	22,419	39,920	37,281	51,787	47,427	39,612	57%

Source: DfT Maritime Statistics, analysis by MDS Transmodal

Table 5.3: UK Ports Coal Throughput 1993–2010 (Source: DfT Maritime Statistics)

- 5.18 Like coking coal, iron ore, the other major raw material used in the manufacture of steel, has always been imported into the UK. As such the UK port volumes handled have been reliant on production levels which, while remaining fairly consistent in recent years, have seen a reduction during the current economic downturn.
- 5.19 Another sector of dry bulks that has grown in recent years is the use of biofuels, such as biomass for power generation. It is anticipated that this will become an increasingly important commodity as the UK's power-generating industry diversifies activities to meet European emissions targets. The UK has committed to source 15% of its energy from renewable sources by 2020 – an increase by a factor of seven from the 2.25% sourced in 2008.³⁰
- 5.20 Agribulk volumes handled across UK ports, which include grain, animal feed and fertilisers, have historically varied according to factors such as quality of harvest, the size of the national herd and the amount of cultivated arable land. These variables will have a direct bearing on the country's surplus quantity of grain available for export, the volumes of imported animal feed required and the volume of fertilisers imported.
- 5.21 Table 5.4 shows that there has been a steady decline in the agricultural traffics moving through UK ports over recent years, which is mainly due to a downturn in the UK farming industry and increased imports of processed food commodities. Short-term fluctuations are also evident, caused by variations in import and export values and the impact of agricultural diseases such as BSE and foot and mouth.

Great Britain: Agricultural Products Market Size, Major Ports, 1993-2009

Thousand tonnes

Direction	1993	1995	1997	1999	2001	2003	2005	2007	2009	% Change 1993-2009
Imports	9,722	8,955	8,793	8,382	8,119	6,835	8,508	8,875	8,876	-9%
Exports	5,740	4,697	4,775	4,462	2,766	4,814	3,691	2,608	3,541	-38%
International Total	15,462	13,651	13,568	12,844	10,885	11,649	12,199	11,483	12,417	-20%
Domestic Inwards	243	175	132	305	178	215	760	736	881	263%
Domestic Outwards	450	299	282	474	325	796	648	527	668	48%
Domestic Total	693	474	414	779	503	1,011	1,408	1,263	1,549	124%
Grand Total	16,155	14,125	13,982	13,623	11,388	12,660	13,608	12,746	13,966	-14%

Source: DfT Maritime Statistics, analysis by MDS Transmodal

Table 5.4: UK Ports Agribulks Throughput 1993–2004 (Source: DfT Maritime Statistics)³⁰ The UK Renewable Energy Strategy (2009).

Immingham today

- 5.22 Immingham is the UK's largest dry bulk handling port. The Port has numerous specialist terminals within the enclosed dock and at the two riverside terminals: Humber International Terminal and Immingham Bulk Terminal.
- 5.23 ABP has considerably diversified its activities at the Port in recent years. For the majority of dry bulks handled, ABP is now the contracting stevedore and terminal operator and offers a range of value-added services including specialist warehousing, bagging, screening and blending as part of a product management service for independent importers of bulk and break-bulk commodities.

Energy and industrial

- 5.24 The Port of Immingham has been intrinsically linked with the UK's energy industry dating back to 1912 when eight coal hoist appliances in Immingham dock served the UK coal export industry.
- 5.25 Coal traffic (coal and coal products) has grown substantially at the Port over recent years, as a reduction in UK coal production has fuelled a significant growth in coal imports. Immingham's proximity to coal-fired power stations in the Aire and Trent Valleys and the Tata steelworks at Scunthorpe has enabled the Port to service this increased demand.
- 5.26 Further investment and development of Humber International Terminal in 2006 has helped to establish the Port as a major player in the UK import coal market. In 2011 coal

throughput at the Port was over 13 million tonnes, compared to 8 million tonnes in 2001 (Figure 5.3).

- 5.27 Iron ore throughput at the Port remained fairly consistent until the economic slowdown resulted in a reduction in steel manufacturing and thus a reduction in imported iron ore volumes during 2009, but volumes have largely recovered in recent years (Figure 5.4).
- 5.28 The Port has seen volumes of biomass steadily increase as power generating companies have begun to supplement their fuel requirements with biomass commodities in order to meet Government renewables targets. As detailed in 5.43, this cargo is expected to increase dramatically.
- 5.29 In 2011 the Port handled approximately 13 million tonnes of coal, 5 million tonnes of iron ore and 62,000 tonnes of biomass.³¹ Table 5.2 illustrates the substantial growth in biomass anticipated by 2020, with further increase forecast by 2030.

Agribulks

- 5.30 Immingham is located on the edge of the UK's primary agricultural region, helping it to become a leading grain port in the UK and a key centre for animal feed imports.
- 5.31 Over the past five years ABP has invested over £11 million in the Port's agribulk facilities. The Port now offers over 140,000m² of covered storage, extensive uncovered storage and a diverse range of specialist handling equipment.



Imported coal is stored at Humber International Terminal. ABP has invested in sophisticated dust suppression technology to reduce the impact of dust particles

³¹ ABP statistics as submitted to DfT.

- 5.32 In 2011 the Port handled almost 1.3 million tonnes of agribulk products.³²

Immingham tomorrow

Energy and industrial

- 5.33 ABP's forecasts for coal traffic, based on Government national demand forecasts, predict growth due to increased import requirements. While a 41% reduction in the overall requirement for steam coal in the UK is forecast between 2010 and 2030, a 25% increase in tonnages is predicted for steam coal imports as the further demise of UK coal production leads to even greater reliance on imports.³³

- 5.34 The power stations of the Port's major coal customers are predominantly compliant with the EU Large Combustion Plants Directive (LCPD), which requires all non-compliant plants to close by 2016 (Table 5.5 overleaf). Immingham will therefore remain the natural base for coal imports. With additional capacity available, the Port can help its customers fill the generation gap left by other UK station closures.

- 5.35 Using Government projections as a base level, and taking into account the location advantages that Immingham offers and the Port's already strong links with LCPD-compliant power generating companies, an increase in coal imports is expected by 2020, with annual coal volumes handled rising to around 15 million tonnes.

- 5.36 Over the longer term, volume projections will be affected by the success of clean coal technology, in particular Carbon Capture and Storage (CCS). The UK Government is currently

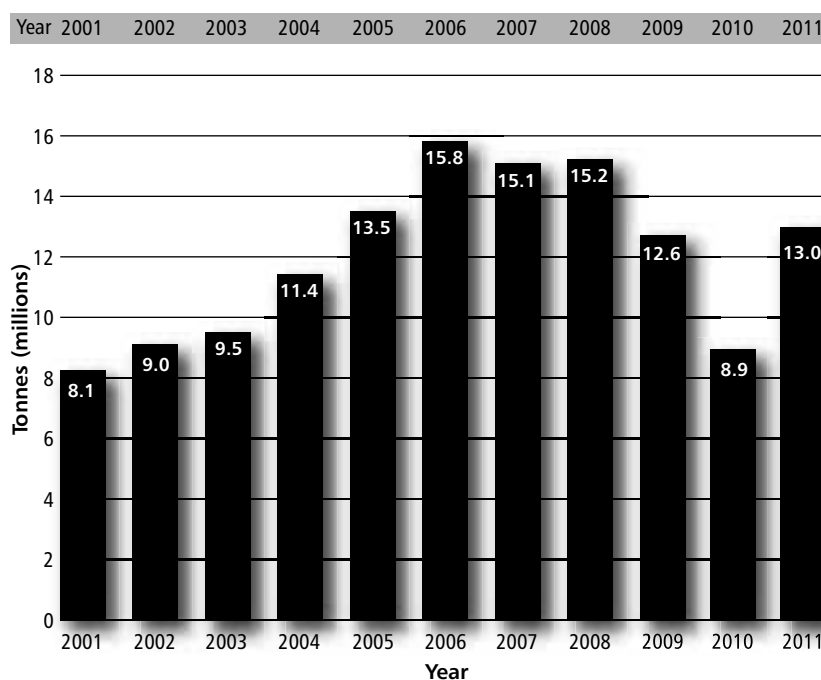


Figure 5.3: Port of Immingham Coal Volumes 2001-2011 (Source: ABP)



Animal feed being discharged at Humber International Terminal

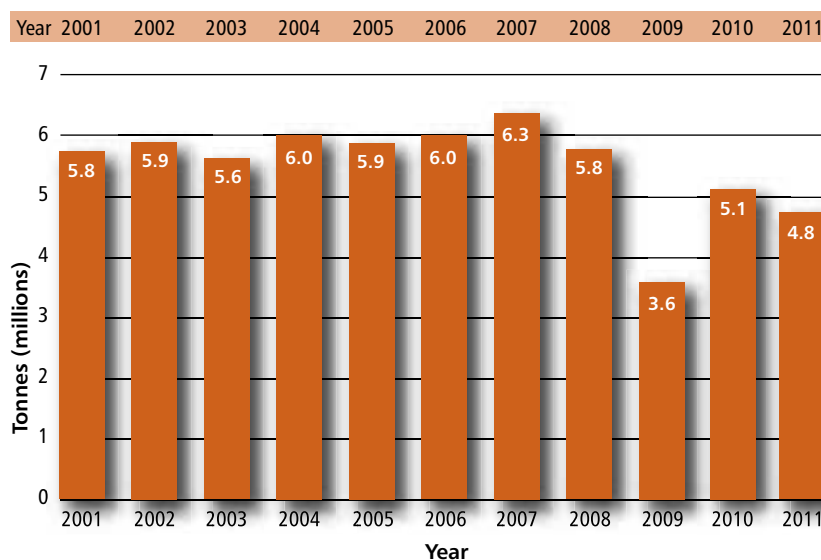


Figure 5.4: Port of Immingham Iron Ore Volumes 2001-2011 (Source: ABP)

³² ABP statistics as submitted to DfT.

³³ MDS Transmodal – UK Port Demand Forecasts to 2030 (May 2006).

leading the drive for this technology and has identified the success of CCS as vital to reducing CO₂ emissions.

5.37 The Government believes that coal will continue to be an important part of the UK's energy mix, albeit in a 'clean' form. Accordingly it is expected that UK coal imports will continue to rise.

5.38 Proven CCS technology may enable the sustainability of some existing coal-fired power stations and offer new opportunities for clean coal-fired power stations on or adjacent to existing port facilities. The Port will continue to support the market demands and the future generation of clean coal-fired power stations.

5.39 Coal volumes handled at the Port are forecast to increase to 15 million tonnes per annum by 2020 and are estimated to remain at that level until at least 2030. Existing coal-fired powered stations will either be converted to or replaced by new CCS power stations, ensuring that strong demand for coal remains. Even allowing for increased use of other renewable energy sources, volumes of imported coal handled through the Port are still expected to rise due to the reliance of remaining coal-fired and new CCS power stations and the likely closure of all remaining UK coal mines.

5.40 Existing capacity is available at Humber International Terminal for a proportion of the projected increase in coal volumes. However, as capacity is neared, and demand for biomass capacity accelerates, the Port will need to invest in additional infrastructure to meet the increase in demand. Such developments were recognised in the Government's updated MDS Transmodal



A stacker-reclaimer storing coal at the Port. Mechanised conveyor belts are used to move the material

34 MDS Transmodal – Update of UK Port Demand Forecasts to 2030 (2007).

Coal-fired Power Stations and Compliance with LCPD

Status	Power Station	Operator	GW of Capacity
Will comply	Aberthaw	RWE npower	1.5
	Cottam	EDF	2.0
	Drax	Drax Power	3.9
	Eggborough	Eggborough Power Ltd	2.0
	Ferrybridge 1	SSE	1.0
	Fiddlers Ferry	SSE	2.0
	Kilroot	AES Kilroot	0.5
	Longannet	Scottish Power	2.3
	Ratcliffe	E.ON-UK	2.0
	Rugely	International Power	1.0
Will close	Uskmouth	Uskmouth Energy	0.5
	West Burton	EDF	2.0
	Sub Total		20.7
	Kingsnorth	E.ON-UK	2.0
	Cockenzie	Scottish Power	1.2
	Tilbury	RWE npower	1.0
	Didcot	RWE npower	2.0
	Ferrybridge 2	SSE	1.0
	Ironbridge	E.ON-UK	1.0
	Sub Total		8.2
Total Capacity			28.9

Source: DTI, updated by MDS Transmodal

Table 5.5: Demonstrates the level of compliance of the Port's major coal customers (highlighted in red)

report, published in 2007, which stated that "there may be a requirement for additional deep-water capacity at specific locations to handle deep-sea coal imports"³⁴ and made reference to the Humber International Terminal's second berth as a recent example.

5.41 Improvement to rail links both at the Port and to and from the port estate (including completion of the Killingholme Loop) will be essential to accommodate the increase in trade demand. Key stakeholders such as Network Rail, and the regional and local planning bodies will be engaged during the project-planning stage to ensure an efficient supply chain to the end receiver is in place.

5.42 With its deep-water facility, the Port of Immingham is in a strong position to take advantage of the emerging demand for imported biomass, both to co-fire with coal at existing power stations and to supply future stand-alone renewable power stations.

5.43 The Port has seen volumes of biomass steadily increase over recent years and this trend is expected to accelerate dramatically as power-generating companies diversify their fuel requirements to meet UK and EU emission regulations.



Imported biomass into Immingham is used in electricity production

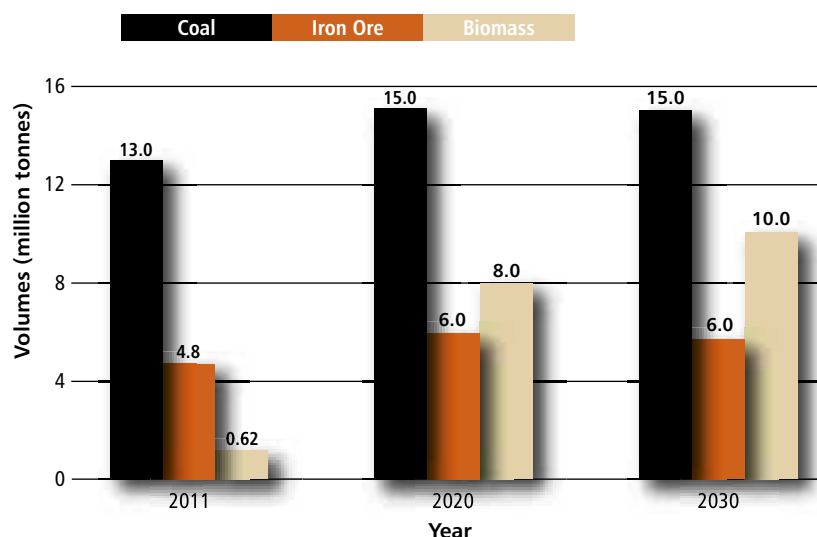


Figure 5.5: Energy & Industrial Projected Volumes (ABP)

- 5.44 The changing diet of fuel feedstock will require a substantial increase in biomass through selected ports. Drax in its joint venture with Siemens, has now received planning consent to fully convert three of their Selby plant's six boilers to 100% biomass starting in 2013, with the intention to subsequently convert the remaining boilers. Drax also proposes to construct the 300MW Heron Renewable Power Station at the Port of Immingham.
- 5.45 Real Ventures have secured planning consent to build a 49.5MW biomass CHP plant at the Port of Immingham which will be fuelled by imported feedstock. Centrica Energy are also planning a biomass plant at Brigg that will be primarily fuelled by imported biomass and produce up to 137MW of renewable electricity. Given its proximity to this proposed power station, Immingham is likely to feature in the supply chain.
- 5.46 A number of other proposed biomass generation stations further inland will require rail served logistics solutions for their fuel requirements and the existing and future facilities at the Port will offer cost-effective and environmentally sound supply chain solutions.
- 5.47 As a result of the above, biomass volumes handled at the Port are predicted to increase to 8 million tonnes in 2020 and 10 million tonnes in 2030.
- 5.48 Iron ore volumes handled through the Port, which were reduced during the economic downturn, are expected to return to previous levels of around 6 million tonnes per year. Assuming continued steel production at the Tata steelworks, a fairly consistent annual throughput is forecast between 2010 and 2030.

Dry Bulks – Energy and Industrial Developments

- Humber International Terminal rail extension
- Immingham Renewables Fuel Terminal
- Humber International Terminal berth 3

- 5.49 The development of a third berth at Humber International Terminal, upgrades and modifications to the Terminal's rail connections and new storage facilities at the Terminal and elsewhere on the port estate will be required to accommodate the increase in coal and biomass volumes projected during the period of this master plan. These are discussed in greater detail in Chapter 7.

Agribulks

- 5.50 The national port demand forecasts for agricultural products anticipate a modest decline of 6.4% over the period to 2030.³⁵ However, this traffic is often generated by the supply and needs of local and regional industry and therefore will create varying levels of demand on UK ports.
- 5.51 Due to the likely reduction in domestically produced fertiliser and subsequent increase in imported products, the Port expects to see growth in fertiliser traffic over the coming years.
- 5.52 Although the national forecast highlights a reduction in grains and animal feed tonnages across the UK, the strategic location of Immingham on the edge of a major centre of the UK's grain producing farmland will ensure steady growth during the period of the master plan.

³⁵ MDS Transmodal – UK Port Demand Forecasts to 2030 (May 2006).



Gleadell Agriculture is a major customer of the Port

5.53 ABP recently invested £3.26m in a modern storage facility at the Port on behalf of Gleadell Agriculture, one of the UK's largest grain merchants. This long-term agreement will service the growing demand in the UK for organic grain products. This market can only be met through an increase in imported material and the facility enables Gleadell Agriculture to continue to be at the forefront of grain trading in the UK.

5.54 The South Humber region has also been identified for a number of biofuel developments which will unquestionably affect the Port's import and export volumes, subject to the levels of production and the amount of locally sourced raw material utilised. For example, Greenergy has recently increased capacity at the biodiesel production facility it operates at the Port and other companies such as Vireol and Bioethanol Limited and Abengoa Bioenergy, are considering the further expansion of bioethanol plants in the Immingham area.

5.55 The Immingham area is attractive to bioethanol companies especially, as locally available feedstock and a nearby port allow for imports of additional feedstock and exports of biofuels and co-products. As this trade develops the Port will continue to

respond to the changing market demands of this traffic, which is expected to result in higher levels of grain trade compared to elsewhere in the UK.

5.56 In view of the above an underlying modest growth is forecast for agribulk volumes handled at the Port up to 2030, with stepped increases resulting from major biofuel site developments.

5.57 While there has been considerable recent investment at ABP's Bulk Park complex, the Port's current storage facilities for agribulk volumes are close to full capacity. It will therefore be necessary to consolidate existing agribulk facilities into more efficient terminal operations and to plan for the expansion of existing facilities in light of future biofuel related requirements. There is land available to accommodate any further requirements for storage and handling facilities on the port estate in tandem with the restructuring of current land uses to maximise efficiency. The likely future developments are discussed in greater detail in chapter 7.

Dry Bulks – Agribulks Developments

- Redevelopment and consolidation of existing agribulk facilities
- Additional agribulk storage facilities

Liquid bulks

Market overview

5.58 Liquid bulks are the largest commodity group (by tonnage) handled at UK ports. In 2010 they totalled 231.6 million tonnes, representing 46% of



Liquid-bulk tank storage at the Port



Immingham Oil Terminal operates 24 hours a day, 7 days a week, handling oil, oil products and petrochemicals

total traffic, of which crude oil and oil products accounted for 198 million tonnes.³⁶

- 5.59 Whilst the impact of the economic downturn, combined with the aspirations of the Climate Change Act 2008 has downgraded volume assumptions for fuel, it is anticipated that the proportion of product imported is likely to increase as refining capacity declines in the UK.
- 5.60 Between 2010 and 2030 crude oil imports by vessel were forecast to rise by 62%. In the same period total oil product volumes handled were projected to rise by 4%.³⁷ It is recognised that, as indigenous refining capacity in the UK declines, a greater proportion of refining activity will take place close to the Port of Immingham. Taken in the context of declining North Sea yields and a resultant need to source crude from further afield, together with an increased reliance on imported refined fuels it is anticipated that these cargo volumes will remain buoyant.
- 5.61 In the Government projections to 2030 other liquid bulks, covering a range of commodities such as, for example, chemicals and vegetable oils, are forecast to maintain their current levels.

Immingham today

- 5.62 In 2010 Immingham handled around 19 million tonnes of crude oil, liquid petrochemicals and other oil related products, representing almost 10% of the UK total.³⁸

- 5.63 The Port serves as a major hub for the UK's oil and petrochemical industries, with around 25% of national oil-refining capacity concentrated near the port estate at the Total and Phillips 66 (formerly ConocoPhillips) facilities. As one of the UK's premier liquid bulk ports, Immingham has four specialist liquid bulk terminals. These are:
- Immingham Oil Terminal (IOT)
 - Immingham Gas Jetty
 - East and West Jetties.
- 5.64 The Port is also home to Simon Storage Ltd, the UK's largest and most comprehensive independently-owned petrochemical storage facility, which has over 240 storage units and is operator of the East and West Jetties. In 2009 Simon Storage invested significant capital in new tank storage capacity to service the growing liquid bulks market.

Immingham tomorrow

- 5.65 Government forecasts for the Yorkshire and Humber region predict a 27% increase in oil products throughput between 2010 and 2030.³⁹ As the natural gateway to the region, the Port needs to equip itself to service this increasing demand through its existing liquid bulk facilities at the IOT and East and West Jetties.
- 5.66 The current heavy reliance of Total's Lindsey Refinery on North Sea crude oil is being addressed by Total with significant investment in plant modifications to allow for the consumption of higher sulphur Middle Eastern crude. The shipping economies of scale will increase the demand for large single shipments to be serviced through IOT, with the deepening of the estuary's Sunk Dredged Channel, which is outlined in Chapter 7, helping to accommodate these shifts in trade patterns.
- 5.67 The demand for increased dry bulk capacity mentioned previously has led to a strategic review of the future of the Immingham Gas Jetty and there is potential for redevelopment to service the dry bulks industry. Such a change will require the provision of alternative liquid capacity within the

Liquid Bulks Developments

- Deep-sea and short-sea berth developments at Immingham Oil Terminal
- Tank storage expansion at Immingham Oil Terminal
- Deepening of the Sunk Dredged Channel

³⁶ DfT Port Statistics 2010

³⁷ MDS Transmodal – Update of UK Port Demand Forecasts to 2030 (July 2007).

³⁸ ABP Port Statistics

³⁹ MDS Transmodal – UK Port Demand Forecasts to 2030 (May 2006).

Port. Given the proximity of the specialist storage cavern, berth developments in the western part of the Port will be required. The displaced white oil traffic has the potential to be handled via the proposed Western Deepwater Jetty and /or an upgraded IOT.

- 5.68 The significant local interest in potential biofuel developments, including the planning and construction of new biofuel plants within the Port's hinterland to produce bioethanol, will also increase demand on the Port's liquid bulk facilities.
- 5.69 The growing transport of liquefied natural gas (LNG) around the world, both on a large scale for power generation and smaller scale for powering of ships, trucks and mobile plant, will create demand for specialist terminals. Immingham is strategically located and already has the necessary expertise and infrastructure to tap into this growing market.
- 5.70 When considering smaller scale LNG projects, use of the Port of Immingham by regular North Sea liner services and wind turbine service vessels, which will be able to access supplies of LNG bunker fuel when they call at the Port, will position Immingham at the forefront of the emerging LNG bunker fuel market. Equally as LNG becomes more established as a global commodity, the Port's deep water and logistical connectivity will ensure its pivotal role in this sector.
- 5.71 An increase in some 10% in liquid bulk volumes to 25.5 million tonnes by 2030 is, therefore, forecast.
- 5.72 In response to the predicted increase in liquid bulk volumes and the ever growing demands being made by users on the Port's other jetties and facilities, ABP intends, to pursue the development of the Western Deepwater Jetty at South Killingholme. This development, on the Port's last remaining vacant river frontage, will be targeted at the growing bulk liquid traffic. In addition ABP intends to explore the opportunities to increase the capacity of IOT to handle additional liquid bulk volumes and other compatible cargos. This is likely to require additional deep-sea and short-sea berth developments and associated tank storage at IOT during the period of this master plan.
- 5.73 Amendments to MARPOL Annex VI stipulate a progressive reduction in sulphur emissions from shipping in the North European Sulphur Emissions Controlled Area (SECA). With limits on sulphur emissions set at 0.1% by 2015, short sea freight rates are expected to increase. With this in mind

the Port is considering options for the provision of alternative fuels, such as LNG.

Unitised cargo

Market overview

- 5.74 Unitised cargo includes commodities such as lo-lo containers, ro-ro trailers and trade vehicles.
- 5.75 Containers carry an increasing range of industrial and consumer goods and foodstuffs and therefore represent one of the most important sectors of the country's port traffic.
- 5.76 Between 1997 and 2010 the number of freight units handled by UK ports grew from 9.4 to 12.1 million, an increase of 29%.⁴⁰
- 5.77 The rapid growth in the number of containers being handled by UK ports reflects:
- The decline in UK manufacturing
 - The increased reliance on imported goods
 - An increase in the proportion (and types) of cargo carried in containers
 - An increase in transhipments (containers transferred from larger to smaller vessels for transport to other ports)
 - An increase in the movement of empty containers resulting from the UK's trade imbalance.

Immingham today

- 5.78 Ro-ro is a major business component at Immingham due to its central location on the east coast of the UK and excellent supply chain links offered between the UK and Continental Europe. The Port handles a large number of sailings each week to Northern Europe and Scandinavia.



DFDS Seaways ferries at the Port's Nordic Terminal

⁴⁰ DfT: Transport Statistics Report: Maritime Statistics 1997 & Port Statistics 2010.

- 5.79 The majority of the Port's ro-ro volumes are handled through the DFDS Seaways Terminal, one of the Port's largest customers. DFDS Seaways is the leading North European shipping operator and its Immingham terminals are regarded as the most important within the DFDS Group.
- 5.80 The Port's ro-ro facilities were expanded in 2006 when ABP invested £27.5 million in the new DFDS Nordic Riverside Terminal at Immingham Outer Harbour. This was supported by a £7 million investment by DFDS and an associated £200 million investment in new ro-ro vessels to service its Immingham trade routes and create new business opportunities within the deep-sea vehicle trade. The Terminal facilities now have dockside and riverside operations including seven ro-ro berths and two conventional side-port berths. The site covers 180 acres and has substantial warehouse capacity.
- 5.81 Lo-lo operations at Immingham Container Terminal benefit from excellent rail connected facilities and services. The Terminal has recently undergone an expansion programme with significant investment by ABP in additional container-storage space, new cranes and terminal equipment and the installation of a modern container location and yard

management system. The Terminal is one of the most efficient of its size within the UK and a regional centre for deep-sea container imports, enabling customers to tranship deep-sea containers direct to Immingham on regular short-sea feeder vessels from UK and European deep-sea container ports.

- 5.82 A smaller ro-ro terminal is operated in the former Henderson Dry Dock by Freshney Cargo Services, who handle a number of weekly Norwegian services operated by SeaCargo. This service has grown considerably in recent years.
- 5.83 Current in-dock facilities include two four-berth terminals capable of handling up to six vessels simultaneously. Both terminals are equipped with high quality handling equipment and have extensive storage and reception areas.

Immingham tomorrow

- 5.84 There is a clear industry consensus that, over the long-term, volumes of container traffic will grow on a worldwide basis. In a UK context, this is recognised by the MDS Transmodal forecast of a compound annual rate of growth of 3.8% to 2030.⁴¹



Immingham Container Terminal is equipped with four rubber-tyred gantry (RTG) machines for efficient receiving and despatch of containers through the Port

⁴¹ MDS Transmodal – Update of UK Port Demand Forecasts to 2030 (July 2007).



Two DFDS Seaways ferries berthed at Immingham Outer Harbour

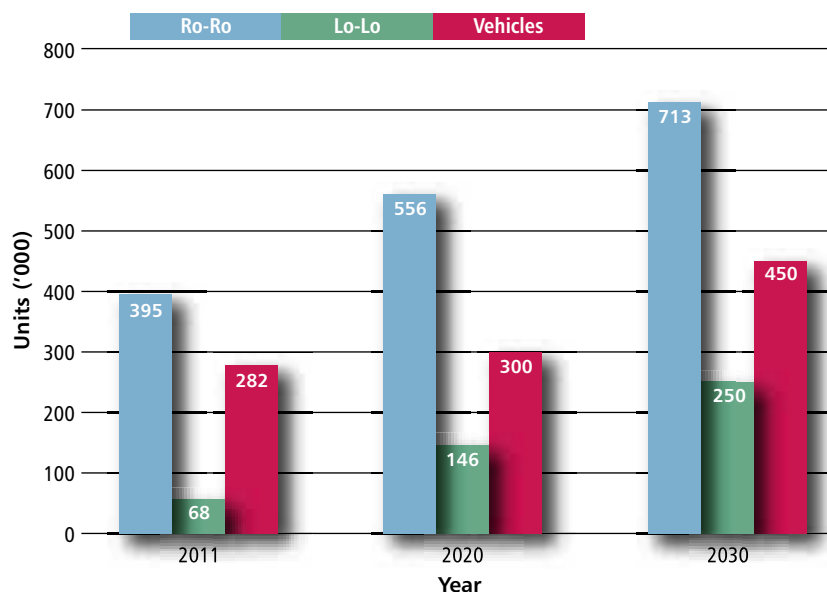


Figure 5.6: Unitised Projected Volumes

5.85 The 2007 forecasts produced by MDS Transmodal project significant growth in the unit load sector up to 2030, against a baseline data of 2005. The forecasts for the Yorkshire and Humber region are summarised below:

- 142% increase in containerised volumes from 506,000 to 1,225,000 twenty-foot equivalent units
- 119% increase in ro-ro volumes from 946,000 to 2,074,000 units.⁴²

5.86 The MDS Transmodal forecasts do not account for the impact of the current economic slowdown. However, even taking a conservative approach to the forecasts, strong growth in the unit load sector is expected to be evident at the Port of Immingham during the period of the master plan.

5.87 The majority of the growth in UK unitised cargo trades forecast will be absorbed by the numerous deep-sea UK container developments. However, there are a number of contributory factors that will ensure strong future unitised cargo volumes in Immingham:

- Increase in the unitisation of traditional general cargo trades
- Increase in the number of feeder services from UK and near continental deep-sea to UK feeder ports
- Continued feeder services of deep-sea container shipments arriving from Northern Europe and the introduction of feeder services from new or expanded deep water ports
- Continued manufacturing trade links between the UK and Northern European countries

Unit Load Developments

- Immingham Outer Harbour Ro-Ro berth 5
- Link road to South Humber Bank Ports and Logistics Centre
- Immingham Outer Harbour berth 4
- Intermodal rail hub

- Further consolidation within the freight ferry shipping lines as sailings are centralised to major ferry ports such as Immingham from smaller ports.
- Requirement to reduce pressure on the already congested road infrastructure in the south of the UK.

5.88 The Port of Immingham is already the second busiest ro-ro freight ferry port in the UK after Dover, handling 0.95 million units in 2011, and expected to cater for a major share of future cargo growth.⁴³

5.89 Average annual compound growth of 3.5% is forecast in ro-ro and lo-lo trades up to 2020 and then at 2.5% per annum up until 2030. A stepped change in lo-lo volumes is expected between 2020 and 2030 with the development of new berths at Immingham Outer Harbour.

5.90 With the excellent existing facilities offered by the Port for the handling of trade vehicles, the future planned storage development at the Port's Stallingborough site and a new link road planned to connect the Port to the south Humber Bank Ports and the development proposed by Able (UK) Ltd, growth of 50% in the volume of trade vehicles

⁴² MDS Transmodal – Update of UK Port Demand Forecasts to 2030 (July 2007).

⁴³ DfT Provisional Port Statistics 2011.

handled at the Port to 300,000 units is predicted by 2020. A further 50% increase to 450,000 units is forecast by 2030.

- 5.91 ABP invested £13 million at Immingham Container Terminal between 2005 and 2009 to improve operational efficiency. Further infrastructure developments will be necessary at Immingham Container Terminal and Immingham Outer Harbour to accommodate the expected growth in lo-lo and ro-ro volumes.
- 5.92 Two additional berths at Immingham Outer Harbour are permitted within the original Harbour Revision Order. It is envisaged that these, a new associated container terminal and the new link road will be required to accommodate the future growth in the unit load sector.

General cargo / other bulks

Market overview

- 5.93 General cargo, such as timber, steel and project cargo, is the term used to describe trade which cannot be categorised into dry bulks, liquid bulks or unitised cargo. Other bulks handled at the Port include aggregates, gypsum and minerals.
- 5.94 In 2011, general or “other cargo” as described by the DfT contributed 17.8 million tonnes to total UK port traffic, representing around 3% of total throughput.⁴⁴
- 5.95 The traditional methods of shipping general or so-called break-bulk cargo have been steadily phased out, with the cargoes often now being unitised.
- 5.96 Despite a shift towards containerisation, the MDS Transmodal forecasts suggest increases of 5.4% and 23% for iron and steel and forestry products (timber) respectively between 2004 and 2030.



Large and unusual cargoes are efficiently imported and handled at the Port. Picture shows ABP cranes undertaking a tandem lift of a steel pile

⁴⁴ DfT Provisional Port Statistics 2011.

Immingham today

- 5.97 Immingham offers the widest range of general cargo services in the UK, handling everything from perishable goods to forestry products. The Port also caters for heavy lift and project cargoes, due largely to the excellent unimpeded transport links to and from the Port.
- 5.98 General cargoes such as timber, steel and fresh produce are important cargoes handled at Immingham. Steel imports and exports are accommodated for Tata and a range of steel-trading companies, with services being offered by PD Port Services and DFDS Seaways. Timber and forest products such as pulp and paper are handled predominantly on the unit load services of DFDS Seaways and are accommodated within their specialist storage facilities.
- 5.99 The recent UK recession has had a significant impact on iron and steel and timber volumes, with a slowdown in the construction industries having a particular impact.

Immingham tomorrow

- 5.100 The Port remains fully equipped to handle a large variety of general cargo commodities.
- 5.101 Significant variances from the present levels of volumes of traditional general cargo trades handled at the Port are not anticipated. It is anticipated that conventional timber volumes will be converted into ro-ro volumes as supply routes change over the next few years. Iron and steel volumes are largely dependent upon the changing demands and production levels at the Tata steelworks and levels are expected to return to those seen prior to the recession.
- 5.102 The Port sees itself as a key partner in supporting the offshore wind sector. With considerable levels of development planned for North Sea locations within proximity of Immingham, significant opportunity exists for the creation of a new offshore service supply industry centred on the Port.
- 5.103 With a number of planned developments within the renewable energy sector centred on Immingham, significant volumes of project cargo will be shipped through the Port.
- 5.104 With this sector in mind, growth to 2 million tonnes in 2020 and a further increase to 2.3 million tonnes by 2030 are forecast for this industry sector.

View of ship berthed on the Port's Western Jetty
and a DFDS Seaways ship departing from
Immingham Outer Harbour



Chapter 6

The Port of Immingham and the low carbon economy

Contents

- 6.1 This chapter identifies the strategic importance of the Port of Immingham in enabling the UK to become a low carbon economy. It outlines the major energy initiatives which are being developed and defines the role of the Port in ensuring their success.

Introduction

- 6.2 The Port of Immingham has been intrinsically linked with the UK's energy industry since 1912, when eight coal hoist appliances in Immingham dock served the UK coal export industry. These facilities assisted the industrial economic development of many countries in the early 20th century. While the original facilities may no longer exist, and the UK has progressed from being a net exporter to net importer of coal, the Port has remained integral to the UK energy industry.
- 6.3 Climate change is the main environmental concern facing the world today. The UK has established itself as the leading player in tackling this global challenge highlighting the importance of greener power generation to a low carbon economy. The Port of Immingham has a major role to play in this energy shift.

Policy

- 6.4 The EU Emissions Trading Scheme, which began in 2005, incentivises transition towards low carbon power generation and energy efficiency improvements by placing a gradual declining cap on emissions from the power generation and industrial sectors.
- 6.5 The UK is subject to a binding target under the European Commission's Renewable Energy Directive. The UK Government has recently reaffirmed its commitment to achieving climate change and renewable targets, including a 34% reduction in CO₂ emissions by 2020 (relative to 1990); at least an 80% reduction by 2050; and ensuring that by 2020, 15% of the energy consumed in the UK

comes from renewable sources.

- 6.6 In July 2011 DECC published their UK Renewable Energy Roadmap, which sets out the Government's approach to unlocking the UK's renewable energy potential. Alongside energy efficiency, nuclear, and carbon capture and storage, renewable energy is essential to help reduce emissions and keep the UK on track to hit the 2050 target. Although starting from a low level, the Roadmap states that the UK can meet the target to deliver 15% of the UK's energy consumption from renewable sources by 2020.
- 6.7 Emerging government policy includes proposals for Electricity Market Reform (EMR). The objective of EMR is to incentivise investment in new electricity generation, including renewables and other low carbon technologies such as nuclear and Carbon Capture and Storage (CCS). This will create new opportunities for Immingham's coal handling facilities.

Port developments and opportunities

- 6.8 In 2011, around 75% of cargo throughput, predominantly oil, coal and iron ore, was for the energy or industrial sectors. Due to its close proximity to many of the UK's power stations and heavy industries, the Port is ideally located to support the numerous low carbon energy initiatives either already in progress or planned.

Grid connectivity – the challenges

- 6.9 The power supply issues involved in the transition to a low carbon economy were identified in a report produced by the Department for Business Innovation and Skills (BIS) in July 2009. The Electricity Networks Strategy Group, a group jointly chaired by DECC and Office of Gas and Electricity Markets, has been established to identify and co-ordinate work to help address key strategic issues that affect the transition of power networks to a low carbon future. In 2009 it estimated that £4.7 billion may be required by 2020 to upgrade the onshore grid network and accommodate new power generation developments.⁴⁵

⁴⁵ BIS Economics Paper No. 1: Towards a Low Carbon Economy (July 2009).

- 6.10 A number of exciting development opportunities exist for both the Port itself and the surrounding region. To ensure maximum economic benefits are realised from the renewable energy sector, it is vital that the necessary infrastructure developments take place in parallel.
- 6.11 Each new power generation development, from the potential construction of a renewable energy power station on the port estate to the shoreside link to an offshore wind farm in the North Sea, may require associated improvements to the region's capacity and onward connection to the National Grid. The Port, potential developers, power distribution networks and regional and local planning bodies will need to work together to ensure the natural advantages of the Port and its hinterland are fully exploited and supported by distribution infrastructure.

Renewable fuel power stations

- 6.12 Due to its strategic importance, the South Humber Bank is an attractive location for the development of new power stations. In particular, investigations are being undertaken by a number of industrial stakeholders for the development of facilities that will generate power from alternative fuels such as biomass, both on the port estate and the surrounding areas.
- 6.13 Biomass has been identified as a viable renewable energy source for a number of years and the UK Government has recognised its ability to make a genuine contribution to its renewable targets and obligations.
- 6.14 The Port is perfectly placed to work alongside power generating companies in developing renewable energy plants. There are a number of areas of backland development land within the port estate and more substantial areas that may become available with planned restructuring of existing port facilities to accommodate future developments. For example, there is potential to develop small-scale renewable fuel power stations on the Port estate itself, in addition to the Port's capability to provide supply chain links to existing and future planned power stations within the area.
- 6.15 The Port is ideally located to provide facilities for the import and storage of the raw materials for these stations. Potential development sites are located to both the east and west of the Port and as such both the inner dock and the riverside terminals provide options for the handling of fuel cargoes.
- 6.16 The Immingham area has already been identified as a suitable location for the development of several new dedicated renewable energy power stations (as mentioned in chapter 5). Real Venture's Reality Energy Centre Immingham, to be built on a three hectare site at the Port, was approved by North East Lincolnshire Council in April 2012 and is expected to be operational in 2015. Centrica's application for the 137MW Glanford Brigg Biomass Power Station is expected to be submitted to the Planning Inspectorate in the fourth quarter of 2012 and be fully operational by or before 2017.
- 6.17 Drax in its joint venture with Siemens, has consent to build the 300MW Heron Renewable Energy Plant at the Port of Immingham which would require approximately 1.4 million tonnes of biomass per year as a fuel source. While this development looks to develop an indigenous supply of the material, it is acknowledged that the majority of the volumes will need to be imported through the Port of Immingham.
- 6.18 Drax recently announced their intention to convert their 4,000MW Selby plant to at least 50% biomass, which will require a high volume of imported feedstock. Other predominantly coal-fired power stations are considering co-firing biomass or converting to predominantly biomass, which is expected to lead to a significant increase in biomass imports through suitably located ports such as Immingham.



Drax's announcement of their proposed renewable energy plant at Immingham

- 6.19 RWEInnogy (the renewable subsidiary of RWE Group) has planning permission for a 65MW plant on a site in Stallingborough, a few miles from the Port, which will receive a proportion of fuel from imported sources.

Biomass co-firing

- 6.20 The co-firing of biomass with coal is a method of power generation already used by the majority of coal-fired power generators. In contrast to dedicated biomass power generation facilities, co-firing of biomass can provide a relatively low-cost method of increasing renewables capacity and reducing CO₂ emissions. Biomass is burnt simultaneously with coal during the generation process. Depending on the type of boiler and method of injection, biomass constitutes around 10% of the fuel source during the co-firing process.
- 6.21 With 60% of the UK's existing coal-fired generation plants located within 50 miles of the Port, Immingham already services the biomass import requirements of a number of power generators using the Port's specialist bulk cargo warehouses. As co-firing and onsite renewable generation initiatives develop, demand for biomass imports will increase.
- 6.22 The global logistics of fuel sourcing will require large port facilities. Immingham is already developing new terminals to support these flows. The proposed Immingham Renewables Fuel Terminal at Humber International Terminal will create additional high-quality storage and integrated rail loading capacity to facilitate the modal switch of this cargo from road to rail.
- 6.23 Immingham Renewable Fuels Terminal will be developed within the next two years to support the projected growth in biomass imports for renewable power generation. Once completed, the facility will offer cargo storage and automated rail loading facilities for deep-sea biomass shipments discharged at the Terminal.

Carbon capture and storage

- 6.24 Coal is a vital component of the UK's energy mix, contributing 37% of total energy production. It is widely available and benefits from relative stability in the supply chain. Coal offers the UK significant advantages as a source of fuel both in terms of availability and, more crucially, security of supply. Techniques are being developed to allow the future burning of coal for power generation to be

achieved in a sustainable manner, which will result in the reduction of environmentally harmful emissions, in particular carbon dioxide (CO₂).

- 6.25 Carbon capture and storage (CCS) has been identified as a sustainable and viable process to reduce carbon emissions. CCS will prevent CO₂ from being released into the atmosphere and contributing to global warming by capturing emissions and storing them underground, under water or through chemical reaction with other materials. The process is currently in the development stages for power stations. The technology has been successfully demonstrated but is still to be proved on a commercial scale.
- 6.26 DECC recognises that CCS is the only currently available technology to dramatically reduce emissions from power stations. The Government's emerging energy policy is also designed to drive investment in commercial CCS. The recently announced Energy Market Reform (EMR) programme also contains a requirement for all new fossil fuel power stations to be carbon capture ready.
- 6.27 In DECC's CCS Roadmap the Government set out their vision for future widespread deployment of CCS, with clusters of power stations and industrial plants linked together by a pipeline network transporting CO₂ to suitable clusters of storage sites offshore. The Yorkshire and Humber region is recognised by Government as a potential site for such a cluster, as there are large concentrations of industry close to potential storage capacity. With its strategic location between the numerous coal and gas fired power stations and heavy industries already served by the Port, and oil and gas fields and connecting pipelines in the North Sea, the Port of Immingham is ideally placed for both direct and indirect involvement in the CCS industry.
- 6.28 Exporting the stored CO₂ by ship while pipeline infrastructure developments take place offers a short-term solution. More importantly, the Port's existing and planned discharge, storage and forwarding facilities will enable it to provide long-term support to the clean coal power generation industry. The Port is working closely with a number of commercial parties to ensure CCS opportunities currently being developed are not missed, including;
- 2Co Energy, the developer of the Don Valley CCS project near Doncaster.
 - Cgen Power
 - Capture Power Limited, formed by three companies - Drax, Alstom and BOC – to develop

a CCS demonstration project called the 'White Rose CCS Project'.

- 6.29 Capture Power Limited state that the Humber region offers huge potential to link together carbon-intensive industrial and power plants via a shared pipeline infrastructure, to be provided by National Grid, out into the North Sea, which offers an ideal location to store the region's CO₂ emissions.⁴⁶

"The Yorkshire and Humber region has the potential to be a true leader in the field of CCS. It is the best placed region in the UK to demonstrate this important technology with its concentration of carbon intensive processes and access to a range of storage options in the North Sea."

Peter Emery, Production Director of Drax



Towers and blades for the onshore and offshore wind are handled at the Port

a strong wind resource extending far into the North Sea. Its estimates suggest that the UK has over 33% of the total European potential offshore wind resource, which is easily sufficient to supply the UK with all of its energy requirements.

- 6.31 The development of offshore wind offers the UK a great opportunity to become a world market leader as the home for key manufacturing and innovation sites. The South Humber Bank provides excellent opportunities to site manufacturing and assembly services and the existing port facilities have capacity to service the associated shipping requirements.

- 6.32 The phased development of the offshore wind industry in the UK has been categorised into 'rounds' by the UK Government and Crown Estate. The industry will experience massive changes over the coming years as it moves beyond the development stages of Rounds 1 and 2 and starts to see the major installations of Round 3. The main focus for the developments will be the North Sea, where more than 4,500 turbines are expected to be installed in UK wind farms by 2020. The Port of Immingham could play a key part as a major hub for UK offshore wind manufacturing, support and maintenance.

- 6.33 Immingham, and its sister port Grimsby, are ideally located for easy access to the offshore wind zones in the North Sea. The ports are situated between the Round 3 Dogger Bank Zone to the north and the Norfolk Zone to the south, with the Hornsea Zone only 40 miles from Grimsby. Grimsby is already an established centre of excellence for operations and maintenance (O&M) activities for Round 1 and 2 wind farms in the North Sea, with companies such as Siemens, Centrica and RES currently operating on the port estate. ABP has also created the Grimsby East Terminal area, which has 20 acres of quayside land and 4,000 square metres of covered warehousing for companies providing offshore wind industry support services.



DECC - UK Offshore Wind Prospectus (May 2009)

Offshore wind

- 6.30 Offshore wind will play a crucial role in meeting the UK's future low carbon energy targets. Renewable UK, the trade and professional body for the UK wind and marine renewables industries, believes that the UK has potentially the largest offshore wind resource in the world, due to the favourable factors of relatively shallow waters and

⁴⁶ White Rose Carbon Capture & Storage Project press release (April 2012)

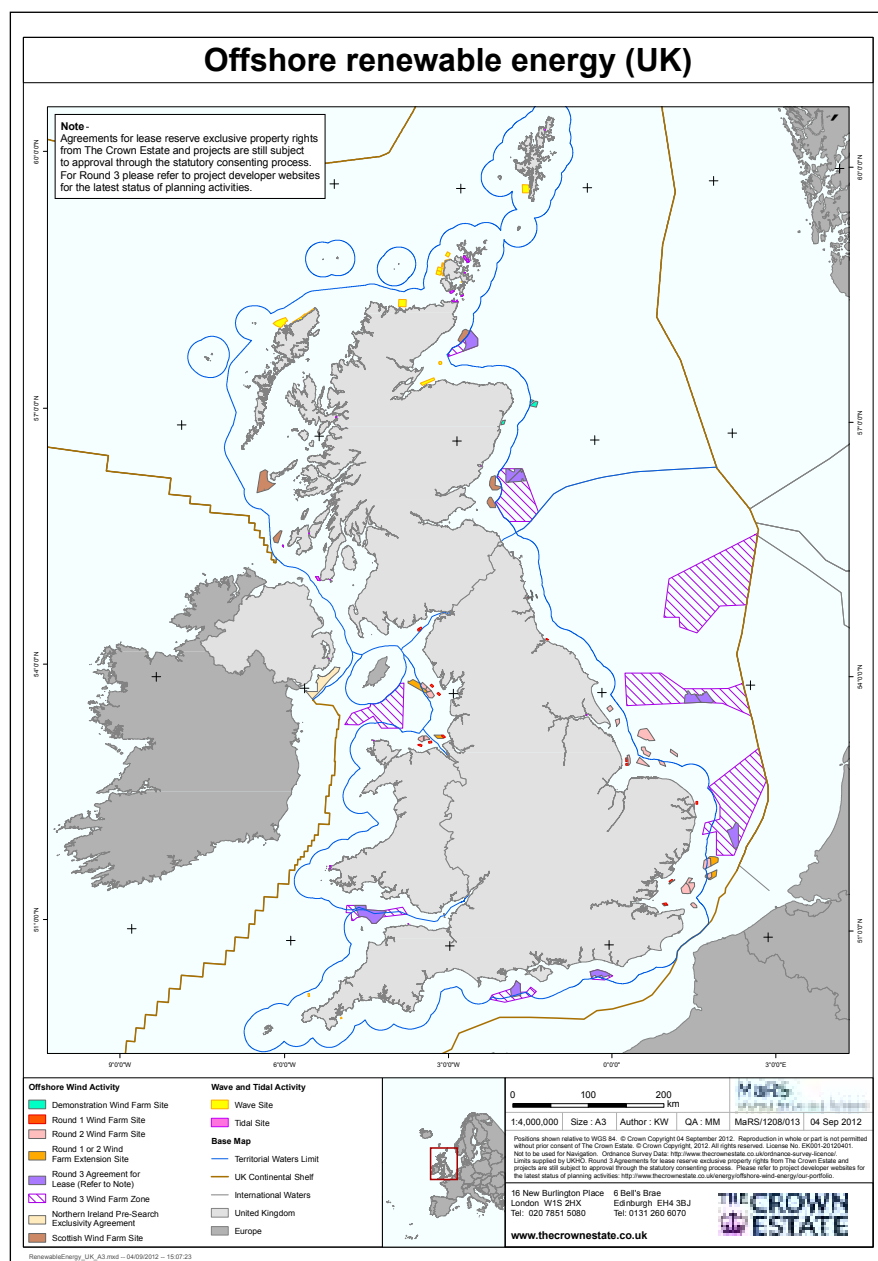


Figure 6.1: Operational and planned UK offshore wind developments (Windpower Monthly June 2009)

6.34 Another of ABP's Humber Ports – Hull - was chosen by Siemens in January 2011 as the preferred location to develop their new offshore wind turbine manufacturing and export facility. Siemens are one of the world's leading suppliers of wind turbine technology, grid connections and turbine servicing and the proposal to develop the 135 acre site, known as Green Port Hull, was approved by Hull City Council in May 2012.

6.35 In a 2009 report DECC recognised that ports are a key component of the offshore wind industry and the UK's push towards a low carbon economy. It identified them as future bases for the

construction, manufacture, operation and servicing of the turbine technology. The report identified the Port of Immingham as one of the four Humber Ports owned and operated by ABP which are ideally situated for the planned offshore wind projects and acknowledged the Port's considerable experience of working with the wind industry. In addition the report also identified an area of land to the west of the Port in the ownership of Able UK Ltd as being suitable for offshore wind manufacturing.⁴⁷

6.36 Establishing a strong and reliable supply chain is crucial to the success of the industry and the

47 DECC – UK Offshore Wind Ports Prospectus (May 2009).



The Port of Immingham offers logistics' solutions for the energy sector and their significant offshore windfarms in the North Sea.

existing facilities at the Port of Immingham are ideally placed to facilitate this. The close proximity of the Tata steelworks in Scunthorpe (a major user of the Port of Immingham) raises the possibility of synergies for tower and foundation manufacturing operations in the construction phase of the development.

- 6.37 Development sites exist within the Port of Immingham estate for pre-assembly, manufacturing and construction of wind turbines. Immingham's berth capacity offers a number of options for supporting the construction of off-shore wind farms. In addition to turbines, blades and nacelles, foundation production and pipe laying activities will be well served from the Immingham berths. There is therefore significant opportunity to centre a new offshore service supply industry at the Port of Immingham.

Tidal power

- 6.38 Tidal renewable energy developments are in their infancy compared to technological advances in other areas of the renewable sector. However the UK's extensive tidal ranges and current flows make it ideally suited to develop this type of technology.

Tides also offer a more predictable form of renewable energy than wind or solar for example.

- 6.39 A small number of tidal generation projects have been trialled in the Humber and there is an expectation that this technology will be used more effectively and extensively in the future.
- 6.40 The Port will continue to support the development and production of tidal energy as opportunities within the South Humber Bank region arise, while accepting that a balance will need to be met between tidal power opportunities and the high intensity of shipping in the UK's busiest commercial estuary.

Onshore wind – sustainable port generation

- 6.41 The Port, in collaboration with customers, is investigating the potential for other forms of renewable generation which could offset its current reliance on power from the National Grid and which could help to reduce overall carbon emissions, in light of the Government's CRC Energy Efficiency Scheme.

- 6.42 The Port is ideally placed to benefit from direct wind power generation. Several potential turbine sites have been identified which ABP will be progressing through feasibility assessments to planning and consultation. These sites will initially provide power for the Port's own use, with potential export subject to further development of the infrastructure through to the National Grid.

Biofuels

- 6.43 The development of the biofuels sector offers a range of opportunities for the Port, such as areas for plant construction and new import and export markets.
- 6.44 There are two main types of biofuel: biodiesel and bioethanol. Biodiesel is currently the most popular UK biofuel and can be produced from virtually any type of vegetable oil through a basic chemical process. Bioethanol is an alcohol produced by fermenting sugar crops such as sugarcane and sugar beet or starch crops such as corn.
- 6.45 The Renewable Transport Fuel Obligation (RTFO) came into force in April 2008 and is overseen by the Department for Transport (DfT). The RTFO places an incremental requirement on transport fuel producers to ensure that a specified percentage of the road fuels they supply in the UK are made up of renewable fuels.⁴⁸
- 6.46 Currently only 22% of the UK's current biofuel requirement is produced domestically, but this figure is expected to rise as several large biofuel plants are planned within the vicinity of the Port, including:
- Greenergy, who is already an established customer at Immingham, with a biodiesel production plant located at the Port. Greenergy supply one fifth of all the road fuel used in Britain, providing around 10.9 billion litres of petrol, diesel and biofuel.⁴⁹
 - Abengoa Bioenergy, who have announced plans for a bioethanol plant at Immingham that would use wheat as a feedstock.⁵⁰
- 6.47 Although most UK biofuel refineries intend to use domestic feedstock to maximise their cost-effectiveness, a port location means additional raw material can be imported as necessary and the finished product can be shipped around the UK or abroad.
- 6.48 The location advantages identified for power

generating developments in Immingham also hold true for the development of biofuel production and processing:

- Bioethanol companies have access to locally available feedstock and a nearby port that facilitates the import of additional feedstock and exports of biofuels and co-products
- The two nearby oil refineries provide a local market for the biofuel, which can be cost-effectively transported by pipeline
- There is substantial existing liquid bulk storage available on the Port.

⁴⁸ DfT – Verified RTFO biofuel statistics: obligation year 2010/11.

⁴⁹ Greenergy website and Annual Report 2012.

⁵⁰ Vireol website.

Containers being unloaded by ship-to-shore container gantry cranes at Immingham Container Terminal



Chapter 7

The Port of Immingham 2010 to 2030

Contents

- 7.1 This chapter sets out the requirements for the development of the Port's infrastructure between the present day and 2030.

Introduction

- 7.2 The history of the Port is one of continual reuse of land coupled with intensification of land use in response to constantly changing customer requirements and growth in international trade.
- 7.3 In the last 10 years ABP has invested over £250 million in developing the Port to maximise its benefits to the local and regional economies. Developments have been planned to ensure the Port grows in line with industrial and economic demands.

The Port today

- 7.4 Land use within the Port is summarised in Figure 7.1.
- 7.5 The current Port estate can be sub-divided into the following broad categories of land use:
- Dry bulks – energy/industrial
 - Dry bulks – agribulks
 - Liquid bulks
 - Unit load
 - General cargo/other bulks
 - Development land
 - Environmental Conservation Areas.

Growth strategy

- 7.6 The future growth of the Port will continue to be based on the existing strategy that has been so successful over the years. Developments will be completed to meet trade demand forecasts and the growth expectations and aspirations of ABP (see Chapter 5). These developments are vital to strengthen and further enhance the Port's role as an international gateway to the UK and the Yorkshire and Humber region in particular.
- 7.7 A number of developments are possible within the enclosed dock and associated businesses.

Opportunities also exist to take further advantage of the natural deep-water frontage through construction of further riverside berths to service new and existing trades and the economies of scale possible in facilitating the berthing of the largest vessels that can navigate up the Humber Estuary.

- 7.8 Areas of development land exist within the existing port boundaries for future expansion, but the restructuring and modernisation of existing terminal operations and rationalisation and consolidation of port uses will also be necessary to ensure that the Port operates most efficiently.
- 7.9 It is anticipated that all suitable development areas within the traditional boundaries of the Port will ultimately be used and at the appropriate time the Port will therefore have to link to the adjacent strategic land banks located to the east, south and west. These areas have been recognised by local and regional planning bodies as land for Port related use and as such form an important future resource to assist the growth of the Port and related economies.

Port developments 2010 – 2030

- 7.10 The developments discussed below and shown in Figure 7.2 are planned for implementation at the Port over the next 20 years. Each development will be undertaken in conjunction with customer commitment and subject to capital approval. All appropriate planning consents will be secured in the planning phase.
- 7.11 It is anticipated that these developments will be required to meet future trade demands and those of the Port's key customers and stakeholders. The Port has always adapted its development plans in line with evolving international market trends and will continue to do so to remain at the forefront of the UK ports industry. Even so, since ABP adopts a flexible approach to its strategic development programme individual projects may be modified over time and it is likely that additional key developments will arise.
- 7.12 These key developments will focus on the sustainable use of existing port land. They will also benefit Port-related developments outside the port

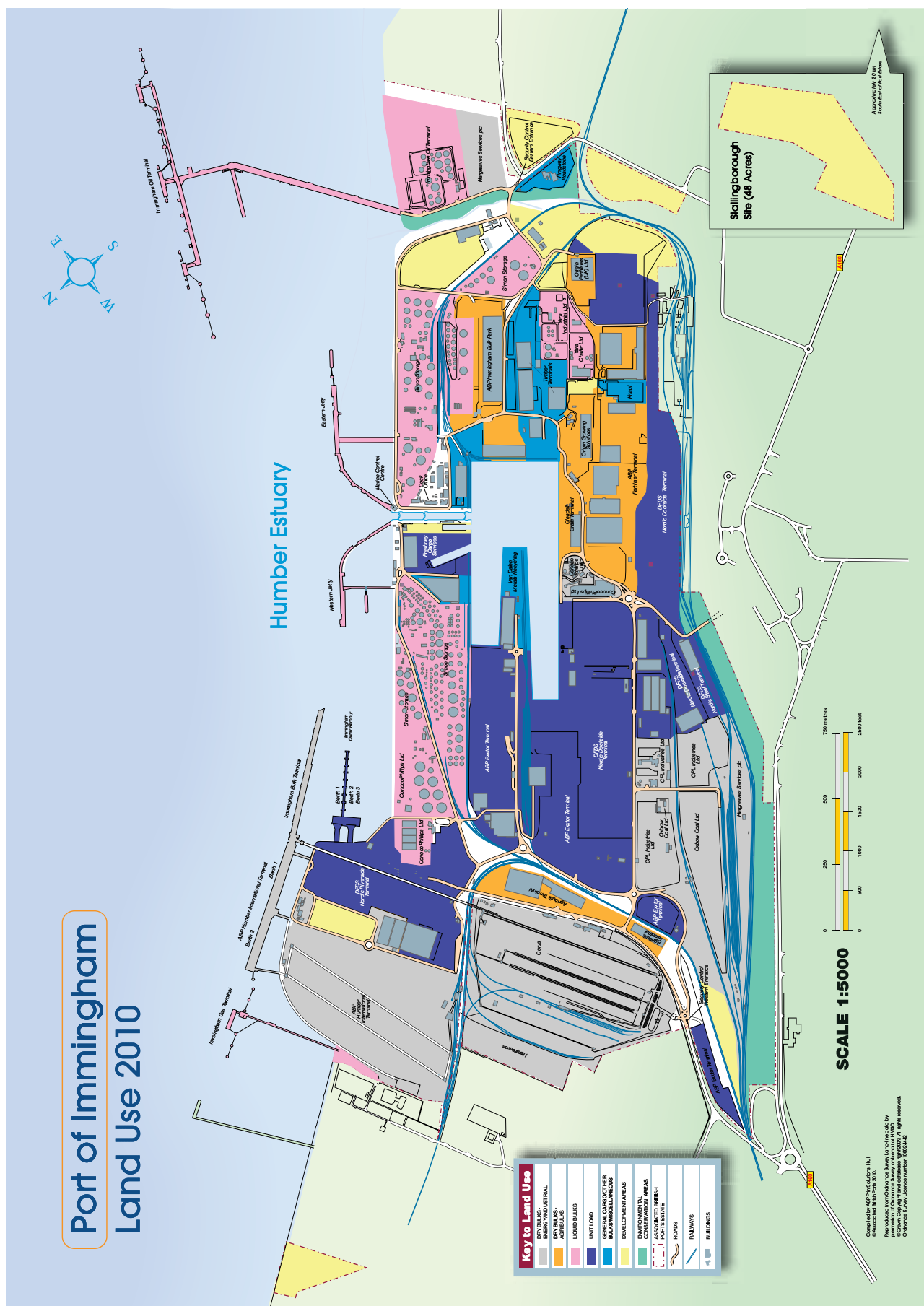


Figure 7.1: Port of Immingham land use plan 2010 (ABP)

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estate and naturally extend the influence of the Port but without necessarily extending its existing boundaries.

Redevelopment of Immingham Fertiliser Terminal

- 7.13 Immingham Fertiliser Terminal, the Port's largest fertiliser terminal, has its origin in a manufacturing facility that was constructed in the 1930s. ABP has made considerable investment to relocate fertiliser handling facilities elsewhere on the port estate. Re-development of the older facilities will release some 20 acres of land to service the growth in trade in the energy and industrial sector.
- 7.14 Real Ventures have obtained planning permission for a 49MW biomass power station, which will utilise a proportion of land made available from consolidation of the fertiliser terminal. Scheduling plans indicate this will be operational in 2015.

Immingham Renewable Fuels Terminal

- 7.15 The development of Immingham Renewable Fuels Terminal, located at Humber International Terminal, will be undertaken within the next five years in

response to the increased demand for biomass volumes moving through the Port (Figure 7.3).

- 7.16 Once completed, the facility will be a fully automated bulk-handling terminal that will handle biomass for the region's power generating industry. The facility will have an annual throughput of around 3 million tonnes. The terminal will be able to support the requirements of both biomass-fuelled renewable power stations and co-firing operations at existing coal-fired power stations and statutory authority exist for its expansion.
- 7.17 Although a substitute for coal during the co-firing operation, there will be an overall increase in rail haulage due to the comparable reduction in product density of biomass in comparison to coal. Furthermore, biomass generally has a lower calorific value than coal, resulting in a need to burn greater volumes for the same amount of generated energy. The Humber International Terminal Rail Extension will assist in accommodating increased train volumes at the terminal, with completion planned for late 2013. Continued close collaboration between ABP and Network Rail will, however, be vital to ensure the forecasted volumes can be successfully accommodated.



Figure 7.3: Artist's impression of the Immingham Renewable Fuels Terminal

Humber International Terminal Rail Extension

- 7.18 Since becoming operational in 2006, the automated rail loading facility at the Humber International Rail Terminal has operated at near capacity. Having conducted investigation to determine ways to increase the rail terminal's capacity, ABP and Network Rail have undertaken works to extend the Rail Terminal into the existing Killingholme Branch Line corridor, which is owned and operated by Network Rail. This is commonly known as the HIT headshunt.
- 7.19 The proposed works will include additional track, turnouts, crossing improvements and a road bridge to the west of the Port that will reduce turnaround times by 25%, enabling trains to complete the existing 'run-round' of the locomotive off the terminal without causing delays to subsequent services.
- 7.20 These works will be completed to coincide with the development of Immingham Renewable Fuels Terminal and will allow more train paths to be scheduled from the terminal to assist in servicing the increase in future coal and biomass imports that is forecast.
- 7.21 Medium, to long term needs of the Port and South Humber business community are only likely to be adequately served by construction of the Killingholme Loop.

Border Inspection Post

- 7.22 A Border Inspection Post or 'BIP' is required at a port or airport for all products of animal origin imported into the UK from countries outside the European Union (EU). These products must be checked at an approved border inspection post (BIP) to ensure that they meet the animal and public health import conditions. These checks include:
- a check on the accompanying documentation
 - an identity check to ensure the product matches the details in the documentation
 - a physical check on the product itself, which may include laboratory analysis
- 7.23 The BIP for the Ports of Grimsby and Immingham is presently located at the Port of Grimsby, although increasingly, the product requiring inspection arrives at the Port of Immingham. The resulting return journey of some 18 miles from Immingham to Grimsby and back has obvious consequences to the supply chain. Together with North East

Lincolnshire Council (NELC), ABP is undertaking a review of the location of the BIP and a cost benefit analysis established so that an informed decision can be made.

Humber International Terminal Berth 3

- 7.24 The two-berth Humber International Terminal currently offers 520 metres of berth capable of accepting one Cape-sized and one Panamax vessel simultaneously berthed alongside. The Humber International Terminal 2 is a state-of-the-art operation, fitted with fully-automated conveyor systems, stacker-reclaimers and a rapid rail load-out facility. The original Humber International Terminal berth is equipped with three multi-purpose cranes and currently fulfils a supplementary role to berth 2 in handling additional coal volumes plus other dry bulks such as minerals, biomass, and animal feed. In 2012 the terminal handled its 100 millionth tonne since its inception in 2006.
- 7.25 The success of Humber International Terminal means that capacity has quickly been committed as new facilities have come on stream. The combined berths now have a throughput of over 11 million tonnes with incremental capacity limited to a maximum of 2-3 million tonnes. Since opening in 2000, the growth of the dry bulks business has underpinned the success and the need for further development of the facility. The trade demand projections outlined in Chapter 5 forecast continuing need for additional capacity by 2020, building on the advantages of the terminal's location, deep sea capabilities and high service levels. The further development of Humber International Terminal is therefore key to the Port's strategy (Figure 7.4).
- 7.26 Immingham Gas Jetty (IGJ) lies immediately upstream and offers an ideal opportunity to extend the existing Humber International Terminal berths, allowing for accommodation of a significantly increased demand for dry bulk cargoes. Modification of the jetty face would provide the opportunity to create a continuous 1,320-metre berth frontage stretching downstream to Immingham Bulk Terminal. This would be capable of accepting up to four Cape-sized vessels simultaneously. This development and replacement of IGJ will be subject to customer demand, which as demonstrated in chapter 6 is rapidly becoming a commercial reality.
- 7.27 It is envisaged that the Humber International Terminal 3 development will require a Harbour



Figure 7.4: Computer generated image (CGI) of Humber International Terminal including berth 3

Revision Order (HRO) and related consents. The required authorising process is currently underway. The development will be taken forward in tandem with separate plans for the development of the Western Deepwater Jetty, as outlined in paragraph 7.30 below.

- 7.28 Landside works associated with the expansion of Humber International Terminal will ultimately depend on the end user. It will be possible to link a conveyor off the berth into the existing automated system or to bypass directly to future planned or new developments on adjacent development land to the south west of the port estate. Another option is to support CCS initiatives working in conjunction with existing Port customers: CCS is the technology being trialled by power generators to reduce CO₂ emissions and is discussed in more detail in Chapter 6. Alternatively, the Humber International Terminal 2 conveyor system could be extended to create a flexible two-berth coal terminal feeding to rail and off-site backland storage areas.
- 7.29 An expanded terminal and new 'distant' end users would require additional rail capacity. Network Rail and regional and local planning and development bodies will be engaged and consulted in any requirement for infrastructure developments during the planning stages, which will be supported by further development of the Humber

International Terminal Rail Extension and in the long term, by the Killingholme Loop.

Western Deepwater Jetty

- 7.30 This site, lying to the west, offers the last remaining undeveloped riverside frontage for the Port of Immingham. It is uniquely suited to the development of a new liquid bulks terminal to service existing cargos and new bulk liquids transiting the Port. It also presents as a realistic option to service flows of Liquid Petroleum Gas and White oils traffic displaced from the Immingham Gas Terminal Jetty, given the need for redevelopment of this berth. Proximity to the Phillips 66 and Calor Gas underground gas cavern network is also an important consideration for ensuring current gas jetty traffic remains located to the west of the Port. In addition, the Western Deepwater Jetty, when constructed will also provide further liquid bulk handling capacity at the Port to accommodate new cargoes, such as refined fuels and Liquefied Natural Gas (LNG).
- 7.31 The Port's liquid bulk cargoes are set to increase in volume, with increases in ship-size also an inevitable consequence of the ongoing globalisation of energy and fuel- related cargoes. Liquid bulk traffic through UK ports is set to become a significant business growth area, particularly when viewed in the context of

declining indigenous refining capacity and increased global interest in the international LNG market and other liquefied gases. The proximity of the Government Pipeline Storage system (GPSS) to the South Killingholme storage site makes the development of the adjacent Western Deepwater Jetty an important opportunity to increase energy security for the UK.

- 7.32 It is envisaged that the development of the Western Deepwater Jetty will require a HRO and related consents. The required authorising process is currently underway. The development will be taken forward in tandem with separate plans for the development of the Humber International Terminal Berth 3, as outlined in paragraph 7.24 above.

Sunk Dredged Channel Deepening

- 7.33 The Humber Estuary is a significant natural waterway fed by the rivers Trent and Ouse, which combined, drain one-fifth of England. The Estuary provides deep-water access to the Port of Immingham. The Sunk Dredged Channel guarantees 9.0 metres of water at all states of tide, allowing vessels drawing up to 12.8 metres to navigate into Immingham over all high water periods. Depths up to 14.2 metres can be accepted on spring high tides. The Port is consequently able to accept vessels of up to a capacity of 180,000 dwt tonnes, (290,000 tonnes dead weight tonnes part laden) meaning that the

largest Cape-size vessels can serve the Port on a part-cargo basis.

- 7.34 Commercial demand, particularly within the liquid bulk sector, has resulted in a proposal to deepen the Sunk Dredged Channel and ancillary approaches to 11 metres, thereby allowing vessels drawing 15 metres to access the Humber over all high-tide periods. Such an improvement will allow large crude oil carriers (and dry bulk vessels, subject to further dredging) to enter the Estuary with more cargo, thereby further enhancing the efficiency of operations.
- 7.35 The impetus for this development has derived from Total's need to feed its refinery with crude oils from more distant origins as a result of declining North Sea reserves. Applications to facilitate the deepening were submitted in early 2009 and the relevant dredging licences have been obtained. Works are expected to start in the near future. (Figure 7.5).

Immingham Oil Terminal Developments

- 7.36 Immingham Oil Terminal (IOT) provides the premier deep-water berthing facility within the Humber Estuary. For the last 43 years the terminal had been operated for the exclusive use of Total and Phillips 66, who are likely to continue to be primary users of the terminal for the medium to long-term. With the expiry of the exclusive lease new operational

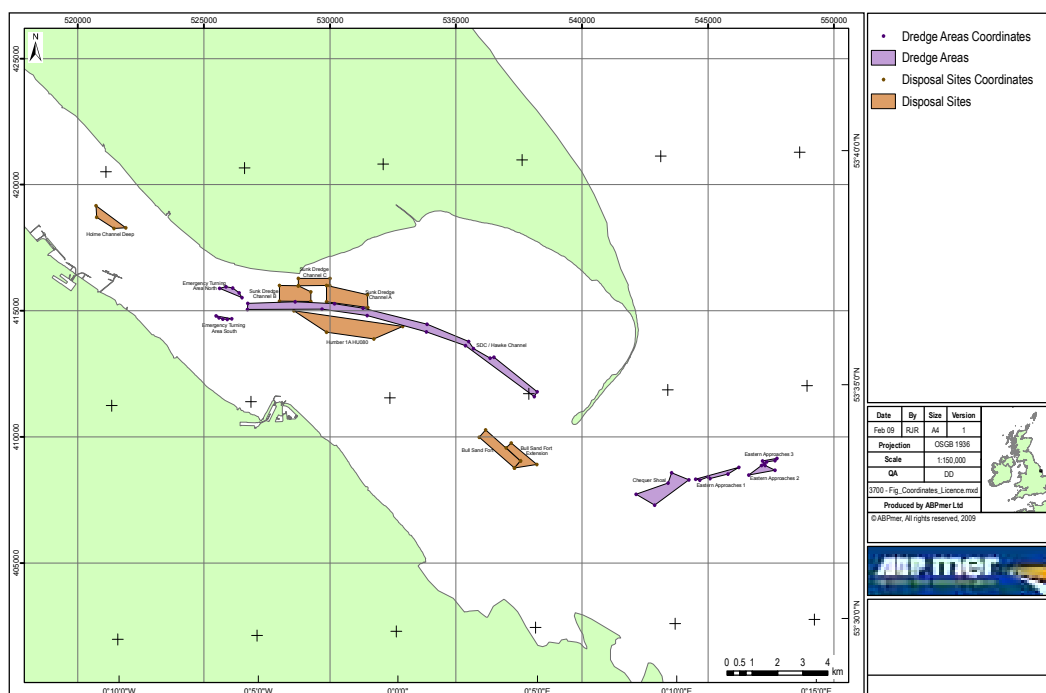


Figure 7.5: Map showing dredging areas of the Sunk Dredged Channel deepening scheme

arrangements will be introduced. The terminal's priority will remain the servicing of the existing refineries' needs. The opening up of access to the IOT, in conjunction with the existing users should, however, allow new cargo opportunities to be realised.

- 7.37 The terminal provides an important gateway for both crude oil imports and refined product exports. As such, security of the supply chain is a primary concern of the refineries and is the principal operating concern of the terminal management. The deepwater facilities at IOT, however, have the capability to service a wider customer base in the future. Land has been assembled in the vicinity of IOT to provide areas for future storage capacity for new traffic. The equipment at the terminal can be upgraded and improved to facilitate the movement of additional volumes, while still maintaining continuity of supply to the two refineries.
- 7.38 Opportunities exist for new liquid bulk traffics such as additional oil cargoes, aviation fuel, white oils and gases and will require further capital investment in the current facility to develop its commercial potential capacity and throughput. A new deep-sea berth for large tankers and a short-sea berth for intra-European and coastal trades can be constructed to meet these demands alongside additional tank storage. Furthermore, plans to redevelop the Immingham Gas Jetty as part of the Humber International Terminal berth 3 construction will require alternative exit supply routes for these white oil trades currently handled by the jetty. Part of this proposal is to transfer this operation to the Western Deepwater Jetty and / or IOT.

Immingham Outer Harbour new berth developments

- 7.39 Initial construction of the three-berth ro-ro ferry terminal for DFDS represented the first phase development of the Immingham Outer Harbour (IOH). The Harbour Revision Order which authorised the development additionally authorises the construction of a further ro-ro berth to the north. It is envisaged that the northern berth will be developed and constructed as an additional ro-ro facility by 2020.
- 7.40 A further phase of IOH authorised by the Harbour Revision Order is planned for implementation between 2020 and 2030. Building on the successful development of the outer harbour's ro-ro berth capacity, a lo-lo berth to the south of the outer harbour basin is planned to accommodate

future trade increases in less specialised general cargo sectors. Adjacent areas of land will be incorporated into the existing operations at the Port to support the berth development.

- 7.41 The opportunities for the IOH berths will be enhanced by logistical connectivity such as:
- A new link road connecting to the South Humber Bank development lands lying to the west of the Port, including the Able (UK) Logistics Park.
 - An intermodal rail hub at the Port's Mineral Quay to service growing unit load movements by rail.

Agribulk Storage Developments – Expansion of Immingham Bulk Park

- 7.42 Immingham Bulk Park was first constructed in 1999 to offer third-party handling and storage facilities mainly for the agribulk market. The facility was successful and further investment was made in 2006 to extend the original facility. In 2008, ABP committed to further extending the existing bulk handling facilities by undertaking the expansion of operations at 14, 15 and 16 sheds and in 2009 completed construction of 28 shed, an adjacent 10,000 square metre storage facility.
- 7.43 Agribulk volumes handled at the Port are currently constrained by the capacity of the on-dock covered storage available and additional storage facilities will be required within the next five years. It is anticipated that these will be located on an area of the redeveloped Fertiliser Terminal and Humber International Terminal. As part of the continuing development, ABP plans to extend into part of the existing Fertiliser Terminal and provide additional open and covered storage for a range of bulk products including fertilisers, feeds and minerals.

Immingham Container Terminal Redevelopment

- 7.44 The re-development and consolidation of Immingham Container Terminal will create a dedicated 40-acre container handling facility that will allow further growth in short-sea and feeder container trades, thereby potentially supporting the development of trade via the Outer Harbour.

Stallingborough Satellite Terminal

- 7.45 In 2008 ABP acquired 48 acres of farmland at Stallingborough. The land is situated within

approximately 2 km of the Port to the south east and is easily accessible by road. The site offers a number of different opportunities including car storage, energy-related developments and warehousing/ logistics hubs.

West Gate Entrance Development

- 7.46 In conjunction with the development of land around the Port's west gate, the planned improvements to the A160 being made by the Highways Agency and organic growth of port related traffic, it is intended to enhance the west gate entrance, which is the Port's principal access point. In particular, works will be necessary to accommodate an increasing amount of traffic serving the Port's unit load terminals and to facilitate improved security and safety checks to be carried out at the Port's entrance.



Figure 7.6: Aerial plan showing the East Gate development areas

East Gate Development

- 7.47 ABP owns 14 acres of land immediately adjacent to the east gate of the Port. This undeveloped land is ideally located for an eastward extension of the Port's perimeter as demand dictates. Combined with a reallocation of some of the existing land use at the east gate, the land would be available for either open or specialist storage, offering the possibility of further automotive storage, biofuel development to support future developments at IOT or wind turbines for embedded generation (Figure 7.6).

Freightliner operates a regular service to and from Immingham servicing the Port's energy trades and reducing the number of lorry journeys on the road network



Chapter 8

Intermodal Connections

Contents

- 8.1 This chapter describes the Port's existing inland access routes and coastal shipping connectivity, providing an indication of the modal split of traffic passing through the Port.
- 8.2 It considers the likely impact of the Port's growth expectations on these access routes and sets out plans for how they can continue to provide for the needs of the Port.

Introduction

- 8.3 Inland access routes and coastal shipping connectivity are vital for the efficient transport of import and export cargoes to and from the Port.
- 8.4 Over time, the modal choice of customers, and therefore the impacts of traffic growth, is likely to be determined by the transport options and connectivity that are available.
- 8.5 Local, regional and national transport policy and investment will therefore be a key influence on their choice and, by extension, the future role of the Port.

Immingham – a key transport hub

- 8.6 Immingham is an important gateway for trade into the UK.
- 8.7 Located at the point where the deep water of the Humber Estuary meets the land and just a two-hour journey from the open sea, accessible at all tidal states by vessels with drafts of 7.5m, and up to 14.2m at high tide, the Port provides deep-water access facilitating direct international shipping links.
- 8.8 The DfT report 'Delivering a Sustainable Transport System' (2008), produced in response to the Eddington study and the Stern Review, defines the UK's strategic national transport infrastructure.
- 8.9 The report identifies the Port of Immingham as a key international gateway and an important part of the national transport system.



Figure 8.1: Strategic National Corridors (DfT)

- 8.10 In addition, the Port is well connected to the inland transport networks servicing the UK via the Trans-Pennine corridor, one of the UK's Strategic National Corridors (Figure 8.1).
- 8.11 The report also states that the Government is committed to investing in improved access to the UK's key international gateways, which has implications for the growth forecast for the Port.

The situation today

Modal share

- 8.12 Dry bulks and liquid bulks servicing the UK's nationally significant energy and industrial sectors make up the majority of the cargo that flows through the Port. The modal split of traffic moving out of the Port is heavily determined towards these products:

- Liquids by pipeline account for around 34% of total cargo flow
- Solid fuels and iron ore by rail account for around 23%
- The remainder is predominantly unit-load traffic movements by road, with a small amount of coastal shipping accounting for the balance.

8.13 With the modal share comprising mainly pipeline and rail traffic movements, the Port already delivers a far greater sustainable transport system than many other UK ports. This is starkly demonstrated by the fact that around 25% of all UK railfreight originates from the Port of Immingham, underlining the critical importance of rail connectivity to and from the Port.

Rail freight

8.14 Rail freight fulfils a continuing and critical role in the distribution of products to and from the Port. All rail traffic is routed via Wrawby Junction (some 10 miles from the Port) and then via one of three lines:

- South via Lincoln
- South west via Brigg
- The South Humber route, which connects directly to the East Coast main line.

8.15 Up to 300 trains leave the Port on a weekly basis loaded with dry bulks and minerals, liquid bulks,



Figure 8.2: Freight trains per day in the Yorkshire and Humber region

steel and unitised cargoes. The annual movement of around 10 million tonnes of coal imports from Humber International Terminal for the energy supply industry is entirely supported by rail. Another 7 million tonnes of raw material is also transported via rail for Tata's plant at Scunthorpe.

8.16 Network Rail recognises that the South Humber area "represents a key element in the UK rail network for the movement of bulk freight",⁵¹ highlighting the energy supply industry train movements as a main market within the Yorkshire and Humber Route Utilisation Strategy (RUS) and Northern RUS.⁵² According to the RUS the Immingham area has the highest volume of freight train movements in the Yorkshire and Humber region (Figure 8.2).

8.17 In its Network Specification 2011 document, Network Rail emphasises the importance of the



DB Schenker operates a regular rail freight service to and from the Port. This picture shows wagons arriving at the automated coal loading facilities at Humber International Terminal

⁵¹ Yorkshire and Humber Route Utilisation Strategy, Network Rail (July 2009).

⁵² Northern Route Utilisation Strategy, Network Rail (May 2011).

South Yorkshire and Lincolnshire routes, stating that they have “some of the highest freight tonnage movements in the UK operating on the south bank of the Humber between Immingham, Scunthorpe and Doncaster”.⁵³ The movement of coal and iron ore imports to the Aire and Trent valley power stations and the Tata steelworks at Scunthorpe are specifically noted.

- 8.18 In recent years Network Rail has undertaken a number of works to support this traffic. Works have included the upgrade of signalling and infrastructure as part of Humber International Terminal berth 2 developments, improvements to Wrawby Junction and the upgrade and reopening of the Brigg Line for 24-hour freight operations.



Figure 8.3: Main road access corridors to/from Immingham

Road freight

- 8.19 Approximately 20% of cargo movement through the Port is by road. In 2011 over 8 million tonnes of unit load volumes were imported or exported through the Port's DFDS and Immingham Container terminals, with road servicing the majority of those movements.
- 8.20 The main road access corridors for HGV freight to and from the Port are the M180/A180 and A160 dual carriageways, providing immediate access routes to central and eastern England (Figure 8.3). Currently, the A160 carries around 13,000 vehicles per day, 44% of which are heavy goods vehicles.
- 8.21 A substantial road network linking port terminals to berths, warehouses and the main access routes across the port estate has been established over recent decades and is regularly developed to meet new trade demands. For example a new flyover was constructed on the port estate in 2006 to provide a direct connection between the DFDS Nordic Riverside Terminal and the A160.

Short-sea Shipping

- 8.22 Immingham is in a strong position to accept short-sea feeder traffic. Rotterdam, Europe's largest deep-sea port, is only 228 miles away. The Immingham Container Terminal and DFDS Nordic terminal directly benefit from the Port's proximity to mainland Europe, with feeder vessels arriving from Rotterdam and other ports such as

Zeebrugge. These terminals supply the central regions of the UK with a wide variety of unitised goods originating from distant deep-sea locations.

- 8.23 The Port operates as a 'feeder' or 'transhipment' port, receiving containers which have been transferred from a UK or European deep-sea container port to smaller vessels for onward distribution.

Pipeline

- 8.24 The Port of Immingham is connected to the national oil pipeline network regulated by the Oil Pipeline Agency. The majority of Immingham's throughput of liquid products is moved by pipeline to the nearby Total and Phillips 66 refineries. Pipeline is the single largest mode of transportation through the Port by tonnage and also the most sustainable, as it reduces reliance on other modes of transport.
- 8.25 The current national oil pipeline infrastructure has sufficient capacity to allow for both the current fluctuations in cargo volumes and the future growth that is expected in the liquid bulk sector.
- 8.26 For practical reasons there is minimal scope for the transfer of other modal movements to pipelines.

The situation tomorrow

- 8.27 A shift towards a more multi-modal approach to the transportation of goods from point of origin to

⁵³ Route Specifications 2011: London North Eastern Network Rail.



Figure 8.4: Proposed strategic rail freight network map (DfT)

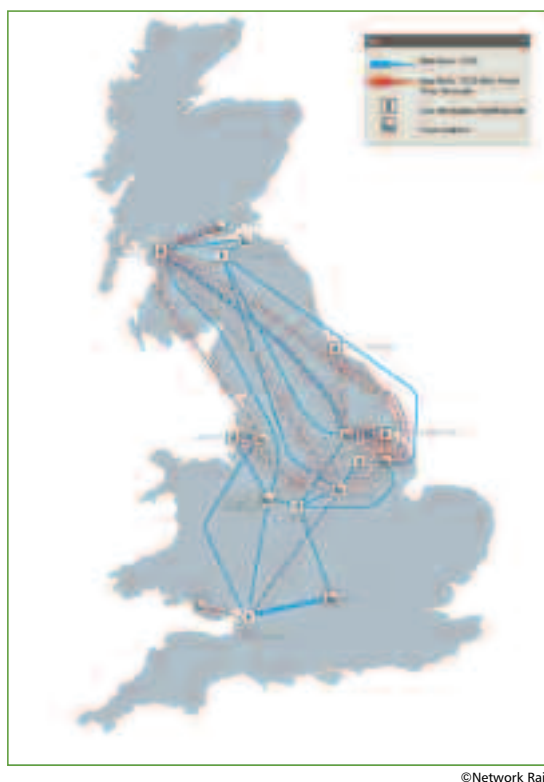


Figure 8.5: Power supply industry coal flows 2006 & 2030 map (DfT)

final destination is key to the creation of a more efficient and sustainable transport solution.

- 8.28 Driving factors include corporate responsibility, social and political pressures, the increasing cost of transport and climate change.
- 8.29 With better fuel economy and fewer CO₂ emissions produced per tonne of cargo transported, sea transport is increasingly being recognised as a competitive and sustainable alternative to road transport.
- 8.30 The Yorkshire and Humber Plan emphasises the importance of connectivity, stating that “efficient freight and distribution links to the rest of the country and overseas will be essential if the Region is to attract greater investment”.⁵⁴

Rail freight

- 8.31 The Humber LEP’s consultation draft ‘A Plan for the Humber 2012-2017’ (July 2012) recognises that ‘parts of our rail infrastructure are in need of urgent improvement’ in order to ensure the future prosperity of the Humber region. It continues by saying that removal of these ‘constraints’ will be ‘crucial for growth.’ The most significant means of increasing rail capacity and improving logistical connectivity to the south Humber area is the proposed ‘Killingholme Loop’ scheme. This will allow for growth of future rail capacity at the Port and wider region whilst assisting with the removal of current ‘bottlenecks’.⁵⁵
- 8.32 Projected growth in the dry bulks energy sector, in coal and biomass imports at Humber International Terminal in particular, will need to be supported by enhanced rail infrastructure developments locally and regionally.
- 8.33 The lower density and calorific values of biomass compared to coal will necessitate a significantly higher volume of rail movements to service this traffic. Railfreight companies are re designing bulk wagons to accommodate greater volumes, but despite such innovations the increasing shift towards biomass will inevitably require further rail infrastructure upgrades to connect the Port to its customers.
- 8.34 Network Rail’s medium-term strategy (2014-2019) includes enhancements between Wrawby Junction and Brocklesby and between Ulceby and the Port of Immingham to provide capacity improvements on the south bank of the Humber. Network Rail is currently undertaking investigatory work on these options, which would offer improved performance and capacity and shorter loading times for coal trains.⁵⁶

⁵⁴ Page 191, The Yorkshire and Humber Plan (May 2008).

⁵⁵ Humber LEP, ‘A Plan for the Humber 2012 -2017’, (July 2012).

⁵⁶ Yorkshire and Humber Route Utilisation Strategy, Network Rail (July 2009).



Figure 8.6 – Forecast daily freight paths each direction in 2030 (DfT)

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- 8.35 The report also recognises the effects that future UK energy policy may have on freight levels, noting that expected growth in biofuel alternatives such as biomass will lead to an increase in train path requirements due to the physical properties of the freight. Lower density freight will require a greater number of trains to move the same tonnage.
- 8.36 The feasibility of significantly reducing the levels of containerised road freight leaving the port estate is reliant upon infrastructure improvements to the rail network. In particular, gauge enhancements are necessary, some of which are already underway, to allow deep-sea high cube containers to be transported by rail. Northern Way committed funding of £1m and commissioned Network Rail to develop plans for gauge enhancement of a number of rail routes including from the Port of Immingham to the East Coast Main Line.
- 8.37 Improvements to main lines must however be matched by local improvements. The DfT had identified an £8.0 million investment through the Transport Innovation Fund project to be delivered between 2009 and 2014, prior to the Fund's abolition.⁵⁷
- 8.38 Figures 8.4 and 8.5 identify the DfT's vision for the proposed strategic rail freight network and power supply industry coal flows up to 2030, while figure 8.6 shows the forecast daily freight path in 2030.
- 8.39 Improvements to the signalling systems and track at Immingham East Junction will be delivered during 2013, at a cost of around £15 million.
- 8.40 Improvements to be implemented between 2014 and 2019 have also been identified in the Network Specifications 2011 report. These include "track renewals in the Immingham Humber Road – Scunthorpe and Kirton Lane – Stainforth Junction sections which will allow signalling enhancements to give reduced headways, enhancing the ability to accommodate freight growth and improve performance." Opportunities to improve linespeeds will also be examined.
- 8.41 The DfT remains committed to the Strategic Freight Network, and has made a ring-fenced allocation of £200 million over the course of the next Control Period (2014-2019), to fund improvements identified by the freight industry.⁵⁸

Road freight

- 8.42 The movement of freight on and off the port estate by road will remain an important modal connection during the period of this master plan. A number of schemes have been identified in Regional Planning documents that will bring various benefits to the Port and surrounding areas.
- 8.43 The £6.3 million A18-A180 link road scheme near the Port is due to commence in 2013, with completion in summer 2014. The link road will improve access to the Port from the south, reduce traffic volumes passing through residential areas in Immingham via Pelham Road by 76% and produce a significant improvement in air quality in Immingham.⁵⁹
- 8.44 In May 2012 the Roads Minister announced that funding would be provided to improve the A160 and A180 trunk roads leading to the Port, which will support future port growth, ease current congestion and improve safety. This improvement scheme was identified in the government's DaSTS report in 2008 as a 'High Value International Gateway Scheme'. With traffic flows on the A160 predicted to increase from 13,000 to 22,000 vehicles per day by 2030, it is a much needed project to improve this key access route.⁶⁰
- 8.45 The project, which will cost between £89m and £132m, will involve upgrading the three-mile section of the A160 Humber Road from its junction with the A180 Brocklesby junction to the Port's western entrance. It will ensure first class road links into the Port and the wider South Humber Bank development area. In conjunction with the proposed enhancement of the west gate entrance, these works will help to reduce congestion at the Port entrance and allow for improved security measures at the Port.
- 8.46 Planned road improvements within the Port include a new strategic link road from Immingham Outer Harbour to the South Humber Bank Ports and Logistics Centre and an upgrade of the main western port entrance from the A160.

⁵⁷ Annex C, Strategic Rail Freight Network: The Longer Term Vision, DfT (September 2009).

⁵⁸ High Level Output Specification 2012, DfT.

⁵⁹ North East Lincolnshire Council Transport Plan 3, 2011-2014.

⁶⁰ Highways Agency. Available at: <http://www.highways.gov.uk/roads/road-projects/a160a180-improvements-immingham/>

Short-sea Shipping

- 8.47 European and UK policymakers are looking for more sustainable and environmentally-friendly means of transporting goods between points in the UK. According to the DfT, transport currently accounts for roughly 27% of total UK Greenhouse Gas emissions.⁶¹
- 8.48 Short-sea shipping is energy efficient and less harmful to the environment than road haulage. With energy costs rising and the need to reduce greenhouse gas emissions, the advantages of coastal transshipment are being more widely recognised.
- 8.49 The market for moving cargo within the UK by coastal shipping is under-developed. The Port of Immingham has the infrastructure required to realise its potential.
- 8.50 As a member of Freight by Water, the joint DfT-Industry body set up to promote the use of water for moving freight, and with 21 ports located around the UK, ABP is ideally placed to facilitate growth in coastal shipping.
- 8.51 The Port will continue to support any trade initiatives which encourage coastal freight movements around the UK coast and inland.

⁶¹ UK Transport greenhouse gas emissions Available at; DfT <http://assets.dft.gov.uk/statistics/series/energy-and-environment/climatechangefactsheets.pdf>

The dunlin is a common sight at
Chowderness and the Welwick sites on the
Humber Estuary funded by ABP.



Chapter 9

Environment

Contents

- 9.1 This chapter provides details of ABP's environmental policy and approach to protecting the environment.
- 9.2 It encompasses such diverse matters as day-to-day good environmental practice, air quality, noise and nature conservation.

Introduction

- 9.3 ABP's policy is to manage its obligations to the environment in a responsible manner and to develop its ports and transport business with due regard for sustainable development.
- 9.4 A full explanation of ABP's environmental policies and practices is available online at: <http://csr.abports.co.uk/>
- 9.5 At the master planning stage it is not possible to identify detailed enhancement, mitigation or offsetting measures in relation to ABP's overall development strategy for the Port of Immingham.
- 9.6 This chapter therefore identifies the likely environmental issues that will need to be taken into account as and when individual projects are brought forward, whilst acknowledging that environmental impacts have the potential to vary greatly depending on location, activities and their nature.

Environmental management systems

- 9.7 ABP has an Environmental Management Framework which ensures the ownership and stewardship of environmental issues by employees at all levels of the company. Appropriate training is provided (Figure 9.1).
- 9.8 A risk-based appraisal of all activities, facilities and cargoes handled at the Port is used to determine where resources and focus should be placed to prevent environmental damage and determine an appropriate response should an incident take place.

Sustainable operations

- 9.9 As a major port operator and landlord, ABP recognises the need to monitor its consumption of

resources. Power and water usage and the Port's carbon footprint are monitored. This level of monitoring provides a baseline set of data against which resource efficiency can be measured and steps taken to reduce consumption.

- 9.10 ABP works closely with the Port's appointed waste contractors to minimise the quantity of waste generated, find ways to recycle or reuse materials and divert any waste streams, as far as possible, away from landfill.
- 9.11 ABP reports on its environmental performance in its annual Corporate Social Responsibility report, which is available at: http://www.csr.abports.co.uk/About_ABP/Corporate_Responsibility/
- 9.12 Almost every aspect of the Port's environmental function and performance is governed by UK and/or European legislation. Compliance with environmental legislation is of paramount importance and ABP works closely wherever possible with regulators and legislators, both at central Government level and locally, in the ongoing development and implementation of new and existing legislation.

Planning for sustainable development

- 9.13 ABP is committed to conservation and enhancement of estuaries and other important habitats close to the Port.
- 9.14 In developing the Port, ABP works with regulators and non-governmental organisations to find cost-effective means of achieving real sustainability. Development plans include appropriate environmental as well as social and economic objectives and involve collaboration with relevant regulators and other bodies as encouraged by relevant policies.
- 9.15 Examples of ABP's commitment to this type of process include the creation of new inter-tidal habitats in compensation for new developments on the Humber Estuary.

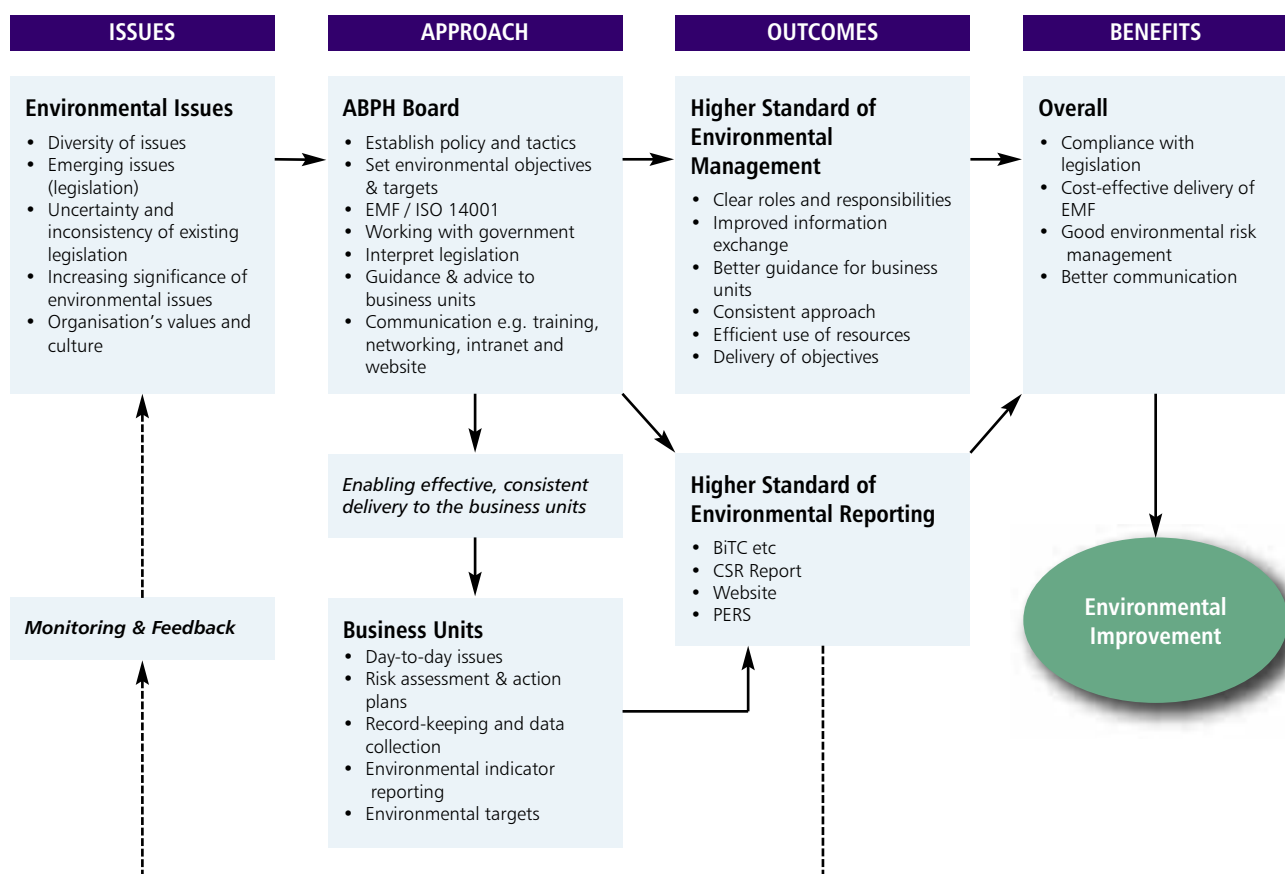


Figure 9.1: Environmental Management Framework

Environmental considerations

9.16 The following section identifies the principal environmental issues which may require consideration as part of the infrastructure development process. Each section contains a brief baseline analysis of the Port and harbour area, followed by consideration of the implications for each environmental issue and an indication of the approach to be adopted by ABP.

9.17 The list below outlines the environmental issues that have been identified as being likely to require consideration at the design stage of proposed future infrastructure projects.

- Biodiversity
- Air quality
- Land quality
- Water and sediment quality
- Climate change and flood risk
- Fisheries
- Landscape
- Noise
- Recreation.

Biodiversity

9.18 The Humber is the fourth largest estuary in the UK, covering approximately 24,470 hectares. It is of particularly high nature conservation importance and enjoys a number of international and national nature conservation designations:

- The intertidal area contains extensive mudflats in the inner estuary and in the shelter of the Spurn peninsula
- The middle and inner estuary areas are characterised by fringing reed beds (*Phragmites australis*)
- Extensive salt marshes are present along the north bank and on the Lincolnshire coast east of Cleethorpes, further east of which also occur areas of sand dune
- There are eelgrass beds (*Zostera marina* and *Z. noltii*) at the mouth of the estuary and coastal lagoons are present throughout the estuary system.

International and national nature conservation designations

- 9.19 Any relevant nature conservation designations relating to the specific port infrastructure developments will be considered as part of the planning process. Information to assist competent authorities in the completion of Habitats Regulations Assessments will be supplied if required and any mitigation measures deemed necessary will be implemented alongside the development.
- 9.20 The designations applicable to the Humber Estuary are listed below and their locations displayed in Figure 9.2.
- Special Protection Area
 - Special Area of Conservation
 - European Marine Site
 - Ramsar Site
 - Site of Special Scientific Interest (SSSI)
 - Wildlife Trust Reserve.

Special Protection Area

- 9.21 The EU Birds Directive (2009/147/EC) requires all member states to identify areas to be given special protection for the rare or vulnerable species listed in Annex 1 (Article 4.1), for regularly occurring migratory species (Article 4.2) and for the protection of wetlands, especially wetlands of

international importance. These areas are known as Special Protection Areas (SPAs).

- 9.22 In July 1994, Phase 1 of the Humber Flats, Marshes and Coast SPA was designated, which encompassed 15,230 hectares of extensive intertidal flats fringed by areas of saltmarsh, reedbed and dunes.
- 9.23 On 16 August 2000, English Nature notified an extension to the SPA, referred to as Phase 2. Following a revision of the qualifying interests and research into the use of the estuary by birds, further potential extensions to the SPA were resubmitted for consultation in January 2004 and included the previously approved Phase 2 areas, plus two new areas and a number of minor deletions (to correct mapping errors in Phase 1).
- 9.24 Minor changes have been made to the boundaries of the designation since the consultation in 2004 to exclude areas of land that are not considered to be of European or international importance.
- 9.25 On 31 August 2007, the extended and renamed area of the Humber Estuary was classified as a Special Protection Area (SPA). The latest submission is known as the Humber Estuary SPA and covers over 37,000 hectares.

Special Area of Conservation

- 9.26 The EU Habitats Directive (92/43/EEC) requires the establishment of a network of important high-

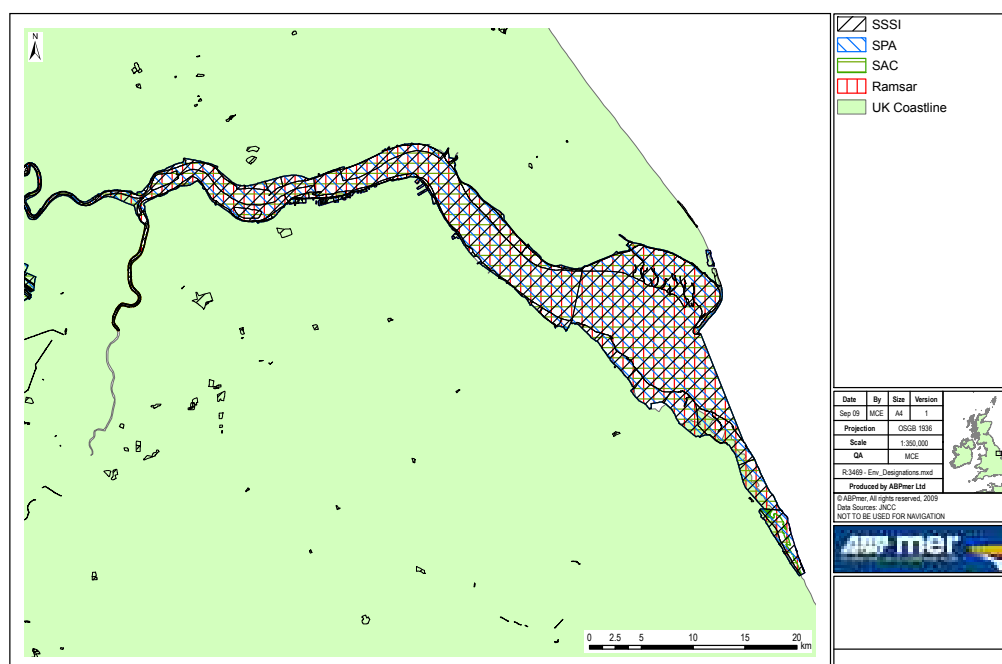


Figure 9.2: Humber Estuary conservation designations



The Humber Estuary's mudflats and saltmarsh are important roosting and feeding grounds for about 175,000 birds (including the redshank as pictured above), and serve as a vital 'stop-off' point for birds during their long intercontinental migrations

quality conservation sites that will make a significant contribution to conserving the 169 habitat types and 623 species identified in Annexes I and II of the Directive. The listed habitat types and species are those considered to be most in need of conservation at a European level with the ultimate aim of the Directive being the conservation of biodiversity.

- 9.27 On 16 August 2000, English Nature notified that the Humber Estuary was being considered as a possible Special Area of Conservation (SAC), because it hosted species or habitats of European importance that are rare or threatened within the European context.
- 9.28 In January 2004 the proposed area was resubmitted for consultation. Minor changes have been made to the boundaries of the designation since to exclude areas of land that are not considered to be of European or international importance.
- 9.29 On 31 August 2007 the Humber Estuary was submitted to the European Commission as a candidate SAC, which was later confirmed in December 2009.

European Marine Site

- 9.30 SACs and SPAs are defined as European Sites in the UK's Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations). Where the European Site lies below highest astronomical tide, which is land covered continuously or intermittently by tidal waters or any part of the sea in or adjacent to Great Britain up to the seaward limit of territorial waters, it is described as a European Marine Site. The designated areas described above therefore form part of the Humber Estuary European Marine Site.

The boundaries of these international sites and the Ramsar site (see below) are very similar with only minor variations.

Ramsar Site

- 9.31 Under the Ramsar Convention on Wetlands of International Importance which came into effect in December 1975, it is a requirement of signatory states to protect wetland sites of international importance, including those that are important waterfowl habitats.
- 9.32 On 28 July 1994, the Humber Flats, Marshes and Coast Ramsar site (Phase 1) was designated under the Ramsar Convention on wetlands and covers an area of approximately 15,230 hectares.
- 9.33 On 16 August 2000, English Nature notified an extension to this Ramsar site, known as Phase 2. The proposed extension to the existing site was approximately 2,188 hectares, resulting in the revised area being over 17,000 hectares.
- 9.34 In January 2004 further proposed extensions to the Ramsar site were resubmitted and included all of the proposed SPA extensions as well as one further area (the Trent) containing wetland habitats of international importance.
- 9.35 Minor changes have been made to the boundaries of the designation since to exclude areas of land that are not considered to be of European or international importance.
- 9.36 On 31 August 2007 the extended and renamed area of the Humber Estuary was listed as a Ramsar site. The latest submission is known as the Humber Estuary Ramsar site and covers nearly 38,000 hectares.

Site of Special Scientific Interest

- 9.37 At a national level, Sites of Special Scientific Interest (SSSI) are notified by the nature conservation agencies such as Natural England under the Wildlife and Countryside Act 1981. Under the Act, the conservation agencies are required "to notify land which in their opinion is of special interest for its plants, animals, geological or physiographical features". Certain types of activities need to be agreed with the conservation agencies if they are likely to affect the scientific interest.
- 9.38 The Countryside and Rights of Way Act 2000 has strengthened the protection of SSSIs. In particular, written consent is now generally required from the nature conservation agencies before potentially damaging operations can be undertaken.

9.39 In January 2004 English Nature provided notification of the Humber Estuary SSSI to encompass seven of the existing biological and geological SSSIs on the estuary, which cover the intertidal area in addition to some of the fringing terrestrial habitats. The Humber Estuary SSSI also enlarges the area notified to include the entire estuary and the associated features of interest. This extends from the limit of saline intrusion on the Rivers Ouse and Trent to the mouth of the estuary, as well as some terrestrial areas that support some features of estuarine importance. The enlarged area also includes the geomorphological interest at Spurn.

Wildlife Trust Reserves

9.40 There are a number of Wildlife Trust Reserves within and adjacent to the Humber Estuary (Table 9.1). There is also a designated Heritage Coast at Spurn Head which is 18km in length and RSPB reserves at Blacktoft Sands, Reads Island and Tetney Marshes. Within the Humber Estuary, Local Nature Reserves include Water's Edge and Cleethorpes, covering areas of 42 and 50 hectares respectively.

9.41 Table 9.1 shows the Wildlife Trust Reserves on the Humber Estuary.

9.42 The Conservation of Habitats and Species Regulations 2010 sets out the process by which development can be allowed to take place within European sites. UK policy, as provided in the NPPF reflects the importance of these sites and the need for their protection.

9.43 Where a plan or project that is not primarily concerned with, or necessary to, the management of the site is likely to have a significant effect on a European site, an appropriate assessment must be made of the implications for the site in view of its conservation objectives.

Wildlife Trust Reserve	Size (hectares)	Wildlife Trust
Barrow Haven Reedbed	13	LWT
Dawson City Clay Pits	16	LWT
Fairfield Pit	9	LWT
Far Ings National Nature Reserve	59	LWT
Killingholme Haven Pits	32	LWT
Pasture Wharf	21	LWT
Winteringham Foreshore	21	LWT
Hodgson's Fields	43	YWT
Spurn Point Nature Reserve	320	YWT
Welwick Saltmarsh	42	YWT
<i>LWT Lincolnshire Wildlife Trust / YWT Yorkshire Wildlife Trust</i>		

Table 9.1: Wildlife Trust Reserves on the Humber Estuary

9.44 If this concludes that there will be an adverse effect on the integrity of the site, permission for the development can only be given having ascertained that there are no alternative solutions and that the project is necessary for Imperative Reasons of Overriding Public Interest (IROPI). In such cases, compensatory measures must be taken to ensure that the overall coherence of the network of European sites is maintained.

9.45 Development within SSSIs is subject to the policies set out in the NPPF, which require special circumstances to be demonstrated before development can be approved.

9.46 Aquatic ecology in freshwater bodies, transitional waters (estuaries) and coastal water bodies extending one nautical mile out to sea is protected by the Water Framework Directive (WFD). This requires achievement of 'good status', which in surface water bodies comprises good chemical and good ecological status, or, in the case of water bodies designated as 'heavily modified' or 'artificial', good chemical status and good ecological potential.

9.47 The Humber has been classified as a heavily modified water body. The WFD also introduces a legal requirement of 'no deterioration' in status (e.g. from 'good' to 'moderate' ecological status). One of the measures that has been considered as part of the WFD is a national guidance framework on dredging and the associated disposal of dredgings.

9.48 ABP has worked with Defra, Natural England and the Environment Agency to develop a Maintenance Dredging Protocol (MDP). With the production of a 'Baseline Document', the MDP seeks to document historical dredging activity and consider the effects of dredging on conservation status and the integrity of European Sites. The Humber 'Baseline Document' accompanies all future maintenance dredge licence applications.

Master plan considerations

9.49 Developments on the existing port estate will still be assessed in terms of effects on biodiversity, but in most cases such development will effectively involve redevelopment of an existing industrial area.

9.50 All potential detrimental impacts of those infrastructure requirements that could result in a loss of habitat will be addressed at project level as part of the application process for authorisation. Careful selection of construction design and

methodology will minimise the impact to the features and conservation targets of the affected sites. Assessment under the Environmental Impact Assessment (EIA) Regulations and the Habitats Regulations will be undertaken as appropriate and in consultation with nature conservation organisations.

- 9.51 Maintenance dredging operations have the potential to affect biodiversity both directly, by removal of biota and habitat, and indirectly, for example via sediment mobilisation and redeposition or changes to the hydrodynamic regime. The MDP ensures consideration of the effects of dredging on conservation status and integrity of sites. Dredgings are removed to licensed marine sites which are monitored by scientific advisors to check that there are no adverse effects.

Air quality

- 9.52 The handling of bulk commodities is an important aspect of the Port's ongoing operations and the Port employs a variety of tools to minimise any emissions resulting from the handling of bulk products.
- 9.53 The Port continues to work closely with local planning bodies and environmental licensing authorities to ensure that all measures are being taken actively to monitor and control emissions off the port estate.
- 9.54 The handling of coal, petroleum products, iron ore, gypsum and aggregates are permitted processes under the Environmental Permitting Regulations. There are four regulators who exercise this legislation in the Port area:
- North East Lincolnshire Council
 - North Lincolnshire Council
 - Hull and Goole Port Health Authority
 - The Environment Agency.

Managing air quality

- 9.55 ABP is committed to working with relevant local stakeholders in addressing air quality matters in the Immingham area. The measures that are in place at the Port to limit, manage and reduce levels of dust created by bulk handling

activities, discussed below, are all compliant with the company's environmental management system.

9.56 Physical tools:

- Water suppression – it has long been recognised that the spraying of water can prevent dust becoming airborne, both by making the cargo wetter and by placing water cannons 'downwind' of bulk handling operations so that the water droplets capture dust particles. In its most basic form, water suppression takes the form of a spray set up on the quayside
- Advanced water suppression systems – this more targeted approach includes special spray bars mounted on hoppers and conveyors, a computer-controlled rain cannon system, spray bars on terminal boundaries and mobile water tankers spraying water around and on stockpiles
- Wheelwashes – located at the exits of all terminals and areas containing permitted processes, these use sprays to wash the wheels of lorries exiting the site
- Road sweepers – a fleet of mechanical sweepers is used to keep roads and quays clean by wet brush sweeping. Dust deposited on roads can be re-suspended by passing traffic: wet sweeping removes this source of dust emission
- Physical barriers – these are located around terminals and include measures such as netting, earth bunds and steel cladding
- Dust monitors – a number of PM10 dust monitors are located around the Port to evaluate ongoing trends and specific incidents
- Mechanical efficiencies – at Humber International Terminal for example, conveyor systems, two cargo stacking/reclaiming pieces of plant and two automatic rail-loading bunkers are used to increase the speed of cargo handling while reducing its environmental implications
- Polymer crusting – some of the bulk handlers on the estate use spray polymer coatings on



Air quality management controls at the Port

their stockpiles which dry to form an impermeable crust.

9.57 Management tools:

- Encouraging and sharing good practice among the Port community, such as working bulk stockpiles on the leeward side of the wind, limiting the heights of stockpiles to levels that allow water suppression and distributing weather forecasts (including predicted wind strengths and directions)
- Working closely with regulators
- Collaborating with North East Lincolnshire Council on its Air Quality Action Plan
- Quarterly Environmental Forum meetings with regulatory authorities and port users
- Constant ongoing review of the operational impact of bulk cargoes. Under extreme circumstances, when it appears there really is no way to effectively manage dust emissions to air, ABP will refuse permission to bring cargo into the Port.

Air quality measures specific to shipping

- 9.58 Transfer of goods by sea is the most efficient method of transporting goods and emits the lowest ratio of greenhouse gases per tonne per mile.
- 9.59 The quality of fuel burnt by ships in UK ports is a subject of growing interest. The International Maritime Organisation (IMO) has an ongoing requirement to investigate the use of cleaner fuels. The English Channel and North Sea are designated as Sulphur Emissions Control Areas (SECA), which means that vessels transiting are required to either use low-sulphur fuel or be fitted with an exhaust cleaning system.
- 9.60 There are ongoing international industry discussions to assess the possibility of vessels using a shore supply of power when in port, rather than the vessel's auxiliary engines (also known as 'cold ironing'). The potential for providing vessels in port with more environmentally-friendly shore-supplied power is being considered.
- 9.61 Cold ironing itself is not universally applicable, as ports are visited by a constant stream of vessels of differing sizes, ages and origins operating onboard electrical systems with a variety of voltages and frequencies. A standard will need to be adopted through the IMO before implementation of cold ironing can be a practical proposition for cargo vessels.

Master plan considerations

- 9.62 Any potential infrastructure requirement projects at the Port will carefully examine the issue of air quality, including the adoption of best practice working methods during construction, viability of intermodal connections (i.e. further use of rail and short-sea shipping) and road traffic access routes.
- 9.63 The Port is committed to working with port users to maximise the modal share of onward transport by rail and feeder shipping as a means of minimising emissions to air.

Land quality

- 9.64 ABP undertakes individual site risk assessments, and, where appropriate, contamination testing, for areas of redevelopment. A judgement can thus be made as to the level of remediation required for the desired use.

Master plan considerations

- 9.65 Soils have the potential to be contaminated from historical pollution. Site risk assessments and soils contamination testing, based on the Environmental Agency's Model Procedures for the Management of Land Contamination (CLR11), can be adopted for all areas of redevelopment. The results inform whether material can be reused on site or whether remediation is required.

Water and sediment quality

- 9.66 There is an overriding requirement in law to avoid causing water pollution. Environmental Quality Standards (EQS) are set for all water bodies in relation to certain pollutants, with further standards set for water bodies protected for specific uses.
- 9.67 ABP works closely with Natural England and the Environment Agency to apply the highest environmental standards in and around the Port.
- 9.68 The WFD consolidates these requirements and replaces several earlier EC Directives. In particular it has introduced comprehensive EQS for marine waters. It also introduces a legal requirement of 'no deterioration' in status.
- 9.69 ABP has worked closely with the Environment Agency through the Humber River Basin District Liaison Panel on the application of the WFD and the development of the River Basin Management Plan to secure an appropriate strategy for protection of water quality in the Humber.

Water quality legislation

- 9.70 Defra has overall responsibility for water policy in England and the Environment Agency is the principal regulator of water quality through legislation such as the Environment Act 1995, Water Resources Act 1991 and Environmental Protection Act 1990. In the marine environment, the Marine Management Organisation (MMO) and statutory port and harbour authorities also have important roles in managing water quality.
- 9.71 Many standards for water quality are regulated at EU level through a range of environmental directives. All relevant standards relating to the specific port infrastructure developments will be taken into account during the planning process, including consideration of the following legislation where appropriate:
- EC Bathing Waters Directive (2006/7/EC)
 - EC Dangerous Substances Directive (76/474/EEC)
 - EC Habitats Directive (92/43/EC)
 - EC Shellfish Hygiene Directive (91/492/EC)
 - EC Shellfish Waters Directive (2006/113/EC)
 - EC Urban Waste Water Treatment (91/271/EEC)
 - EC Water Framework Directive (2000/60/EC).

Sediment quality legislation

- 9.72 Deposits in the sea anywhere below the Mean High Water Spring Tide Mark are managed under the UK Marine and Coastal Access Act 2009 (Marine Act) which supersedes the Food & Environment Protection Act 1985 (FEPA). This requires evaluation of the chemical quality of any material proposed for deposit in the Estuary for disposal or beneficial use. The Marine Management Organisation (MMO) is responsible for delivering licensing arrangements under the Marine Act.
- 9.73 To assess the status and quality of sediment in material to be dredged, the chemical properties are assessed against Cefas action levels to determine their suitability for disposal at sea. Sediment samples are tested for a range of contaminants including heavy metals, organotins and polychlorinated biphenyls (PCBs).

Master plan considerations

- 9.74 Redevelopment of land can provide opportunities for improvement in surface water quality through the use of sustainable drainage systems to reduce the potential for pollution. ABP will ensure that

port activities are compatible with the requirement to maintain suitable conditions for the aquatic ecology in the Humber.

- 9.75 Port development has the potential to affect compliance with water quality standards, which could adversely affect fisheries. Any proposed discharges into the Humber are subject to consents from the Environment Agency.
- 9.76 Construction activity presents risks to water quality in surface and ground waters through spillages of diesel, oils, cement and chemicals, as well as from disturbance of any contaminated land. Individual projects will be assessed for Sustainable Urban Drainage Systems (SUDS) options, installation of intercepted drainage and adoption of best construction practices.
- 9.77 As previously stated, dredging operations have the potential to affect biodiversity directly and indirectly. Any dredging operation therefore requires determination of the type of material to be removed and consequent consideration of the type of dredger to be employed. The majority of maintenance dredgings comprise silty material which is removed by a Trailer Suction Hopper Dredger.
- 9.78 Dredgings may be re-used beneficially or disposed of through an authorised route. Environmental effects of any disposal will be addressed at project level as part of the application for authorisation. Sediments identified for removal have the potential to be contaminated and sediment testing will be undertaken in accordance with Cefas requirements to either identify a suitable method of disposal or beneficial use.

Climate change and flood risk

- 9.79 The Government's Intergovernmental Panel on Climate Change (IPCC) has advised that the UK needs to start adapting to climate change.
- 9.80 Defra has identified a number of potential changes which may arise as a result of climate change, including:⁶²
- Increased risk of flooding and erosion
 - Greater pressure on drainage systems
 - Increased likelihood of winter storm damage
 - Loss of habitat for wildlife
 - Summer water shortages and low stream flows
 - Increased risk of subsidence (in areas where subsidence is already a problem)

⁶² <http://www.defra.gov.uk/environment/climate/adaptation/what-it-means.htm>.

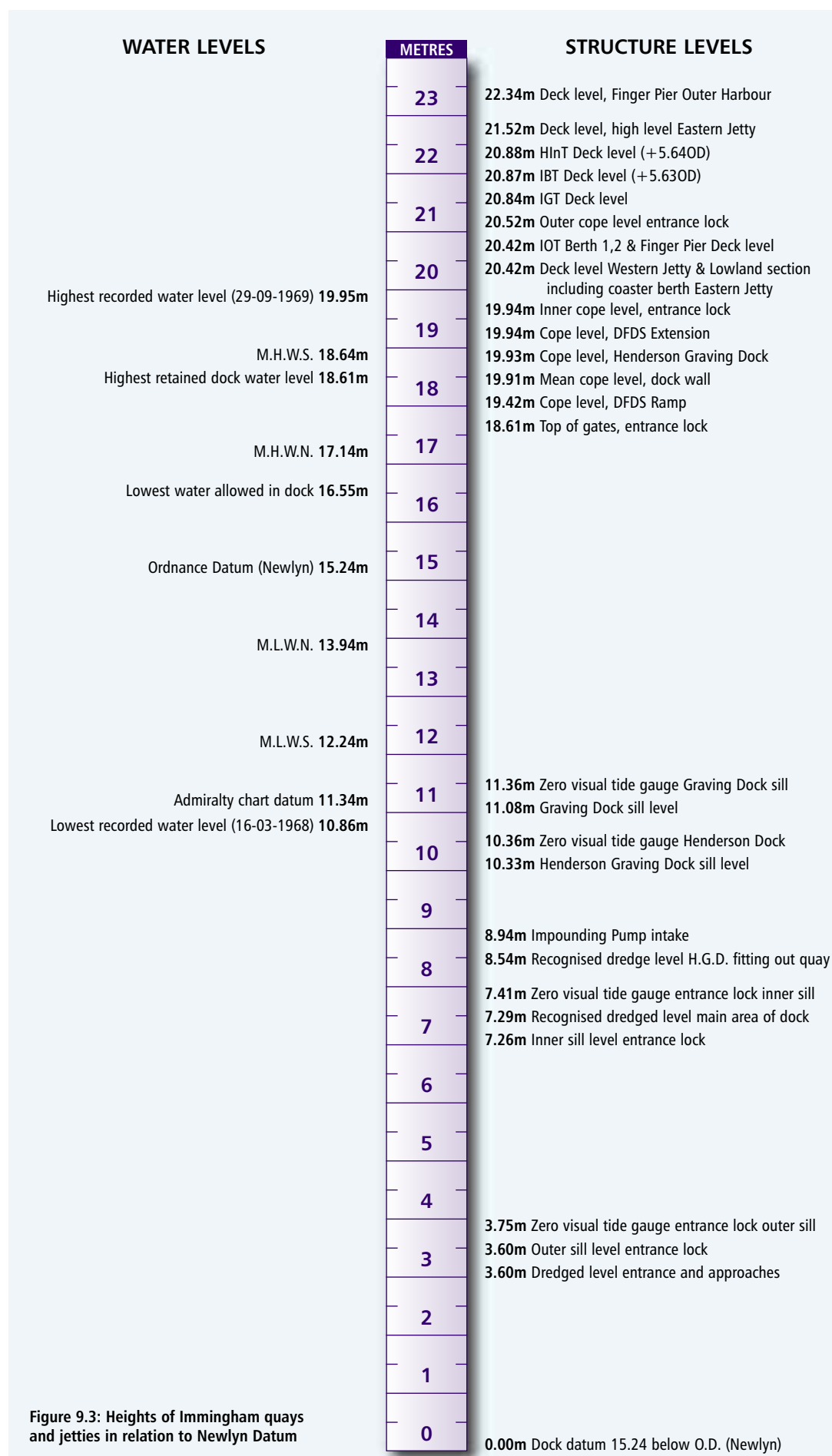


Figure 9.3: Heights of Immingham quays and jetties in relation to Newlyn Datum

- Increased demand for summer cooling
 - Buildings becoming uncomfortably hot.
- 9.81 The Government has set some ambitious environmental performance targets, including a 34% reduction in greenhouse gas emissions (to 1990 levels) by 2020 and an 80% reduction by 2050.⁶³
- 9.82 Climate change also brings the challenge of managing the implications of flooding and sea level rise. Sea level rise is a function of both isostatic changes in land movement and eustatic changes in water level. The warming climate and melting of the icecaps are causing sea levels to rise across the globe.
- 9.83 Currently around 90,000 hectares of land around the Humber estuary are at risk of being flooded by a storm surge in the North Sea. Defra Flood & Coastal Appraisal Guidance (2006) indicates that in 50 years sea levels will be about 350mm higher than they are now, while in 100 years they will be more than one metre higher.
- 9.84 The heights of individual quays and jetties at Immingham are shown in Figure 9.3. The highest recent water level recorded in the Humber was 13.61m Ordnance Datum (Newlyn) in January 2005 at Grimsby.
- 9.85 The baseline for coastal defence and flood risk prevention is set out in the Environment Agency's document 'The Humber Flood Risk Management Strategy' (2008). This document sets out the work to be undertaken in relation to flood defences over the next 15 years and the broad strategy to manage flood defences for the Humber over the next 50 years.
- 9.86 Since the consultation draft, the large management units previously used have been divided into smaller 'Flood Areas', the most relevant of which is Area 24: Immingham to River Freshney. Along this length of defences the current standard of protection varies between 1 in 100 to 1 in 200 years, with the remaining life of the defence varying between 10 to 20 years, although at some sections it may be as low as 5 years.
- 9.87 Such areas are a critical focus when assessing the potential for risk of flood in the context of future port infrastructure developments. Such an assessment needs to ensure that:
- Any proposed development is unlikely to be affected by current or future flooding from any source
 - The development is safe and where possible reduces flood risk overall
 - It will not increase flood risk elsewhere
 - Any measures proposed to deal with these effects and risks are appropriate and sufficiently funded throughout the lifetime of the development.
- 9.88 Existing flood defences in the Immingham area are generally in good condition and provide protection up to a 1 in 100 to 1 in 200 standard.
- 9.89 Sea level rise will also exacerbate the phenomenon of 'coastal squeeze', whereby mudflat areas are advancing inland towards existing sea defences, reducing the area of saltmarsh habitat on the upper shore. Port development and the beneficial use of dredged material may provide an opportunity to help counter this phenomenon and contribute to long-term estuary management.

Master plan considerations

- 9.90 Future decisions on infrastructure provision will take account of climate change adaptation measures, such as construction materials and identifying appropriate technologies to minimise energy use and greenhouse gas emissions. The existing infrastructure's ability to adapt to climate change projections will be reviewed on an ongoing basis by the Port's management team and Resource Efficiency Group, which will identify measures consistent with climate change policies and guidance.
- 9.91 Port development will take account of flood risk due to sea level rise, tidal events, ground water, surface water and sewers and whether particular flood-sensitive uses should be placed on higher parts of the site or whether flood risk management measures should be implemented to protect the activity on lower parts of the port estate.
- 9.92 These variables will be assessed in accordance with advice contained within the relevant planning policies (NPPF) and against prevailing Environment Agency guidance. The combined tidal and fluvial flood risk present at different points in the port estate and the predicted changes in risk over time are relevant considerations for the master plan.
- 9.93 For future port developments that incorporate the provision of intertidal compensatory habitats, there may be opportunities to address the problem of coastal squeeze, which may contribute to long-term estuary management.

⁶³ DECC – Low Carbon Transition Plan (July 2009).

Commercial fisheries

- 9.94 There is no significant commercial fishing within the Humber Estuary and most of the fishing vessels located in the Estuary operate offshore in the North Sea.
- 9.95 The key concerns in relation to commercial fisheries when considering future port developments are:
- Maintenance of benthic habitat as feeding grounds
 - Avoidance of smothering of shellfish by re-deposition of mobilised sediment
 - Protection of water quality.

Master plan considerations

- 9.96 Construction activity, in particular piling for new river developments, has the potential to affect migratory fisheries through the transmission of underwater noise and vibration. Assessment of the construction design options will be undertaken and design will take into account noise and vibration transmission in the marine environment.
- 9.97 Creation of additional berths will require dredging operations. Assessment of the types and quantities of materials to be dredged will influence the selection of the dredging plant.
- 9.98 Maintenance dredging operations have the potential to affect water quality directly by increasing suspended sediment loads and indirectly via sediment deposition. The type of material to be removed will be identified and the results will determine the type of dredger to be used.

Noise

- 9.99 Like other major ports, Immingham operates 24 hours a day, 7 days a week.
- 9.100 Noise from construction projects may be of concern for its temporary effects on humans and wildlife. Such effects are addressed at project level through consultation and dialogue with local environmental health authorities and nature conservation organisations.
- 9.101 Noise from port operations tends to be more constant, which increases the potential for humans and animals to become habituated.
- 9.102 Occupational noise issues are a matter for the Port health and safety systems rather than the master plan.

Master plan considerations

- 9.103 Construction and operational activity may impact on residential and wildlife populations. Appropriate mitigation measures will be devised as part of the application process. Such measures may include construction timing restrictions, construction methodologies and avoidance of bird migratory periods.

Landscape

- 9.104 The South Humber Bank is a highly industrialised area, with ports and shipping underpinning most of the local economy.
- 9.105 The landscape of the existing port is not expected to change substantially during the master plan period. Individual visible infrastructure, such as cranes, requires replacement from time to time and the master plan identifies that new buildings, such as cargo storage facilities, are likely to be required to serve trade growth. As they are set in an active port landscape, these structures are unlikely to have a wider impact.

Master plan considerations

- 9.106 The visual impacts of any development will depend on the type of operation, which may include normal port infrastructure such as cranes and port lighting. A full assessment of the likely significant effects will be carried out as part of any application process and dialogue with the local authorities will be undertaken as appropriate.

Recreation and access

- 9.107 As the statutory Harbour Authority, ABP is responsible for the navigational safety of commercial and recreation craft in the Humber.
- 9.108 These waters are a popular and intensively used water sports area and activity takes place all year round.
- 9.109 While these activities should be considered in the planning process, intensity of use around the Port of Immingham is relatively low.

Master plan considerations

- 9.110 Navigational safety for commercial and recreational craft is managed through the Vessel Traffic Services (VTS) system and a system of Notices to Mariners.
- 9.111 Development is unlikely to generate a conflict between marine recreational interests and port activity but will be assessed at the relevant design stage.

The equipment and stevedoring services at the Port of Immingham means that it is well placed to handle heavy-lift cargo.



Chapter 10

Socio-economic Impact

Contents

- 10.1 This chapter considers the socio-economic environment in which the Port operates and the Port's contribution in this context.
- 10.2 In particular, it looks at how further development of the Port can benefit the Yorkshire and Humber region and the South Humber sub-region in particular.

Introduction

- 10.3 The ports industry makes a significant contribution to the UK's economy. Oxford Economics estimates that the ports sector directly employs 132,000 people and in 2007 contributed around £7.7 billion to GDP and around £3 billion in tax revenues.⁶⁴
- 10.4 The Government's view is that it is in the national interest for the UK's ports to be able to handle UK trade and its potential development efficiently and sustainably.
- 10.5 The Port of Immingham is recognised by Government as a major international deep-sea port with significant local, regional, national and global economic importance.
- 10.6 Immingham is the UK's largest port by tonnage, handling over 48 million tonnes in 2011.⁶⁵
- 10.7 The Port employs around 4,700 people directly and 15,000 indirectly and total disposable income arising from port dependent employment is estimated to be £226 million.⁶⁶
- 10.8 The Port is also an important part of the community. As well as providing jobs and income, it provides support for the community through a variety of activities.

Jobs and income

- 10.9 The Port of Immingham's economic influence is varied and widespread. It drives an extensive

"The potential of the Humber Ports as one of the UK's global gateways has been realised and the sub-area's ports and associated activities have supported significant regeneration and growth. This has been achieved without damage to the quality of the Humber Estuary." (The Yorkshire and Humber Plan to 2026, May 2008)

"Further growth and expansion at the northern ports, in particular at the South Humber Bank ports, can have two positive benefits. Firstly, it will help the area's economy and assist in bridging the north-south output gap. Secondly, there are wider sustainability and environmental issues associated with port growth. Expansion and development of the northern ports and maximising further port development in key strategic locations like the South Humber Bank employment site can have major positive impacts for road congestion and reducing CO2 emissions in the UK." (North Lincolnshire Local Development Framework – Core Strategy Preferred Options)

"The Humber sub-region is considered to be a 'Global Gateway' as the port complex of Immingham and Grimsby is one of the largest in Europe as regards tonnage handled. The area therefore offers significant economic opportunities." (North East Lincolnshire Council – Core Strategy Revised Preferred Options)

cluster of marine and industrial related activities that range from shipping agents to oil refineries.

- 10.10 Most if not all developments at the Port help to create either direct or indirect employment opportunities. Previous developments such as Humber International Terminal and DFDS Nordic Riverside Terminal have led to expansion in the

⁶⁴ The Economic Contribution of Ports to the UK Economy, Oxford Economics (February 2009).

⁶⁵ ABP statistics as submitted to DfT.

⁶⁶ An Updated Evaluation of the Importance of the Port of Grimsby & Immingham to the Economy of North East Lincolnshire and the Grimsby Travel to Work Area, North East Lincolnshire Council.

numbers of people employed at the Port. This was recognised by North East Lincolnshire Council in their evaluation of the contribution made by the Port of Immingham to the economy of North East Lincolnshire.

- 10.11 Future port developments identified within this master plan will undoubtedly result in a significant number of employment opportunities associated with both the construction and operational phases of the works, although the precise scale of such opportunities cannot be determined in the master plan since the number of jobs created will depend on the nature and scale of any development proposed.
- 10.12 A large number of development and employment opportunities are also created within the Port's hinterland on the South Humber Bank through investment proposals that would not otherwise be possible without the Port's presence.
- 10.13 For example, the proposed Heron Renewable Energy Plant will create 850 jobs during construction and up to 60 permanent roles at the operational plant. In addition to direct employment, the development will offer a number of contract opportunities for local businesses during the construction period. Supply and maintenance contract opportunities will also be generated during the planned 25-year operational life of the plant.⁶⁷
- 10.14 The Port of Immingham already supports a number of port-related land developments located outside the port estate. There is scope to increase such support during the period of this master plan both for existing non-ABP facilities and potential new non-ABP port related developments.
- ## Meeting the challenges of tomorrow
- 10.15 Looking ahead, the region and the sub-region face many economic and social challenges. A number of documents prepared by local and regional policy makers set out key socio-economic objectives that a growing and successful port can help deliver.
- 10.16 The most significant of these is the Government's spatial strategy (RSS) for the region, The Yorkshire and Humber Plan, the aim of which is to show "year on year GVA (gross value added) growth above the EU average." It is expected that replacement plans will reiterate this objective.
- 10.17 The plan states that further development of the Humber Ports should be realised within the context of the RSS objective of maintaining the integrity of internationally important biodiversity sites. It also states that it is imperative the region optimises the opportunities provided by the Humber Ports as an international trade gateway for the region and the country.
- 10.18 Other documents containing socio-economic objectives include those prepared by the following regional and local bodies:
- Hull & Humber Chamber of Commerce
 - Humber Economic Partnership
 - North East Lincolnshire Council
 - North Lincolnshire Council
 - Northern Way Gateway
 - One Voice
 - Regional Innovation Strategy
 - South Humber Bank Group
 - Yorkshire Forward.
- 10.19 The Yorkshire and Humber Regional Economy Strategy states that socio-economic growth post-2010 requires improvements in skill levels and investment in infrastructure. It proposes raising GVA per worker by 25-30%.
- 10.20 The Yorkshire and Humber Plan identifies the Port of Immingham as a national asset and unique resource for the region, noting that it has aided regeneration of the sub-region without causing damage to the marine environment. This was demonstrated in 2006 when the Port undertook a £3.5 million project to create Chowder Ness and Welwick foreshores to mitigate the loss of 76 acres of mudflats in the building of Immingham Outer Harbour. In a pioneering agreement with English Nature, the RSPB, the Environment Agency and the Yorkshire and Lincolnshire Wildlife Trusts, ABP constructed two new wildlife sites comprising more than 150 acres of vital new mudflat habitat on the banks of the Humber Estuary which are crucial for supporting the region's populations of waders and waterfowl.
- 10.21 In its emerging Local Development Plans, North Lincolnshire Council recognises that further development of the Port of Immingham could have a positive impact for the UK's carbon footprint by reducing congestion elsewhere. It states that a number of businesses have already relocated to the area from the south of England.

⁶⁷ Drax Newsletter: Renewable Energy Plant Development (April 2009)

PLAN / STRATEGY	TARGET / OBJECTIVE	CAN THE PORT HELP?
Yorkshire and Humber Plan (RSS) May 2008	<p><i>Foster value-added port-related activities and maximise opportunities around the ports and close to the estuary's deep water channel, safeguarding land north west and south east of Immingham for estuary-related uses.</i></p> <p><i>Develop the sub-area's renewable energy generation potential.</i></p> <p><i>Diversify and develop the sub-area's economy, making the most of multimodal transport links, ports, city and town centres and workforce.</i></p>	
North Lincolnshire Local Development Framework – Core Strategy Preferred Options	<p><i>Promote a diverse range of renewable energy schemes.</i></p> <p><i>Work with partners to deliver the appropriate road, rail and water infrastructure needed to maximise the opportunities provided by unique assets, such as delivering better quality access to the ports on the South Humber Bank.</i></p>	
North East Lincolnshire Council – Local Plan	<p><i>Retain economic advantages of growth in port activities within the local economy and regenerate key sites.</i></p> <p><i>Strengthen the role of the town of Immingham as an independent service centre.</i></p> <p><i>Maximise opportunities around the ports for estuary related uses.</i></p>	
Yorkshire and Humber Regional Economic Strategy	<p><i>Increase GDP faster than competitors.</i></p> <p><i>Raise % of people with level 2 skills or equivalent or higher from 70% in 2004 to 80%.</i></p> <p><i>Raise International Labour Organisation Rate from 74.4% in 2004 to 78-80%.</i></p> <p><i>Raise Gross Value Added per worker by 25-30%.</i></p>	
One Voice	<p><i>Promote and contribute to the physical, social and economic regeneration of the Immingham community. This has included ABP providing a zero carbon vehicle for the use of Immingham Town Council and the installation of plug in points around the Port Estate.</i></p>	
Regional Innovation Strategy	<p><i>Grow the region's innovation culture.</i></p> <p><i>Develop a region wide innovation environment.</i></p>	

10.22 The North East Lincolnshire Council Core Strategy explains that the growth of the town of Immingham has been closely associated with the Port and acknowledges that growth in the Port is key to sustainable economic growth for the region

raising the area's national and international profile.

10.24 The Port supports a number of local charities every year, for example St. Andrew's Hospice, Motor Neurone Disease Association, the RNLI and Wish Upon a Star.

The Port and the community

10.23 The Port of Immingham is strongly committed to supporting the community. This commitment ranges from supporting local charity work to

10.25 In May 2009 ABP was awarded the Silver Standard in the Corporate Social Responsibility Index by Business in the Community.

CASE STUDIES

In 2008 the Port of Immingham in conjunction with the other ABP ports around the UK raised over £200,000 for the Motor Neurone Disease Association. The cash was raised through its Pedal the Ports fundraiser, which saw ABP employees circumnavigate Britain on tandem bicycles calling at all 21 ports owned and operated by the company. The event finished at the Port of Grimsby and Immingham, where the Port held a Port Community Open Day for the local community.



Port Director, John Fitzgerald with former Port Director Nick Palmer and his family, launch the Pedal the Ports initiative in 2008

The Port has established close links with the Strand Community School in Grimsby, which is in one of the most deprived areas of the UK. Pupils visit the Port at least once a year to spend a day learning about the Port's activities, its importance to the local economy and what goes on in the world of work.

In 2012 a series of events are being held to celebrate the centenary of the opening of the Port by King George V. To secure a lasting legacy of this year and to allow us to look forward to supporting our community as we move into our next century of development we set up a 'legacy fund'. Monies raised will be donated to provide sustainable funding for the future. We are working with two partners, Immingham OnceVoice and Oasis Academy Immingham. Projects the Legacy Fund will support range from school library upgrades to a skatepark development; and community cinemas to soft play centres. Events include 100 Golf Day, Charity Abseil, Yorkshire 3 Peaks



Port of Immingham Community Open Day, July 2012

Challenge, 100 Balloon Launch, Pensioners Lunch, Follow the Olympic Flame Dock Tower Abseil, a port community Soccer Tournament and a Christmas party for pre school children. Centrepiece of the year's celebration was the Port of Immingham Community Open Day held on the 22nd July 2012, exactly 100 years ago to the day the Port was officially opened. For the first time since that day over 5000 members of the public were given unprecedented access behind the scenes at the Port and enjoyed a wide range of activities including Dragon Boat racing, vessel and control room visits, plant and equipment displays and exhibits from the Port's history.

Feedback from all the events has been incredibly positive. Thanks to generosity of many stakeholders in the Port, the Immingham 100 Legacy Fund will ensure a lasting legacy of the year's celebrations.

"We would like to congratulate ABP and its team on the success of the event. All of the visitors to our stand were extremely complimentary about the Port and its decision to open to the public for the day. Many visitors wanted to tell us all about their experiences and memories of either visiting or working for the Port. There seemed to be a great amount of pride placed in either their working for or in association with ABP."

Mark Reardon, Gottwald Port Technology Division

"The Port is an important part of the local community, not just in an economical sense but also through its commitment to corporate responsibly. One Voice is our local community engagement committee and we value the Ports contribution to our town high quality relationships have been formed and maintained with residents, service providers and local business to promote and contribute to the physical, social and economic regeneration of the community, encouraging projects that will improve and enrich quality of life."

Elaine Norton Chair of One Voice



The many and varied community based events have both celebrated the success of the partnership during the first 100 years, but has also looked forward to the developments, people and achievements of our next century.

Members of the Port's staff currently participate in the Young Enterprise scheme, an education business charity whose programmes engage students from primary school through to university level. The scheme helps young people to understand how and why people work together and develops practical skills and understanding of commercial and community relationships.

The Swedish Challenge is a competition for Year 10 students from local schools organised between the Port of Immingham, the Humber Chapter of the Swedish Chamber of Commerce and the Humber Education Business Link Organisation. Students have to present a convincing business case to a fictional Swedish company as to why they should bring their business to the local area and use the Port of Immingham.

In 2009 the Port sponsored the Challenger Trust programme, an initiative that helps local young people develop life skills and improve their academic and employment prospects through outdoors activities.

ABP marked 2009 National Tree Week with the help of 16 children from Canon Peter Hall Primary School in Immingham by planting the first batch of what will become the biggest tree planting exercise in the history of the Port. Each child planted two tree saplings along a purpose built bund, which will grow



ABP sponsored the Challenger Trust where staff from the Port joined students of Immingham's Oasis Academy on a three-day team building challenge at Buxton in Derbyshire



Children from Immingham's Canon Peter Hall Primary School joined the Port of Immingham's Tom Jeynes to plant conifers and shrubs as a way of helping to control dust particles

into a foliage screen which will benefit both the Port and the town of Immingham. The trees will improve the visual impact of the area and will also help with dust suppression.

Port safety and security

10.26 The UK ports industry operates in a highly regulated environment, with multi-agency input into the safety and security aspects of the operation and development of facilities and services.

10.27 The regulation of safety in the ports involves agencies such as:

- The Health and Safety Executive (HSE)
- The Maritime and Coastguard Agency (MCA)
- The Office of the Rail Regulator (ORR)
- Relevant local authorities.

10.28 UK, EU and international legislation and guidance is applied to safely manage the vast range of activity within the ports.

10.29 Much of this legislation and guidance is generic, in the sense that it applies equally to all commercial operations and workplaces, such as the Health and Safety at Work Act 1974. Some is very specific to the ports industry, for example the Docks Regulations 1988.

10.30 As ports provide a hub for storage and distribution, there are also facilities within and adjacent to them which fall under the Control of Major Accident Hazards Regulations 1999 (COMAH).

10.31 Materials handled under COMAH generally include chemicals and petroleum products. The regulations

are enforced by the HSE with input from other local regulators and stakeholders and prescribe safe storage and handling systems and plans relevant to the type and quantities of materials involved.

- 10.32 As part of ABP's corporate safety policy, clear systems, structures and objectives are set across all operations. This includes employing health and safety professionals in all regions to:
- Monitor and advise on safety performance
 - Work with managers, employees, regulators and other stakeholders to properly apply the vast range of legislation and guidance under which ports operate.
- 10.33 Similar to safety, the security regimes surrounding UK ports are heavily regulated and also involve multi-agency approaches to managing risk.
- 10.34 Since the 2001 terrorist attacks in the United States, the International Maritime Organisation (IMO) has implemented a series of amendments to the Convention on the Safety of Life at Sea 1974 (SOLAS) and a new International Ship and Port Facility Security Code (ISPS Code).
- 10.35 In 2004 a European Union Regulation on Enhancing Ship and Port Facility Security came into force. Although the regulation does not stipulate security standards, it provides a basis for consistent implementation of the IMO requirements in all EU member states.
- 10.36 In the UK, implementation of the IMO requirements forms part of the National Maritime Security Programme (NMSP), under the requirements of the UK Port Security Regulations 2009. This programme brings together the UK's previous maritime regime and various international

and European initiatives to provide a comprehensive protective security regime for UK ships and ports.

- 10.37 The Maritime and Land Transport Security Directorate of the Department for Transport (MLTS) has overall responsibility for the policy development and implementation of programmes for port facility and passenger ship security.
- 10.38 The Maritime Coastguard Agency (MCA) assists MLTS with ship security within a policy framework agreed with MLTS.
- 10.39 MLTS has provided Port Facility Security Instructions detailing instructions and guidance on the implementation of the required security measures, although the preparation of Port Facility Security Plans is a matter for individual ports, subject to the oversight of MLTS.
- 10.40 The Port operates in compliance with the Port Marine Safety Code as published by the DfT. The Port also holds regular liaison meetings with all port users to discuss and advise on safety and security issues.
- 10.41 As a fundamental part of any development or project, ABP ensures that the design of any infrastructure is suitable and fit for purpose. This means taking into account the health, safety and wellbeing of persons who may be working on or near to these developments and any impact on the wider users of the Port or its neighbours.
- 10.42 To this end ABP undertakes thorough project safety reviews and assessments on all works to determine any impact and ensure that appropriate control measures are built into the project design.
- 10.43 In summary, all UK ports operate within a comprehensive regime of regulations designed to promote safe and secure operation. Within this framework, however, which is subject to constant change based upon the evaluation of risk, there is a need to be able to respond quickly and effectively in the provision of new facilities, services and systems to meet the needs of UK and international trade.



ABP's Deputy Head of Safety & Environment, Humber, on patrol at the Port of Immingham

MV Maritime Valour entering the Port of Immingham to discharge 7,200 tonnes of steel beams from South Korea



Front cover:

Clockwise: The new Marine Control Centre at the Port of Immingham; coal being unloaded at the Port's Humber International Terminal; fertiliser is imported into Immingham for bagging and distribution; lift-on/lift-off container handling at Immingham Container Terminal.



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