Port of Falmouth
Masterplan

June 2011

European Regional Development Fund
Investing in your Future

convergence
for economic transformation

Falmouth Harbour Commissioners

CORNWALL COUNCIL

Falmouth Docks & Engineering Company

PENDENNIS
WORLDCLASS SUPERYACHTS

Contents

Tibbalds
planning and urban design

Tibbalds Planning & Urban Design
19 Maltings Place
169 Tower Bridge Road
London SE1 3JB

Telephone
020 7089 2121
Facsimile
020 7089 2120

mail@tibbalds.co.uk
www.tibbalds.co.uk

In association with:

Buro Happold

TYM & PARTNERS

Drewry

Davis Langdon

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Introduction

1.1 Introduction

Introduction

1.1.1 Tibbalds Planning & Urban Design was appointed to lead a team of consultants to prepare a Masterplan by the Port of Falmouth Development Initiative (PoFDI) in December 2009. In addition to Tibbalds, the team comprises:

- Roger Tym and Partners (RTP), Economic Planning Consultants;
- Drewry Shipping, specialist advisors on port-related economics;
- Buro Happold, Consulting Engineers; and
- Davis Langdon, Cost Consultants.

1.1.2 Figure 1.1 shows the study area of the project, and the location of the Docks area, which contains all the parts of the study area that lie above the high water mark. It is only within the Docks that land-based opportunities for development exist in the Port of Falmouth study area.

Report Structure

1.1.3 This report is structured as follows:

Chapter 1 Introduction: This chapter introduces this document, the Masterplan project and the Port of Falmouth.

Chapter 2 Understanding the Port: This chapter provides an overview of the Port today. It summarises:

- existing port operations;
- socio-economic background;
- planning and economic policy context;
- how the Port expects to grow in the future; and
- key spatial issues.

Chapter 3 Options Development and Appraisal: The Masterplan has been developed from a process of testing a range of different options. This chapter summarises this process, so explaining how the final Masterplan has been arrived at.

Chapter 4 The Masterplan: This chapter explains the final Masterplan and sets out details of individual projects.

Chapter 5 Economic Impact Assessment: This chapter sets out the predicted economic impacts of the Masterplan.

Chapter 6 Scoping for Sustainability Assessment: This chapter provides scoping for Sustainability Assessment, identifying key issues and actions required as the Masterplan is taken forward.

Chapter 7 Planning and Urban Design Appraisal: This chapter provides an assessment of the Masterplan against objectives derived from PoFDI and planning policy.

Chapter 8 Next Steps: This chapter sets out the Masterplan's key spatial issues, outline design guidance for specific projects, and economic funding and delivery issues.

About PoFDI

1.1.4 The Port of Falmouth Development Initiative (PoFDI) was formed in 2008. It is currently made up of several organisations including:

- A&P Group (A&P);
- Falmouth Docks and Engineering Company (FDEC);
- Falmouth Harbour Commissioners (FHC);
- Cornwall Council (CC);
- Cornwall Development Company (CDC);
- South West of England Regional Development Agency (SW RDA);
- Falmouth Petroleum Ltd (FPL); and
- Pendennis Shipyard (Pendennis Superyachts) (PS).

1.1.5 The PoFDI partners are jointly committed to testing and developing proposals for the development of the Port which will safeguard and enhance the long-term viability and contributions to the sustainable growth of the economy in Falmouth and Cornwall. To help guide the development of the Port, PoFDI decided that a Masterplan was needed and commissioned this study.

Figure 1.1: The Wider Study Area

1.2 The Masterplan and its strategic objectives

Why is a Masterplan needed?

1.2.1 There are many different businesses and public sector organisations involved in the Port of Falmouth. A Masterplan is a way of coordinating all of these different interests, so that everyone works towards a shared vision for the future. This coordination is especially important for deciding on how and when to invest in the Port – this investment includes both private funds and public money, such as EU Convergence funding.

1.2.2 The Masterplan will set out projects for the short term (that is, the next five years) as well as projects for the longer term, up to 2026.

Masterplanning Principles

Study Brief

1.2.3 PoFDI's Brief for the Masterplan study set out three key aims:

- Prepare ambitious, viable and deliverable proposals for development of the Port and related initiatives to secure its role in serving the economy of Cornwall. This study will reflect the joint aspirations for the future development of the Port, will build on a wide range of already completed work and will include strategic plans for the medium to long-term with sufficient detail and clarity to secure funding.
- Identify key developments which may be completed within the timescale for ERDF Convergence Programme funding. This is a particular priority.
- Work with and advise PoFDI through a structured programme of forecasting, option testing and refinement of a preferred option.

Strategic Aim and Objectives

1.2.4 The Strategic Aim for the Port of Falmouth was derived from the aspirations and vision of the key stakeholders on the client Working and Steering Groups. The Strategic Objectives flesh out the Strategic Aim. They are set out below:

Strategic Aim

Falmouth should be maintained and developed as a successful and viable operational Port that is of regional strategic significance and that makes a major and continuing contribution to the Cornish economy and the wellbeing of local communities.

Strategic Objectives

- ***Retain Falmouth's strategic significance as a deepwater port at the western approach to the English Channel;***
- ***Maintain and develop existing port operations and related businesses;***
- ***Introduce and support appropriate new functions and businesses;***
- ***Ensure that growth is sustainable, with sea, land and infrastructure resources being capable of adaptation to meet changing demands ;***
- ***Maintain and create high quality jobs through strong links with the education sector;***
- ***Support the wider economy and community;***
- ***Support sustainable development and sustainable transport;***
- ***Support the development and use of renewable resources and associated technology;***
- ***Ensure development contributes to Falmouth's distinctiveness and sense of place and respects its environmental and heritage assets; and***
- ***Ensure that the vision is deliverable.***

Area of Study - The Port and The Docks

1.2.5 This is an economic-led Masterplan. Its principal aim is to deliver new jobs through a programme of investment in and improvements to existing businesses, as well as supporting emerging new business sectors. The focus of the Masterplan is therefore very much on the Docks, which form the economic hub of the study area.

1.2.6 However, the wider area is not forgotten in this Masterplan:

- the projects at the Docks will bring significant economic benefits for Falmouth, supporting jobs in the wider economy;
- initiatives are identified that will help support development elsewhere in the town (for example, appropriately managing Ammonium Nitrate at the Docks so removing objections from the Heath and Safety Executive to new developments); and
- the FHC marina is identified as a longer-term project.

2

Understanding the Port

2.1 Introduction

Introduction to this Chapter

2.1.1 This Chapter is intended to set out the spatial, economic and policy based context of the Port. It is structured as follows:

- 2.1 Introduction: Introduces the chapter;
- 2.2 Context of the Port and its strategic role: Introduces the Port and its international and regional context;
- 2.3 Summary of current Port operations: Introduces the key ownership, businesses and infrastructure within the Docks and wider Port area;
- 2.4 Summary of planning and economic policy context: Introduces the wider planning and economic policy as it relates to the Port of Falmouth;
- 2.5 Summary of socio-economic baseline: Describes the local employment and economic context of Falmouth and Cornwall;
- 2.6 How the Port expects to grow: Describes the outcome from the Masterplanning teams 'forecast scenarios' for each of the main economic sectors within the Port;
- 2.7 Summary of key spatial issues: Describes the key spatial issues within the site including contamination, the Fal and Helford Special Area for Conservation (SAC), dredging, Ammonium Nitrate storage, heritage, and transportation and access; and
- 2.8 Summary of strategic spatial constraints and opportunities: Provides an overview of the key spatial implications of all of the above issues towards the development of the Masterplan.

2.2 Context of the Port and its strategic role

Context of the Port

2.2.1 The Port of Falmouth is located within the Fal Estuary, a natural, large, deepwater harbour, located in the southwest of the UK. Falmouth is the western-most Port of its size on the British mainland, making it a strategic location for ships entering or exiting the English Channel to the Atlantic. Figure 2.1 shows Falmouth within the context of selected ports within the western English Channel that are of a similar size and profile to Falmouth.

2.2.2 The extent of the Port of Falmouth (Figure 2.2) includes Falmouth Docks, the Inner Harbour, Carrick Roads Anchorage and Cross Roads Anchorage, and Falmouth Bay. It borders onto the Ports of Truro and Penryn. These bordering Ports offer services that can supplement those provided by Falmouth Port (see Port Masterplan by Carrick District Council www.portoftruro.co.uk).

2.2.3 Falmouth Docks Engineering Company (FDEC) acts as the statutory harbour authority for the waters adjacent to its facilities. Within the Docks are the services offered by A&P Group (a member of the A&P Group of companies), Falmouth Petroleum Ltd., Pendennis Shipyard and Pendennis Marina. The remainder of the Port is under the jurisdiction of the Falmouth Harbour Commissioners (FHC) which provides pilot services to commercial vessels, berths and moorings for leisure craft, along with landside facilities for yachts-people.

2.2.4 Falmouth Bay provides a natural deepwater shelter for larger vessels that are too large to be able to navigate and moor within the Port area. These include larger cruise vessels which drop anchor in the Bay and then transport passengers to the Docks by tender.

Figure 2.1: Falmouth located in the context of selected British and European Ports

Figure 2.2: Falmouth located in the context of ports in the South West of the UK

It also includes the vessels that stop at Falmouth to utilise the bunkering services provided by Falmouth Petroleum Ltd..

2.2.5 Falmouth Docks are the only location in Falmouth where cruise passengers are allowed to alight from their tenders due to security requirements.

2.2.6 Pilotage is provided by FHC for commercial vessels entering the Port. FHC also provide a commercial mooring suitable for vessels up to 203 LOA in the Cross Roads.

2.2.7 For leisure craft there are numerous moorings available throughout the Port and beyond its boundaries into the Ports of Truro and Penryn. For special events, the FHC ensure that leisure events do not compromise the commercial activities of the Docks.

2.2.8 A plan of the Docks area showing the boundary of the study area is shown in Figure 2.4. A series of site photos are shown in Figure 2.5.

Figure 2.3: Falmouth Harbour, the Carrick Roads, and navigation issues

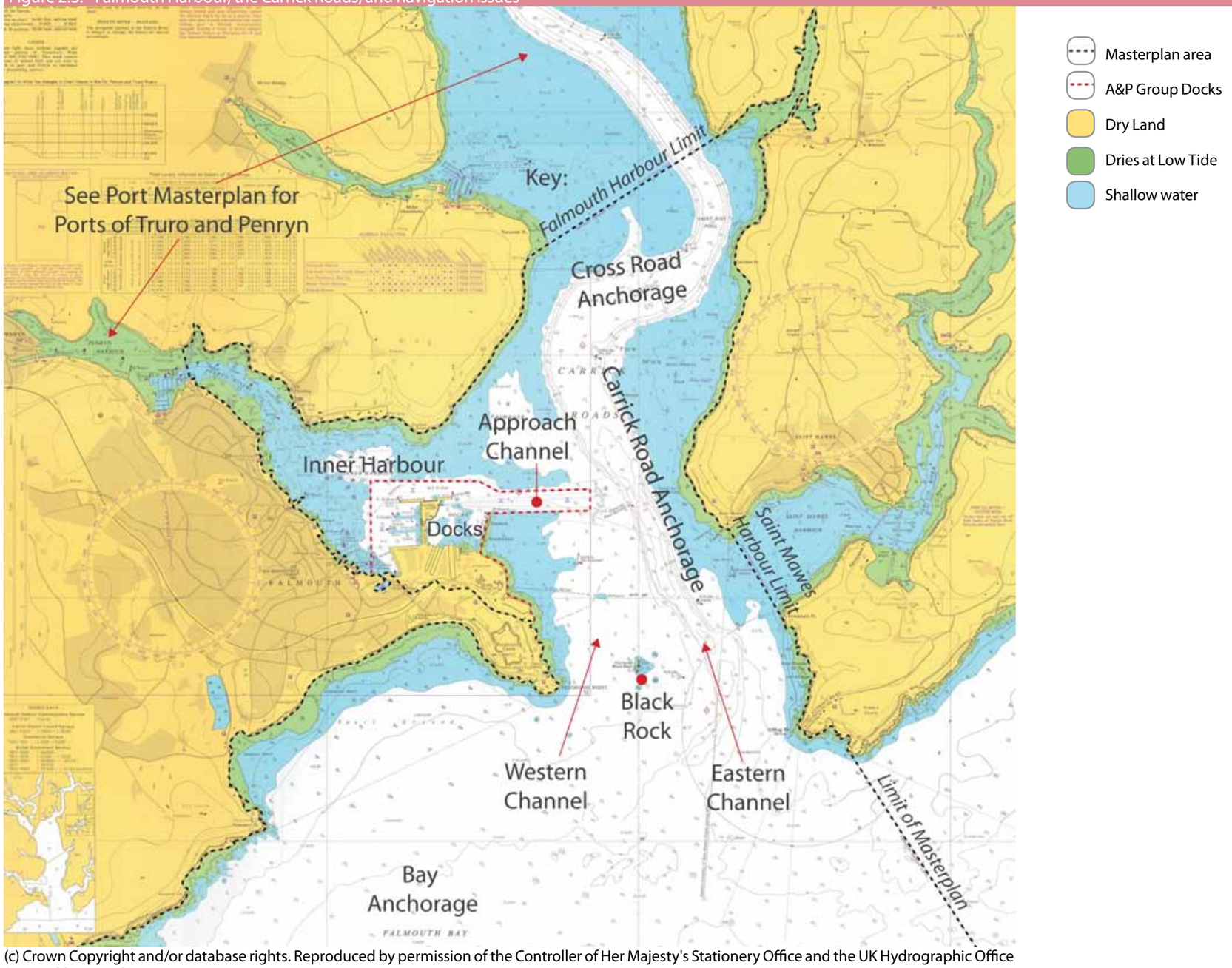
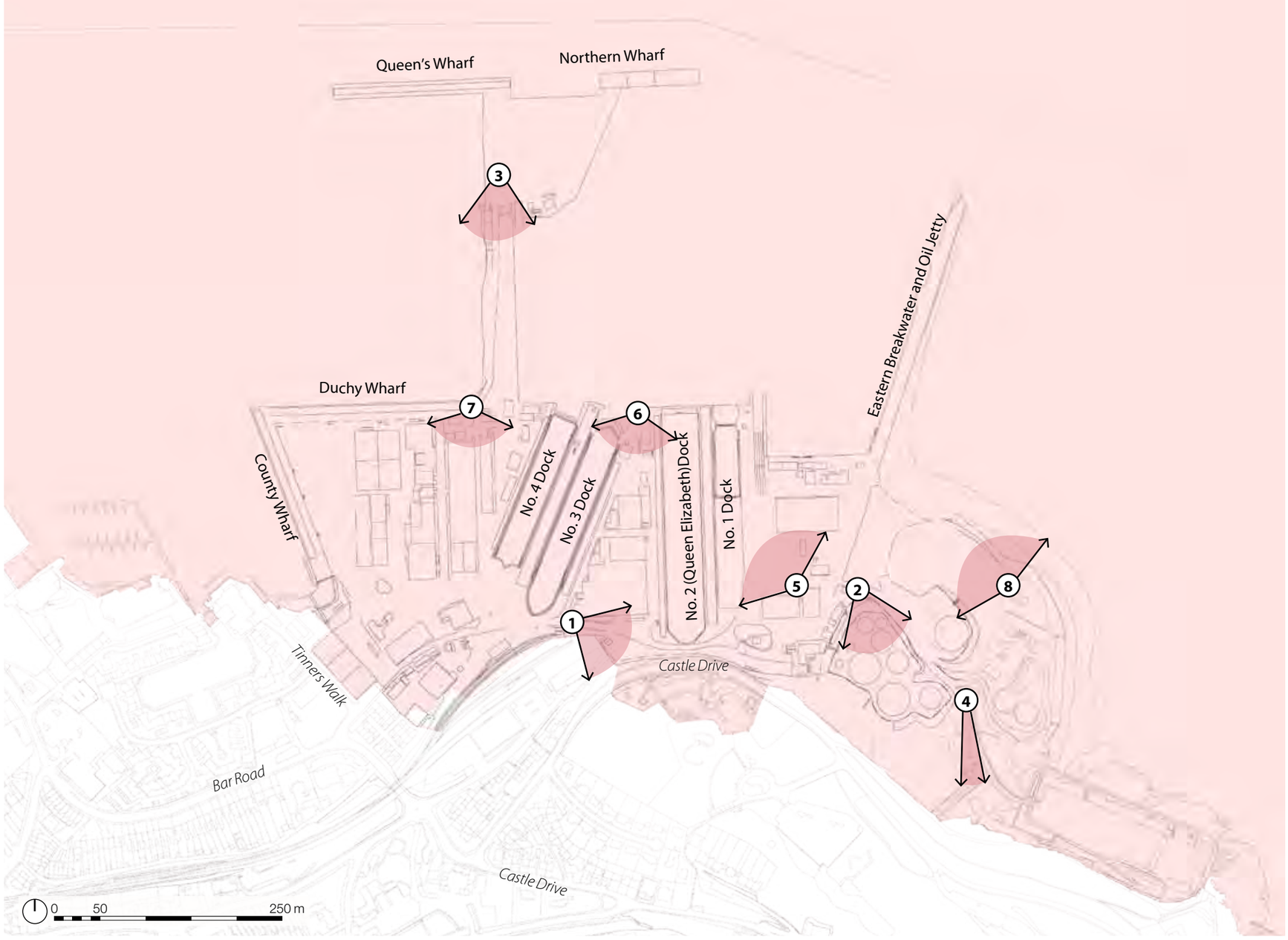


Figure 2.4: The Docks area and location of site photos

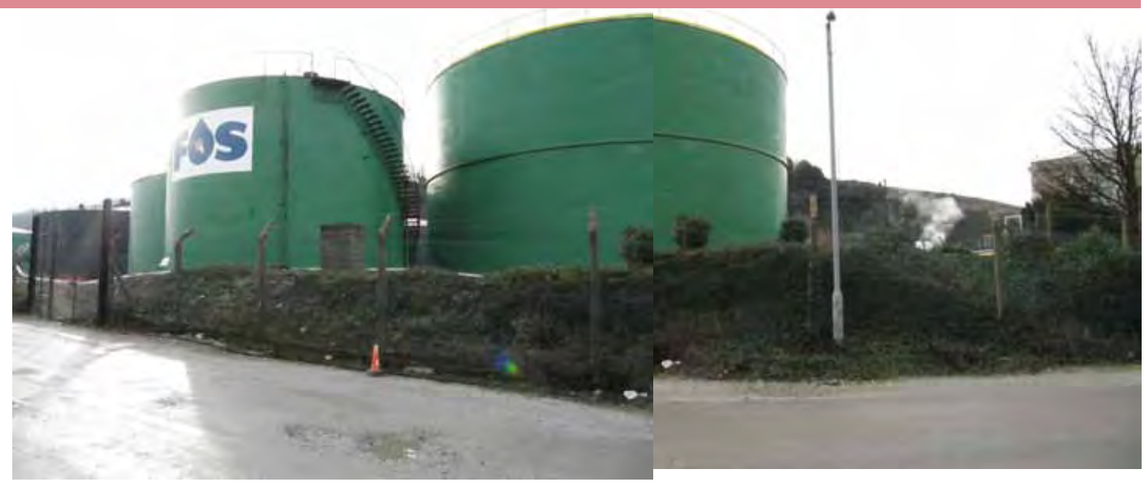


Study Area

Site photo shown in Figure 2.5

Figure 2.5: Site photos within the Docks (locations shown in Figure 2.4)

1 The cliff along the southern boundary of the site



2 Falmouth Petroleum Ltd - Oil Tanks

3 Road along Western Breakwater to Queen's and Northern Wharves

4 Residential building to south-east of site

5 Pendennis Shipyard

Figure 2.5 (cont'd)

6 Existing A&P drydock operations

7 Existing A&P workshops, offices, and storage facilities

8 North-east of site and Helipad

2.3 Summary of current Port operations

Introduction

2.3.1 This section provides an overview of the existing:

- Port ownership;
- Port activities; and
- Port infrastructure.

Port Ownership

2.3.2 Figure 2.6 shows the key landowners and long-term leaseholders in the Port area. They include:

Falmouth Harbour Commissioners

2.3.3 Falmouth Harbour Commissioners are a Trust Port, with statutory responsibility for the management and conservancy of the Port. In addition, the Falmouth Harbour Commissioners own and operate three distinct parcels of land in the town centre to the west of the Docks (Custom House Quay, North Quay and King Charles Quay). FHC also own substantial areas of sea bed within the Masterplan area.

A&P Group

2.3.4 A&P Group own and operate much of the Docks area, including the wharves and three of the four drydocks and an area to the north-east of the site. In addition to this, they also own a significant area of waterway, as well as the freehold of some areas of the site with long term leases to other users. There has been a recent change in overall ownership of the Docks - the new owner is Atlantic & Peninsula Marine Services Ltd whose shareholders include Peel Port Holdings Ltd and private investors.

Pendennis Shipyard

2.3.5 Pendennis Shipyard holds a long-term lease on the No. 1 Dock and adjoining eastern land, as well as shorter leases on A&P land (used as a carpark), and the Bridon Ropes building (owned by SWRDA).

Falmouth Petroleum Ltd.

2.3.6 Falmouth Petroleum Ltd. controls a significant portion of the eastern end of the Docks (on a long term lease from A&P), including large areas of waterway.

South West Water

2.3.7 South West Water own (outright) three distinct parcels of land to the east of the site, including a residential house on a long term lease. South West Water also have a right of access through A&P, Pendennis Shipyard and Falmouth Petroleum Ltd. areas of the Docks.

Azure Oil Services

2.3.8 Azure Oil Services own two aging fuel tank sites, leased currently to Falmouth Petroleum Ltd, as well the lease on a strip of land used as an access way to the east of the Docks from Castle Drive.

The South West RDA

2.3.9 The South West RDA own the Bridon Ropes building, which is leased to Pendennis.

Private landowner

2.3.10 A private landowner owns a small parcel of land within the centre of the Docks.

Other businesses

2.3.11 In addition to these long term ownerships and operations, A&P have short term leases with a variety of tenants (commercial and regulatory).

Port activities

2.3.12 The main Port activities, centred around the Docks, are shown in Figure 2.7 . They include:

Shiprepair (Operated by A&P)

- Shiprepair, operated by A&P Group. This is a very significant part of the Port's economic activity. Contracts include the Royal Fleet Auxiliary and various ferry operators. Major repairs take place within numbers 2, 3 and 4 dry docks, with other repairs being carried out 'alongside' at the Queen's, Northern, County and Duchy Wharves.

Port Operations - Cargo Handling (Operated by A&P)

2.3.13 The main cargoes handled by the Port are:

- animal feed, which makes up over 40% of cargo;
- fertiliser, at just under 40%;
- glass cullet exports (that is, glass for recycling);
- a variety of other materials, including stone from local quarries and coal for local domestic use.

Port Operations - Cruise Ships (Operated by A&P)

Cruise ships either anchor in the Carrick Roads and tender passengers ashore or - for smaller vessels - berth at one of the wharves, enabling passengers to disembark directly to land. The number of vessels calling at Falmouth varies - in 2000, there were 10 calls; in 2005, 40 calls; and in 2010 there were 26 calls.

Superyachts (Pendennis Shipyard)

2.3.14 Pendennis Superyachts was founded in 1989, and has grown to a world-class business. It has seen continued growth, and operates from 2.6 hectares (6.5 acres) of land that includes No. 1 dry dock. Pendennis Shipyard acquired Devonport Yachts in 2010, so enabling it to enter the market for larger (over 60 metre) Superyachts.

Bunkering Services (Falmouth Petroleum Ltd.)

2.3.15 Falmouth's strategic position at the 'gateway' to the English Channel from the Atlantic means that it is ideally situated to provide fuel to ships as well as services such as provision of fresh water. The bunkering business is related not only to 'passing trade' but also to ships that call at the Port - e.g. cargo vessels and ships arriving for repair.

Sewage (South West Water)

2.3.16 South West Water, which provides sewage treatment for Falmouth and Penryn areas.

Recreational Boating

2.3.17 The Fal Estuary is a major centre for recreational boating with more than 5,500 vessels berthed on permanent facilities within the estuary as a whole. There is an increasing demand for berthing facilities of all types and many facility providers have long waiting lists.

Other businesses

2.3.18 A wide variety of smaller businesses including the Falmouth Fishselling Company (FalFish) and a range of companies providing support to the marine industry.

Port Infrastructure

Docks Infrastructure - quays and mooring areas

2.3.19 Quays and mooring areas within Falmouth Docks, including existing depths are shown in Figure 2.8. Within Falmouth Docks a gradual accumulation of sediment has occurred over many years. This will continue without investment in maintenance dredging and could eventually prevent access to the graving docks. Dredging within the Docks is likely to include significant treatment and disposal costs as much of the sediment will be contaminated.

Docks Infrastructure - landside areas

2.3.20 Figure 2.9 shows the location and type of landside infrastructure, buildings and open spaces within the Docks area.

2.3.21 The Docks have an aging infrastructure with the existing wharves requiring significant investment

if they are to continue to support shipping and associated businesses.

2.3.22 County Wharf and Duchy Wharf are suspended deck structures. Their condition is poor and substantial investment is needed to prolong the life of the structures to 2030. Thereafter, rebuilding is considered necessary.

2.3.23 The Western Wharf is the link to the Queen's and Northern Wharf. On the west side the gravity walls are in reasonable condition but limitations on loads when using the access road have to be monitored. On the eastern side the timber wharf is in poor condition and is not in use.

2.3.24 The Queen's Wharf and the Northern Wharf provides berths alongside the main access channel to the Port. The Queen's Wharf was re-built in 2002 and the Northern Wharf is a gravity structure in need of repair if it is to be incorporated into a new structure (Ref. Halcrow 2006 Redevelopment Report).

2.3.25 The space provided behind the wharf and the type of unloading equipment utilised by the Port is dictated by the condition of the wharves as much as the availability of on-site storage space. Investment in new unloading equipment can only be undertaken in combination with improving the wharf condition.

2.3.26 On the Eastern Jetty/Breakwater a bunkering service is provided by Falmouth Petroleum Ltd. and this is undertaken alongside or offshore using the Company's bunkering barges. The Eastern Breakwater plays a key role in protection of the entire docks area and is in need of investment.

2.3.27 The Docks also support three graving docks for shiprepair activities that are undertaken by A&P Group. A&P Group provides a shiprepair facility and the graving docks are estimated by A&P to be utilised for 80% of available time. Significant ongoing maintenance is required to ensure all graving docks remain in good condition in order to continue to attract the shiprepair business.

2.3.28 The No.1 graving dock is leased by Pendennis Superyachts for luxury yacht refitting and new yacht building. This yacht business also has significant fabrication and other workshop space and parking within the Docks.

2.3.29 The Falmouth Docks helipad is available to commercial users, for a fee and provided the operator has the necessary Indemnities in place (£10 million cover) prior to any landing. Refuelling services for helicopters are not provided at Falmouth.

2.3.30 A&P Group allow the use of the helipad by HM Forces for training and emergency purposes. Training is a regular occurrence and is usually 2/3 times a week. The local Naval Air Station at Culdrose is the prime user for this purpose, however the Maritime & Coastguard Agency (MCA) also use it in conjunction with the Fire Brigade for air sea rescue purposes.

Docks Infrastructure - utilities

2.3.31 Utilities within the Docks area are shown in Figure 2.10. They include:

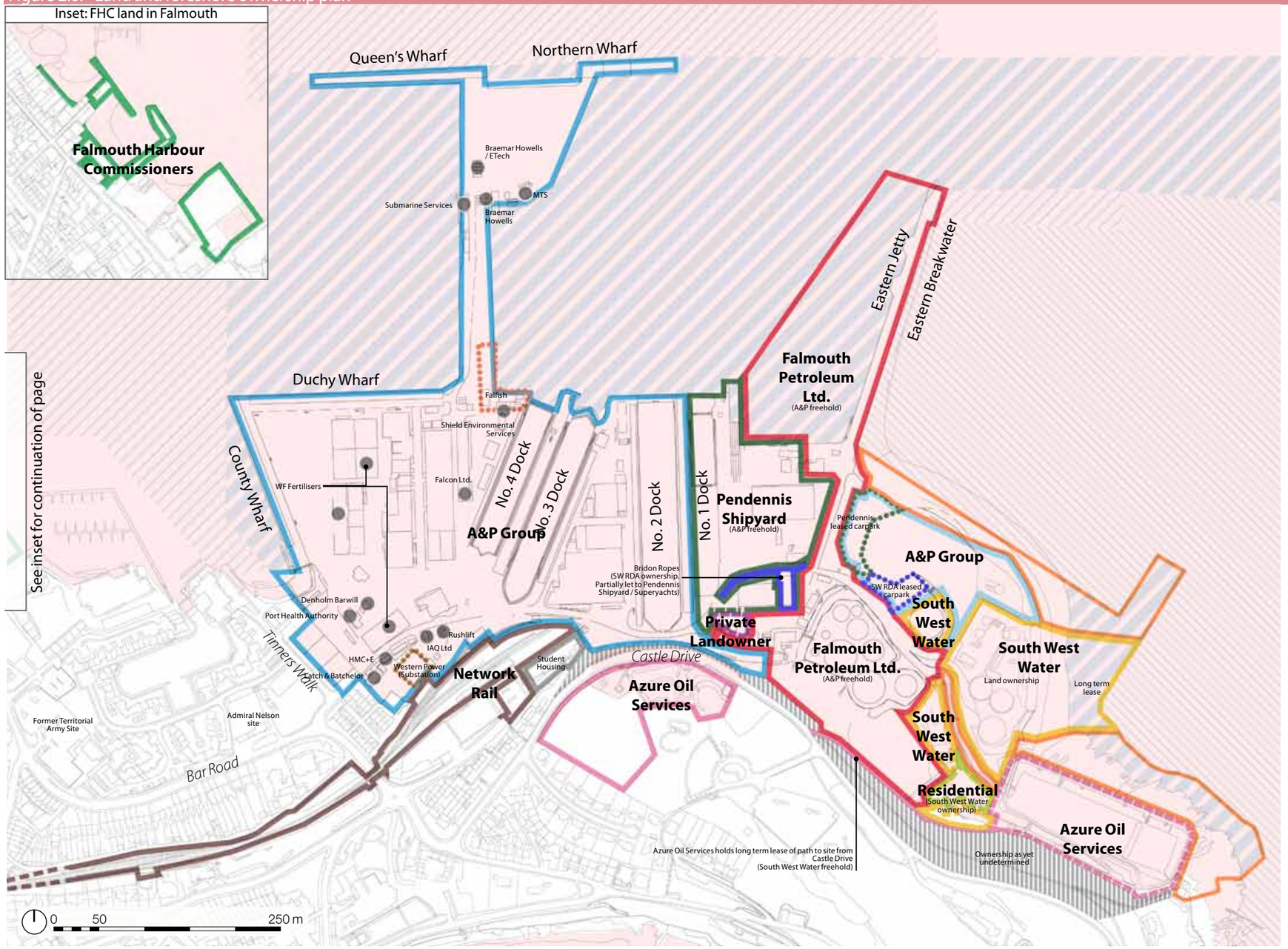
- Electricity - A 33/11kV substation owned by Western Power distribution is located towards the southwest of the site. There are two 33kV cables supplying this and also approx. 7 circuits of 11kV cables in the same region that supply customers external to the Docks. The substation would cost in the order of £700k to be relocated.
- Gas - An LP gas main enters the site from the south west. This appears to only serve a single block but it is the only gas main identified within the site boundary.
- Ministry of Defence (MOD oil pipeline) - This pipeline is part of the Government Pipelines and Storage System (GPSS). Though not currently used, it is, however, still subject to all the legislation of an operating pipeline. This requires a 6m wide corridor (3m clear either side of the pipe) with permissions required for new services and roads to cross the route.
- Potable water - Although there is a trunk potable water main in the vicinity it does not enter the site boundary.
- Surface and Foul Water - a combined surface and foul water main carrying the whole of Falmouth's foul sewage to the south West Water treatment works, located within the eastern part of the docks. The sewer runs through the site and additionally captures foul discharge from within the docks. No additional surface water flow may be discharged to this sewer. SuDS and alternative surface water discharge provisions may be required for new construction.
- Telecommunications - a significant number of BT telecommunications cables run through the site.

Harbour Infrastructure

2.3.32 There are some small quays, wharves and small scale pontoon arrangements outside of the Docks providing a range of berthing facilities for commercial and leisure craft.

2.3.33 A Falmouth P&R (park and ride) operates and included a slipway and pontoon access.

Figure 2.6: Land and foreshore ownership plan



Study Area

Land Ownership and long term leases

- Ownership or long term lease
- Assumed ownership or long term lease: boundary uncertain
- Short term leases and wayleaves
- Other A&P tenants (approximate locations shown)
- Ownership as yet undetermined

Colour key of principal landowners

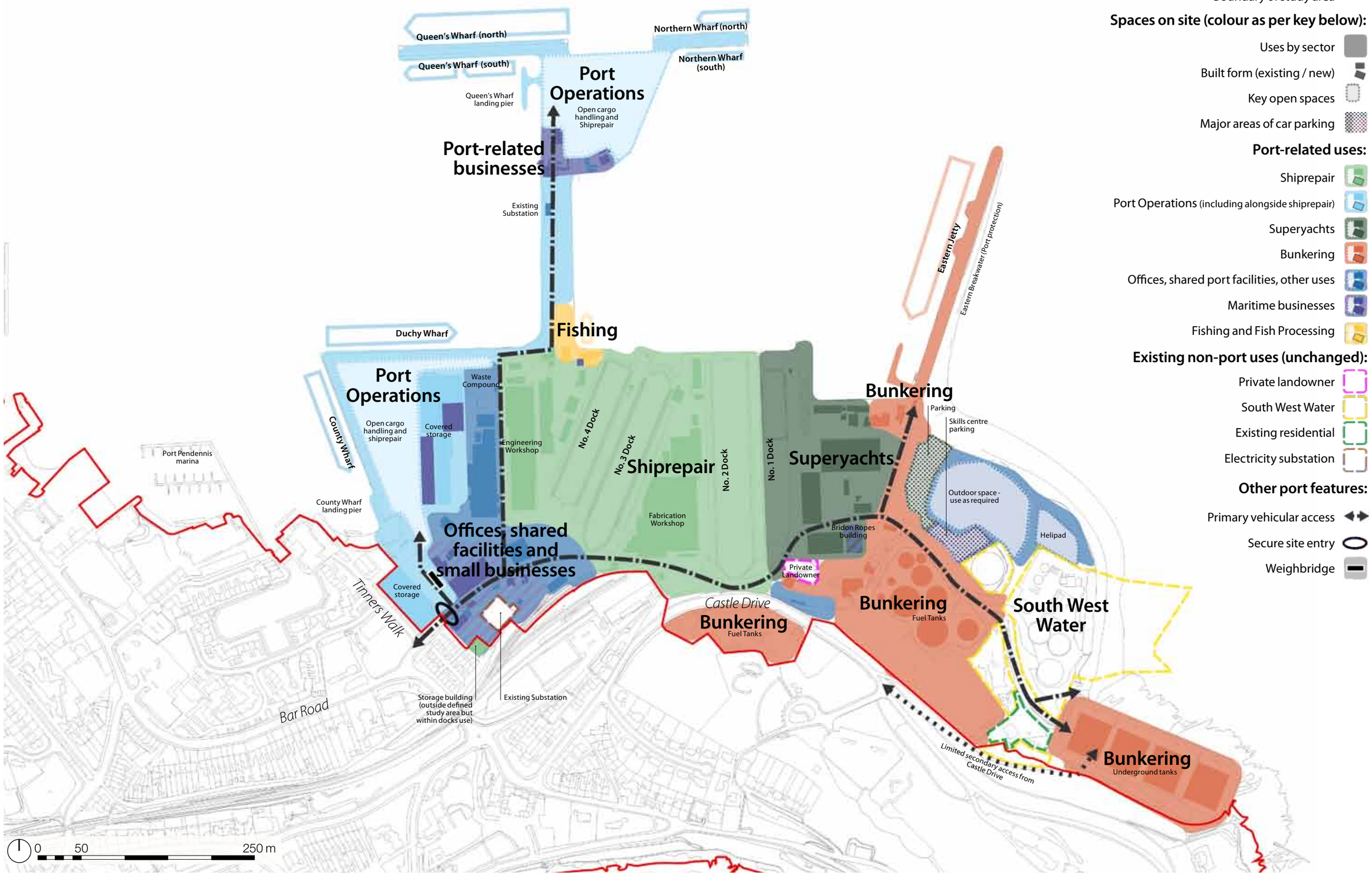
- A&P Group
- South West RDA
- Pendennis Shipyard/Superyachts - A&P freehold
- Falmouth Petroleum Ltd. - A&P freehold
- Private landowner
- Azure Oil Services
- South West Water (freehold land unless otherwise specified)
- Long term residential lease (South West Water Ownership)
- Network Rail
- Falmouth Harbour Commissioners
- Falmouth Oil Services/Azure Oil

Water / seabed ownership

- Seabed registered to Falmouth Docks & Engineering Company (A&P)
- Owned by A&P. Seabed not registered (note: continues further than extent of page)
- Seabed owned by Falmouth Harbour Commissioners

Note: All boundaries shown are approximate only, using information provided by a variety of sources. Detailed accuracy cannot be ensured

Figure 2.7: Existing land use plan



Boundary of study area

Spaces on site (colour as per key below):

- Uses by sector
- Built form (existing / new)
- Key open spaces
- Major areas of car parking

Port-related uses:

- Shiprepair
- Port Operations (including alongside shiprepair)
- Superyachts
- Bunkering
- Offices, shared port facilities, other uses
- Maritime businesses
- Fishing and Fish Processing

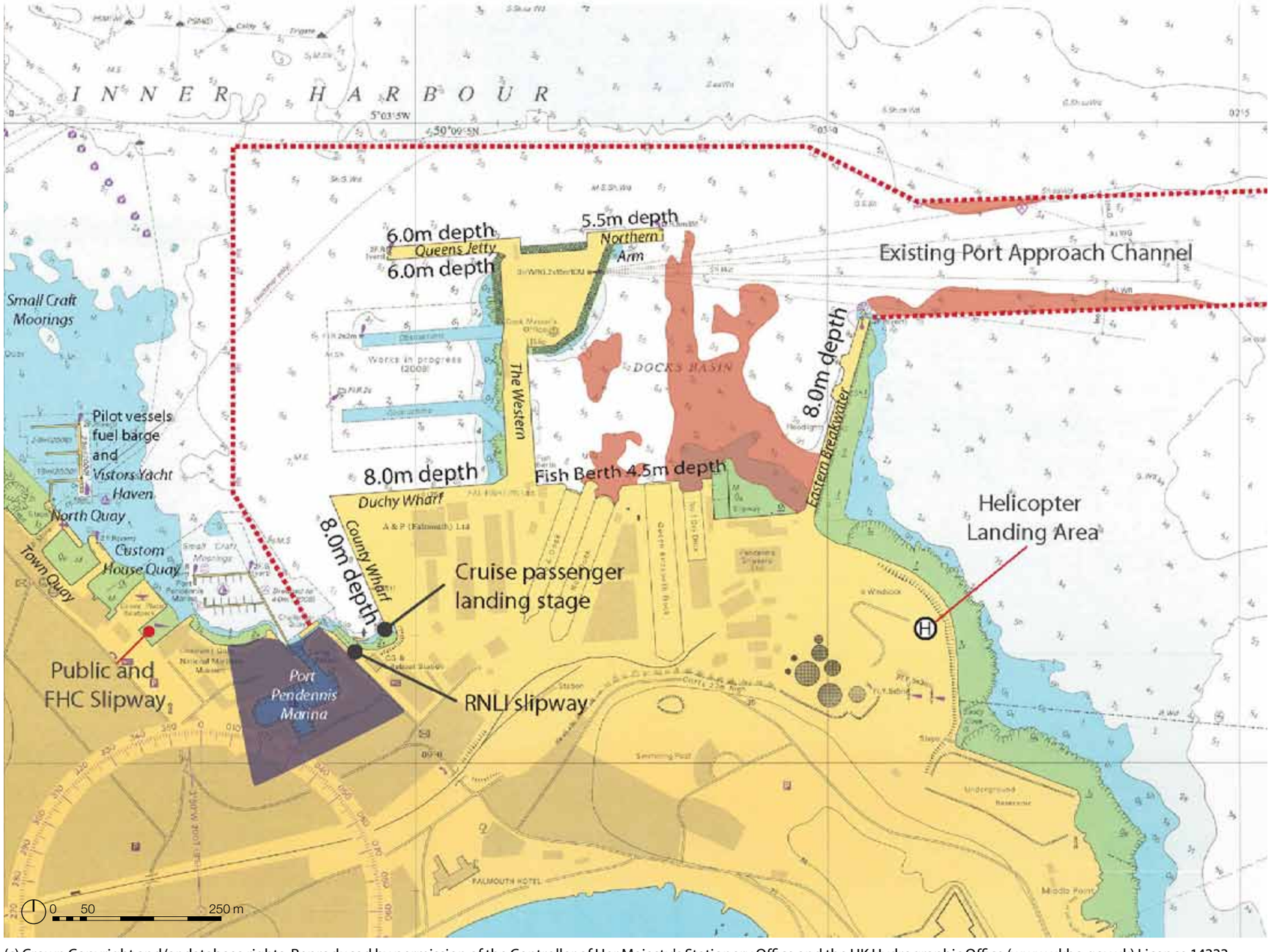
Existing non-port uses (unchanged):

- Private landowner
- South West Water
- Existing residential
- Electricity substation

Other port features:

- Primary vehicular access
- Secure site entry
- Weighbridge

Figure 2.8: Quays and mooring area



Change in 5m contour between years 1983-2007

Restricted public access to Port Pendennis Marina

Dry Land

Dries at Low Tide

Shallow water

Note:
All depths shown are current depths (2010) available to vessels at low water.

NB This plan is based on the latest available chart, which shows the demolition of the Empire and King's wharves to the west of The Western Wharf as 'work in progress'.

Figure 2.9: Existing facilities plan

Roads and access

- Primary access through site
- Other major access through site

Individual uses

- Major infrastructure (including Drydocks, wharves, electricity sub stations, fuel tanks, etc.)
- Workshop areas
- Indoor bulk cargo storage
- Indoor cargo storage (non-bulk)
- Other indoor storage
- Covered outdoor cargo storage
- Offices (including training areas, meeting rooms, portacabin and other temporary offices))
- Residential
- Minor infrastructure and other uses (toilets, smaller gas tanks, etc.)
- Building of unknown use

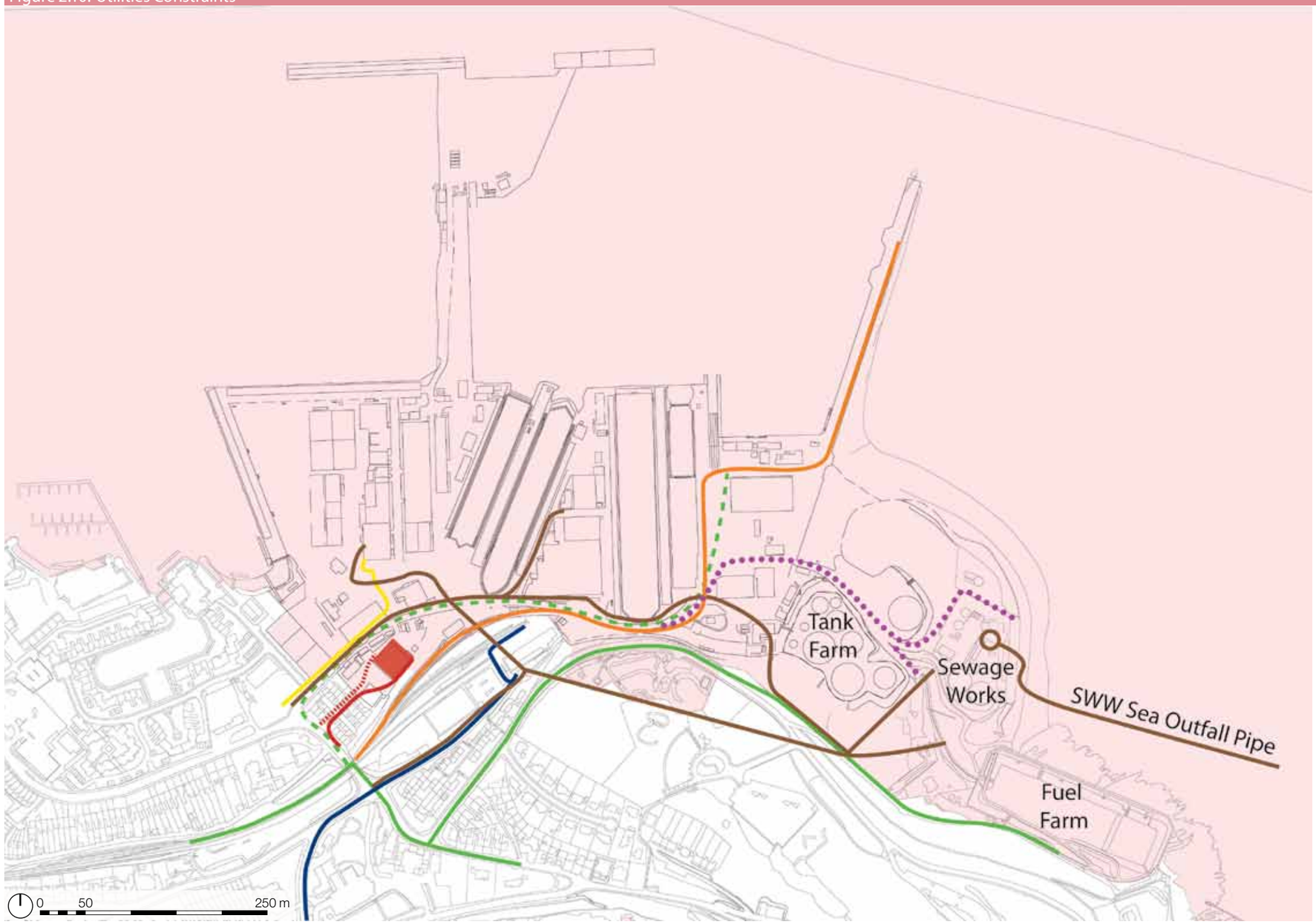
Outdoor uses

- Outdoor storage
- Outdoor areas at wharf - parking, access, smaller storage
- Car parking
- Other outdoor uses

Underground uses

- Underground uses

Figure 2.10: Utilities Constraints



33/11kV Electrical Substation

33kV UG Cables

11kV UG Cables

Potable Water Trunk Main

Combined Surface & Foul Water Main

MOD Oil Pipeline (possibly redundant)

Telecoms Ducts

Telecoms Ducts (main branch that terminates within site boundary)

LP Gas Main

South West Water agreed access route to SWW property

2.4 Summary of planning and economic policy context

Introduction

2.4.1 This section covers the wider planning and economic policy issues for the Port of Falmouth. It is set out as follows:

- Recent Changes in Planning and Economic Policy
- Planning Policy Context
  - Development or operations for which some form of consent is required
  - Draft National Policy Statement for Ports, November 2009
  - Regional and Local Planning Policy
- Economic Policy Context
  - "New Industry, New Jobs"
  - The UK Low Carbon Industrial Strategy
  - The Regional Economic Strategy for South West England (2006-2015)
  - Economic Development Strategy 2007-2021 & Economic Ambition White Paper
  - Falmouth and Penryn Community Plan
  - Falmouth and Penryn Strategic Investment Fund (SIF)
  - The UK Renewable Energy Strategy

2.4.2 Further information on key planning issues, such as Ammonium Nitrate storage, contamination, transportation and access are included in Section 2.7 'Summary of key spatial issues' within this document.

Recent Changes in Planning and Economic Policy

2.4.3 The Government is currently pursuing proposals for reforms to the planning system, to ensure that planning supports the sustainable development needed as the country emerges from recession. These include the introduction of the Localism Bill as the centrepiece for the new planning system. A key Government objective is to shift some plan making and decision making functions from central government to local authority and local neighbourhood levels. As a result, the Regional Development Agencies, including the South West RDA (SW RDA), are being abolished, and the Regional Spatial Strategies (RSS) (which set requirements and growth targets) are no longer to have policy status.

2.4.4 The removal of the RSS's has caused great uncertainty as their function was to set the high-level context for local authority policy and so give a coordinated direction for a region. Their removal is being challenged in the courts. In the meantime, local authorities have the opportunity to review the policies within the RSS's for their own areas and adjust if necessary their development plans, notably their LDF core strategies. At present we have had no indication that Cornwall Council intends to depart from the policy direction it has been pursuing in developing its LDF Core Strategy, or from the relevant national, regional and saved Local Plan policies that have informed the Council's plan making and development management activities to date. These form the bulk of the policy context informing this Masterplan for the Port of Falmouth that is described below.

2.4.5 The emerging government policy position is, however, relevant to the weight that might be attached to various aspects of policy in the event of the invariable conflict or tension that arises between different policy objectives. The significance of local community involvement and consultation in plan preparation has increased, and the consultation responses to the Masterplan options and the draft final Masterplan are particularly important. Also of particular significance is the recent Written Ministerial Statement: Planning for Growth (23 March 2011), issued by Mr Greg Clark, the Minister of State for Decentralisation.

2.4.6 This emphasises that the Government's top priority in reforming the planning system is to promote sustainable economic growth and jobs. It states that local planning authorities should press ahead without delay in preparing up to date plans, and should be proactive in driving and supporting the growth that this Country needs. The PoFDI process to date in the production of the Port of Falmouth Masterplan exemplifies such proactive endeavour with economic growth and job creation at its heart. The following principles are set out in the Ministerial Statement for local authorities to follow:

- consider fully national policies aimed at fostering economic growth and employment;
- take into account the need to maintain a flexible and responsive supply of land for key sectors;
- consider the range of likely economic, environmental and social benefits of proposals, including long term or indirect benefits such as increased consumer choice, more viable communities and more robust local economies;
- be sensitive to change and take a positive approach to development where new economic data suggests that prior assessments of need are no longer up to date; and
- ensure they do not impose unnecessary burdens on development.

2.4.7 In determining planning applications, local planning authorities are obliged to have regard to all relevant considerations, but they should ensure that they give appropriate weight to the need to support economic recovery, and treat favourably applications that secure sustainable growth.

2.4.8 It is emphasised that the Secretary of State for Communities and Local Government will take the above principles into account in decision making and in particular he will attach significant weight to the need to secure economic growth and employment.

2.4.9 The Statement concludes with relating its principles to decision making by other ministers and agencies in granting other forms of consents. It states that:

"Benefits to the economy should, where relevant, be an important consideration when other development-related consents are being determined, including heritage, environmental, energy and transport consents. The Secretary of State for Culture, Olympics, Media and Sport, the Secretary of State for the Environment, Food and Rural Affairs, the Secretary of State for Energy and Climate Change and the Secretary of State for Transport have consequently agreed that to the extent it accords with the relevant statutory provisions and national policies, decisions on these other consents should place particular weight on the potential economic benefits offered by an application. They will reflect this principle in relevant decisions that come before them and encourage their agencies and non departmental bodies to adopt the same approach for the consents for which those other bodies are directly responsible."

2.4.10 In effect this requires agencies such as the Environment Agency, Natural England, English Heritage and the Marine Management Organisation (MMO) to place particular weight on the benefits of economic growth and job creation when considering proposals that may have some adverse effects on the natural and /or historic environment. It also reinforces the Imperative Reasons of Overriding Public Interest (IROPI) case to be put forward to the Secretary of State for the Environment, Food and Rural Affairs in response to the decision by the MMO not to grant a licence for the dredging of the required approach channel to the Docks.

Planning Policy Context

Development or operations for which some form of consent is required

Permitted Development Rights

2.4.11 Development of operational land in respect of a dock, pier, harbour, water transport, canal or inland waterway falls under the provisions for permitted development by statutory undertakers. Schedule 2, Part 17 of the Town and Country (General Permitted Development) Order 1995. This sets out the works that constitute permitted development and for which further planning consent from the local planning authority is not required, and these must relate to:

(a) shipping; or

(b) embarking, loading, discharging or transport of passengers livestock or goods at a dock, pier or harbour.

2.4.12 The provision excludes construction or erection of a hotel, bridge or any other building not required in connection with the handling of traffic, or of any related educational building, car park, shop, garage or petrol filling station that is not entirely within the limits of a dock, pier or harbour.

2.4.13 Class D of Schedule 17 is for Dredging, covering the use of any land by statutory undertakers in respect of dock, pier, harbour, water transport etc undertakings for the spreading of any dredged material.

2.4.14 Planning permission is required both for development within the dock and harbour area that is not covered by the above permitted development rights and for major infrastructure development projects. Applications for the former will be determined by the local planning authority, Cornwall Council, or by the Secretary of State for the Environment in the event of an appeal or call-in.

2.4.15 Since its occupation of part of the dock area, the Pendennis Shipyard has secured express planning permission from the former Carrick District Council for its developments, rather than use permitted development rights. The SWRDA refurbishment and alterations to the Bridon Ropes warehouse building also involved a change of use to a Marine School and office accommodation and alterations to a listed building, and planning permission and listed building consent were obtained from Carrick District Council in 2005.

Nationally Significant Infrastructure Projects

2.4.16 Applications for nationally significant infrastructure projects will be determined by the Infrastructure Planning Commission (IPC), set up under the Planning Act, 2008. It is highly unlikely that, under any reasonable growth scenario for the Port of Falmouth, the thresholds for a decision by the IPC will be reached or exceeded. These are defined in the Act as facilities for a level of annual throughput of:

- 500,000 TEU (twenty foot equivalent units) for container ships; or
- 250,000 wheeled units for ro-ro ships;
- 5 million tonnes for cargo ships of any other type;
- an equivalent amount of combinations of the above.

Consent under the Coast Protection Act (CPA) and Marine and Coastal Access Act 2009

2.4.17 Under Section 34 of the Coast Protection Act 1949 (as amended by Section 36 of the Merchant Shipping Act 1988 and the Energy Act 2004) the consent of the Secretary of State for Environment, Food & Rural Affairs, is required for the following operations:

i. the construction, alteration or improvement of any works on, under or over any part of the seashore lying below the level of mean high water springs;

ii. the deposit of any object or materials below the level of mean high water springs;

iii. the removal of any object or materials from the seashore below the level of mean low water springs (e.g. dredging).

2.4.18 The Act imposes restrictions on works that may be detrimental to the safety of navigation, and requires account to be taken of potential environmental effects in harbour areas or in or close to other designated sites.

2.4.19 The new Marine and Coastal Access Act 2009 is intended to simplify and coordinate previously dispersed processes. Consents and licenses for marine works under the CPA or other Environmental Protection legislation or regulations are now to be issued on behalf of DEFRA by the newly formed Marine Management Organisation, which has taken over the responsibilities of the former Marine and Fisheries Agency. This non-departmental public body is now the UK Government's central and coordinating strategic delivery body for the marine area.

Requirements for Environmental Impact Assessments

2.4.20 Applications for harbour works, dredging and other activities that could adversely affect the marine environment or natural habitats are likely to require an Environmental Impact Assessment (EIA) or other appropriate assessment under regulations such as the:

- Harbour Works (Environmental Impact Assessment) Regulations 1999 (as amended 2000);
- Marine Works (Environmental Impact Assessment) Regulations 2007;
- Conservation (Natural Habitats &c) Regulations 1994;
- Offshore Marine Conservation (Natural Habitats &c) Regulations 2007.

2.4.21 While harbour and marine works needing EIAs would not need planning permission, significant landward development within or around the Port area not covered by permitted development rights may need a planning application to be accompanied by an EIA under the Planning Acts and associated regulations.

2.4.22 The Marine Management Organisation advises that where multiple consents are required and impose a requirement for more than one EIA, the consenting authorities will normally be content for the developer to provide a single document, provided its scope is sufficient to embrace the range of environmental issues which each is expected to consider.

Draft National Policy Statement for Ports, November 2009

2.4.23 This recent statement is one of the new National Policy Statements under the Planning Act 2008, providing the framework for decisions to be taken by the Infrastructure Planning Commission. Even though the IPC is unlikely to be involved in Falmouth, the policy statement for ports is still relevant as it is intended to provide guidance for the MMO's consideration of port development proposals and will be a material consideration in other non-port associated development proposals being considered under the Planning Acts. While not yet formally adopted, it has been subject to public consultation, House of Commons Select Committee scrutiny and has been approved by the House of Lords on 4 March 2010.

2.4.24 The overarching aim is to improve economic, social and environmental welfare through sustainable development. The key themes in the Government's ports policy are to:

- encourage sustainable port development to meet the needs of importers and exporters in a timely manner and to meet the identified national need for additional port capacity;
- leave judgements about when and where new developments might be proposed to be made on the basis of commercial factors by the port industry or port developers operating in a free market environment; and

- ensure all proposals satisfy relevant legal, environmental and social constraints and objectives.

2.4.25 It sets out explicitly what decision makers are to accept in determining applications for development relating to ports. These are to:

- cater for long-term forecast growth in volumes of imports and exports by sea;
- support the development of offshore sources of renewable energy;
- offer a wide range of facilities at a variety of locations to match existing and expected trade, ship call and inland distribution patterns;
- ensure effective competition between ports; and
- take full account of the potential contribution port developments might make to regional and local economies.

2.4.26 The Policy Statement also refers to the need to comply with other Government policies for sustainable development, stating that port infrastructure should also:

- preserve, protect and where possible improve marine and terrestrial biodiversity;
- minimise greenhouse gas emissions;
- be well designed, functionally and environmentally;
- be adapted to the impacts of climate change;
- minimise use of greenfield land;
- contribute to local/regional employment, regeneration and development;
- ensure competition and security of supply;
- provide high standards of protection for the natural environment;
- maintain and improve access to and condition of heritage assets;
- enhance access to ports and the jobs, services and social networks they create, including for the most disadvantaged;
- support sustainable, more efficient transport with lower environmental disbenefits; and
- provide the basis for a trans-modal shift from road transport to shipping and rail; and support economic and social cohesion.

2.4.27 The Statement expands on some of these with advice on assessment for applicants and decision makers. Some additional points not covered by, or expanding on, the generality above that are relevant to Falmouth are:

- defence and national security issues must be taken into account, development at ports should not prejudice the interests of national defence, and the Ministry of Defence should be consulted where appropriate (in this case the Royal Navy);
- decision makers should give substantial weight to the positive impacts associated with economic development and meeting the national demand for port capacity, in weighing up development proposals that may affect protected habitat;
- port developments that include a passenger or cruise terminal may have a positive impact on tourism in the local area by increasing accessibility in outlying regions, and the economic impact on local services should be assessed;
- proposals for capital dredging will need to be subject to full environmental impact assessment, including likely effects on protected European sites or species, and the deposit of dredged material on land for recovery or disposal will be subject to the need for a permit or the registration of an exemption;
- development involving dredging, cargo handling or storage of potentially toxic or hazardous material, discharge of potential contaminants and ships' ballast water must set out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, or on other protected species or habitats;
- development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives;
- where significant harm cannot be avoided, appropriate compensation measures should be sought; and
- where the applicant cannot demonstrate that appropriate mitigation measures will be put in place, the decision maker should consider what appropriate requirements should be attached to any consent and/or planning obligation entered into.

2.4.28 At the time of writing it is not known whether the Draft National Policy Statement for Ports will be amended in the light of public consultation and Parliamentary scrutiny.

Regional Planning Policy

2.4.29 Regional Planning Guidance (RPG) for the South West RPG10 was published in 2001 and was to be replaced by the Regional Spatial Strategy for the South West. This was published in draft in 2006 and subject to examination in public in 2007. The Secretary of State's proposed modifications were published in 2008 and further consultation took place until October 2008. A High Court judgement found that the document failed to meet fully the Strategic Environmental Assessment Directive in respect of three towns, and the Government began to carry out a further appraisal.

2.4.30 As set out above, regional guidance no longer has any planning policy status. However, it remains relevant.

Regional Planning Guidance for the South West RPG10

2.4.31 Pending the adoption of the RSS, the policies in the somewhat dated RPG10 still apply. The most relevant is Policy SS3 for the western sub-region where Falmouth is located. Policy objectives include:

- creating conditions for growth, regeneration and diversification through economic development and environmental improvements;
- encouraging appropriate investment in tourism;
- encouraging appropriate employment, retail and social; facilities in sustainable locations; and
- conserving and enhancing the coastline, landscape, historic and industrial heritage.

2.4.32 Policy SS21 elaborates on development in coastal areas. It states that coastal towns in the sub-region should be the focal point for development and that development that maintains the viability of the coastal economy will be encouraged and supported.

2.4.33 Policy TRAN 8 specifically covers ports and inland waterways. It states that local authorities, ports and transport operators and other agencies should work together to encourage the development of waterborne services and facilities. In particular they should support;

- the development of each port in its individual role by safeguarding land for economically beneficial port use that can occur without significant environmental damage;
- the improvement of land based links to the region's ports, with the emphasis on the most sustainable means of transport;
- the maintenance and enhancement of reliable services to the Isles of Scilly; and
- the use of inland waterways for commerce and recreation.

Draft Regional Spatial Strategy for the South West

2.4.34 The Strategy identifies 21 Strategically Significant Cities and Towns (SSCT) where an increased proportion of new development is to be delivered. Development Policy A states that the SSCTs will be the primary focus for development over the plan period, and that provisions will be made to maintain and enhance the strategic function of the cities and towns.

2.4.35 Falmouth-Penryn is identified as an SSCT because it plays an important strategic role sub-regionally, with its cultural facilities and wide range of services. Falmouth is identified as a smaller port in the region, catering for the growing market of visiting passenger cruise ships, and having a specific role in supporting maritime activity, including bunkering.

2.4.36 There is a strong policy presumption in the RSS for safeguarding as well as enhancing port activities. Policy E5 specifically refers to waterside employment sites and states that within coastal towns waterside sites must be safeguarded for social and economic uses which require such a location, giving priority to maritime industries.

Local Planning Policy

2.4.37 Until the emerging Local Development Framework for the new Cornwall Council is completed and adopted, the development plan policy framework for Falmouth is provided by the Cornwall Structure Plan, 2004, and the saved policies in the Carrick District Wide Local Plan, 1998.

2.4.38 These documents contain key polices which support the safeguarding of waterside industrial uses and promote the employment, tourism and leisure potential of the port. These policies are identified below and are supported by the Masterplan.

The Cornwall Structure Plan 2004

- Policy 4: Maritime Resources. This requires the safeguarding of waterside sites within the developed coast for uses needing such locations, giving priority to maritime industries. It recognises that there is a need to balance the need for economic development with the conservation of the coastal and marine environment.
- Policy 11: The urban and rural economy. This promotes economic growth and employment within the main towns where it supports regeneration and benefits are accessible.
- Policy 13: Tourism and Recreation. This policy supports development that will enhance opportunities for tourism and recreation in or close to existing towns.

The Carrick District Local Plan, 1998

- Policy 8EE: Waterside Industrial Sites. This policy states that planning permission will not be granted for development which would result in the loss of existing waterside industrial uses from defined waterfront and port areas (including the whole of the Falmouth Docks). The policy aims to promote the employment potential of the Port and the supporting text affirms that the Council will support development for port-related uses within the Docks.
- Policy 10L: Water Related Leisure Activities. This policy states that marina developments will be permitted in Falmouth-Penryn subject to:
  - provision of safe vehicular access capable of serving the traffic level generated;
  - provision of parking in accordance with Council standards;
  - design that respects a waterfront location in terms of scale and appearance;
  - accessibility by public transport;
  - provision of public launching facilities which do not require public access over private land; and
  - no conflict with the nature conservation interests of the Fal estuary.
- Local Plan Proposals Map Designations: Figure 2.11 shows the relationship of the Docks area to the planning policy designations in the Local Plan. The Pendennis Peninsula Fortifications Scheduled Ancient Monument site and the Falmouth Conservation Area impinge on the Docks area, and these are subject to heritage protection policies as discussed in Section 2.7. The marine parts of the study area are subject to policies for the protection of their special environmental or aesthetic interest. The marine part of the Port lies within the Fal and Helford SAC and various parts of it also fall within Area of Outstanding Natural Beauty (AONB) and Area of Great Scientific Value designations.

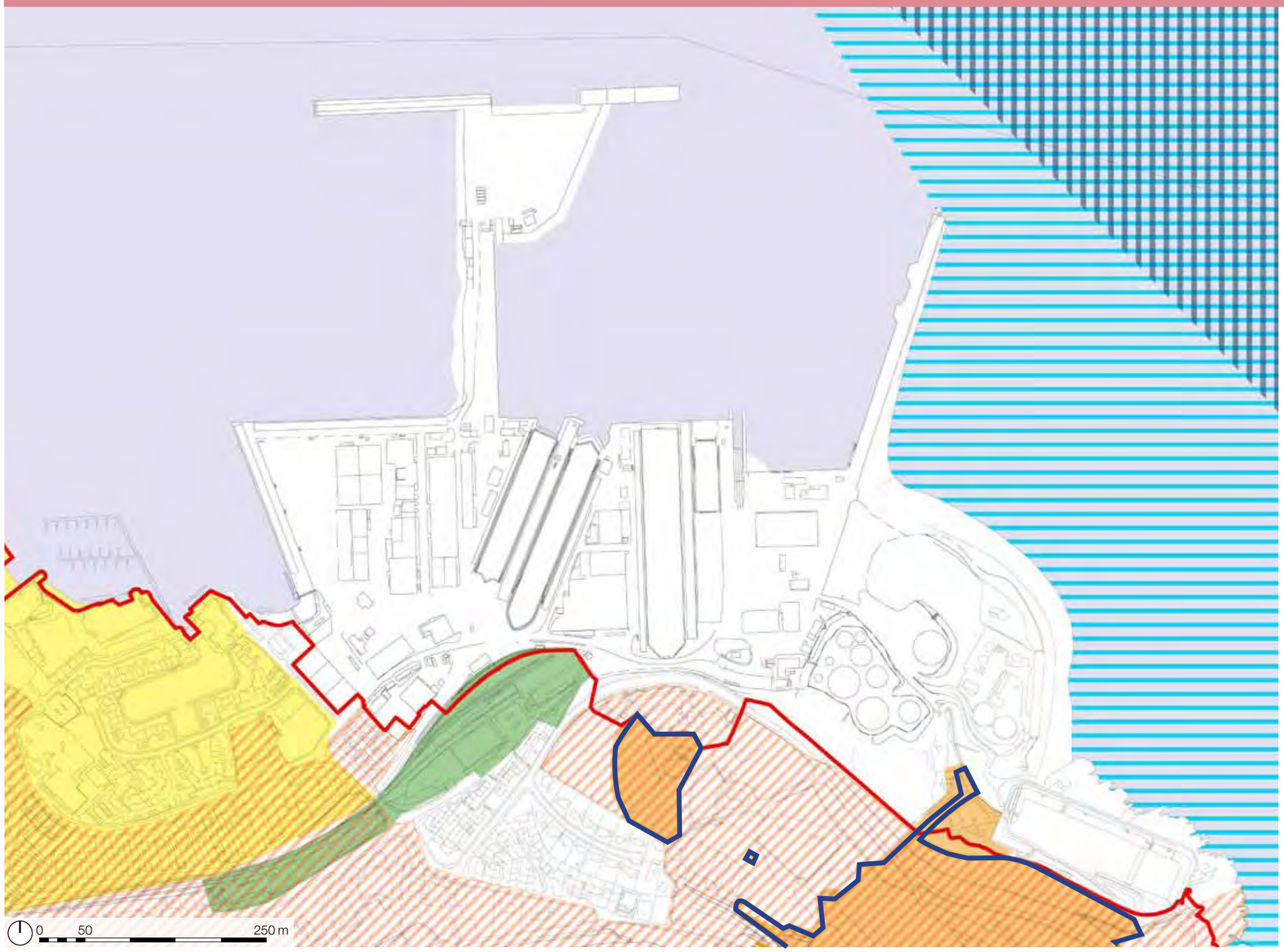
The Cornwall Local Development Framework

2.4.39 The main part of the Local Development Framework (LDF) will be the Core Strategy which is anticipated for formal adoption in 2012. There are a number of stages to go through before the Core Strategy can be finalised and adopted by the Council as planning policy. A Core Strategy Options Paper, along with a number of 'Area Based Discussion Papers' have recently been published by Cornwall Council for consultation. Encouraging the growth of the Falmouth Docks is identified as a potential priority in the Area Based Discussion Paper.

2.4.40 As part of the evidence base for the Core Strategy, Cornwall Council is developing a 'Town Framework Plan' for Falmouth & Penryn. This will provide a vision and spatial strategy for the towns, as well as highlighting existing and future infrastructure requirements. The Port of Falmouth Masterplan will feed into the town framework and influence its outcome.

Other Planning Considerations

2.4.41 Issues including heritage, safety exclusion zones related to Ammonium Nitrate storage, contamination, transportation and access are included in Section 2.7 'Summary of key spatial issues' within this document. The Falmouth and Penryn Community Plan is referred to in Chapter 7, Planning and Urban Design Assessment of the Masterplan.



Study area boundary

Local Plan designations most likely to affect development

Taken from Carrick District Local Plan 1998 (saved policies)

Land

Scheduled Ancient Monument (Pendennis Castle) as shown on Local Plan Proposals Map

Updated Scheduled Monument boundary (2010 - from information provided by Cornwall Council Heritage)

Conservation Area

Town Centre Restraint Area

Railway Related Land

Water

Special Areas of Conservation (Fal and Helford SAC)

Area of Great Scientific Value

Area of Outstanding Natural Beauty (AONB)

Economic Context

New Industry, New Jobs

2.4.45 In April 2009 the Government published a policy paper titled 'New Industry, New Jobs'[1] in response to the ongoing economic recession. The aim of the paper is to focus the efforts of the local policy and local economic development executives on creating enabling environment for higher value added, high-skill, modern and innovative sectors, which are needed to ensure the UK's competitive position in the long-term. The paper emphasises that the global labour market is continuously expanding (35% growth predicted between 2001 and 2030) and the proportion of higher skilled labour will be increasing as well, 'enabling them increasingly to compete in higher value parts of global supply chains' (p.9).

2.4.46 More importantly, it acknowledges that 'Britain needs to plan for more than simply recovery from recession, because we face structural changes in the global economy that are radically transforming the world in which our businesses and people compete.'

2.4.47 The paper identifies four immediate priority areas for action and reform in Britain: innovation, skills, finance and infrastructure, to ensure that British businesses are able to access growing global markets.

2.4.48 As identified through the socio-economic baseline in section 2.5, the Falmouth and Penryn area is in need of industrial re-structuring and is currently undergoing a gradual change. The local economy is dependent on tourism, and specific sectors of strength include growing education and some manufacturing. It is hoped that the education sector will drive diversification into higher value-added high-skill industries, however further support is required to such new emerging sectors.

The UK Low Carbon Industrial Strategy

2.4.49 The Government's Low Carbon Industrial Strategy published in 2009 provides a set of actions to steer the country towards the low carbon economy. It re-enforces the provisions of the 'New Industry, New Jobs' by prioritising innovation, research and development, and workforce development in low carbon technologies and know-how. The Strategy pledges £100 million for the South West region announcing it the first Low Carbon Economic Zone. This recognition comes from the success of emerging wave and tidal energy industries and of the Wave Hub project in Cornwall in particular.

Regional Economic Strategy for South West England 2006-2015

2.4.50 The South West regional economy is the fifth largest among English regions. It has distinctive functional zones as presented in the Regional Economic Strategy (RES) including a high-performing North-East Triangle with mostly urban areas of Bristol, Gloucester, Swindon, and other urban centres. This zone delivers about 53.9% of regional GVA.

2.4.51 Cornwall and the Isles of Scilly (IoS) forms the Western Peninsula functional zone where low value added sectors, such as food and drink, tourism and leisure and creative industries are over-represented. There was a strong growth in manufacturing during first half of 2000s. However, there is low representation of technology sectors such as advanced engineering and ICT.

2.4.52 The RES addresses the needs of the region based on different sub-regional and zonal requirements and provides a framework to support and grow economic prosperity in the future. It places emphasis on three strategic objectives : Successful and Competitive Businesses; Strong and Inclusive Communities; and an Effective and Confident Region. These objectives are supported by eleven regional priorities:

- Successful and Competitive Businesses:
  - support business productivity;
  - encourage new enterprise;
  - deliver skills for the economy;
  - compete in the global economy; and
  - promote innovation.
- Strong and Inclusive Communities:
  - improve participation in the economy;
  - regenerate the most disadvantaged areas; and
  - plan successful and sustainable communities.
- Effective and Confident Region:
  - improve transport networks;
  - promote and enhance what is best about the region; and
  - improve leadership, influence, and partnership.

2.4.53 Productivity and innovation are recognised as increasingly important to achieving wider objectives and sub-regional and local strategies certainly reflect these. RES identifies eight priority sectors supported at the regional level: Advanced engineering, ICT, Marine, Food and Drink, Tourism, Creative Industries, Environmental Technologies, and Bio-Medical

2.4.54 Further four sectors are supported by Learning and Skills Council's activities in order to improve labour productivity:

Health and Social Care, Retail, Engineering, and Construction

2.4.55 Finally the RES supports other key sectors, which are important contributors to economic growth and development of the knowledge economy: Engineering, Construction, Public Administration, Finance and Business Services, Distribution and Transport (including Logistics), and Paper and Printing.

2.4.56 The South West RES therefore supports some key sectors of relevance to Falmouth: Marine, environmental technologies, advanced engineering and engineering, and distribution and transport.

Economic Development Strategy 2007-2021 & Economic Ambition White Paper

2.4.57 The Economic Development Strategy for Cornwall and the Isles of Scilly sets out four guiding principles to achieve the vision of a prosperous knowledge economy in the rural context:

- to establish Cornwall and the Isles of Scilly as a knowledge economy and society;
- to ensure environmental sustainability;
- to remove economic and social disadvantage, foster cultural confidence and improve the well-being of people ; and
- to establish Cornwall and the Isles of Scilly as a place for wealth-creators and entrepreneurs and to improve economic value across all sectors.

2.4.58 The Strategy identifies employment space, sector development, business support, workforce development, and transport infrastructure among others as priority areas for development.

2.4.59 A recently published Cornwall Council Economic Ambition White Paper for Cornwall and the Isles of Scilly, takes the vision from the 2007-2021 strategy further. The evolving vision for Cornwall is to move towards 'a confident, resilient Cornwall that is a leader in innovative business and low carbon technologies '. This means an economically resilient and environmentally responsible Cornwall, enabling development that maximises economic benefits whilst minimising its impact on the local and global environment and contribution to climate change. Moreover the paper emphasised prioritisation of port development as an important activity under a strategic issue ' Cornwall Connectivity'. The presence and development of the CUC in Falmouth is strongly supported.

2.4.60 The White Paper identifies five strategic issues for Cornwall Council in developing Cornwall's green economy:

1 HM Government, April 2009. New Industry, New Jobs. Building Britain's Future.

- Providing leadership in the economy
- Business transformation leading to high productivity
- Cornwall Connectivity
- Place shaping
- Low Carbon Economy

2.4.61 Cornwall Council's ambition is to deliver the economic vision through the 'Total Place' approach for Cornwall ensuring that businesses have confidence and necessary support to flourish and create high-value added jobs.

Falmouth and Penryn Community Plan

2.4.62 The Falmouth and Penryn Community Plan was developed in 2009 based on a wide community consultation exercise. It has seven Themes each with detailed set of objectives and reflects a wide range of local residents' aspirations. Focusing on economic development is Theme 2 'Employment and Prosperity' and Theme 3 'Leisure, Recreation, and Culture' as it is closely linked to the tourism sector.

- Objective 1: Invest in technology – higher speed broadband; growth in tele-working to reduce travel, and support business viability; web access to market information and business related data; free 'wi fi' access to local and shopping information, teleconferencing.
- Objective 2: Support and retain young people and graduates – a range of tools and measures to enable students to become aware of local work and additional education opportunities whilst they are studying and during the vacation, and thus encourage them to become more involved in and aware of local employment opportunities, backed up by the availability of business incubator units and incubator homes.
- Objective 3: Support our industries and maximize our assets – identifying new sites for industrial use; further developing Tregoniggie Industrial Estate; reserving waterside land for marine –related uses where possible; assisting Falmouth Marine School to relocate to a waterside location; developing business support processes to retain and enhance existing business and support growth and diversification
- Objective 4: Achieve a vibrant future for the Docks as part of a healthy local business infrastructure – support Falmouth Harbour Commissioners to achieve development and diversification plans; support for a new passenger terminal at Falmouth Docks; dredging a deep water channel; diversification at the Docks to accommodate the growing marine leisure sector.

2.4.63 The communities of Falmouth and Penryn therefore see the development of the Port of Falmouth including dredging the channel to increase its competitiveness as a strategic priority.

Falmouth and Penryn SIF

2.4.64 Falmouth and Penryn Strategic Investment Framework (SIF) has been prepared to implement the ERDF Convergence Programme for Cornwall and the Isles of Scilly 2007-103. The Falmouth and Penryn Community Plan provides a strategic framework for the SIF projects identified by the communities that is reflected in this document. The SIF guides the commissioning of investments into these projects for Falmouth and Penryn under Priority Axis 4 'Unlocking the Economic Potential of Place'.

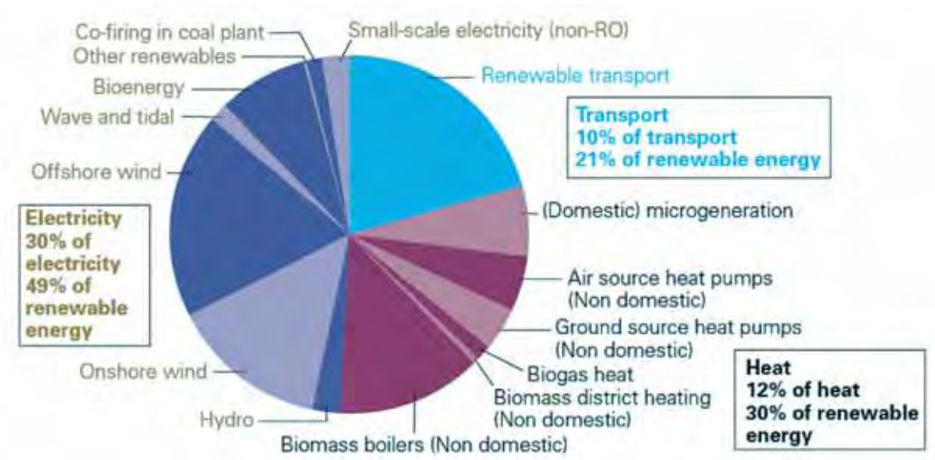
2.4.65 Some of the SIF's objectives directly related to the development of the Port of Falmouth are as follows:

- improve GVA and productivity by diversifying the economic base into more productive sectors with clear growth potential and thus protecting the local economy from fluctuations in more vulnerable economic sectors;
- realise the potential for economic benefits arising from related projects at CUC;
- capitalise upon the unique asset of the two towns – their shared waterfront and the deepwater harbour – and all that this implies for their future economic development;
- achieve a vibrant future for the Docks as part of a healthy local business infrastructure:
  - maximise business opportunities arising from improving access to the waterfront environment for all sections of the local and non-resident community; and
  - support the premises needs of marine sector businesses and training providers.
- provide communications and transport systems to meet the present and future economic development needs of Falmouth and Penryn including those of the Port of Falmouth and the tourist economy ;
- enable the availability of a broader range of high quality sites and premises to meet the needs of a dynamic economy and thereby help the provision of an adequate number and range of well-paid jobs for the local workforce;
- demonstrate beneficial linkages or added value to other projects funded though the Convergence Programme; and
- integrate environmental sustainability principles and enable investment in the drivers of a low carbon economy.

The UK Renewable Energy Strategy

2.4.66 The UK Renewable Energy Strategy (UK RES) 2009 is based on the analytical scenarios that show the country will be generating more than 30% of electricity, 12% of heat, and 10% of transport energy from renewables by 2020 (see Figure 2.12). These shares of renewable energy are required to achieve the Government's target for 15% of energy to come from renewables committed under the EU Renewable Energy Directive.

Figure 2.12: Illustrative mix of renewable energy technologies by 2020 according to UK RES 2009.
Source: UK Renewable Energy Strategy 2009



2.4.67 To pursue this ambitious target the Strategy sets out a number of delivery mechanisms:

- put in place the mechanisms to provide financial support for renewable electricity and heat worth around £30 billion between now and 2020;
- drive delivery and clear away barriers (by improving the planning system, improving the grid system, providing quicker grid connections, and promoting stronger supply chains);
- increase investment in emerging technologies and pursue new sources of supply; and
- create new opportunities for individuals, communities and business to harness renewable energy .

2.4.68 The illustrative mixture of renewable energy technologies is shown in Figure 2.12. Marine renewables are forecast to have a very small share in the overall basket, though off-shore wind will lead ahead of the on-shore wind.

South West Renewable Energy Strategy 2003-2010

2.4.69 The SW Renewable Energy Strategy established a strategic vision for the region where the development is focused on maximising 'the social, environmental and economic benefits of renewable energy through the integration of renewable energy into mainstream policy and practice at all levels within the region." The Strategy was published in 2003 and RegenSW were the organisation responsible for its implementation. The Strategy has been successful in particular facilitating the strengthening of the nascent wave energy sector leading to the announcement of the region as a Low Carbon Economic Zone by the Government.

2.4.70 The Strategy identifies three areas where a regional focus is required:

- deploying renewable energy on the ground;
- developing skills and awareness; and
- building the South West renewable energy industry.

2.4.71 In 2008, RegenSW published a report titled 'The Road to 2020[2] , which analysed how the South West region can achieve 15% or 20% of its energy being generated from renewable sources. The report concludes that a significant increase is required in offshore wind to achieve 15% target and in addition a significant increase in installations of renewable heat systems in existing buildings to achieve 20% target. Both targets require an increase in energy efficiency and reduction in energy consumption.

Economic Policy Summary

2.4.72 There is a strong policy context for the development of the Port of Falmouth at the national, regional, and local levels. The Government policy calls for a concerted action to re-structure Britain's economic base and to safeguard its future as an important global economic player through support to higher value added, high skill businesses building a 'green' knowledge economy where innovation leads. Regional economic policy targets a number of knowledge intensive sectors like marine, advanced engineering, engineering, ICT, environmental technologies, and distribution and transport. SWRDA has been especially active in marine and environmental technologies sector, successfully securing the status of the first Low Carbon Economic Zone for the South West region.

2 RegenSW, 2008. The Road to 2020: An analysis of renewable energy options in the South West of England.

2.5 Summary of socio-economic baseline

Introduction

2.5.1 This section begins by summarising the key socio-economic baseline, giving a context for the Port of Falmouth. It is structured as follows:

- Population;
- Economy;
- VAT registrations;
- Travel-to-work flows
- Unemployment;
- Summary

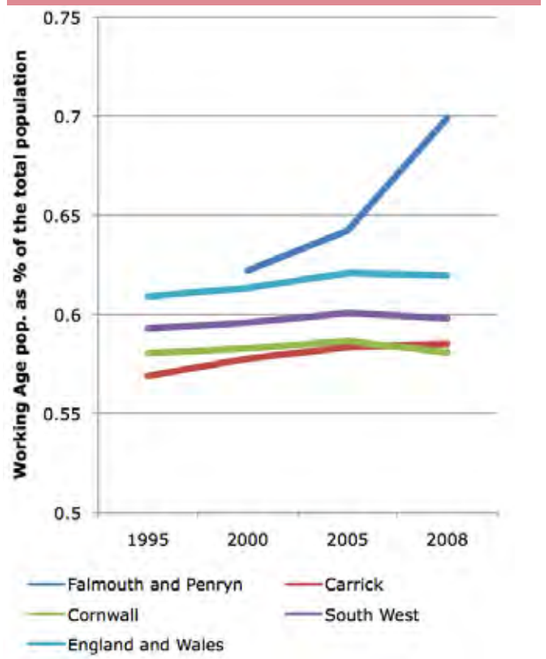
2.5.2 This is followed by an economic baseline for the Docks' businesses, which form the economic activity within the focussed study area.

Port Context Baseline

Population

2.5.3 In 2008 the population of Falmouth and Penryn was 31,300, which makes it the third biggest urban area in Cornwall. Due to the presence of the University and Marine School, Falmouth has a positive demographic profile where the younger population is over-represented. As a result, the Falmouth and Penryn area has a high proportion of working age population. The share of working population has increased significantly since 2005 and is above the national average.

Figure 2.13: Working age population change (as % of the total population) between 1995 and 2008



Economy

2.5.4 Falmouth and Penryn, Truro, and Camborne Pool Redruth areas form Cornwall's strategic 'centre of gravity' hosting over 40% of Cornwall's businesses and around 30% of its jobs . Falmouth and Penryn contribute to this by their unique waterfront, serving as a centre of gravity for tourism, especially associated with leisure boating.

2.5.5 Many industries in the area are under-represented compared to national averages. However fishing, manufacturing of transport equipment, water transport, supporting transport activities, manufacturing of machinery, equipment and electrical machinery, hotels and restaurants, education, and retail trade are sectors of significant importance . At the same time only, 29% of employees work in nationally declining industries, with the majority employed in sectors with a strong future.

2.5.6 Service industries and other business sectors are of less significance in the Falmouth and Penryn economy, though the growing education sector may drive a change in the future. According to the Falmouth and Penryn SIF, academic staff is forecast to increase by 30% by 2016. At present, the research and development sector appears to be virtually non-existent, though anecdotal evidence shows that it may be in embryonic stage with most of the employees non-resident in the local area.

2.5.7 We have analysed the growth of employment in knowledge-based industries (KBI) in the Falmouth and Penryn area (Figure 2.14). KBI businesses have had mixed fortunes in the area since 2004. There was a marked growth until 2007 when the trend had reversed. The current level of employment is only slightly above that in 2004. The best fit trend forecast shows that there is a higher probability that the sector will continue to decline in 2009. The short-to-medium term trend should be driving the sector towards slow growth. We believe that activities on marine science and marine renewables supported by the SWRDA and the presence and expansion of the CUC will help to keep this trend upwards in the long-term. The conditions suitable to push KBI businesses towards growth should be nurtured and this includes not only the education sector but also higher value added activities at the Falmouth Docks in particular.

2.5.8 The assessment of the tourism sector shows a different picture: the number of employees increased by 21% since 2004 averaging 5% growth per year. A short-to-medium term forecast based on the simple extrapolation of the past trends for the tourism sector in Falmouth and Penryn is favourable and predicts further growth.

VAT registrations

2.5.9 There were 20,440 VAT registered businesses in Cornwall in 2007 (Figure 2.15) (latest ONS data) with year-on-year growth of 1.5%. The annual growth rate in VAT registered businesses was historically lower in Cornwall since 2001, converged slightly with the regional and national growth rates in 2006 and was much lower in 2007. However, it should be noted that not all businesses active in Cornwall will be VAT registered in the County. The overall past performance in growth of the VAT registered stock in Cornwall is positive.

2.5.10 Falmouth and Penryn area businesses are predominantly small enterprises – 86.3% of them have one to ten employees.

Figure 2.14: Knowledge based industries and Tourism sector trends in Cornwall during 2004 2008. Source: ABI, 2009; RTP

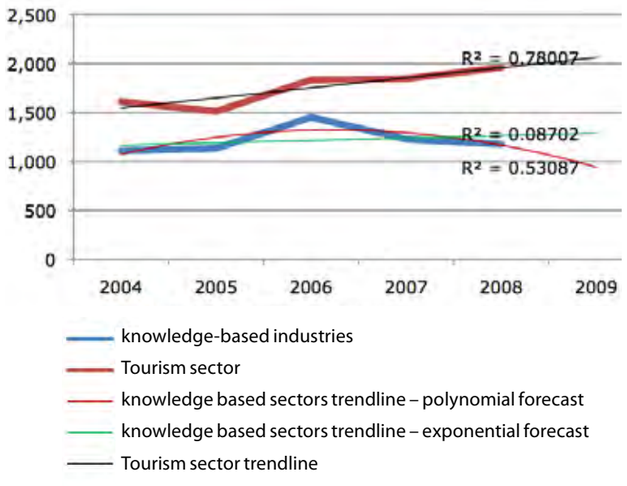


Figure 2.15: Annual growth rate in VAT stocks at the end of year

Travel-to-work flows

2.5.11 Travel-to-work data is only available for 2001 (Census 2001), and therefore represents past travel patterns, however it is useful to show general direction of commuting. In Falmouth and Penryn area 68.1% of jobs were taken up by its residents. Approximately 4,000 people were in-commuting for work. The out-commuting was of almost similar size with approximately 3,800 residents of Falmouth and Penryn working elsewhere in Cornwall and the rest of the South West and UK.

Unemployment

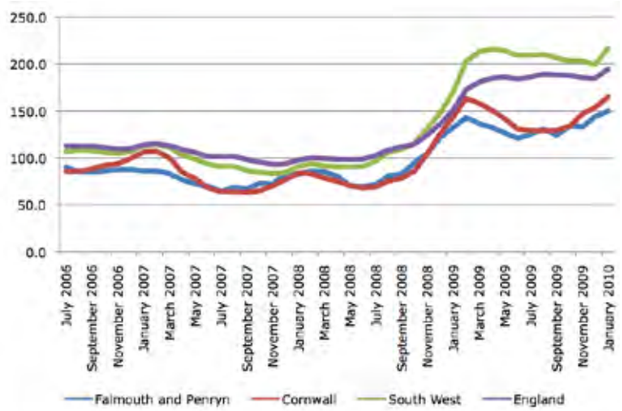
2.5.12 Unemployment in Falmouth is much lower compared to Cornwall, the South West Region, and England. However, the claimant count has been rising since September 2008 indicating the impacts of the economic recession (Figure 2.16). A more worrying sign is, however, a further jump locally in claimant count since the end of 2009 prompting fears of a double-recession by analysts nationally. In addition, unemployment figures give only a partial picture in Cornwall, where there are also issues of underemployment (part time and/or seasonal employment). However, the Falmouth and Penryn areas still appear stronger than all three comparative areas, including Cornwall.

Summary of Port Context

2.5.13 Falmouth is one of the key Cornish towns, providing employment in a variety of sectors with unemployment levels historically lower than overall in Cornwall and in the South West region. The majority of businesses are small and micro businesses. Tourism represents one of the key sectors in the town with manufacturing still strong. The education sector is growing and gaining importance with the development of the Combined Universities in Cornwall (CUC) and this trend is expected to continue.

2.5.14 Knowledge intensive businesses have been on a decline since 2007. However the general expectation is that this trend will reverse due to the growth of the CUC (Combined Universities in Cornwall) - including the proposed Tremough Innovation Centre.

Figure 2.16: Claimant count, July 2006 January 2010 (base, i.e. 100, in January 2005). Source: Nomis,



2.5.15 The area's low unemployment, fast growth of the tourism sector, slow but steady growth in knowledge-intensive industries, and a rapid growth of the education sector suggest that the Falmouth and Penryn area is a buoyant active economic centre with a lot of resilience wired into its industries due to its unique geographic location. However, the assessment of employment by sectors shows that the local economy is highly dependent on tourism whilst other sectors like health and social work, other business activities, computer and related activities, construction, real estate, land transport, supporting and auxiliary transport services, wholesale trade, which are growing sectors nationally are under-represented in Falmouth and Penryn. Manufacturing is an important local sector, with the manufacturing of transport equipment (principally shiprepair) sub-sector, which has also been growing nationally, contributing 44% of total manufacturing employment in Falmouth and Penryn. The national decline of other manufacturing sub-sectors is due to the sector's inability to compete with cheaper manufacturing in emerging world economies. The key requirement for Falmouth and Penryn is to transform its manufacturing sector into modern, higher-value-added activities. This could potentially push the growth in 'Other business activities' sector as well through, for example, business services around intellectual property associated with manufacturing innovative product

Port of Falmouth Economic Baseline

2.5.16 This section presents the baseline assessment of the Port of Falmouth's businesses, showing the economic value of the Port in 2009. It is based on a survey of businesses carried out in February 2010 and hence businesses could only report financial and employment data for 2009 at the time.

Employment

2.5.17 RTP carried out a survey of businesses located at the Docks to update the economic impact assessment estimates made in April 2004. RTP carried out a thorough survey of the Docks' businesses at the time (in 2004) and reported that these businesses employed a total of 1,120 employees: 671 full time permanent staff; 25 part time permanent staff; 9 full time agency / contract staff and 415 temporary / casual agency / contract staff. Although an estimate of the FTE jobs was not provided at the time, this number can be converted to approximately 1,000 FTE jobs.

2.5.18 RTP undertook a new survey of the Docks businesses in February 2010 and a follow-up survey in June 2010. The RTP survey of 16 businesses[1] out of 18 businesses and organisations based and operating at the Docks found that there were 1,465 employees employed by these businesses in 2009. This number includes 150 FTE jobs that are physically located outside the Docks but are directly dependent on the operations of one business at Falmouth Docks[2]. The breakdown of employees and FTE jobs by type of contract is presented below in Table 2.1. The survey results shows an increase of 40% in employment at the Docks or 6% annual growth since 2004.

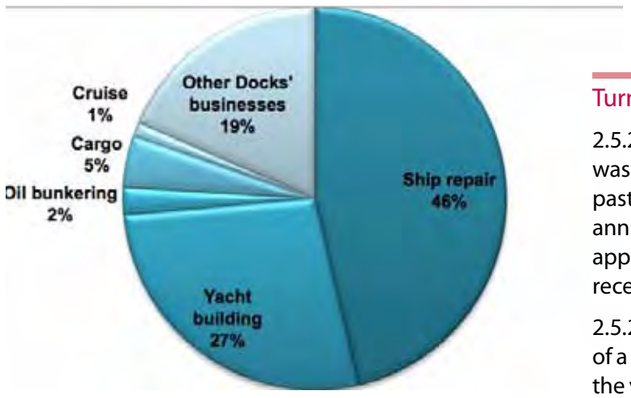
2.5.19 The full-time equivalent of part-time jobs is estimated based on total hours worked by part-time employees. In the case of part-time temporary employees, the hours worked were reported to be so high that the FTE jobs estimates are higher than the numbers of employees.

Table 2.1: Employee numbers and full time equivalent jobs at the Falmouth Docks

	Directly employed by businesses		Employed through agencies		Total
	Full-time	Part-time	Full-time	Part-time	
Actual employees	923	189.3	325.2	27.5	1,465
FTE jobs	923	111.4	325	41.4	1,401

2.5.20 The breakdown of employment by main sectors is shown in Figure 2.17. Shiprepair employs almost half of the workforce, with the yacht building sector employing a third. A number of different businesses servicing the cargo, the shiprepair and the yacht building sectors are flourishing alongside and have seen continuous growth.

Figure 2.17: Employment share (FTE jobs) of different sectors at the Port of Falmouth in 2009

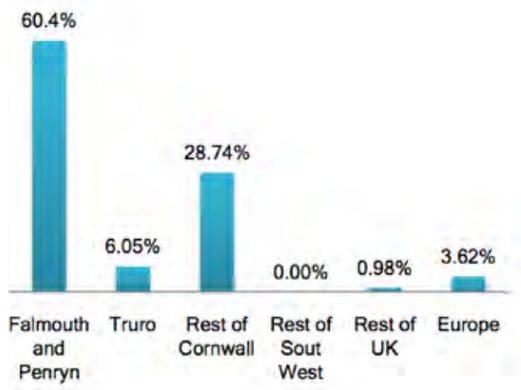


2.5.21 Nearly two-thirds of employees live in the Falmouth and Penryn area (Figure 2.18). Of the remaining third, most live in Truro and the rest of Cornwall with a small proportion of employees living outside the South West region and in continental Europe outside the UK.

2.5.22 Total salary/wage payments of the Docks' businesses to directly employed staff amounted to £22.96 million p.a. and to agencies/sub-contractors for staff employed through them – to £8.4 million p.a. This results in a total wage bill of £31.35 million annually.

2.5.23 The average salary at the Docks was therefore £21,400. The average annual payment per agency / sub-contractor staff was estimated at £23,785[3]. This is higher than the average £20,222 annual pay of both full-time and part-time employees in Cornwall in 2009.

Figure 2.18: Proportion of employees by area of residence



Turnover and GVA

2.5.24 The total annual turnover of Dock's businesses was estimated at more than £116 million. During the past five years businesses reported an average 12% annual growth in turnover. The Dock's businesses appear to have been growing so far despite the recession.

2.5.25 Gross Value Added represents the contribution of a business or industry to the UK's economy and is the value of total output less the value of all inputs. GVA is formed by compensation of employees, taxes less subsidies, and operating surplus.

2.5.26 Based on the survey data the total amount of GVA (total estimated turnover less the value of inputs) amounts to £75 million. The GVA per job at Falmouth Docks is therefore £53,570, considerably higher than the South West average of £44,350 per FTE job[4].

Net additional impact of the Falmouth Docks

2.5.27 We estimate that the total net number of FTE jobs (gross direct FTE jobs minus leakage and displacement plus multiplier effects) supported by the Falmouth Docks was 1,689 in 2009. The net additional number of FTE jobs (total net FTE jobs minus deadweight) within Cornwall was 895.

2.5.28 Based on the GVA per job at the Docks the net total GVA was £82 million in 2009 (i.e. including supplier linkages and induced effects) – almost as much as the total Docks' turnover, and net additional GVA was £39 million.

Table 2.2: Direct, net, and net additional jobs supported by Falmouth Docks

Direct FTE jobs	1,401
Leakage	(64)
Displacement	(27)
Indirect FTE jobs	107
Induced FTE jobs	272
Total net FTE jobs	1,689
Deadweight (what would still be preserved if the Docks disappeared)	(794)
Total net additional, Dock-related, FTE jobs	895

1 We can assume that the response rate is 100% because two organisations that did not respond are neither carrying out any productive activities at the Docks, nor employing any staff.

2 In case this business was not able to carry out its operations at Falmouth then these jobs in Cornwall would have been lost and created elsewhere in the UK (out of Cornwall).

3 Estimated based on the agency/sub-contractor staff wage bill and a number of agency/sub-contractor staff FTE jobs

4 Estimated based on GVA in broad sectors: 'Manufacturing', 'Electricity, Gas, and Water', 'Construction', and 'Transport, storage, and communications'; and estimated FTE jobs in these sectors (with part-time jobs converted to FTEs applying the ratio of one part-time job equating to 0.4853 of a full-time job) in the South West region in 2007.

2.6 How the Port expects to grow

Introduction

2.6.1 This section covers economic sectors represented at the Port, with the main focus on Falmouth Docks. It provides an overview of the sector in general (i.e. worldwide and UK-wide trends), past performance of a sector in Falmouth and future trends forecasts for Falmouth. Reviews and forecasts for the following sectors have been developed and are set out in this section as follows:

- Shiprepair
- Bunkering
- Superyacht building and refit
- Coastal shipment and transhipment
- Marine renewable energy
- Cruise sector
- Fishing
- Marina and leisure boating
- Commercial development
- R&D and business incubation for marine and renewable energy sectors
- Port related events

2.6.2 The Royal Navy and RFA have recently expressed their view that the Port of Falmouth is a strategic security asset. Falmouth is ideally situated to support Devonport, which is likely to become a fleet base, and to provide overflow capacity. There may also be opportunities for repair of foreign naval vessels when they are on exercises in the Western Approaches, and opportunities to cooperate on training and apprenticeships in the future.

Shiprepair

Sector overview and past trends in Falmouth

2.6.3 Shiprepair is the backbone of Falmouth's marine activity and is the largest business at the Port. The Port's commercial benefit stems from its geography, offering minimum deviation for its core catchment business.

2.6.4 Apart from the contract that A&P Group has secured from the Royal Fleet Auxiliary (RFA), the shiprepair business is highly competitive and lacks a long or even medium term order book[1]. It is notoriously difficult to induce business in the shiprepair sector, whilst at other times it may be necessary to turn business away due to the fact that a drydock, lay-by facility or the workforce is already committed. The RFA contract currently represents one third of the A&P's shiprepair business.

2.6.5 Although falling short of what might be described as state-of-the-art, the shipyard's facilities have served Falmouth well. However, the continued trend for up-scaling of the shipping industry will hamper growth in the future unless appropriate access improvements are made.

Future trends

2.6.6 Forecasting the shiprepair business is far from an exact science. Apart from the RFA contract, all other work has to be quoted for on an individual basis. Ship owners, operators and managers typically call for quotations from a number of different suppliers situated within a reasonable steaming range of the vessel's operation in order to reduce both time and cost. The award of work can be based solely on cost or other aspects such as the speed of repair or overhaul where time is of the essence.

2.6.7 The business has a solid reputation for quality work that should see it continue to provide a valuable service to the marine industry in future. Our only reservation comes with access to the facilities as the average size of the merchant fleet increases, a factor that is influenced by water depth i.e. access and the finite size of the current dry docks. We have also seen evidence that Falmouth is losing out on potential RFA contracts, which require deep water access for their larger vessels. In order to maintain and grow Falmouth's role as a repair Port, at some stage dredging would need to be carried out as well as repairs or refurbishment of the current infrastructure, some of which is 55 years old.

Bunkering

Past and future trends in Falmouth

2.6.8 The Port of Falmouth has been associated with bunkering services for many decades and today Falmouth Petroleum Ltd. supplies nearly 500,000 tonnes of fuel to the marine sector and a further 60,000 tonnes for inland usage. The Company, which operates two large bunker vessels plus two smaller barges that handle fuel, fresh water and slops, reports that sales were understandably reduced in 2009, but that emission restrictions within Europe has helped to regain ground[2].

2.6.9 As well as passing tonnage, an increase in the number of cruise vessel calls would greatly increase the turnover of bunker supply as well as providing a necessary service to any visiting vessel. Falmouth Petroleum Ltd. believe that there is growth opportunity for inland supplies. The supply of water and the removal of waste oil and grey water (known as slops) are also potentially lucrative especially for large cruise vessels where consumption and residues are very high.

2.6.10 Currently most fuel cargoes are imported from the Rotterdam area, France, the Baltic and Scandinavia. In future much more might come from Brazil, which is well advanced in producing low/no sulphur distillates. This would need larger ships (i.e. Panamax) than the ones currently used. Falmouth Petroleum Ltd. has its own 15,000 ton tanker but other larger vessels would import fuel from places like Brazil.

Superyacht building and refit

Sector overview

2.6.11 A survey of the Superyacht sector businesses in the UK by British Marine Federation (BMF) in 2009 showed that the value of the sector had increased by 15.3% year-on-year to £410 million. The annual growth during 2007 to 2008 was 14.8%.

2.6.12 This turnover is generated not only by new build and re-fits/repair work but also by wider supply chains, providers of design services, and other Superyacht related services. Despite the economic downturn in the UK the Superyacht industry has performed extremely well and the expectations of businesses are very optimistic.

2.6.13 The sector therefore represents high value activities resilient to poor economic conditions due to the nature of their clients, high net worth individuals. However, the growth in high-net-worth markets can become saturated once a certain capacity level is reached. It is currently fashionable among this customer group to own Superyachts and this may be driving such an outstanding growth in the sector.

Past trends

2.6.14 Pendennis Shipyard was founded in 1989 and has grown to a business with approximately 330 full-time permanent staff. At present, Superyacht related activities at the Port of Falmouth comprise 40%

1 A&P Group has a lucrative 5-year contract with the RFA covering the RFA Argus and the 4 Bay Class ships. The contract has 3-years to run.

2 Falmouth is just outside the emission area and therefore picks up sales of diesel for vessels that under recent NOx and SOx emission restrictions cannot burn heavy oil (IFO180 or IFO380)

new build and 60% refit work. Pendennis Shipyard has seen a steady growth and has been gradually expanding within the Docks. The maximum size of boat it currently builds and serves is 60m beam and draft is not usually an issue. The largest vessels can be accommodated in the shed at the dry dock.

Future trends

2.6.15 Due to the recently announced expansion of business by Pendennis Shipyard, it is expected that the growth at the Falmouth Docks could be up to 80% for the turnover and 67% for the number of employees. This expansion is dependent on additional facilities for Superyachts.

2.6.16 The growth would principally come from the new larger Superyacht market with yachts over 70m length. There are thought to be 300 – 400 of such yachts in the world now, with more in build. Pendennis Shipyard's view is that annual maintenance and regular refit is a market in which they could be very competitive.

2.6.17 Pendennis Shipyard would expect to continue with their existing range of refit and new build work, and with increased capacity would expect to take on more of this work (having had to turn a proportion away for some time). The Company cannot predict any further growth beyond this in short-to-medium term as they are currently focused on realising these plans first.

2.6.18 Overall, the Superyacht sector represents an extremely attractive prospect for Falmouth as it fits with its image of a beautiful historic coastal town with strong water related recreation activities. Whilst there may be a jump in the Superyacht sector in Falmouth in the short-to-medium term as discussed, the long-term forecast should be in line with the forecast for the UK Superyacht industry overall. Based on the analysis of two BMF superyacht sector survey results we forecast that the growth of the sector nationally in 2009/2010 will be closer to 10-12%. Our long-term forecast will be 10% annual growth rate.

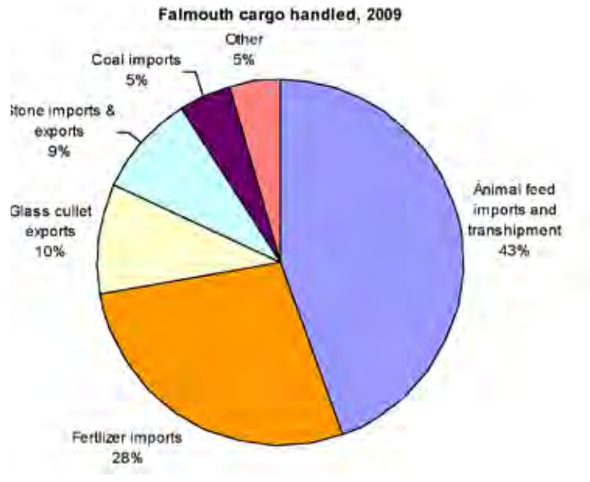
Coastal shipment and transhipment

Past trends

2.6.19 The cargoes currently handled by the Port of Falmouth are a variety of dry bulks, both imports and exports. Figure 2.19 provides a snapshot of the breakdown of the main cargo types handled in 2009. Animal feedstuffs accounted for over 40% of the tonnage handled, with the import of fertilizers representing a further 30% of the total. The main export commodity is glass cullet (crushed glass for recycling) but this only represented 10% of 2009 throughput. Some stone is also imported and exported, in connection with local quarries, and there is a small amount of coal imports for local domestic use.

2.6.20 Animal feed is essentially a new cargo for the Port, with a very strong growth in volumes in 2009 meaning that around 55,000 tonnes was handled. Cargo is either delivered to vehicles for distribution inland (17,000 tonnes in 2009), or reloaded onto coasters for onward shipment to other ports in the south and west (38,000 tonnes in 2009).

Figure 2.19: Falmouth cargo handled by commodity, 2009 (based on tonnage). Source: Drewry, based on A&P data



Future trends

2.6.21 In summary, the future trends are likely to be as follows:

- The Port of Falmouth handles a variety of import-export cargoes, all dry bulks. Volumes are relatively modest but are important for the Cornish economy, especially farming.
- The cargoes are all sensitive to inland transport costs and so whilst this does mean that there is a good degree of captivity for the Port, it also means that it is difficult for the Port to extend its hinterland.
- The use of the Port in preference to overland trucking has environmental advantages, as well as cost benefits for customers.
- Future volumes of these dry bulk cargoes are not expected to show any substantial growth overall as they are all directly linked to the size of the local economy, and the Port is expected to continue its niche role.
- There appears to be little scope for attracting any significant volumes of any other types of import-export cargo to the Port.
- All of the cargoes currently handled generally have the same forecast under the "dredging" or "no dredging" scenario as they are handled in small ships with no significant trend to increase ship size. Animal feed is an exception in terms of ship size for the specific reason that a fledgling transhipment business has been started using Panamax size vessels.
- Transhipment activity offers no potential in the container sector as the Port is not suitably located, and perhaps more importantly because very large investment in infrastructure would be required.
- However, in the dry bulk sector, transhipment of animal feed at Falmouth on a larger scale does appear to have potential, as it could replace road miles from currently used ports such as Bristol and Liverpool. These ports have significant vested interests though, and will resist attempts to take cargo from them.

Marine renewable energy

Sector overview

Wave energy

2.6.22 The UK has considerable wind, wave and tidal resources to underpin a marine renewables energy sector. In the context of the Port of Falmouth the marine renewable energy sector represents a significant opportunity, particularly wave and tidal energy. The South West region has about 21% of the UK wave energy resources[3], second after the North-West region[4], i.e. west of Scotland. Scotland is currently the most favourable location for wave energy, however the number of wave energy businesses based in the South West is proof that the new industry sector can grow from here.

2.6.23 The UK is currently a world leader in full-scale wave energy technology, and this sector therefore represents an unsurpassed opportunity for the UK to develop a brand new industry with high value exportable technologies and services. As a result, the region has been designated as the UK's first Low Carbon Economic Area because of its strength in marine renewables.

2.6.24 South West RDA has implemented the Wave Hub, a project that will speed up the commercialisation of wave energy converters. The Wave Hub is an electrical grid connection point approximately 12 miles off Hayle in Cornwall into which wave energy devices would be connected. The project has the capacity to generate 20MW of green electricity with the potential to be scaled up to 50MW in the future.

Offshore wind

2.6.25 Although the offshore wind energy market is significant in terms of fabrication, on-site construction and Operation and Maintenance (O&M), Falmouth is not well positioned for the latest round of granted licences. The supply market for turbines and associated

3 Environmental Change Institute, 2005. Variability of UK marine resources.

4 This is a geographic area, not an administrative region

equipment is globally dominated by Siemens, Vestas and GE Energy who between them control nearly 50% of the total market.

2.6.26 Nevertheless, there are opportunities for offshore wind related business in Falmouth - for example, A&P has devised an award-winning pontoon system that supports the installation of offshore wind turbines.

Future trends

2.6.27 The Wave Hub represents the first step towards full commercialisation of wave energy devices. It is expected that the testing and development process will continue up to 2020 and commercial deployment will be starting sometime between 2020 and 2030.

2.6.28 Forecasting the level of usage of Falmouth Port for tidal or wave generated power is difficult at this early stage of the development of the technology. However, it is expected that the wave energy production will be growing by hundreds of MW annually from 2020. This will require an increased reliance on and availability of suitable port infrastructure.

2.6.29 The Port of Falmouth could be the ideal base for the wave device developers as there is no other sea port with dockside facilities and sheltered waters in the South West region close to areas where wave hubs could be deployed. At this stage, it is understood that some device developers consider Falmouth as the Port of choice. Plymouth may become important due to the amount of land available there, but Falmouth would stay competitive due to the presence of the shiprepair business of A&P, which provides necessary skills.

On-site low carbon energy

2.6.30 The key partners are currently working on developing a CHP (combined heat and power) plant on the Docks site to provide electricity and heat to the Docks businesses. There is currently a high on-site demand for electricity from A&P and demand for heat from Falmouth Petroleum Ltd. as they need to heat the oil in tanks. Falmouth Petroleum Ltd. have CHP plants at other sites under their operation and therefore have the relevant development experience.

Cruise sector

Sector overview

2.6.31 Growth in the European cruise sector has been exceptional in recent years and the United Kingdom has been one of the main beneficiaries. The cruise sector is potentially an attractive option for Falmouth Port and its community as it combines income generation for the Port and its various services as well as providing tangible tourism related benefit to Falmouth and the region.

2.6.32 For operators in the cruise industry the United Kingdom is fairly unique, the coastline enabling cruise vessels to visit many destinations. This also means that there is, and will continue to be, stiff competition between a number of ports keen to attract the significant opportunity and income that these vessels represent. Falmouth's extreme south westerly location, which provides the cruise vessel operator in this region minimal course deviation, conversely gives rise to transport related difficulties when attempting to attract turnaround cruise business.

Past trends in Falmouth

2.6.33 Falmouth is an attractive Port for cruise operators as it:

- provides deep water access to Falmouth Bay and alongside berths for smaller vessels;
- is close to the Eden Project and other visitor attractions, with the town being an attractive destination in its own right;
- is well placed geographically for roundtrip (call-in) cruises; and
- is located one day or one nights steaming from the cruise ports at Dover, Southampton and Portsmouth.

However, Falmouth is not ideally placed as a turnaround Port (i.e. where passengers join or leave cruise ships) as it does not have the transport infrastructure required to get large numbers of passengers to the Port.

Table 2.3: Cruise calls and average revenue Falmouth 2005 2008. Source: A&P Group

	2008	2007	2006	2005
Cruise vessel calls	35	37	60	40
Average revenue per vessel	£11,287	£10,836	£9,722	£9,694

Future trends in Falmouth

2.6.34 Forecasting growth from such a low base as Falmouth is challenging. One customer, or even vessel, added or subtracted to Falmouth's small sample can make a considerable difference to the base line. The historical to date figures provide little clue to the future and we have therefore relied on research and the trade for guidance. In the current economic climate even the cruise companies themselves are hesitant about providing any view of future development, vessel disposition or growth. Our research nevertheless points to the appeal of Falmouth as a destination and a willingness to expand usage provided that suitable facilities were on offer.

2.6.35 The trend in vessel calls to date illustrates that the cruise sector has suffered a downturn caused by the recession and the demise of specialist company Travelscope which operated a cruise ship based at Falmouth.

2.6.36 We have considered two options comprising 'Do Nothing' and the more optimistic view which involves dredging but not the inclusion of a cruise terminal, as this is only required for a full 'turnaround' facility.

2.6.37 Of specific note is the appeal of cruise companies to have their vessels berthed safely alongside, a factor that is likely to encourage an increase in the average size of vessel and therefore the number of passengers carried and handled. The comparison between 'Do Nothing' and the dredged scheme is shown below, showing the influence of greater scale in vessel size and capacity as well as the influence of dredging in the Investment scenario.

Table 2.4: Forecast evaluation 'Do Nothing' & Investment scenario. Source: Drewry

Scenario	'Do Nothing'		Investment	
Year	Calls	Total Passengers	Calls	Total Passengers
1996 A	13	7,189	13	7,189
2000 A	10	3,690	10	3,690
2005 A	40	29,600	40	29,600
2010 A	32	27,040	32	27,040
2015 F	37	34,583	45	48,510
2020 F	42	42,944	75	115,275
2025 F	47	52,358	87	154,947
2030 F	54	66,975	96	193,440

NB Whilst dredging is assumed not to be complete until 2020, wharfside improvements made as part of the investment scenario increase calls from 2015.

2.6.38 The 'Do Nothing' scenario shows a gradual recovery in cruise vessel calls with the achievement of 54 in year 2030. The 'investment' scenario is more ambitious, assuming optimum growth in vessel calls reaches 10% in 2016 until 2020 when the necessary dredging work has been completed. A corresponding increase in average passenger capacity is also achieved in 2016 (12%) when it is assumed that larger vessels

could access alongside facilities. The year-on-year growth in both vessel calls and average passengers per vessel then slows as the facilities reach near saturation.

2.6.39 The above forecasts are sensitive to the past trends and the current baseline. The period covered by this forecast is extremely long and many vessels that are afloat today may not be in existence in 2030. Similarly vessels of the next generation have not yet been designed, let alone constructed. Some believe that the growth in onboard capacity has reached its limits and that there will be a resurgence of smaller vessels although we consider this to be less likely.

Fishing

2.6.40 The fishing sector is strong in the Falmouth and Penryn area, as indicated in the socio-economic baseline earlier in this chapter. The Falmouth Fishselling Company (FalFish) is located within the Docks. It had outgrown the landside capacity available to it at the Docks and opened a new purpose-built 3,000 sq m facility at Redruth in 2004 combining it with its busy port operations base for fishing vessel landings at Falmouth.

2.6.41 FalFish is expecting to grow further and believe the company would benefit from refurbishment / redevelopment of the Western Wharf.

Marina and leisure boating

Sector overview

2.6.42 According to the South West Tourism Board, the former Carrick District, which included Falmouth and Truro, had attracted more than £260 million of tourism spend in 2007. Expenditure directly linked to leisure boating was £694,000 – second highest in Cornwall and the Isles of Scilly after Restormel District.

2.6.43 In Cornwall and the Isles of Scilly alone, research in 2004 identified the value of water sport-related businesses, with surfing worth £64 million, sailing £52 million, scuba diving £17.5 million and gig racing £2.5 million.

Past trends

2.6.44 Falmouth has a unique selling point in terms of its location, natural resources, and historic urban streetscape, which is appealing for active and more relaxed types of tourism. RTP's survey of marinas in Falmouth, Penryn, nearby areas along the Fal estuary, and in areas to the south of Falmouth along the coast showed that there is high unsatisfied demand for marina berths and moorings in the area as most of the marinas have waiting lists. There are an estimated 5,500 swinging moorings, pontoon berths, quay berths and beach berths in the Fal estuary (figure provided by Port of Truro Moorings Officer). Our discussions with marinas indicated that there is a high demand for all types of moorings.

Future trends

2.6.45 Falmouth Harbour Commissioners has plans to expand the number of berths in Falmouth by 80. However, we understand that this will not satisfy the demand available. A&P Group has already set up a waiting list for 800 boat owners for its proposed marina of 290 berths. In the nearby area, three marinas are constrained by parking, access and environmental issues and therefore do not foresee permission to expand being granted.

2.6.46 RTP undertook a survey of marina demand as part of this study. The majority of the survey respondents (five out of eight) indicated that they see a positive future for leisure boating over the next five years and continuing and rising demand for marina berths and moorings with very little recession effect to date. One respondent indicated that the sector may also grow if population increases due to residential building planned in the locality.

2.6.47 The remaining respondents indicated that they observed a fairly stable demand in the leisure boating market. They further commented that there had been no change in demand for bigger boats / usage of bigger boats, however, smaller boat owners (the middle market) were struggling more.

2.6.48 A&P's proposal for a marina with 290 berths, would potentially attract not only smaller boats but larger yachts and even Superyachts fitting in well with Pendennis Shipyard's business. The proposed marina development location is to be located within the northern section of the inner harbour area between the Queen's Western and Duchy wharves which are currently in a poor state of repair and are unable to accommodate larger sized vessels due to naturally high levels of siltation in the area.

2.6.49 Our view based on the survey results and waiting lists reported by Falmouth Harbour Commissioners and A&P Group is that a marina development at Falmouth Docks is justified based on the demand for moorings. The possibility of another marina being developed at the Church Street car-park site would not have significant negative impact on demand unless both marinas would become operational at the same time. In the latter case, both marinas would not be fully filled only in the short-term.

Commercial development

Employment Space

Overview

2.6.50 Carrick District, which includes Falmouth and Penryn, had the highest percent of vacant employment space available among all Cornish districts in 2006. However, most of the vacant space fell into the category of 'fair', 'poor' or 'very poor' in terms of quality and age. The Draft Cornwall Employment Land Review (2009) reports that the Truro/Falmouth area has the largest amount of office space with most of it concentrated in Truro, whereas industrial/plant space has been decreasing in the Carrick district area since 2005.

Past and future trends

2.6.51 The Falmouth and Penryn Strategic Investment Framework proposes further development of the Falmouth / Bickland Business Parks and Tregoniggie Industrial Estate. The development would see improvements to existing sites and buildings and implementation of previously agreed proposals.

2.6.52 The economic recession slowed down the demand for office space even in Truro, and letting at Falmouth Business Park has been slow. Several local commercial property agents that we have contacted acknowledged that the demand for offices is weak. However, demand is expected to bounce back as the country is coming out of the recession. Moreover there are very positive longer-term expectations linked to the development of the CUC's Tremough campus.

2.6.53 Some of the commercial property agents believe that there is a demand for 'hi-tech' new office units, not necessarily small. The primary requirement for 'hi-tech' office units is an excellent broadband internet connection, which would resolve the problem of distance so pertinent to Cornwall.

2.6.54 The demand for smaller units is high, especially if the units are 'live-work'. At the same time an observation was made that in the past some small and 'live-work' units were filled in by micro-businesses/ self-employed attracted by grant funding who were unable to survive in the medium-to-long term, vacating the units in a short period of time.

2.6.55 The Gateway Development planned by A&P Group at the entrance to the Docks has attracted many enquiries by marine-related businesses, especially those whose business would be linked to a new marina. The demand in this sector is therefore highly dependent on the new marina development coming forward and being completed.

2.6.56 A&P Group have plans to occupy some new office space themselves as it may be preferred for the head office to be relocated to better new offices.

2.6.57 Based on our initial analysis it seems that office development at the Docks is in a more favourable position than any other office development in Falmouth because the Port location attracts specific marine/Port related sectors.

Residential

Past and future trends

2.6.58 The market for residential development in the Docks area is excellent according to local real estate agents and developers. Residential developments with waterfront views/access command up to 10%-20% higher prices than in areas out of Falmouth. Current developments adjacent to the Docks' area have been suspended due to the health and safety issues arising from Ammonium Nitrate storage at the Docks. Provided this issue is resolved, the property market players see the area surrounding the Port and sites within the Docks as very attractive for different types of residential development, including student accommodation.

2.6.59 The student population in Falmouth has grown quickly in recent years with the opening and expansion of the CUC. A lot of existing residential stock has been turned into student accommodation by private landlords and this puts further pressure on availability of housing for local residents.

2.6.60 The existing Maritime development of student studio apartments is fully let and there is a waiting list. The market expects the demand for student accommodation to grow considerably during the next five years as the CUC campus at Tremough will be expanding further from the current 2,500 students.

Hotels

Sector overview

2.6.61 The value of the tourism sector in Cornwall was £1.6 billion in 2007 and has continued to grow. Tourist expenditure supported 25,000 FTE jobs in the County, with the estimated number of actual employees of up to 50,000.

2.6.62 The short-term forecast for growth in overseas tourists is between neutral or positive as reported by Visit Britain. Domestic tourism saw some decline in 2008 due to the recession. The main effect was a shift from longer holidays to 1-3 nights long breaks. Due to tighter consumer spending, the budget hotel sector has benefited most since 2007.

Past and future trends

2.6.63 Our analysis shows that there are 27 hotels with 1,210 rooms within ten mile radius of the Docks. The hotel stock is mostly old and there is a lack of a contemporary fresh offer in the area. A demand study undertaken for A&P Group provides evidence for high demand from the Falmouth corporate market, especially from the businesses at the Docks. Our own discussions confirmed this as a number of Docks businesses use temporary contract staff who need to be accommodated in local hotels. There is also a potential increase in demand from yacht crews associated with the expansion of Pendennis Shipyard.

2.6.64 The corporate demand is likely to increase especially if the Port is developed to include dredging as this will increase shiprepair, cruise and bunkering activities.

2.6.65 There is a strong demand from the tour and coach travel market as Cornwall is a popular destination.

R&D and business incubation for marine and renewable energy sectors

Innovation / Incubation space

2.6.66 In Cornwall there have or are being developed three business incubators: in Pool; Treliske Hospital in Truro; and at the CUC Tremough Campus in Falmouth. The Treliske scheme is primarily aimed at bio-technology and health-related enterprises, whilst the scheme at CUC aims to cater for university spin-outs. As there could be more employment land available at Kernick Road according to the SIF, Falmouth may not need more incubation units. Moreover, any additional planned incubation space will need to be phased so that its delivery comes forward after the completion of the Tremough campus and its successful operation.

2.6.67 There are a number of educational and research activities that are currently linked or could be linked to the Docks area. These are the Marine Skills Centre at the Bridon Ropes building, possible future relocation of the Falmouth Marine School, and activities of the PRIMARE research project associated with the development of the wave energy industry.

Falmouth Marine School

2.6.68 Falmouth Marine School, together with Pendennis Shipyard, has won a grant from SWRDA to establish the Marine Skills Centre at the Bridon Ropes listed building in the middle of the Docks. The Marine Skills Centre is part of the SWRDA's approach to skills development in the marine sector. The Centre provides training for superyacht crews, courses on yacht surface finishing and painting, and marine focused business courses. The training facilities include meeting rooms, which are let to businesses for corporate activities.

2.6.69 Falmouth Marine School has well established links with Pendennis Shipyard through a programme of training for 15 apprentices per year on a rolling programme. The training covers engineering, fabrication, electrics, joinery, and painting, and lasts three to four years.

2.6.70 There is less work with A&P Group, however the School would like to build that up. Currently, it provides some ad hoc training to A&P employees in CAD drawing, maths and science and physics. They are discussing developing an apprenticeship programme with A&P.

2.6.71 Falmouth Marine School is in need of a new building as its current main campus is located in an old building, which is no longer suitable for its intended use as educational premises. The School has expressed interest in being located at the Docks - however, these plans have not been progressed.

PRIMARE

2.6.72 The PRIMARE research project is a joint undertaking managed by the University of Plymouth and University of Exeter and supported by the South West RDA. PRIMARE's main aim is to provide services to the emerging wave energy sector, in particular supporting the future deployment of wave energy devices from Falmouth Port to the Wave Hub.

2.6.73 PRIMARE has already spent £450,000 on its activities, and is actively applying for further research funding. It has received requests from five device developers for support in application for funds and has already prepared and submitted three proposals, two of which have been awarded. PRIMARE aims to use as many local companies as possible for its activities.

2.6.74 The primary service provided by PRIMARE for device developers is the state-of-the-art monitoring system, currently incorporated within a test buoy, which collects all the monitoring data from the buoy at the sea remotely via a satellite link.

2.6.75 PRIMARE runs a research support project 'Knowledge Transfer Partnership' with A&P Group funded by A&P and match-funded by the government. The project is developing a business strategy for A&P in terms of their development to accommodate future requirements of the wave energy sector.

2.6.76 The Project is currently located at the Tremough Campus of the CUC. It expects to expand as the Wave Hub nears completion, but PRIMARE does not see the need to be located at the Docks. However, they feel that as the process moves closer to deployment at the sea and connection to the Wave Hub some device developers may wish to establish their bases in Falmouth.

2.6.77 PRIMARE's opinion is that the existing port facilities would be able to cope with the wave energy activities until 2020.

Port Related Events

2.6.78 Falmouth is Cornwall's leading south coast resort and home to the County's maritime heritage. Attractions include the National Maritime Museum Cornwall and Pendennis Castle. The sailing tradition is flourishing. Falmouth Harbour provides a vast expanse of water for sailing in sheltered conditions. Geographic uniqueness and the Port's facilities make it an ideal venue for various boat and yacht racing events.

2.6.79 At present, four major events take place in Falmouth annually. The fifth event, the Falmouth Tall Ships regatta, was organised in 2008 and there are aspirations and plans to make this event an annual fixture in the Falmouth timetable. The events are described below:

Henry-Lloyd Falmouth Week - August of each year.
Falmouth Week is one of the largest local regatta events in the South West rivalled only by Cowes Week. It includes a number of major events like Pendennis Cup and Classic races.

During Falmouth Week, around 450 yachts and dinghies race in 3 fleets across 8 days; over 80,000 extra visitors come to the town compared with the other weeks in August; visitor numbers usually exceed 100,000 during the Week; and local businesses see a significant uplift in their takings.

Falmouth Tall Ships – September 2008.
The event lasted four days includes a Tall Ships regatta and a number of events in the town. During the 2008 event there were approximately 30 Tall Ships taking part in the Funchal 500 Tall Ships Regatta.

Fal River Festival – May/June since 2006.
The Fal River Festival is all about celebrating life on the River Fal. The 9 day Festival encompasses over 130 events which range from music and drama, the arts and heritage to rowing races, triathlons and walks.

Falmouth Oyster Festival – October each year.
Timed to coincide with the start of the oyster harvesting season, the Festival celebrates the quality of Cornish seafood and one of the last remaining oyster fisheries still harvesting under sail and oar.

Falmouth International Sea Shanty Festival - June each year (17th, 18th and 19th June 2011).
The continuing work by members of Falmouth Shout, with the support of the RNLI (Royal National Lifeboat Institution) has ensured that it has become a successful and popular annual event.

2.6.80 The Port of Falmouth with its wharves and nearby marinas presents excellent facilities and the backdrop for boating and maritime events in the town. The success of the Falmouth Week shows the importance of events to the local economy. The addition of the Falmouth Tall Ships regatta as an annual or more regular event would therefore bring significant additional benefits in terms of the visitor expenditure and promotion of the town as a tourism destination. The town's major interest groups are pursuing this opportunity and increased leisure uses at the Docks may help this project further.

Summary of Key Forecast Scenarios

2.6.81 Falmouth Docks represent a unique buoyant business cluster of different sectors. A summary of the key sectors is set out below.:

- The shiprepair business represents a key asset of the Falmouth Port in terms of engineering skills, which have already had an impact on attracting wave energy related projects and wave energy device developers. However, A&P is missing out on potential to tender for RFA contracts for larger vessels, which require deep water access for their larger vessels. These lost opportunities will increase as vessel sizes in most of the sectors increase.
- The bunkering sector is buoyant due to the favourable position of the Port in terms of the EU fuel regulations. The prospects are positive even without dredging, however the business could increase the efficiency by accessing some markets like Brazil if larger tankers could enter the Port. Larger vessels brought in by all other Docks' sectors (cruise market and shiprepair) would benefit bunkering.
- The yacht building and refit sector is one of the major employers at the Docks and is a high value added business. This sector also has an impact on the image of Falmouth as a destination, and will impact on the town's ability to continue attracting marine related events.
- The growth of the cruise market will be increasingly constrained by the channel depth due to the ability to dock alongside and increasing size of cruise vessels in the long-term. The niche markets served by smaller vessels will continue to steadily grow.
- Cargo supports cost-effective ways of delivering goods like animal feed, fertilisers and coal to Cornwall. However the growth in cargo is projected to be mostly absent or declining.
- There is an enormous long-term opportunity from the emerging wave energy sector that Falmouth Docks are well positioned to capture. Whilst growth will be slow until 2020 the sector may take off after delivering mane large scale wave projects once the commercialisation stage is reached.
- The development of a marina will provide a good short, medium, and long term value as the demand for berths in Falmouth and Penryn area is very high.
- Modern hi-tech employment space is also in demand - however, this may be satisfied in locations outside of the Port area. There is some demand, however, for business space from marine-related sectors, including A&P itself.
- There is a demand for hotel space, especially from the commercial users of the Port.
- Annual events are key to supporting the tourism economy.

2.6.82 This positive baseline position may lead to a conclusion that investment in the future is not critical. However what is also clear from the forecast scenarios is that the Port has already been losing out on some business associated with larger vessels, will continue to lose out more and its strong competitive position may be undermined in the long-term.

2.7 Summary of key spatial issues

Introduction

2.7.1 The Falmouth Docks site is subject to a wide range of constraints and opportunities. These are set out over the following pages as follows:

- Fal and Helford Special Area for Conservation (SAC)
- Dredging
- Contamination
- Ammonium Nitrate storage
- Heritage
- Transportation and access
  - Road
  - Pedestrian and cycle
  - Rail
  - Water
  - Port security

2.7.2 As a result of consultation with Cornwall Council officers and English Heritage, we have expanded information on heritage to provide a more substantial baseline. This section is therefore longer and more detailed than the remainder of this chapter.

Fal and Helford SAC

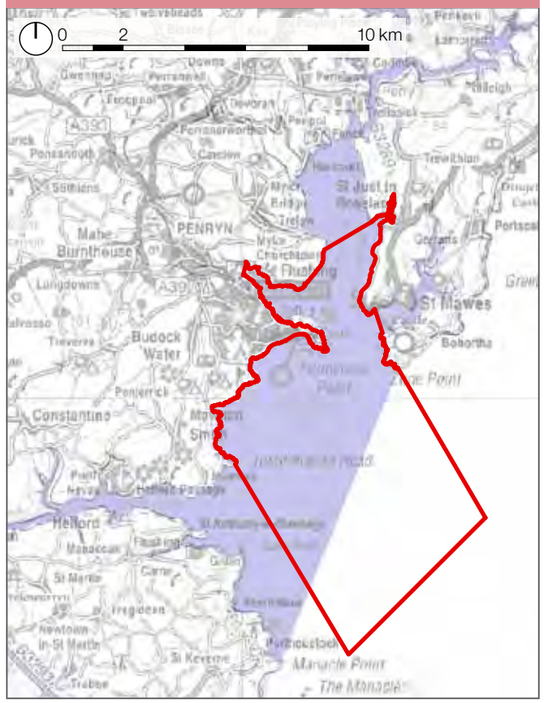
2.7.3 Large parts of the Fal and Helford are designated as a SAC under the UK Habitats Regulations (Figure 2.20). This imposes strict criteria in relation to developments and requires plans to be "appropriately assessed" to determine if they will result in an adverse affect on the integrity of the SAC.

2.7.4 The (SAC) Management Scheme sets out the collective duties of the various authorities in safeguarding the areas of the Fal Estuary and delivering the UK Habitats regulations. This management scheme recognises the need of the maritime industries that operate within the Port as well as the demands placed on environmental issues.

2.7.5 Key stakeholders at the Port of Falmouth signed up to the voluntary management scheme in 2006. This included A&P Group, Falmouth Harbour Commissioners and Cornwall Council.

2.7.6 An application for a licence to dredge a new navigation channel to Falmouth Docks is currently under discussion with the Marine Management Organisation. More information on the potential for dredging to the Docks is set out in the following sub-section 'Dredging'.

Figure 2.20: Fal and Helford Special Area for Conservation



Dredging: Background

2.7.7 There are three areas to consider in relation to dredging:

- the approach channel to the Docks;
- the depth alongside the various wharves; and
- the Dock Basin

2.7.8 The existing channel is 'declared' to a depth of 5.1m which is the minimum depth that may be expected to be encountered anywhere within the channel limits. Depths in the channel range from 5.1 to 7m but are predominantly less than 6.5m. Depths are given below Chart Datum (CD) which is the least depth likely to be encountered in normal tidal and meteorological conditions. Tidal heights are given in metres above CD. The High Water height (HW) usually varies between 4m at neaps and 5.5m at springs. Allowing a 1m under keel clearance, this restricts the channel use to vessels of maximum 8.1m at neaps and 9.6m at springs , which is appropriate for the existing berth depth of 8m. Passages at these drafts are only possible between one hour before and after HW and HW which would limit such movements to two one hour windows per day. Further restrictions on draft occur due to the depth of water at the berth which must be sufficient (including the height of tide) to allow the ship to remain afloat through Low Water.

2.7.9 Dredging of the approach channel would allow larger vessels to access the Port. The current proposal for dredging would increase the 'declared' channel depth to 8.3 metres below Chart Datum. An increase in channel depth needs to be accompanied by an increased depth at one or more of the Berths if it is to improve the Port's capabilities.

2.7.10 The existing channel depth is continuing to decrease. There is conflicting information on this. The Environmental Impact Assessment (EIA) for the dredging application states that the depth is decreasing in places by 30mm per annum. However, Falmouth Petroleum Ltd note that the charts show a minimum 'declared' channel depth of 6.1m in 1987 and 5.1m in 2002 – i.e. a reduction of 1m in 15 years (or an average of 66mm per annum). Whatever the actual rate of decrease of depth, without dredging, the depth restriction will continue to worsen.

2.7.11 The current depths below Chart Datum alongside the existing wharves are:

- Queen's Wharf: 6.0m
- Northern Wharf: 5.5m;
- County Wharf: 8.0m;
- Duchy Wharf: 8.0m; and
- The Western Wharf (East side) – Apart from the small 30m section of fish berth at the south end there is no serviceable berth on The Western Wharf. The depth at that end is 4.5m. If a new Western Wharf was created along the berthing line of the old wharf then 5m would be the expected depth but if a new wharf was created further out into the Docks Basin then 6m is possible, without dredging.

2.7.12 The maximum alongside depth therefore currently significantly exceeds the depth of the approach channel. This means that only ships with a draft of less than 5.1m can access the wharves at all states of the tide.

2.7.13 If the approach channel is dredged to enable larger vessels with a draft in excess of 8m to access the Port, dredging would be needed alongside one or more of the wharves to ensure the larger vessels remain safely alongside in very low tidal conditions. The current proposal for dredging would provide an alongside depth at Queen's Wharf (north) and the Northern Wharf to 9.5m CD.

2.7.14 The dock basin provides access to The Western Wharf (currently not used as it is in a poor state), the oil terminal jetty alongside the Eastern Breakwater (used by Falmouth Petroleum's bunkering vessels) and the four dry docks. Sediment is building up within the Docks basin, and this has the potential to restrict access in the future. As the current dredging proposals are concerned with the approach to the Queen's Wharf and The Northern Wharf, they do not include dredging of the dock basin area. However, if the Western Wharf is extended to accommodate larger vessels, if the eastern Breakwater is improved to accommodate

larger tankers and if the shiprepair sector is to benefit from the increased depth from a dredged approach channel, then dredging of the dock basin would be beneficial.

Dredging: Application

2.7.15 Capital dredging requires a Food and Environment Protection Act (FEPA) license and associated ministerial consent. An Environmental Impact Assessment was required to support the FEPA application in order to comply with the relevant European Directive. Royal Haskoning were commissioned to undertake a scoping study which was submitted in 2006. The scope of the EIA was approved by the Marine and Fisheries Agency and Royal Haskoning were subsequently commissioned to undertake this work in 2007. The Environmental Statement was completed in July 2009. It included details of a proposal for relaying maerl as a mitigation scheme to offset adverse environmental effects of the proposal. There was ongoing consultation with relevant interest groups and authorities during the development of the EIA.

2.7.16 An application for a license to dredge the Channel has been submitted jointly by Falmouth Harbour Commissioners and A & P Falmouth. Prior to the application being determined, it was necessary to undertake an Appropriate Assessment under the Habitats Regulations as the area has been designated a Special Area for Conservation .

2.7.17 This application included:

- a new navigation channel, which will allow for a declared depth of -8.3mCD, and a width of 125m to 155m;
- a deepwater berth of 510m by 50m, with a declared depth of -9.5mCD;
- the over-dredging and replacement of dead maerl onto carefully selected areas within the new channel;
- the on-site remediation of 100,000 cubic metres of contaminated material to make it suitable for use in ground improvement works, coastal erosion protection, or as landfill;
- an additional 600,000 cubic metres of clean dredged material for offshore disposal outside the SAC;
- a monitoring programme to be developed in conjunction with statutory government; and
- a new cruise quay, cruise terminal building and associated facilities.

2.7.18 The Marine Management Organisation (MMO) recently announced a negative Appropriate Assessment decision for the dredging element of the proposal. The applicants are working pro-actively with the MMO to address this issue, which must be resolved before the license applications can be determined.

Contamination

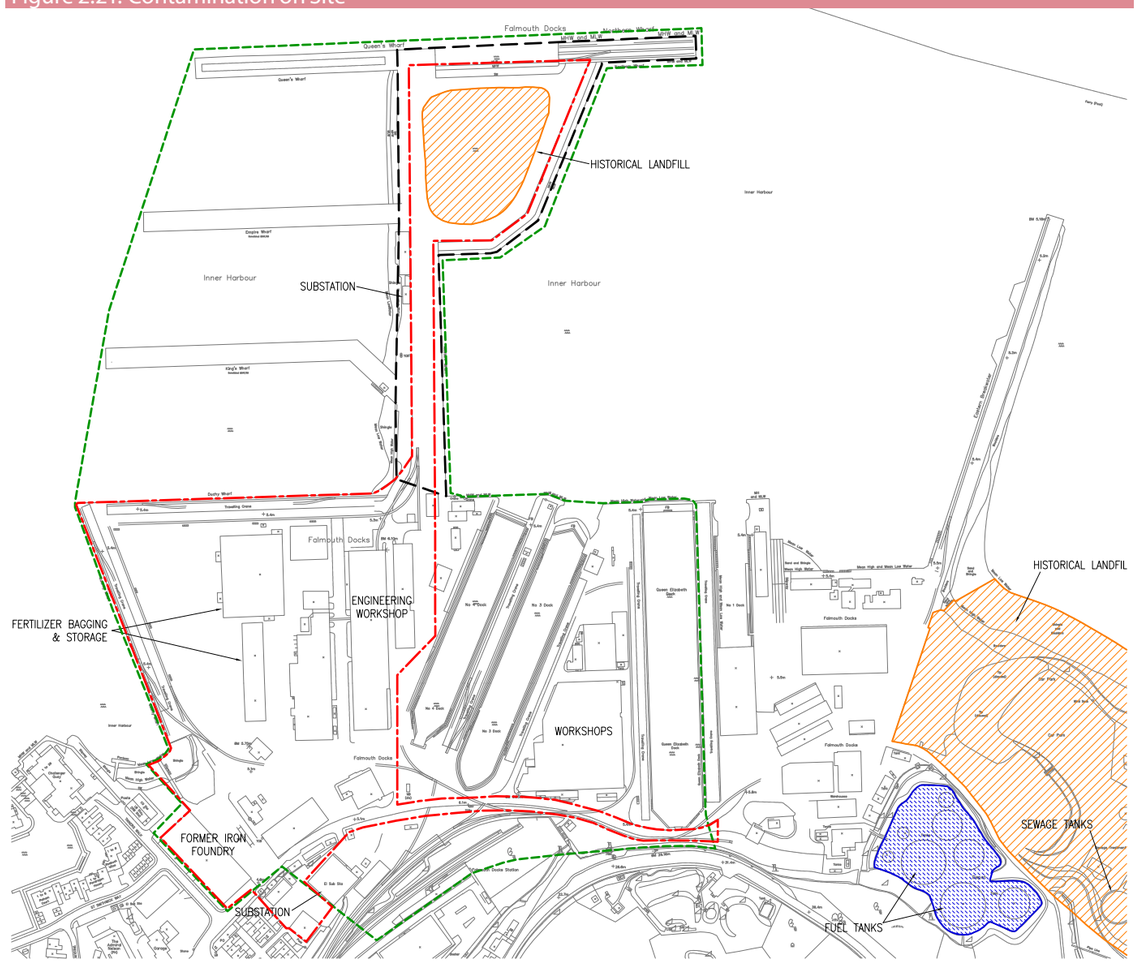
2.7.19 Falmouth Docks and the surrounding seabed are known to have areas of historical contamination that require consideration when undertaking dredging and/or construction works.

2.7.20 On-site historical contamination is known to exist although the degree and extent has not been fully quantified. A full review of desk study and ground investigation data is required in order to identify data gaps and to bring site information and assessment of risks to human health and the environment up to date. This should be followed by a co-ordinated site-wide investigation involving liaison with the key site owners and tenants to realise the most effective method of dealing with the contamination.

2.7.21 An intrusive site investigation has been undertaken of the landfill site, and the report on this is due in June 2011.

2.7.22 A review of available information (Halcrow Feasibility Report, October 2003 and Royal Haskoning Desk Study and EIA, May 2007) has highlighted several

Figure 2.21: Contamination on Site



Previous site investigation

Royal Haskoning - May 2007 Desk Study and EIA

Integral Geotechnique (Wales) Lts. March 2007 Site Investigation

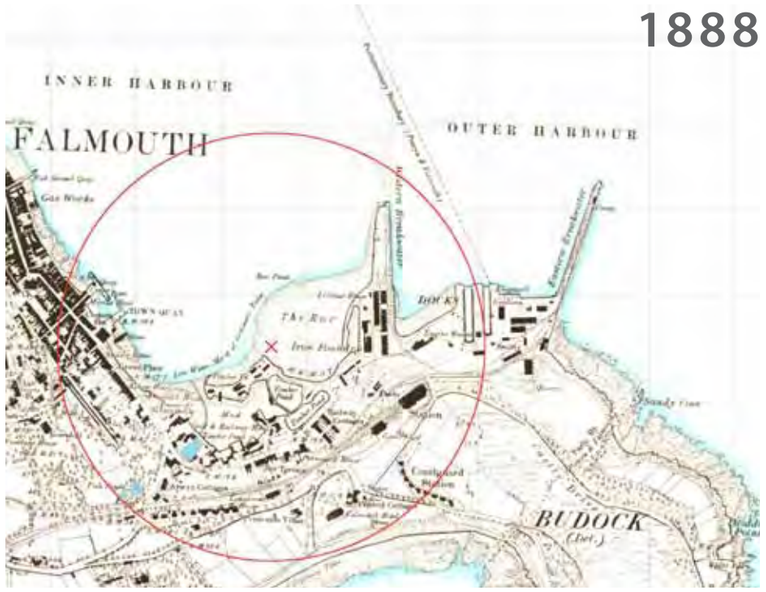
Halcrow - August 2003 Feasibility Report and Site Investigation

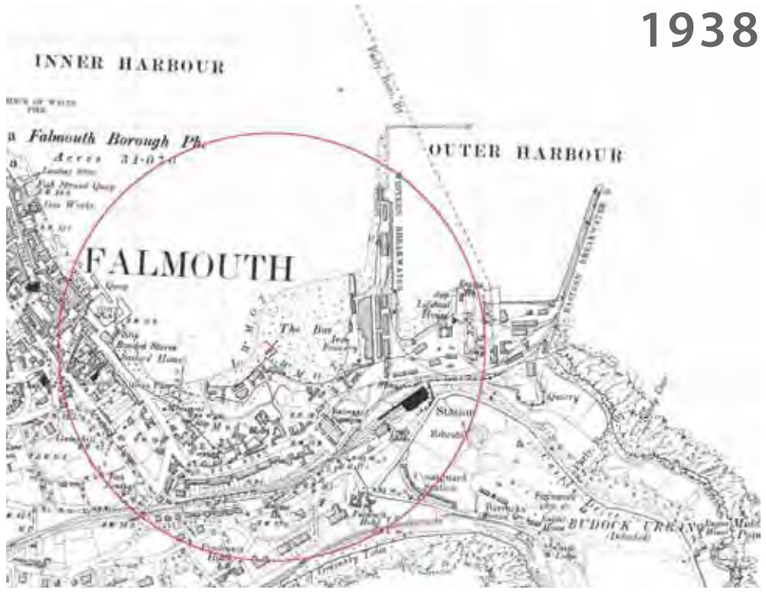
Contaminated Land Site Uses

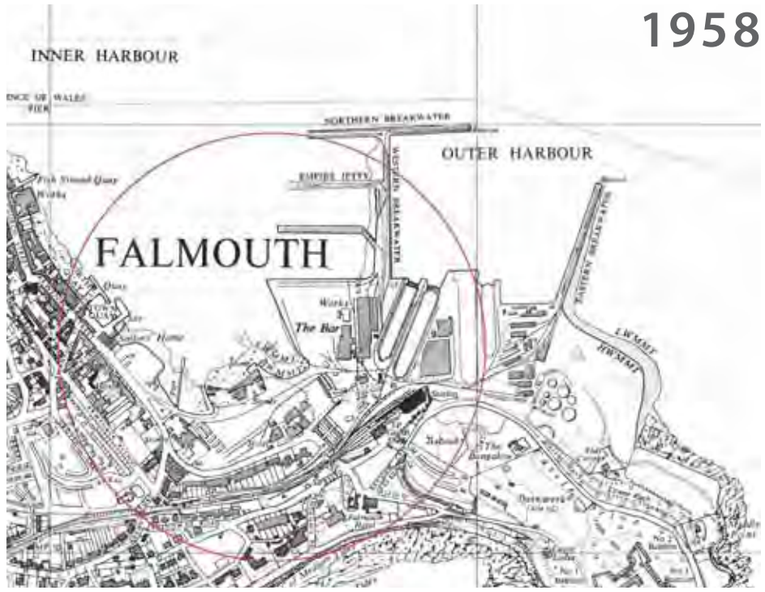
Historical Landfill

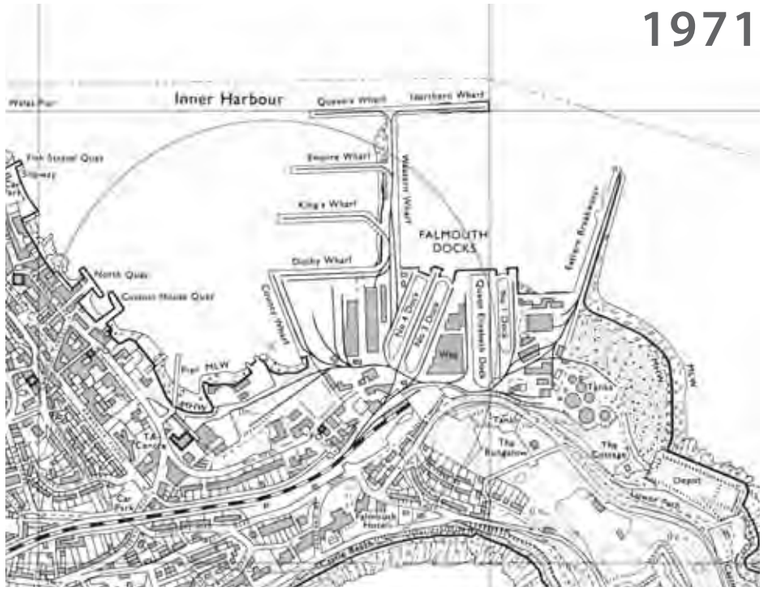
World Fuels Falmouth Oil Services

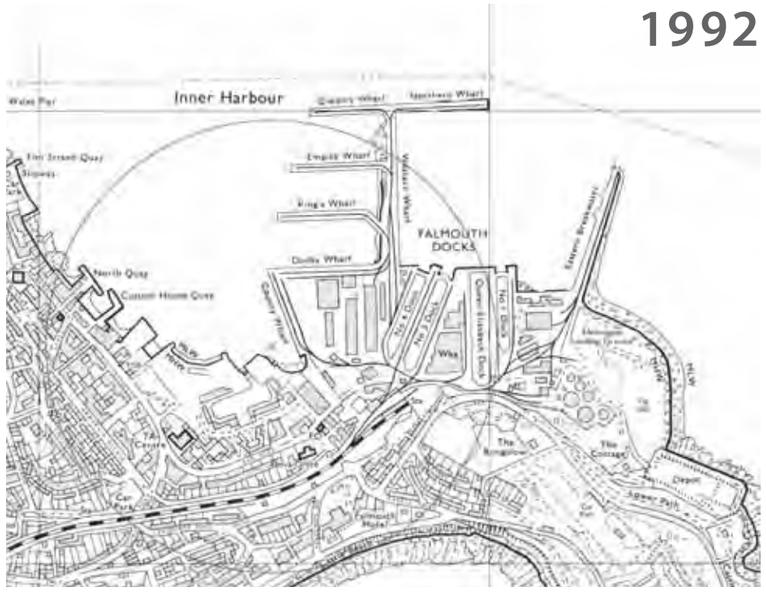
Figure 2.22: Historic plans of Falmouth











key areas of potential contamination where there may be constraints on the future development (see Figure 2.21 opposite). These areas include one historical landfill, fuel tanks, fertilizer storage, sewage works, a former iron foundry, docks/ship yard, and engineering works (shiprepair). Constraints may relate to extra-over costs required to remediate sites (e.g. ground gas protection to buildings above the landfills) or possibly what type of building is allowed. This detail will be addressed by the planning process as outlined below.

2.7.23 Proposals for development of the area will be subject to scrutiny via the planning system. Planning Policy Statement 23: Planning and Pollution Control (PPS23) is the national planning guidance for development on contaminated land. A key provision of this guidance is that the land is made suitable for its proposed new use. The guidance states that local planning authorities must be satisfied that "the potential for contamination and any risks arising are properly assessed and that the development incorporates any necessary remediation and subsequent management measures to deal with unacceptable risks". In order to satisfy PPS23, as a minimum a desk study is required, including a preliminary contaminated land risk assessment (in accordance with EA/DEFRA Model Procedures CLR11) which incorporates information from all previous investigation along with those areas which have not been investigated.

Ammonium Nitrate storage

2.7.24 A licence to store Ammonium Nitrate at the Docks is held by the Falmouth Docks and Engineering Company (FDEC), a sister company of A&P Group. The storage is part of WF Fertiliser's import business with AN being used for mixing fertiliser that is supplied to Cornish farmers. As a result of this storage the Health and Safety Executive is opposing certain types of new development, such as large scale residential and employment uses for more than 100 employees, within an exclusion zone that extends over most of the Docks and outside towards Grove Place Car Park.

2.7.25 The Masterplan is based on the assumption that the Ammonium Nitrate business is appropriately managed in a way that allows development to take place.

Heritage

Introduction

2.7.26 An assessment of heritage assets and their significance is necessary to inform the Masterplanning process and provide the heritage context for evaluating the potential impact of development, both at this strategic Masterplanning level, and in the future as specific projects are fleshed out at a more detailed level. In accordance with advice provided by English Heritage and national policy in PPS5, the following broad assessment covers the archaeology of the Port area, the historic development of the Port, the identification of specific heritage assets within the Port area and their significance, and general conclusions on how adverse impacts on them may be avoided, minimised or mitigated against.

Archaeology

2.7.27 Archaeological information has been provided by English Heritage and the Cornwall & Scilly Historic Environment Record and is summarised below. The Fal Estuary is a ria or drowned river valley. It began forming during the Quaternary Period, some two million years ago, when a broad river valley was cut into the +45mOD Pliocene platform. Rising sea levels subsequently drowned the outer part of the valley where the cliffs were cut into the bedrock and beaches deposited. With the onset of the Devensian glaciation, sea level fell, and a cliff was created 3km offshore at -42mOD with a sinuous channel cut into the bedrock (this deep channel is readily apparent on modern charts). As the climate slowly warmed during the Holocene, the harsh arctic post-glacial landscape gave way to woodland. As melting ice sheets caused sea level to rise, trees growing on the bottom and lower slopes of the valley were gradually submerged, initially by peat and then sea water, and buried beneath fluvial and marine sediments.

2.7.28 These buried palaeo-landscapes are today revealed along the coastline and inter-tidal zones as exposed 'submerged forests' and peat deposits discovered by boreholes and other invasive methods. A number near or in the Port area have been re-exposed by coastal erosion or developments such as pier and harbour construction works. Evidence of elements of submerged forest suggests that a Holocene palaeo-landsurface can be considered to underly marine sediments in the estuary and immediately offshore.

2.7.29 The underlying palaeo-archaeology is of significance in providing evidence of the formation of pre-historic landforms. Intrusive works, including activities such a dredging and construction of piers, docks or devices embedded in the seabed would interfere with the prehistoric fabric but at the same time provide the opportunity for gaining more evidence of its composition.

2.7.30 The Fal Estuary and the wider landscape around it have seen human activity over several thousand years. From at least the Mesolithic (c9000-4000 BC), the estuary and its network of rivers provided a means of communication and would have been an environment attractive to bands of semi-nomadic gatherer-hunters-fishers. However no artefact flint scatters from this period have been identified in the Fal Area although this is not surprising given that typical shoreline camps and other perishable artefacts/evidence would have been submerged. Towards the end of the Mesolithic (7000BP) sea-level was still about 10m lower than today.

2.7.31 From the Neolithic (c4000-2500 BC) the land around the estuary was settled and farmed, exploited for its resources of timber and stone and used for industry and religious and ceremonial activity. A few early artefacts are known from the immediate vicinity of Falmouth - an exotic polished Neolithic jadeite axe was found 'near Falmouth', fragments of a Bronze Age urn (c2500-700 BC) derived from a mid-19th century excavation on the coast around Pendennis, a later Bronze Age palstave and axe found in the Falmouth area and a bronze sword from Falmouth Harbour. In 1812 a large tin ingot, possibly from the period of Edward I (1272-1307), was dredged up in deep water off St Mawes. In addition there are a number of sunken wrecks within the study area, principally in Falmouth Bay south of the Pendennis peninsula. These include cargo vessels, tankers, fishing vessels and British and German warships, which sank principally during the first half of the 20th century. The range of artefacts so far discovered together with recent archaeological investigations of the harbour employing geophysical survey show that there is potential for archaeology on the seabed.

2.7.32 A detailed assessment of the significance of marine archaeology would need to be covered in any EIAs required to accompany any detailed specific schemes/projects involving dredging and disposal of dredged material and the construction of port infrastructure affecting the sea-bed (eg new wharves/ dry dock facilities). Appropriate archaeological protocols and agreed written schemes of investigation and mitigation will need to be put in place. Such provision based on archaeological investigations has already been incorporated into the Appropriate Environmental Assessment submitted with the application for licence to dredge the new approach channel to the Docks.

2.7.33 The potential for land-based archaeological remains within the Port of Falmouth study area are limited to those very few parts of the Docks that have not already been extensively excavated. Most of the Docks area occupies land that has been reclaimed and/or already extensively excavated to considerable depth. The only probable remains of any significance that may still be present and not recently disturbed are the subsurface elements of the 17th century eastern hornworks of the Fort Pendennis fortifications. The history and significance of those is discussed in the following sections.

History of the Port of Falmouth

2.7.34 The strategic importance of Falmouth as the westernmost port on the British mainland has been evident throughout its history. The sheltered deep water of the Fal estuary and the Carrick Roads provided an excellent natural harbour and convenient westerly anchorage for Henry VIII's Royal Navy. In 1540, Henry VIII ordered the building of Pendennis Castle, and its partner to the east, St Mawes, to provide innovative shore gunnery defences of the Carrick Roads from possible invasion. The Henrician castle on the Pendennis headland was strengthened in Elizabeth I's reign with enclosing fortifications around the garrison in the second half of the 16th century. In 1627 the landward defences of Pendennis Castle were strengthened with hornworks designed by the military engineer Bernard Johnson.

2.7.35 During the Civil War Pendennis Castle was an important Royalist stronghold and Falmouth acted as a port for the reception of foreign aid. In 1646 it also served as the departure port for Queen Henrietta Maria and the Prince of Wales escaping from the Parliamentary Army. The Royalist commander, Sir Edward Hopton, prepared for a long siege and the earlier hornworks were extended from around 1643.

2.7.36 Remnants of parts of these hornworks extend into the northern part of the Falmouth Docks site. Pendennis was besieged by Parliamentary forces for nearly six months, and finally surrendered on 17 August 1646. More than a century later in preparation for a war with France, the eastern part of the hornworks were almost completely demolished between 1788 and 1793. The military engineer responsible intended to level the glacis and open up the landward approach to artillery fire from Pendennis castle.

2.7.37 The development of the fortifications was accompanied by the establishment of the Port settlement that has grown to become modern Falmouth. In the late 16th century the manor house of Arwenack was the residence of Sir John Killigrew, who hosted a visit from Sir Walter Raleigh in 1598. Raleigh recommended that a port should be developed and supported a proposal by Killigrew to promote the small hamlet of Smithwick, which started to grow and became known as Penny-come-quick (from Peny-cwm-cuic – "the head of the narrow vale"). Sir John Kiligrew created the town of Falmouth in 1613, and, despite petitions of opposition from the long established towns of Penryn and Truro, Falmouth received a royal charter from King Charles II in 1661. By 1665 there were some 200 houses in Falmouth, clustered around the new Church of King Charles the Martyr.

2.7.38 In 1688, Falmouth was made the Royal Mail packet station, served by Town Quay and Greenbank/ Custom House Quay, and for 150 years it remained the only place where mail came into and out of the country, in the Packet Ships. In 1709, Falmouth Harbour gained independence from its former jurisdiction under Truro. The town prospered and around the turn of the 18th century it had several quays including a new Fish Strand Quay, nearly 800 houses, a town hall, several hotels and pubs, a brewery, an improved Parish Church with clocktower, a synagogue and a freemason's lodge. Its strategic military role continued, and after the outbreak of the Napoleonic War in 1793, Falmouth became an important supply and staging depot for British forces overseas. A naval dockyard with modest shiprepair facilities became established on the Bar in the lee of the Pendennis peninsula. At the end of the Napoleonic War, the naval dockyard was moved to Plymouth but the Port continued to flourish commercially. In 1808, Falmouth was declared a compulsory pilotage area by the Board of Trade and its first pilot licence was issued. Navigational safety was improved by the erection of a granite tower in 1837 on Black Rock carrying markers indicating an isolated rock and major maritime hazard between the eastern and western approach channels to the Port.

2.7.39 Falmouth was associated with several historic events and personages as the first port of call and departure from the west. Benjamin Franklin landed at Falmouth on his way to America in 1757. HMS Pickle brought the news of Nelson's victory at Trafalgar and his death to Falmouth in November 1805. Lord Byron sailed from Falmouth to Lisbon on the Princes Elizabeth Packet Ship in 1809. Napoleon was brought into Falmouth on HMS Northumberland in 1815. Charles Darwin landed at Falmouth in HMS Beagle in 1836 after his 5-year voyage of scientific exploration.

2.7.40 The industrial revolution and the technological changes of the 19th century had a major impact on Falmouth in general and the development of the Docks in particular. The age of steam led to the demise of the mail packet service in 1852 as steamships could steam unimpeded by wind and weather directly to London and other major port cities. Gas, electricity and telegraphic communication were rapidly developed and Falmouth was the first Cornish town to introduce street lighting. Industrialisation and the advent of steamships provided the commercial stimulus for the development of the Victorian Falmouth Docks in their current location.

2.7.41 The development of the Falmouth Port area as it is known today (see Figure 2.22) began with the construction of the first docks in 1860 (the first ship to enter the Docks arrived in 1861), and the arrival of the Cornish Railway soon after in 1863, which brought tourists to the town and also allowed the swift transport of goods recently disembarked from the ships in the port. Between 1863 and 1888, the Eastern and Western Breakwaters and the Northern Wharf, as well as two small dry docks (in the locations of the current No. 1 and No. 2 docks) were constructed. Various warehouse and workshop buildings were built within the Docks at this time, of which only the Grade II listed Bridon Ropes building now remains.

2.7.42 In the first half of the twentieth century, the Docks expanded rapidly. The Port proved strategically important during World War I, when the Docks were temporarily taken over by the Admiralty, and Falmouth acted as naval base for minesweepers, submarine defences and anti-submarine warfare, as well as the embarkation port for troops destined for the Dardanelles. The Docks expanded during the inter-war period. A third dry dock was built in 1921, and Number 4 dock was built alongside it in 1928. The Northern Wharf, Empire Jetty and King's Wharf were built and extended between 1930 and 1938.

2.7.43 During World War II, when the extended docks were at full capacity, Falmouth Bay rarely had fewer than 100 vessels anchored, and the Docks were of major strategic significance. In 1942 the Northern Wharf was rebuilt and the Queen's Wharf was completed. The Port was the base for the Operation Chariot raid in 1942 by HMS Campbeltown on the St Nazaire dockyards. Slipways and troop embarkation hards were constructed in 1943 in preparation for the D-Day in 1944, when the 29th US Army Division was based in Falmouth. Bunkering services supported merchant and naval vessels, and underground fuel tanks were built at Middle Point and off Castle Drive to protect them from air raids.

2.7.44 After the War the Docks were further improved by the opening, in 1958, of the largest new dry dock, the Queen Elizabeth II Dock, and new engineering workshops. The reclamation of the former mud flats in the Bar area was followed by the construction of the County and Duchy Wharves in 1958 increasing the capacity and of the port.

2.7.45 Since the 1960's, commercial maritime activity at the Port has decreased, with changes in the structure of the shipping industry globally. Nevertheless, many positive developments have occurred to the Port, including the arrival of Pendennis Shipyard, in 1988, with its additional highly skilled workforce, and the four Tall Ships Races that came to Falmouth in 1966, 1982, 1998, and 2008. A new lifeboat station was opened next to docks in 1995. Queen's Wharf was rebuilt in 2003 after a fire. Between 2006 and 2008 the old Empire Jetty and Kings Wharf were demolished to make way for a new 290 berth marina south of Queen's Wharf.

2.7.46 Other, non-port related uses have also come to former port land. The Port Pendennis marina and residential development has been built on former industrial land related to the port. In 2003, the National Maritime Museum Cornwall and Events Square opened as a major new visitor attraction close to the Port. The recently improved South West Water sewage facility to the east of the site, also represents a non-traditional port use.

Heritage Assets and their Significance

2.7.47 While the Docks themselves do not contain significant heritage assets compared with some other harbours in the South West, the requirement to respect heritage assets is nevertheless important. Designated heritage assets (eg listed buildings, ancient monuments, conservation areas) have a high level of significance. There is only one listed building within the dock area, the recently restored Grade II listed Bridon Ropes building (Figure 2.23), a granite faced, 4-storey warehouse building dating from the early 1860s. Any proposals to demolish it or adversely affect the building and its setting will be contrary to national planning policy (PPS5) and development plan policies and will be strongly resisted by English Heritage and Cornwall Council.

2.7.48 The other designated asset within the Docks is the remnant of the eastern hornworks. Elements of this are likely to be present along the boundary of the garden of the residential property in SW Water's ownership adjacent and to the east of undeveloped, wooded land owned by Falmouth Petroleum. They are within the boundary of the eastern outlier of the Pendennis Peninsula Fortifications Scheduled Monument (Figure 2.24 shows the focus of this Scheduled Monument, at some distance from the site), and as such benefit from a high level of protection. While the historic and evidential value of these remains is high, their visual/aesthetic significance is low, as the above surface fortifications were removed in the 18th century (see paragraph 2.1.12), and the site is now overgrown and not visually apparent. The main part of the scheduled ancient monument site is across Castle Drive with Pendennis Castle as the principal focal point. Any development that might harm the hornworks remains or the setting of Pendennis Castle or diminish their significance will be contrary to policy and will be strongly resisted by English Heritage and Cornwall Council.

2.7.49 There are a number of designated heritage assets adjacent or close to the Docks area (see Figure 2.25) whose setting may be affected by development within the Docks. These have been identified by English Heritage to include:

- the Falmouth Conservation Area;
- Arwenack House (listed Grade II*);
- Custom House Quay (listed Grade II*); and
- The Church of King Charles the Martyr (listed Grade II*).

2.7.50 The central and eastern part of Falmouth docks is adjacent to the Seaside Character Area of the Falmouth Conservation Area. This includes the majority of the peninsula crowned by the presence of English Heritage's Pendennis Castle. Development adjacent to a conservation area is required to respect the setting of the conservation area without detriment to its character or appearance. Because of the difference in levels between the Docks and the Conservation Area above the cliff edge alongside Castle Drive, development within the Docks is unlikely to have an impact when viewed from within the Conservation Area. It could, however, have a detrimental impact on views to the Conservation Area from St Mawes to the north, and these visual impacts will have to be carefully assessed when detailed proposals are put forward.

2.7.51 The western part of the Docks is adjacent to Railway Cottages, a short terrace of Victorian artisans dwellings that lies at the eastern end of the Suburbs Character Area of the Falmouth Conservation Area. Although the buildings are not listed and turn their backs to the Docks estate, their setting as part of the conservation area could be affected by very large scale development immediately adjacent to them. There is little inter-visibility between this part of the conservation area and the Docks, but scale relationships and visual impacts will have to be carefully assessed when detailed proposals are put forward.

2.7.52 The setting of the Suburbs Character Area of Conservation Area further to the west, is unlikely to be affected by development within the Docks because of limited inter-visibility between them. The same applies to the part of the Centre Character Area that lies alongside Arwenack Street which contains several listed buildings including the Grade II* Arwenack House. The Grade II* listed Church of King Charles the Martyr is even further to the west, some 500 metres from the edge of the Docks with built development in between. Although development within the Docks is unlikely to impact upon its setting and adversely affect views from it or to it, an appropriate assessment will be needed to confirm this. Such assessment of the impact of detailed proposals on the setting of the waterfront part of the Centre Character Area, will also be needed. There is a high degree of inter-visibility between the quays and jettys here, including the Grade II* listed Custom House Quay, and the western part of the Docks.

2.7.53 The Docks themselves are not within the Conservation Area, but have some undesignated heritage assets within them, as well as the designated ones discussed above. The principal ones that are referred to in published sources (eg the Historic Environment Record, the Falmouth Conservation Area Management Plan, EH's Fortress Falmouth Conservation Plan) are:

- the principal breakwaters, wharves and jetties with their associated cranes and warehouse structures that act as major landmarks and reflect the historic evolution of the Docks;
- the four dry docks dating from Victorian times, which are an integral part of the history of the Port as a major shiprepair facility; and
- the underground fuel tanks at Middle Point dating from World War II, and associated with the role the Docks played as a strategic maritime base and bunkering station during the war.

2.7.54 Any major redevelopment proposals that may adversely affect the evidential, historic, aesthetic or communal value of these undesignated assets will need to be subject to appropriate assessment. The above docks features of heritage value are generally robust enough to accommodate large-scale change that typifies such working port environments, and their heritage significance is unlikely to be harmed. Where there is some diminution of heritage significance, however, of such undesignated heritage assets, development proposals will have to be justified by the other benefits that the proposals will bring, as allowed for in national heritage policy in PPS5.

Figure 2.23: The Grade II listed Bridon Ropes building

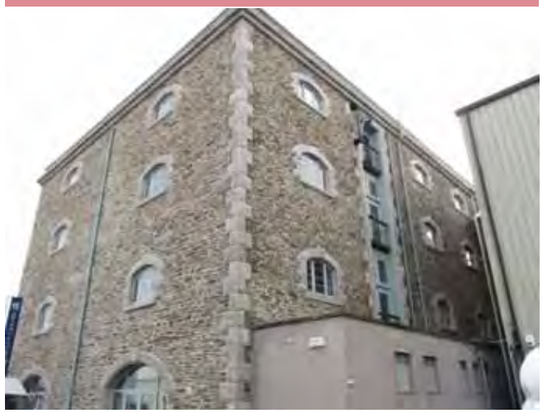


Figure 2.24: Pendennis Castle, Scheduled Ancient Monument

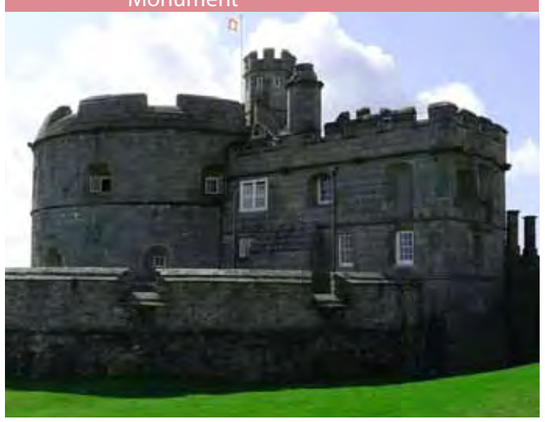
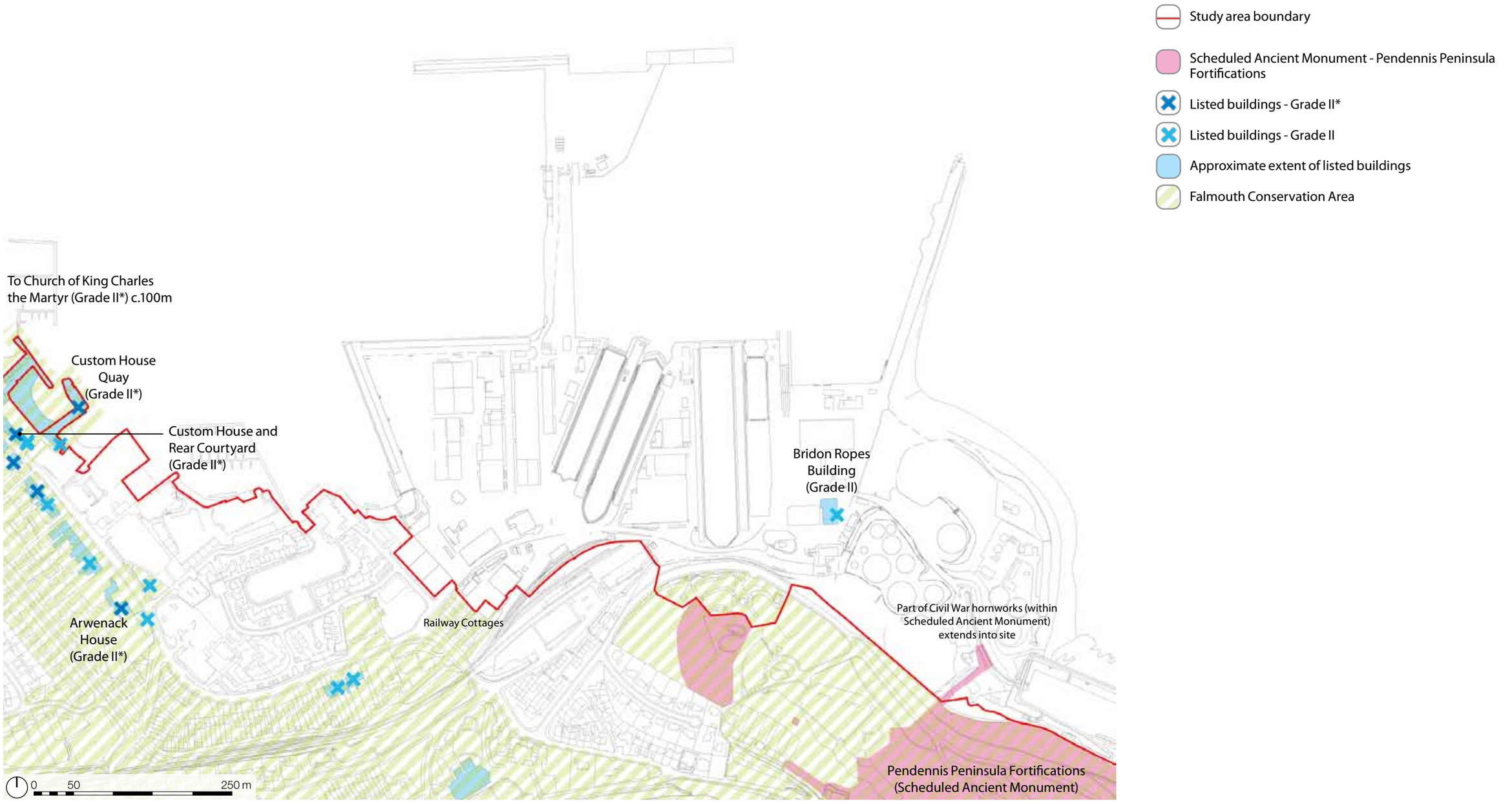


Figure 2.25: Listed buildings, Scheduled Monument and Conservation Area near the Docks



Transportation and access

Introduction

2.7.55 Falmouth has a very diverse range of movement patterns: vital tourism traffic in the seasonal peaks, local residents going about their daily life and goods vehicles associated with the town and the Port, through to bespoke movements that have a temporary impact on capacity, such as boats being towed to slipways.

2.7.56 Key points relating to the current use of the Docks area include:

- a significant number of employees of the Docks live locally, minimising the distance travelled to work and maximising the opportunity for car sharing, walking and cycling; and
- some of the goods that are brought in through the Port service local industries, (potentially) reducing the amount of long distance heavy goods vehicle movements.

2.7.57 The key transportation and access issues for the site are set out as follows:

- vehicular;
- pedestrian and cycle;
- rail;
- water; and
- port security.

Vehicular

Road Access

2.7.58 All traffic travelling to the Port from outside of the immediate area is directed (via road signing) to travel along the A39. The A39 is a multi-purpose primary route providing the primary traffic access into Falmouth and distributing traffic within the local area.

2.7.59 It is reported in the Falmouth-Penryn Urban Strategy (Cornwall Council) that there are existing congestion issues along the A39 at 'the Dracaena Avenue/Kimberley Park Road junction and the Dracaena Avenue/Western Terrace roundabout in the evening peak period, where queuing can extend back beyond the Woodlane junction.' More strategically, traffic has been identified as routing through inappropriate routes within Penryn (Commercial Road) to avoid the less direct route of the A39.

2.7.60 Road access to the Docks site is constrained by a cliff to the south and the sea to the north. The site has two existing points of access:

- Bar Road - This link acts as the only point of entry for most of the existing Docks businesses at present. The link from the A39 to the Port (via Bar Road) is constrained by a low height railway bridge on Bar Road. This restricts access of high sided vehicles into the Port which have to access via inappropriate residential streets. This is recognised by Cornwall Council as being necessary to address in order to 'encourage growth of the Docks and local area.'

Figure 2.26: Road and Rail access to the site

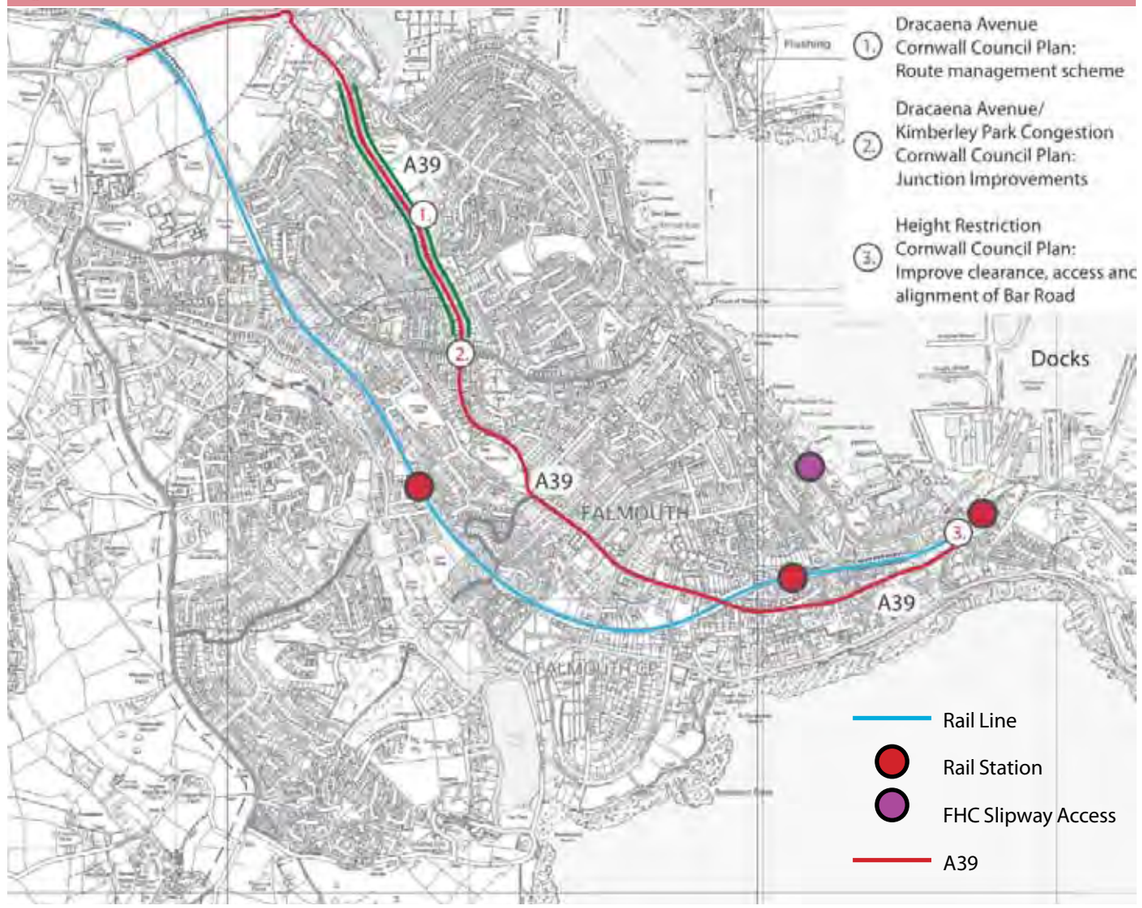


Figure 2.27: Existing primary site access

Figure 2.28: Existing vehicular access to the dwelling house from Castle Drive (left)

- Castle Drive - A separate vehicular access is available from Castle Drive that provides access to the existing residential property located at the eastern end of the Port area. We have looked at the potential to bring vehicles into the Docks along the track from Castle Drive. This is very steep and narrow and it is not currently realistic to do this. Further problems with upgrading this access would include adverse impact on part of a Scheduled Monument (see 2.7.48), and health and safety implications relating to any increased traffic flow past the Falmouth Petroleum site (operating the fuel bunkers).

2.7.61 Any increase in Port activity associated with shipment of goods could reasonably lead to an increase in heavy goods movements on the surrounding road network. The 'Falmouth Cruise Project Environmental Statement, Royal Haskoning 2008' reports that the Annual Average Daily Traffic along the A39 in Falmouth (Dracaena Avenue) is in the region of 13,600 vehicles of which around 3% is heavy goods vehicles. The Environmental Statement went on to consider the impact of construction traffic which, at 50 vehicles per day, was considered to require further investigation. The impact of an increase in heavy goods is very much dependant upon specific road conditions; differing highway geometry and gradient have a disproportionate impact on reducing traffic capacity as a result of an increase in heavy goods vehicles. For the purposes of identifying constraints coaches, transporting passengers from the cruise ships, are also considered to be heavy goods vehicles.

2.7.62 It is understood that there is no specific emergency access plan developed for the Port. Masterplans with a single point of access will therefore need to be mindful of the implications of significant changes in development mix as this could trigger the requirement for a review of emergency access provision. For example, Cornwall Council, in theory, requires a secondary point of access for residential developments above 300 residential units. However, this has not been adhered to with recent development.

Parking and on-site vehicular movement

2.7.63 Parking currently occurs on a relatively informal and ad-hoc basis across the site (see Figure 2.9 in section 2.3). Areas of unused land have been allocated for parking. A formalisation of the land uses will require appropriate (formalised) provision of parking spaces which will need to be (largely) accommodated with the boundary of the development proposal. Formalised parking generally requires in the region of 20m^2 per space (exclusive of landscaping). Options may include the provision of a multi-storey car park.

2.7.64 Consideration will need to be given to the operational requirements of any retained uses within the Port area. This relates to spaces for manoeuvring vehicles, cranes and equipment.

Pedestrian and cycle

2.7.65 Pedestrian links with the surrounding area, in particular the town centre, could be enhanced both in terms of provision (adequate footway width, for example) and legibility (visual links). The ability to substantially improve these links is constrained by land ownership. Addressing this issue requires intervention from the planning process to secure the appropriate access through gated areas. Furthermore, the topography of the site means that pedestrian (and cycle) access can only realistically be achieved from the direction of the existing main access.

Rail

2.7.66 Falmouth Docks railway station abuts the southern boundary of the Docks and it is outside of the Masterplan area. A spur line of the railway also runs into the Docks area, however its length currently constrains opportunities for rail freight services as it is considered to be of insufficient length to be able to run a viable rail freight service. Network constraints also exist along the main line to Truro with recent track dualling undertaken to improve passenger services.

2.7.67 There may be potential to increase the use of rail freight in the future, so reducing the number of vehicles that need to access the Docks and/or increasing the Docks capacity. There may be potential to extend the length of the line into the Docks to create a usable terminal for freight, including secondary aggregates and biomass. Single, one-off or heavy loads could use the rail network but using waterborne transport is likely to be a more viable alternative.

2.7.68 There is also an opportunity to improve pedestrian access into the Docks across the railway line from the railway station.

Water

2.7.69 Existing quays and mooring areas within the Docks are shown in Figure 2.8. The Masterplanning process will investigate the need and potential for the development of new or expansion of existing wharfage within the Docks area.

2.7.70 The potential for enhanced access to the Docks for large vessels is dealt with under the heading 'dredging' within section 2.7 of this document.

Port security

2.7.71 Any changes influenced by the Masterplan will need to ensure the Docks comply with the requirements for security as defined in the International Ship and Port Facility Security (ISPS) Code that is incorporated into UK Law through EC Regulations 725/2004.

2.7.72 Key security aspects of the Port which may affect the Masterplan include:

- Access through the site - The single road currently present can be viewed as assisting the security operation, however it also creates potential for a single point of failure (SPoF).
- Security/Police post - A single security post currently exists at the main vehicular/pedestrian entry to the site.
- Boundary treatments - These should provide a clear demarcation for the site and could also act as a clear deterrent to unauthorised access.
- Building design and construction - Some buildings may have particular security concerns which will require specific design solutions.

2.8 Summary of strategic spatial constraints and opportunities

Summary of strategic spatial constraints and opportunities

2.8.1 Figure 2.29 overleaf summarises the key spatial constraints and opportunities that influence where investment in docks infrastructure and/or development might occur.

2.8.2 This shows the distribution of major fixed assets and land uses that are unlikely to be displaced by alternative forms of development without very significant cost and/or a major restructuring of land-use, ownership and infrastructure provision. These elements include:

- the main operational wharves that still retain relatively deep water alongside berthing facilities and are serviced by cranes for cargo handling;
- the Eastern breakwater and oil terminal jetty;
- the Falmouth Petroleum Ltd. oil tank farm;
- the South West Water sewage treatment plant that has been recently upgraded and expanded;
- the 33/11kV electricity substation owned by Western Power Distribution; and
- the recently refurbished residential house (The Cottage) and gardens, leased from South West Water and in residential use at present.

2.8.3 Other key constraints on development are:

- the environmentally sensitive nature of the seabed around the Docks which forms part of the Fal and Helford Special Area for Conservation , and could be of palaeo-archaeological interest as well, together with the presence of contaminated silt deposits within and adjacent to the dock basin;
- the presence of designated heritage assets within the Docks area, whose presence and settings will have to be respected, notably the Grade II listed Bridon Ropes building, and the site of part of the eastern arm of the Civil War hornworks that are part of the Pendennis Castle Scheduled Monument site;
- the topography, which rises sharply from the flat plateau of the main docks area, forming a cliff edge to the Docks alongside most of the port's southern boundary; and
- the presence of stored Ammonium Nitrate within the Docks for use in fertiliser mixing, which has led to the Health and Safety Executive opposing certain classes of development within an extensive exclusion zone covering all the Docks area and the eastern end of Falmouth itself.

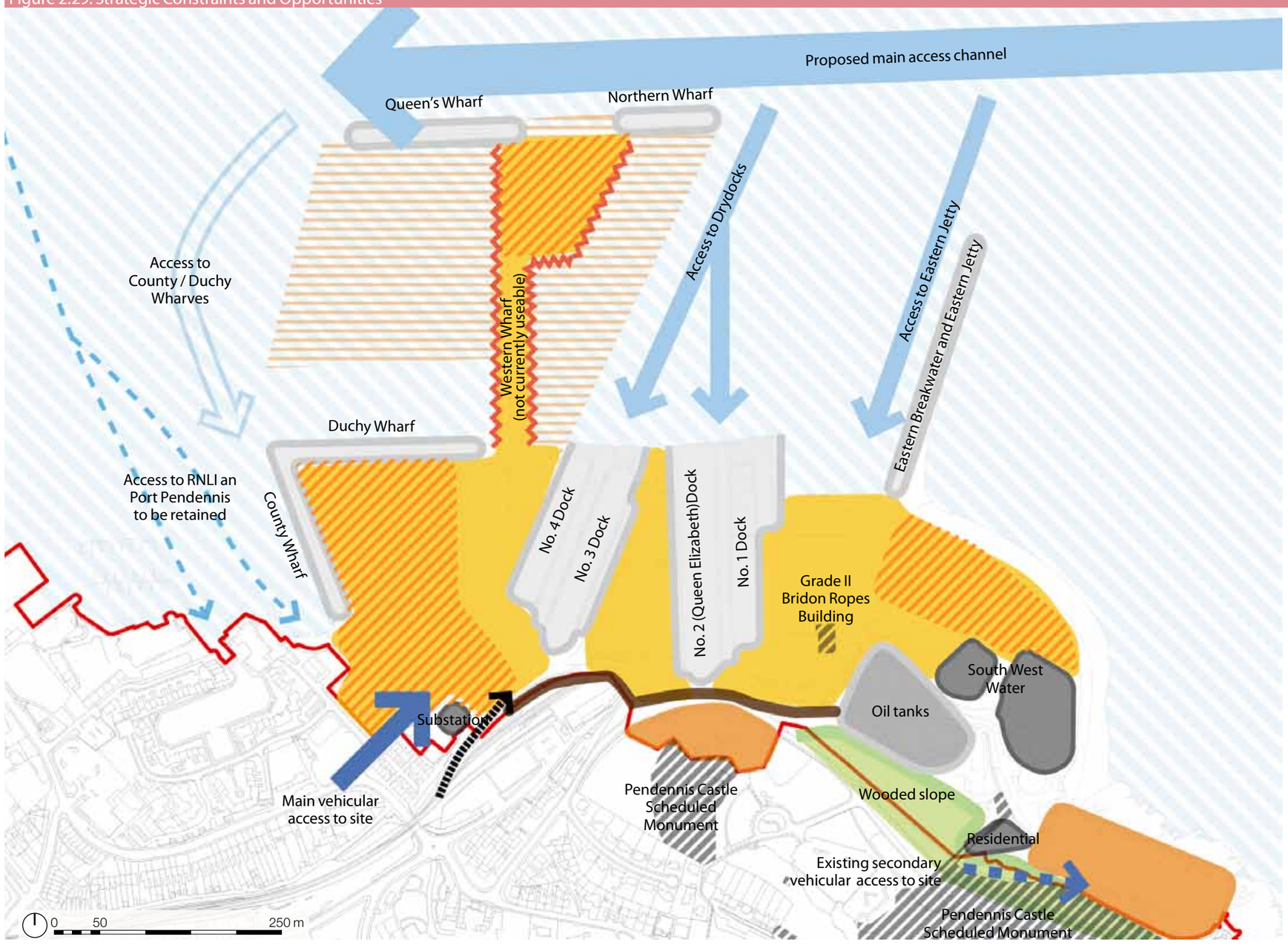
2.8.4 Access opportunities by sea and land include:

- the existing main deep water channel to the Port has been subject to silting and could be dredged to provide access to the Queen's/Northern wharves for large cruise vessels and fully laden Panamax size cargo vessels, either on a new alignment (as currently proposed) or on its existing alignment;
- localised dredging within and adjacent to the dock basin would improve access to the other wharves and the oil jetty and to the four dry docks for larger vessels;
- primary road access to the Docks is limited to its existing western location from Bar Road, and the presence of the cliff effectively prevents a second main access being created; and
- a disused rail spur from the line to Falmouth Docks Station enters the Docks area to the south of the electricity substation, and could potentially be re-instated to enable freight to enter and leave the Docks by rail.

2.8.5 Development opportunities within the Docks area comprise:

- underused and/or dilapidated waterside edges of breakwaters, wharves and dock walls, which could be improved and utilised for alongside berthing;
- extensive areas of the Docks estate that are in active use and occupied by buildings, structures and infrastructure elements but that could be reconfigured to provide more efficient and intensive forms of development;
- extensive predominantly open areas of the Docks estate that are used for open or covered storage of cargoes, materials and/or waste products and or surface car parking and that have the potential to accommodate new reconfigured uses and/or efficient forms of new development;
- waterside areas within and adjacent to the Docks that are currently underused and have the potential to accommodate more commercial shipping, alongside repairs and/or marina/leisure boating uses; and
- the two areas of redundant or partially used World War II tank farms at Middle Point and off Castle Drive that will become superfluous to Falmouth Petroleum's future fuel storage requirements, are in separate ownership and will shortly become wholly disused and available for redevelopment subject to appropriate decontamination.

Figure 2.29: Strategic Constraints and Opportunities



Study area boundary

Likely fixes

Major docks, cranes, jetties, breakwater and related infrastructure

Oil Tanks

Other non-port uses likely to be retained on site

Other key constraints

Fal and Helford Special Area for Conservation

Cliff

Environmentally Sensitive Wooded Slope

Heritage constraints

Access

Opportunities for enhanced waterway access through dredging

Other major waterway access

Offsite waterway access to be retained

Road access to site

Rail access to site

Development opportunities

Opportunities for reconfiguration and consolidation of existing uses

"Soft" areas, with potential for new uses within reconfigured area

Underutilised waterway edges with potential for improvement

Waterside with opportunity for additional uses

Tank sites with uncertain future

3

Options Development and Appraisal

3.1 Introduction and initial options

Introduction

3.1.1 The final Masterplan (Chapter 4 of this document) has been developed as the outcome of an options development and appraisal process, which tested a range of alternatives so that we could recommend the optimum way forward. This chapter sets out:

- Initial Options - Development of eight options for discussion with stakeholders.
- The Four Options - Consolidation of the initial options into four options.
- Summary of Options Appraisal Process- A summary of the appraisal of the four options, including:
  - an Economic Impact Assessment;
  - an Outline Sustainability Appraisal;
  - an Urban Design and Planning Appraisal; and
  - a consultation workshop with key stakeholders.
- Development of the Final Masterplan - this section explains the process of moving from the options appraisal to the final Masterplan, including how public consultation has shaped the final Masterplan.

Initial Options

3.1.2 Options for the Docks area were generated with the overall intention of contributing to the Strategic Aim for the Port of Falmouth and the Strategic Objectives that flow from it (see Section 1.2).

3.1.3 The Masterplanning team developed a series of options for discussion with key stakeholders at a PoFDI Working Group (including A&P Group, A&P Ports and Properties, A&P Group, Pendennis Shipyard, Falmouth Petroleum, and Falmouth Harbour Commissioners) (see Figure 3.1). These options were designed to ensure that:

- all reasonable project-based aspirations being considered by the key stakeholders for their own businesses could be incorporated in one or more of the options;
- all specific port development/project ideas by key stakeholders for other or related businesses could be explored;
- any unrealistic or technically/operationally impractical development projects or spatial arrangements would be identified at an early stage; and
- all the spatial options could between them encompass all reasonable project/sector based sub-options so that the process of option testing could indicate which individual elements performed best individually and in combination with others.

3.1.4 Each of the eight initial options represented different types and levels of investment intervention/ policy emphasis. Within these options the wide range of different projects by key stakeholders were set out and defined in spatial land-use and development terms.

Moving to Four Options

3.1.5 The eight options had a number of overlapping issues and some of them were in a number of respects, very similar to one another. We needed the options to:

- have distinct differences between them, so that the appraisal process could be clearly understood;
- be manageable in terms of the amount of information we would need to communicate to both stakeholders and the public through consultation events; and
- be of sufficient number and variety to enable all reasonable and realistic scenarios and projects to be explored.

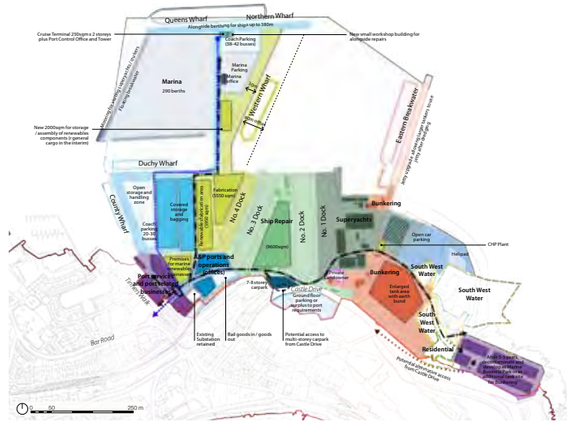
3.1.6 Working with PoFDI stakeholders, we devised the four options as shown in section 3.2. These encompass the wide range of scenarios and projects identified in the initial options, and provide sufficient diversity for a robust assessment of the alternatives.

Figure 3.1: The initial eight options

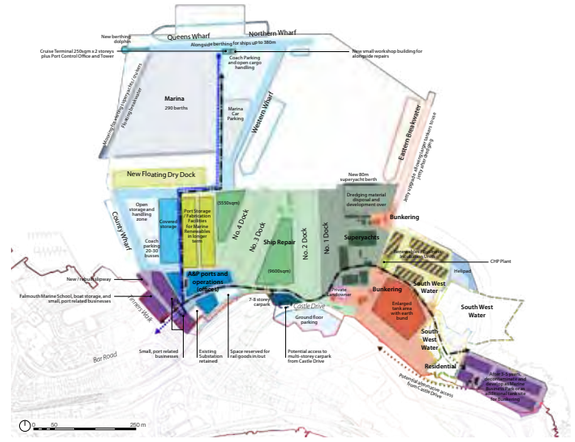
Option 1: Do Nothing

Option 2: Do Minimum

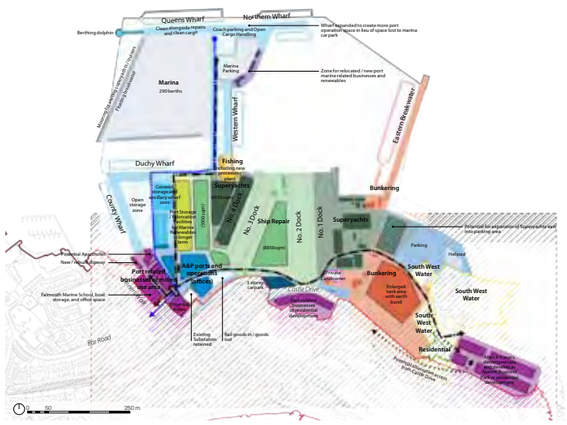
Option 5: PoFDI Priorities + Renewables



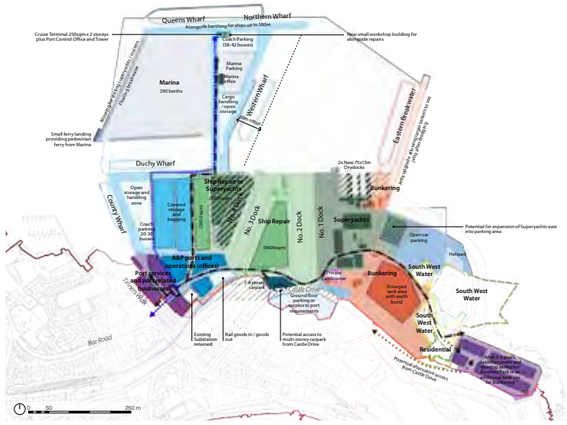
Option 6a: PoFDI Priorities Plus
emphasis on shipping and ship repairs



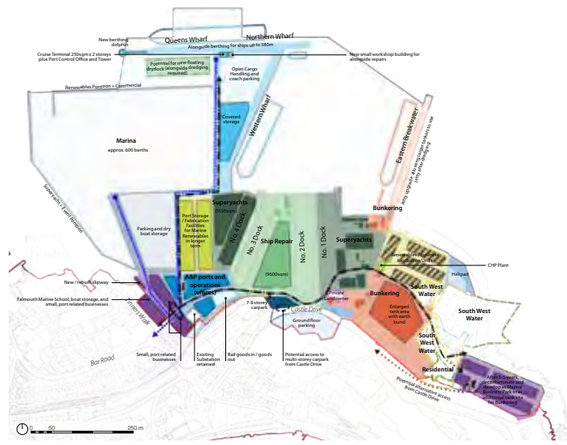
Option 3: Do More



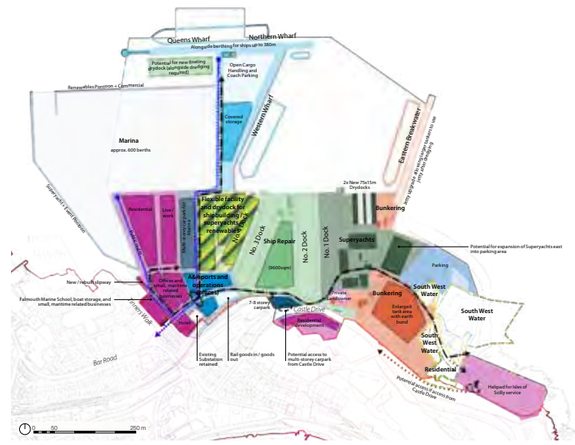
Option 4: PoFDI Priorities



Option 6b: PoFDI Priorities Plus
emphasis on marina and superyachts



Option 7: Maximise Mixed-Use Opportunities



3.2 The four options

Option A

Aims

- A reference case to compare other options against.
- To investigate the likely loss of existing infrastructure in the future, and hence the viability of existing businesses without significant investment.

Summary of key changes to Port

- Port to continue as existing (including Ammonium Nitrate bulk import, storage, mixing and bagging), with investment only in essential maintenance of existing facilities for health and safety purposes.
- No dredging.

Option B

Aims

- Maximising port uses without dredging.
- Investigating the possibility of a limited amount of port land being redeveloped for alternative uses.

Summary of key changes to Port

- No dredging.
- New marina as per planning application.
- Bunkering to continue with proposed upgrade of fuel tanks.
- County and Duchy wharves replaced at end of lifespan. Western Wharf reinstated with little buildout. Northern Wharf refurbished and extended to join Queen's Wharf . Additional dolphin also increases potential berthing.
- Superyachts to occupy no. 4 Dock and adjacent land.
- Fabrication workshop facilities reserved for potential marine renewables uses in longer term.
- A&P offices also consolidated.
- Port related businesses consolidated and located to SW. This area may be retained for port-related businesses only (permitted development), or developed as mixed use.
- Multi-storey carpark (approx 200 vehicles).
- Castle Drive site, detached from adjacent site, is developed for residential uses.
- Middle Point site is developed for port-related uses.

Option C

Aims

- A 'high investment' scenario, maximising the potential of all usable spaces for port uses.
- Investigating the maximum benefit that dredging might bring to deepwater uses, such as the cruise sector, cargo shipping, and shiprepairs, without any non-port uses being introduced.

Summary of key changes to Port

- Dredging of the main approach channel and adjacent to Queen's / Northern wharves. Potential dredging to other wharves and graving docks.
- New Western Wharf constructed, including new crane, to maximum size to increase working land within the port. Queen's and Northern Wharves combined into a single, larger wharf facility, capable of berthing panamax ships. A cruise quay terminal building and port control tower are also provided.
- A 290 berth marina will be created on site.
- Port related businesses consolidated and located to SW, some outside of entrance to port. A&P offices also consolidated.
- Space reserved for marine renewables fabrication longer term.
- Superyacht shipyard expands northwards, with infill of existing waterside, and new 80m berth.
- Floating drydock alongside Duchy Wharf.
- New multi-storey carpark (approx. 400 vehicles) provided on site, with secondary access from Castle Drive.
- Castle Drive site used for additional parking for port employees.
- Middle Point site developed for port related businesses if viable.

Option D

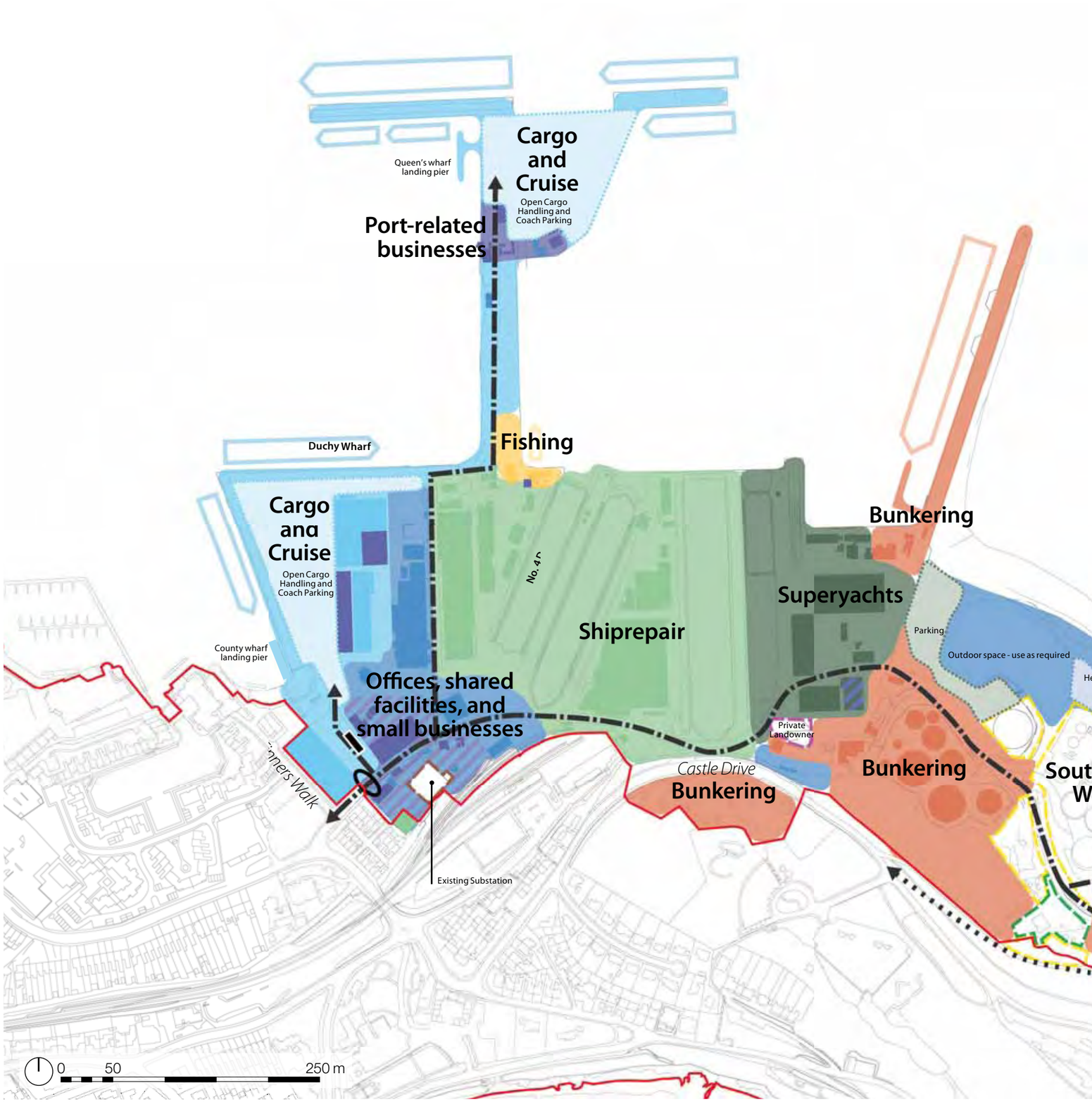
Aims

- To investigate the potential of using residential / mixed-use areas to cross-fund investment in the port.
- To investigate the effects that a reduced site area may have on port uses.
- Consolidating cargo operations to a single area, on an extended Western Breakwater and Wharf. A logical block of County and Duchy wharves (at the end of their lifespan) are given over to mixed uses (including residential and marina), with public realm along the waterfront.

Summary of key changes to Port

- Dredging of the main approach channel and adjacent to Queen's / Northern wharves. Potential dredging to other wharves and graving docks.
- Enlarged marina, for approximately 600 berths, with multistorey carpark provided.
- Large, mixed use development at the entrance to the Docks and between the former County and Duchy wharves. Uses will include residential, live/work, hotel, office accommodation, and premises for Falmouth Marine School.
- Cargo and cruise consolidated to north of site (around enlarged Queen's / Northern Wharves, and new Western Wharf).
- Superyacht business expands eastwards, and 2 new 15x75m drydocks are constructed within the existing waterside area.
- No. 4 dock and adjacent land identified as flexible space for use by ship building, Superyachts, or renewables as appropriate.
- New multi-storey carpark (approx. 400 vehicles) provided for port uses on site.
- Castle Drive and Middle Point sites developed for residential uses.

Figure 3.2: Option A 'Do Nothing'



Key:

Study Area

Primary vehicular access through site

site entry / other potential port entry

Weighbridge

es on site (colour as per key below):

Uses by sector

Built form (existing / new)

Key open spaces

Consolidated car parking

Port-related uses:

Shiprepair

Cargo and Cruise

Renewables

Fishing

Marina

Superyachts

Bunkering

ices, shared port facilities, other uses

itime businesses or educational uses

l use and residential development:

e development (potentially including residential / offices / hotel)

Residential development

xisting non-port uses (unchanged):

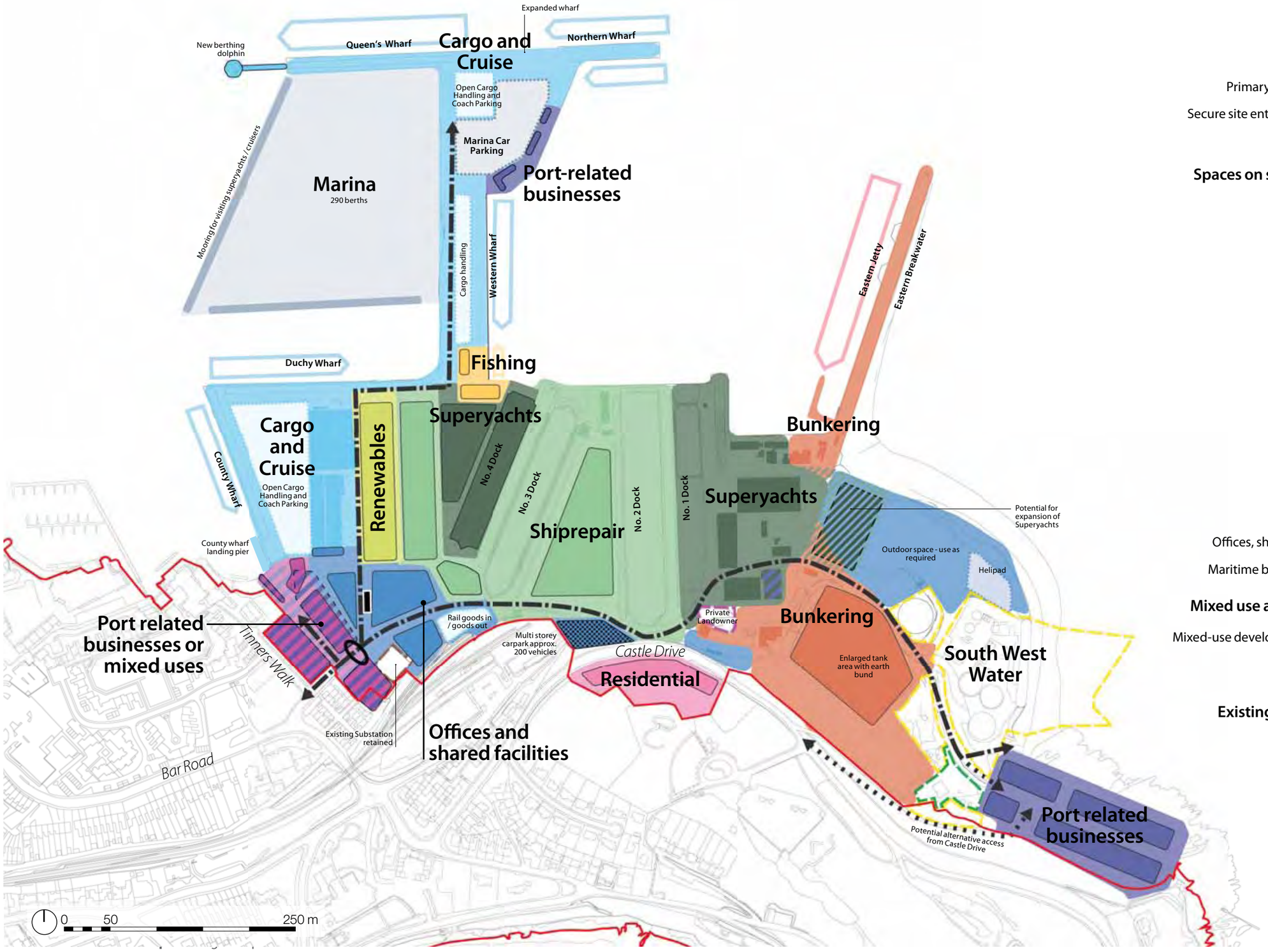
Private landowner

South West Water

Existing residential

Electricity substation

Figure 3.3: Option B 'Do More'



Key:

Study Area

Primary vehicular access through site

Secure site entry / other potential port entry

Weighbridge

Spaces on site (colour as per key below):

Uses by sector

Built form (existing / new)

Key open spaces

Consolidated car parking

Port-related uses:

Shiprepair

Cargo and Cruise

Renewables

Fishing

Marina

Superyachts

Bunkering

Offices, shared port facilities, other uses

Maritime businesses or educational uses

Mixed use and residential development:

Mixed-use development (potentially including residential / offices / hotel)

Residential development

Existing non-port uses (unchanged):

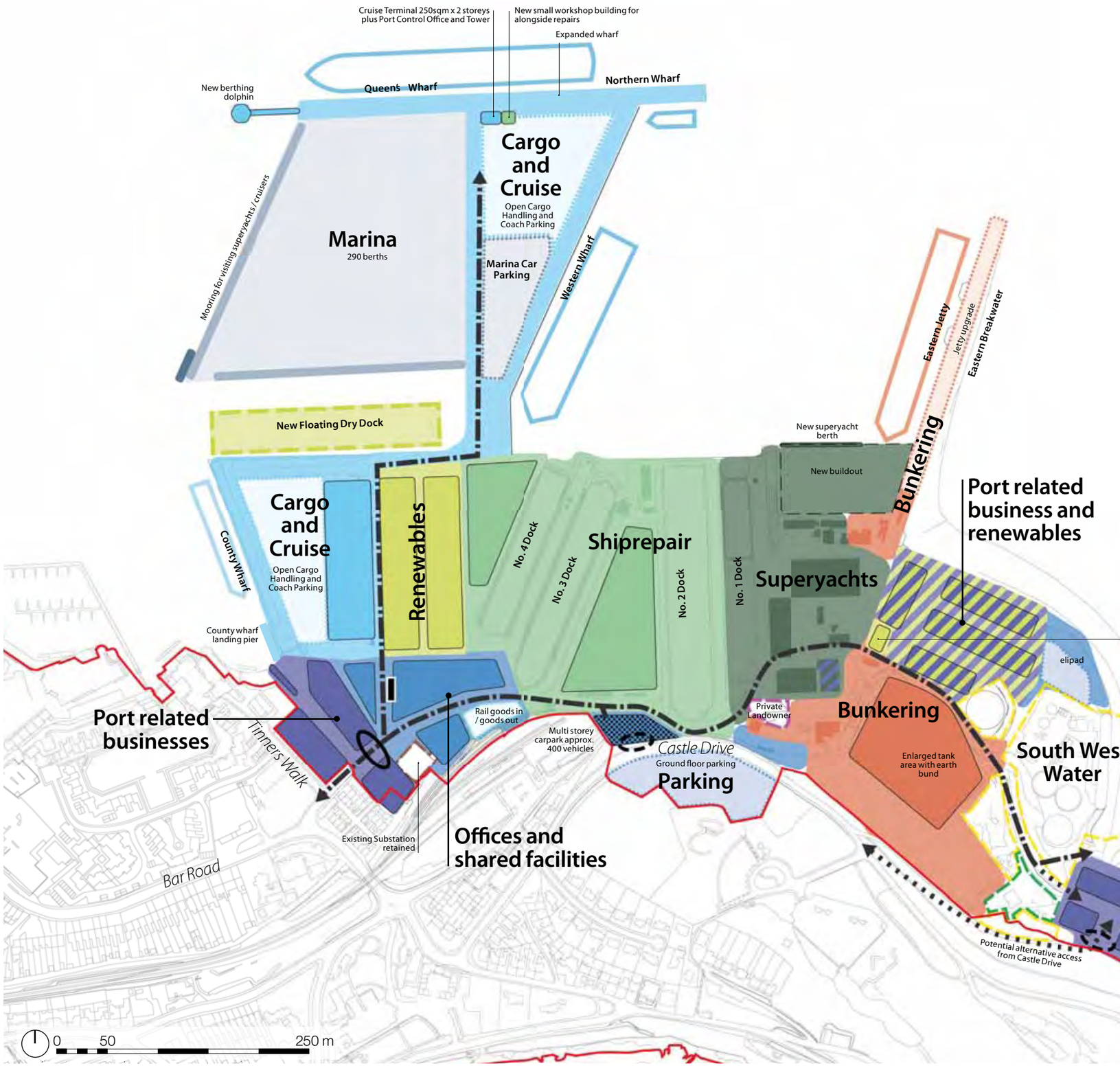
Private landowner

South West Water

Existing residential

Electricity substation

Figure 3.4: Option C 'PoFDI Priorities Plus Emphasis on Shipping and Shiprepairs'



Key:

- Study Area
- Primary vehicular access through site
- Secure site entry / other potential port entry
- Weighbridge

Spac te (colour as per key below):

- Uses by sector
- Built form (existing / new)
- Key open spaces
- Consolidated car parking

Port-related uses:

- Shiprepair
- Cargo and Cruise
- Renewables
- Fishing
- Marina
- Superyachts
- Bunkering
- Offices, shared port facilities, other uses
- Maritime businesses or educational uses

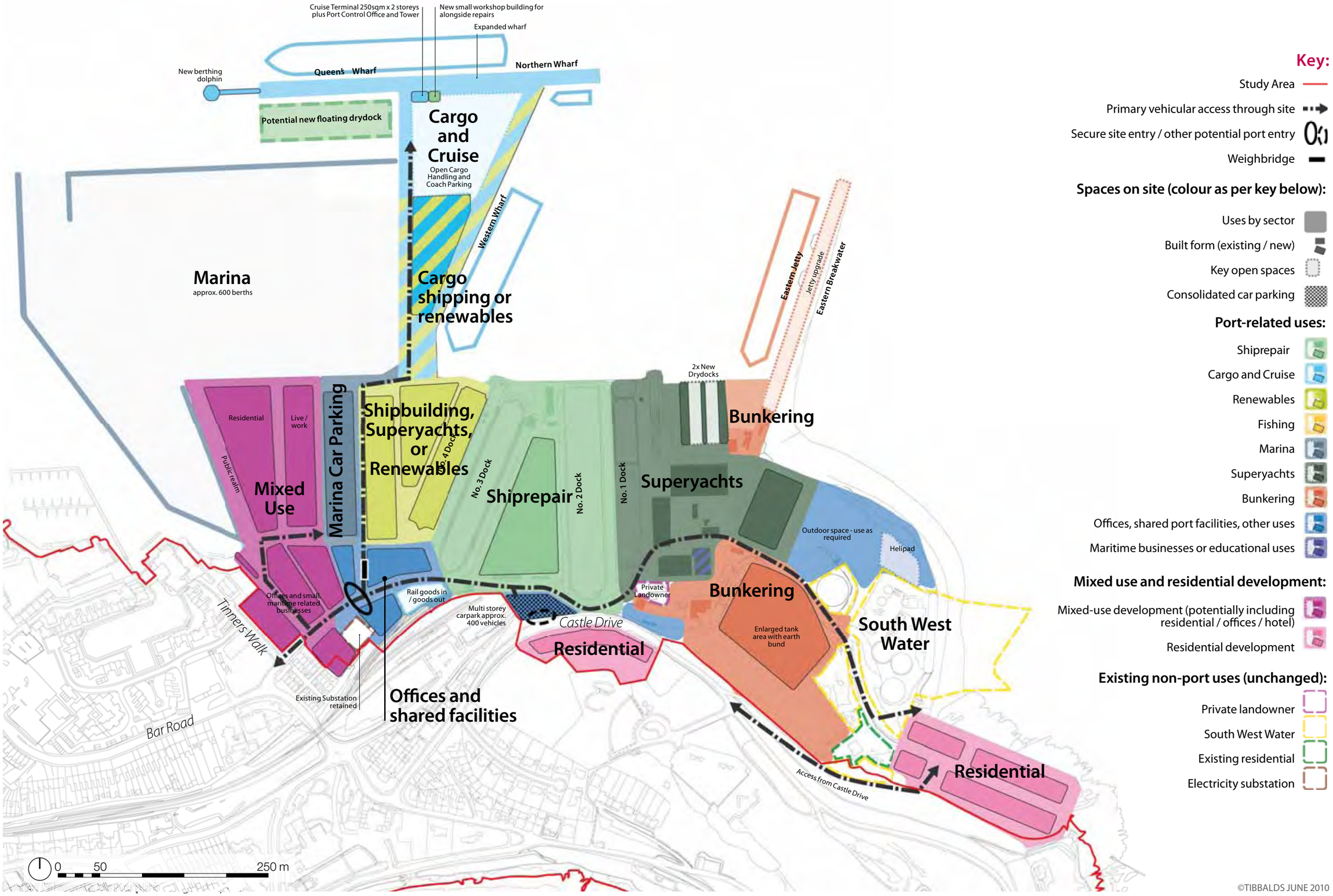
Mixe d residential development:

- Mixed-use ment (potentially including residential / offices / hotel)
- Residential development

Existing non-port uses (unchanged):

- Private landowner
- South West Water
- Existing residential
- Electricity substation

Figure 3.5: Option D 'Maximise mixed use opportunities'



Key:

Study Area

Primary vehicular access through site

Secure site entry / other potential port entry

Weighbridge

Spaces on site (colour as per key below):

Uses by sector

Built form (existing / new)

Key open spaces

Consolidated car parking

Port-related uses:

Shiprepair

Cargo and Cruise

Renewables

Fishing

Marina

Superyachts

Bunkering

Offices, shared port facilities, other uses

Maritime businesses or educational uses

Mixed use and residential development:

Mixed-use development (potentially including residential / offices / hotel)

Residential development

Existing non-port uses (unchanged):

Private landowner

South West Water

Existing residential

Electricity substation

3.3 Summary of options appraisal

Introduction

3.3.1 The options were appraised under four themes:

- an Economic Impact Assessment;
- an Outline Sustainability Appraisal;
- an Urban Design and Planning Appraisal; and
- a consultation workshop with key stakeholders

3.3.2 This chapter sets out a summary of this appraisal, concluding with:

- an overview of key findings by option, to allow for easy comparison; and
- the recommendations coming out of the option appraisal process that then formed the basis for moving on to the final Masterplan.

Economic Impact Assessment

3.3.3 Each of the Masterplan options will generate an impact on the economy of Falmouth and the wider economy of Cornwall. The purpose of the Economic Impact Assessment is to measure the comparative impact of each of these options as part of the process of selecting the option that best meets the overall objectives of the Falmouth Port Masterplan. These economic impacts are best measured in terms of the jobs they create and the value to the local economy generated by these jobs.

3.3.4 The two principal measures used for the assessment of economic impact are therefore:

- Jobs – expressed as full-time equivalent (FTE) jobs. This adjusts for the fact that a full time job will be worth more than a part-time job
- GVA – Gross Value Added (GVA) is the standard measure of economic output and accounts for the fact that some jobs will create more value than others

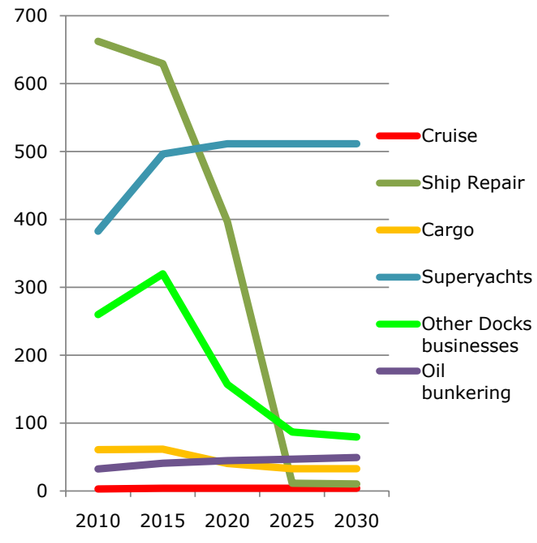
Option A: Do Nothing

3.3.5 Assumptions for the 'Do Nothing' scenario:

- no major capital investment by any Falmouth Docks' businesses;
- some minimum maintenance to continue;
- the condition of the County and Duchy wharves will become critical in some areas by 2015 and would be unlikely to support cargo handling at the current level of use without an appropriate level of maintenance funding. If no major capital investment is made then limited cargo handling might be expected but alongside shiprepairs could continue at 50% of the baseline 2009 level. By 2020 the wharves should be considered as un-useable for the purposes of this Option's appraisal, subject to A&P's own maintenance investment considerations. It may be possible to keep some activities going but capital investment is likely to be needed to secure future operations. As a result, A&P operations would be down-sized significantly after 2020, with gradual withdrawal from Falmouth completed by 2030.
- the condition of the Northern Wharf is critical in parts at present, and will deteriorate further without major improvements;
- the yacht building sector would remain in its current state with some growth projected during the next five years as a result of current activities, but would cease without further investment and expansion;
- the oil bunkering sector would see limited growth in line with the baseline sector forecast analysis. However, with the assumption of no investment, this growth will be stalled after 2020, largely as a result of a decline of some of the businesses that are also existing clients of oil bunkering businesses'
- other Docks' businesses will experience mixed fortunes: some of them are dependent on the cargo and shiprepair sectors as their main clients and therefore will have to either down-size considerably or move out of Falmouth; others will see lower growth but will continue working from the Port.

3.3.6 We expect that a 'Do Nothing' scenario would result in some loss of jobs in the local area, including at the sub-regional level of Cornwall. The main sectors experiencing constraints and subsequent contraction after 2020 would be shiprepair and cargo handling followed by yacht-building and the bunkering sectors to a more limited extent.

Figure 3.6: Gross direct jobs at the Docks 'Do Nothing' scenario

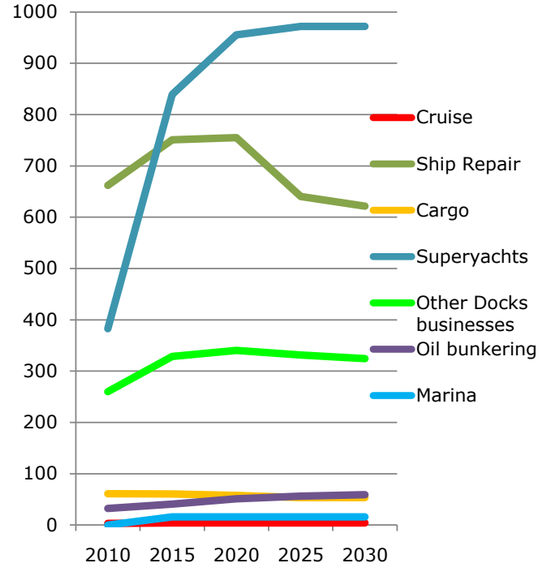


Option B: Do More

3.3.7 Option B allows testing of what could happen if the dredging of the main approach channel was not implemented but some capital investment was undertaken.

3.3.8 Option B maintains the status of Falmouth Docks by preserving its infrastructure and therefore its capacity. The yacht building sector is expected to expand whereas the ability of the Port to handle larger vessels of the future – affecting both the shiprepair and cargo sectors – would be limited. Falmouth Docks have already been losing out on potential shiprepair and wave energy contracts due to insufficient channel depth, and this trend would increase in the future. A new marina will prevent current cargo transhipment at the Queen's Wharf . At the same time, the growth of the yacht building sector coupled with the marina could boost the visitor economy, support the retention of key marine events, and counteract some of these negative impacts. The cruise sector will see some growth as the infrastructure will be maintained, although large cruise liners will not be able to berth at the Docks.

Figure 3.7: Gross direct jobs at the Docks Option B scenario

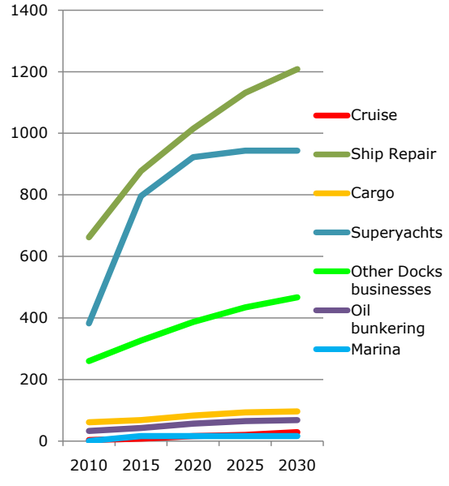


Option C: PoFDI Priorities Plus

3.3.9 Dredging of the main approach channel, which would increase the future capacity of Falmouth Port to accept larger vessels. Option C would therefore provide an improved business environment for some of the sectors.

3.3.10 Option C provides some major opportunities for the expansion of the Docks. It rationalises the space in such way that its usage would be more efficient and focused, yet providing sufficient room for manoeuvre to respond to future growth of businesses. The floating dry dock would add capacity for both the shiprepair and Superyacht building sectors. The shiprepair sector would be strengthened as additional, previously unattainable military contracts could be potentially serviced in Falmouth. At the same time the marine renewables sector benefiting from the dredging would need more space. The resulting increased activity in this sector would lead to more economic benefits from the wave energy development accruing to the local area. The growth in the cruise sector would be maximised as more cruise vessels worldwide are expected to increase in size. The cruise, leisure boating, Superyacht building and marine events sectors would complement one another thereby increasing visitor spending.

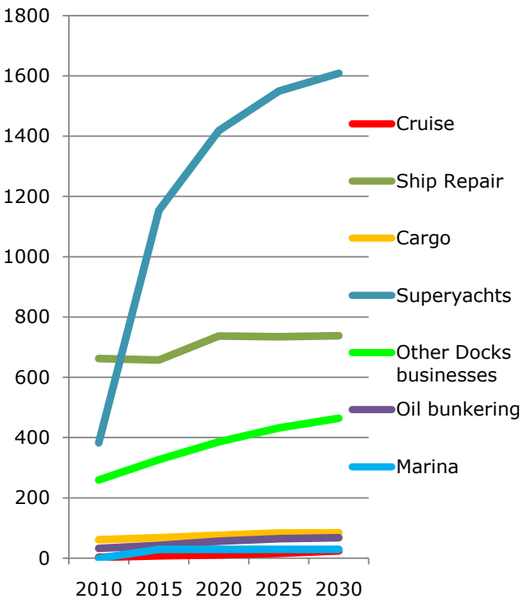
Figure 3.8: Gross direct jobs at the Docks Option C



Option D: Maximising Mixed-Use Opportunities

3.3.11 Option D is a scenario driven by an ambition to generate funds from the development of high-value non-port uses for subsequent capital investment in the Port's infrastructure. It therefore includes a mixed-use development adjacent to County and Duchy Wharves.

Figure 3.9: Gross direct jobs at the Docks Option D



3.3.12 The total net additional impacts of each option over and above the reference case are summarised in Table 3.1. The figures are displayed in terms of the estimated net annual impact in 2015 and 2030.

Table 3.1: Net additional FTE jobs and GVA in 2015 and 2030 (2030 achieved benefits minus 'Do Nothing')

	FTE jobs			GVA		
	Docks' businesses	Wider economic benefits	Total	Docks' businesses	Wider economic benefits	Total
2015						
Option B - Do More	604	38	642	£29.71m	£1.23m	£30.94m
Option C - PoFDI Priorities Plus: emphasis on shiprepair	1,071	45	1,115	£52.25m	£1.41m	£53.66m
Option D - Maximise mixed-use opportunities	1,115	68	1,183	£54.51m	£4.47m	£58.98m
2030						
Option B - Do More	1,788	270	2,057	£87.10m	£17.14m	£104.24m
Option C - PoFDI Priorities Plus: emphasis on shiprepair	3,345	324	3,669	£161.83m	£18.52m	£180.35m
Option D - Maximise mixed-use opportunities	3,667	394	4,061	£177.37m	£21.88m	£199.25m

3.3.13 Option D delivers higher levels of benefit when compared to the other options. However, the analysis of the individual sectors and projects within the options shows that it is two key elements of Option D that contribute to its success:

- the expansion of Superyacht facilities, with the investment in two small new dry docks; and
- the enlarged marina, with its corresponding ability to support jobs in the wider economy, especially those related to events.

3.3.14 This more detailed analysis fed into the consultant team's recommendations for the Masterplan, which drew together the best elements of the options.

3.3.15 All of the options deliver a good economic return in relation to the costs of the scheme. The Net Present Value* of the Masterplan options is estimated using the costs up to 2030 and forecast values of generated net additional GVA as set out in Table 3.2. A discount rate of 3.5% was applied as per the HM Treasury Guidance. This shows a high positive return to the local economy with the value of the output generated far exceeding the costs of the scheme for each of the options. In terms of value for money Option B and Option D provide similar value for money, however Option B delivers the least number of jobs and GVA, whereas Option D fails other assessment tests (Masterplan objectives, planning issues assessment, and long-term economic sustainability). Option C stands out as the least efficient in terms of costs per 1 FTE job generated. The final Masterplan therefore needed to find a way of providing value for money and maximising job delivery.

* NPV is the difference between the present value of the future cash flow from an investment and the amount of investment.

Table 3.2: Net Present Value of the Masterplan options

Masterplan Options	NPV of net additional GVA	BCR – based on NPV	Cost per £1 GVA	Cost per 1 FTE job
Option B - Do More	£702m	10.1	£0.10	£33,617
Option C - PoFDI Priorities Plus: emphasis on shiprepair	£1,132m	7.5	£0.13	£41,011
Option D - Maximise mixed-use opportunities	£1,286m	9.4	£0.11	£33,621

Outline Sustainability Appraisal

3.3.16 This section sets out a summary of an outline Sustainability Appraisal of the four Masterplan options. The appraisal compared the advantages and disadvantages of each option and elements within them, with the aim of informing the process of developing the final Masterplan.

3.3.17 We developed a set of criteria to assist the appraisal of environmental, economic and social issues. The criteria were based around the headings provided in the South-West Sustainability Checklist. The environmental criteria were:

- Energy / CO2: Building energy consumption and associated CO2 emissions should be reduced as much as reasonably practical through best practice design.
- Water: Water consumption should be reduced as much as practical through education, efficiency measures and use of alternative sources.
- Materials: Construction and operational materials should be sourced responsibly and locally and where practical have low embodied energy to reduce the associated environmental impact as much as reasonably practical.
- Waste: Waste production should be reduced as much as possible.
- Natural Environment: Risks to the Natural Environment, in particular the SAC should be minimised as much as possible through best practice design and mitigation.
- Transport and Movement: Reduce the dependence on road travel and transport both locally and nationally.

3.3.18 The economic criteria were:

- Economy & local employment: To ensure the long-term economic prosperity of the Port, Falmouth and the wider region and reduce levels of unemployment through local employment through a considered programme of investment.
- Diversification: The resilience of the local economy to national and global economic downturns should be improved by reducing the dependence on any one particular industry.

3.3.19 The social criteria were:

- Heritage: Maintaining the Port as a working concern as well as its historical buildings is a key element of community identity.
- Education: Existing links between local industry and schools should be maintained and where possible expanded.
- Leisure and Recreation: Leisure and recreational activities should be encouraged for the benefit of the local community and visitors to the region.
- Placemaking: Links between the existing Town Centre and the Port should be improved.

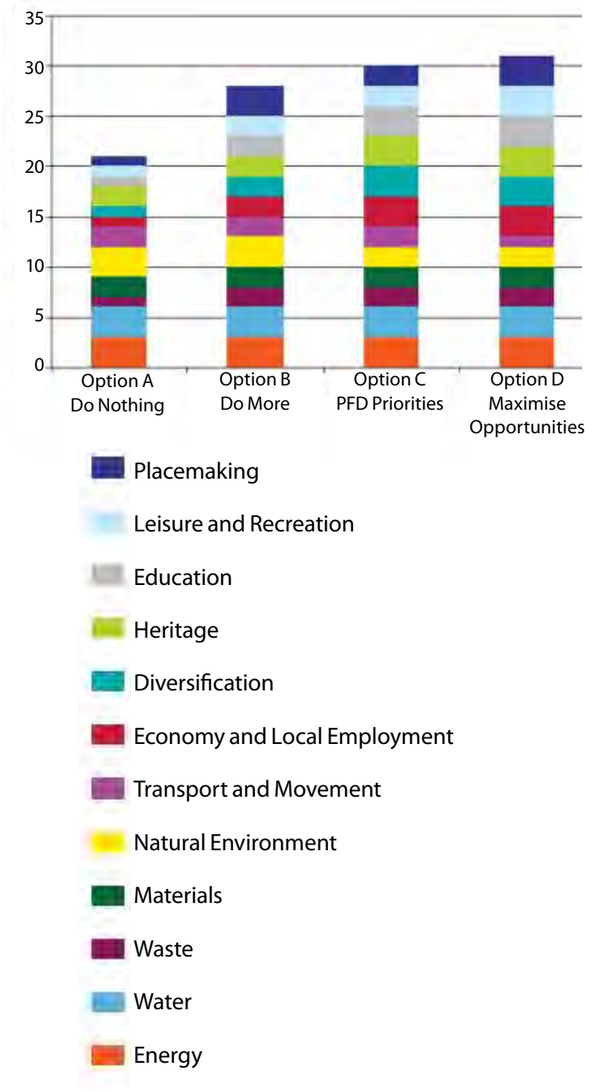
3.3.20 To help communicate the relative performance of each option against the sustainability criteria, each of the options have been assigned a score between 1 and 3 for each of the criteria. A score of 1 denotes poor performance, whereas a score of 3 indicates an opportunity for best performance.

3.3.21 The results of the initial sustainability appraisal for Options A-D (figure 3.10) show that failure to invest in the Docks at this stage (Option A) represents the least sustainable option.

3.3.22 Options C and D score similarly as they represent the best economic, social and environmental opportunity for the Port of Falmouth. Whilst they score less well under the natural environment criterion due to the increased short-term risks to the marine environment associated with the dredging activities, it is assumed that these risks can be sufficiently mitigated providing the measures proposed in the EIA are fully undertaken.

3.3.23 The scores used to illustrate the performance of each option against the sustainability criteria have not been adjusted to reflect the relative importance of each criterion to PoFDI. Assuming weighting were to be applied, it is anticipated that Options C and D would stand out even more against the other two remaining options.

Figure 3.10:Initial Masterplan sustainability options appraisal



Urban Design and Planning Appraisal

3.3.24 An 'objective achievement matrix' was developed for the options and is presented opposite and overleaf. For this matrix:

- the ten strategic objectives for the development of the Port of Falmouth (see section 1.2 of this document) have been broken down into a set of 42 more specific sub-objectives derived directly from planning policies.
- each option has been assessed against these sub-objectives and scored on a scale of 0 to 4 (0 representing nil or negative contribution and 4 representing the greatest level of achievement);
- the scores attributed indicate relative performance and ranking of options rather than an absolute, quantifiable measure of importance. The summing of sub-objective scores should therefore be treated with some caution; and
- the comments relating to each sub-objective explain some of the reasons for the differences identified, and provide an indication of which elements or project components support or hinder the achievement of an objective.

3.3.25 The very significantly higher scores for Options C and D reinforce the importance of dredging a deep water access channel to the Docks to secure a successful and sustainable future for the Port of Falmouth.

3.3.26 Option C, PoFDI Priorities Plus with an emphasis on shipping and shiprepairs, appears the most effective in meeting the strategic objectives. It achieves the highest scores against 7 of the 10 strategic objectives, and second-highest against a further one. Because it involves potential harm to the SAC as a result of dredging, and to the Pendennis Scheduled Ancient Monument as a result of providing a major road access upgrade to the Middle Point site, it does not perform as well in relation to Objective 9, which encompasses environmental and heritage protection. Nor does it contribute to providing opportunities for new further education facilities in the Docks (Objective 5) in the way Options B and D do. Both these shortcomings in Option C could be rectified.

3.3.27 Option D, Maximising Mixed Use Development Opportunities, performs best in relation to two strategic objectives (Objectives 5 and 6), and scores second-best against six others. It scores highest against Objective 6, Support the Wider Economy and Community, largely because it would result in the highest number of jobs being created. The difference in job creation potential between Option D and Option C is largely because Option D provides the greater opportunity for a significant expansion in employment in the Superyacht-building sector. The dry dock and land-side facilities that enable this to happen could, however, be incorporated in a variation of Option C.

3.3.28 Option D provides for the qualitative improvement in enhanced and rationalised port related facilities (such as the cruise quay and terminal, Western Wharf extension, and modernised shiprepair facilities) and the cross subsidisation of these by the larger marina and new residential and commercial development. This, however, would inevitably involve the permanent loss of wharves and operational port land. It is largely as a result of this that Option D scores less well than Option C in objectives relating to the long term strategic significance of the Port and its port-related businesses (Objectives 1, 2, 3, 4 and 8).

3.3.29 Option D is least effective in meeting Objectives 9 and 10. The former, like Option C, is partly due to the potential harm to the SAC because of dredging and partly to the loss of distinctiveness of a significant part of the Docks character area that the residential and mixed use development would give rise to. The latter is due to the potential difficulty in gaining planning permissions for residential and commercial uses on port land and environmental consents for dredging and additional marina operations.

3.3.30 The tension that exists between policy objectives for economic development and sustainable port growth on the one hand and environmental protection on the other, is clearly illustrated in the high scores achieved against Objective 9 by not only Option B, Do More, but also by Option A, Do Nothing. The analysis suggests that providing a deep water access channel to the Docks is vital to the long term sustainability of the Docks as the economic engine of the Port of Falmouth and that the role of mitigation measures to eliminate or minimise adverse environmental impact will be of paramount importance.

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 1: Retain Falmouth's strategic significance as a deepwater port at the western approach to the English Channel.					
1.1 Ensure the approach channel to the Docks and access to berths and dry docks is of sufficient depth to accommodate larger (Panamax sized) cargo ships and new generation cruise ships for 3,500 plus passengers.	0	0	4	4	Options C & D both benefit from dredging.
1.2 Provide for the wharf-side transhipment of bulk cargoes from large ships to coasters.	1	1	3	4	Do Nothing Option A allows for transhipment from part-laden Panamax vessels at Queen's Wharf , But Duchy and County Wharves will fall into disrepair. Option B loses Queen's Wharf South to marina. Option C can handle Panamax ships but loses Queen's Wharf South to marina. Option D can use Queen's Wharf south by re-berthing floating dry dock.
1.3 Retain the bunkering operations and ensure that larger tankers can access the oil terminal to supply the oil terminal for bunkering and inland distribution.	1	1	4	4	Bunkering operations benefit from additional shipping in large vessels (customers) as well as unfettered access from deeper draught tankers to the oil jetty.
1.4 Safeguard and enhance Falmouth strategic defence/naval role as a repair and maintenance base for the Royal Fleet Auxiliary	1	0	4	3	Option B is less effective than Option A because No 4 dry dock goes out of shiprepair use. Dredging in both C & D provide access for the largest RFA vessels, but Option D has less dry dock shiprepair capacity.
1.5 Ensure safe navigation for all port traffic with no obstruction of shipping lanes, ferry routes, lifeboat routes or access channels to marinas.	2	2	4	3	Options A & B will suffer in the long term from continuing siltation of channels. Options C & D benefit from the greater flexibility for manoeuvring large vessels that dredging will bring and incorporate a port control tower. The larger marina in Option D may cause some navigation issues with access to / egress from the lifeboat station and Pendennis marina.
Sub-total 1	**4**	**3**	**19**	**18**	**Dredging makes the greatest contribution to Objective 1**

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 2: Maintain and develop existing port operations and related businesses.					
2.1 Provide adequate cargo handling capacity by retaining/increasing wharfage for deep water berths for larger as well as smaller ships, and alongside cargo handling and storage areas and facilities.	1	3	4	2	Option A has 895m total wharfage length, but will lose 370m when County and Duchy become obsolete. Option B has 1055m wharfage, with Queen's Wharf South loss being more than compensated by Queen's Wharf & Northern extension & Western Wharf. Option C has most deep water wharfage (1095m). Option D has least (855m) but this is deep water, modern and future proofed. Option D consolidates cargo handling area onto 1.275ha, whereas Option C has 2.215ha as it retains space between Duchy and County Wharves as well as having the extended Western Wharfside
2.2 Provide for the needs and expectations of the growing cruise market by provision of a cruise quay for disembarkation of large ships as well as smaller ones, with appropriate quayside facilities and ease of access to excursion coaches and shuttle buses to Falmouth town centre.	1	1	4	3	Dredging enables cruise quay & terminal to be provided in Options C & D. Option C has potential to accommodate additional cruise ships at County Wharf as well as catering for tender disembarkation there. Option D loses County Wharf.
2.3 Provide for the needs of the traditional shiprepair activities in the Docks, by retaining or increasing existing dry docks capacity (currently 3 operational dry docks), maximising wharf space for the alongside repairs for larger as well as smaller ships, and facilitating the rationalisation and modernisation of fabrication and support facilities.	2	1	4	3	Option B reduces existing (Option A) dry dock capacity by giving over No4 dock to Superyacht sector. Dredging in Options C & D secures long term future access to dry docks, and floating dry dock increases capacity in both options. Option C has more potential for alongside shiprepairs at renewed County Wharf, which is given over to marina in Option D.
2.4 Provide for the needs of the bunkering operations, facilitating the redevelopment/ improvement of the fuel storage tank farm and slops facilities and the refurbishment of the oil terminal jetty.	1	1	3	4	Oil jetty renewal occurs after dredging in Options C & D. Option D provides more land-side working area on re-reclaimed part of dock basin south of oil jetty.
2.5 Provide for the needs and expectations of the growing Superyacht building and refit activities by increasing dry dock and alongside berthing capacity and on-shore fabrication and support facilities.	1	3	2	4	Superyacht sector is not reliant on dredging. Option C improves existing capacity with additional land-side working area on reclaimed land and new alongside berth, but dry dock capacity is not increased. Option B increases dry dock capacity by taking over No 4 dry dock & potential for additional landside fabrication space. Option D is best, providing more efficient twin dry docks and additional fabrication/storage space next to current operation, and retaining potential for shared usage of a covered No 4 dry dock.
2.6 Provide for the accommodation needs of existing port-related businesses within the docks, and avoid their displacement unless an alternative location outside the docks is acceptable/preferable or where proximity to deep water berths or core port activities is not necessary.	1	4	3	2	Option A is worst as the displacement/demise of port related businesses is likely to accompany medium term decline of core businesses in the absence of dredging and investment in infrastructure. Option B provides most land for port-related businesses, if the entrance gateway area and Middle Point tank farm are developed for such uses and fishing & fish processing remains. Option C makes considerable provision for port-related businesses at the Western Gateway area and the Middle Point tank farm. Option D relies solely on some port-related businesses occupying new mixed-use space in the Western Gateway area, where higher density B1 space may be not wholly appropriate as well as prohibitively expensive for such uses.
2.7 Avoid the loss of port-related land or infrastructure, unless it is no longer needed for existing or future port-related activities.	2	3	4	1	Option D retains the lowest total area of port land (23.83 hectares), 4.62 ha less than currently exists (28.45 ha in Option A). Option B (28.27 ha) has a marginal decrease of 0.21 ha in port area over Option A. Option C has the greatest area of port land (30.38 ha) and performs best with an additional 1.93 ha being created at The Western Wharf build-out and the reclaimed area of dock basin behind the new dock wall/Superyacht berth.
Sub-total 2	**9**	**16**	**24**	**19**	

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 3: Introduce and support appropriate new functions and businesses.					
3.1 Provide a new marina within the docks area with associated facilities and parking, in a manner that maximises berths and alongside moorings for Superyachts and tall ships, but does not impede efficient port operations and shiprepair, or navigation access to/from the lifeboat station or Pendennis Marina.	1	2	2	4	In Option A, marina facilities (80 plus berths) would be provided in the Inner Harbour only with none in the Docks. Options B & C allow for the 290 berth marina already permitted. Option D performs best providing for 600 berths and significantly more alongside mooring capacity for Superyachts, marine renewables devices & tall ships.
3.2 Provide for the development of new /industrial/commercial/business accommodation for new port-related businesses and marine industries.	0	4	4	3	Options B and C provides for some 22,500 sq metres of new business/industrial floorspace through the development of the Middle Point tank farm, and potentially some office space in the Western Gateway area. Option D has no provision for industrial/commercial space for port related industries, but has 25,700 sq metres of office space in the mixed use development in the Western Gateway area.
3.3 Provide for the needs of the emerging marine renewables industry through the availability of:					
■ wharves for launching of devices for sea-borne transport and berthing of supply / maintenance vessels and wharfside areas for the storage and/or assembly of components/devices;	1	2	4	4	Option B benefits from the western Wharf replacement and marina pontoons. Option C has most wharves & wharfside areas potentially available for renewables and some pontoon space at the marina. Option D has less wharf & wharfside space with the loss of County and Duchy Wharves, but this is offset by more pontoon space around the larger marina.
■ dockside fabrication/repair/maintenance facilities; and	0	1	4	4	Some space is reserved for renewables development to the west of the dry docks in Option B. Options C & D have significantly more space allocated for renewables to the west of the dry docks.
■ accommodation for research and development, start-up and business incubation, and the design, production, marketing and distribution of renewable energy devices (managed workspace and general B1, B2 and B8 workspace).	0	1	4	2	Option C has a marine renewable industrial/business park on the eastern former tip site. Some B1 activity in the sector could be accommodated as part of the port-related development in Option B and the office development in Option D.
Sub-total 3	**2**	**10**	**18**	**17**	

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 4: Ensure that growth is sustainable, with sea, land and infrastructure resources being capable of adaptation to meet changing demands.					
4.1 Maximise the potential for shared usage of land, buildings and outdoor storage areas by complementary activities.	1	2	4	3	Option B has a clear separation of uses, but leaves open possibilities of further development. Option C has most wharfside areas and buildings capable of use for cargo handling, renewables, or cruise operations interchangeably. It leaves open the possibility of No 4 dry dock being converted for use by the Superyacht sector. Option D provides for a high degree of shared usage/interchangeability between the shiprepair, Superyacht building, cargo handling and renewables storage, assembly and fabrication. Marina pontoons can be used for a range of purposes. The marina car park, residential and mixed-use development in Option D, however lack flexibility and take a substantial part of the Docks area out of port uses in an irreversible way.
4.2 Ensure all available land within the Docks area is efficiently and effectively used for port-related uses and/or associated infrastructure.	1	2	4	3	Option B suffers from traditional ship building and Superyacht activities each having split-site operations. Option C uses all available land for port-related activities in coherent activity zones. Option D uses all land efficiently and maximises water space with the large marina, but limits the potential for further economic growth by giving over substantial areas for residential development.
4.3 Minimise potential conflict between adjacent uses, avoiding development/change that would interfere with or impede adjacent port-related activity.	1	3	4	2	Option C minimises all potential conflicts, although the presence of the marina would limit the potential of transhipment of bulk cargos and alongside shiprepairs at Queen's Wharf as air borne pollution would have to be avoided. Alongside shiprepairs and unloading fertiliser and animal foodstuff at Western Wharf would be similarly constrained by the adjacent marina in the Option B, and residential development at Castle Drive could be affected by noise, dust etc from the shiprepair yard. In Option D this problem is exacerbated by the proximity of residential development between Duchy and County Wharves to the core port operations and the residential development of the Middle Point tank farm adjacent to a sewerage works and oil tank farm.
4.4 Facilitate the remediation and development of redundant port-related land (the Castle Drive and the Middle Point tank farm sites) for appropriate uses that are complementary to port activities or, if that is not feasible, do not fetter existing or future port activities.	0	2	2	2	None of the development options scores well, as the port-related uses such as parking and business park development would be unlikely to generate enough value to cover the costs of remediation (Options B & C), and residential development (in Options B & D) that might cover costs of remediation would be problematic neighbours to uses in the port.
Sub-total 4	**3**	**9**	**14**	**10**	

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 5: Maintain and create high quality jobs through strong links with the education sector					
5.1 Allow for the expansion of the marine skills training centre that is located within the Bridon Ropes building;	1	3	2	4	This is directly linked to the potential expansion of the Superyacht sectors which is greatest in Option D and least in Option C.
5.2 Provide for the future development of a waterside marine industries FE/HE establishment such as the Falmouth Marine School.	0	3	1	4	Option D has the greatest potential for an FE facility as part of a larger mixed use scheme. Option C makes no provision for new uses such as this, but a facility could be accommodated in the Western Gateway area.
Sub-total 5	**1**	**6**	**3**	**8**	

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 6: Support the wider economy and community.					
6.1 Allow for development for economic activity in the port that maximise opportunities for permanent direct employment in higher quality skilled jobs at the Docks and indirect employment in associated businesses and services in Falmouth and beyond.	0	2	3	4	Option A leads to a 51% reduction in jobs by 2030. Option B provides 2,114 FTE jobs locally. Option C provides 4,153 FTE. Option 4 scores highest with 4,895 FTE, largely as a result of the expansion in the Superyacht sector.
6.2 Maximise opportunities for supporting Falmouth specifically and Cornwall generally as a tourism destination (particularly for cruises, visiting yachts, and events that attract stay and day visitors).	0	1	3	4	The lack of dredging inhibits growth in the cruise sector in Option B, but the marina enhances the leisure boating offer and potential for events. Option C has a new cruise quay and terminal, justifiable following dredging, and the 290 berth marina. Option D also has greater marina and events related potential.
6.3 Ensure that development enables the Docks to supply the imports of fertiliser and animal foodstuffs that are needed by the Cornish agricultural industry.	0	2	4	3	Option B has wharfage space but lacks deep water access for larger ships in the absence of dredging. The advantages of deep water access in Option D are offset by significantly reduced wharfage space, but levels of imports needed by the Cornish agricultural market can be sustained. Option C combines deep water access with enhanced wharfage space so there is also potential to increase imports and exports.
Sub-total 6	**0**	**5**	**10**	**11**	

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 7: Support sustainable development and sustainable transport.					
7.1 Maximise opportunities for bringing contaminated and under-utilised land and water resources into long-term productive use.	1	3	4	4	Option A does nothing for remediation of contaminated land, but does not disturb the seabed avoiding potential contamination from dredging activity. All growth options deal with remediation of contaminated sites. Options C and D could remediate any contamination of the seabed with appropriate mitigation measures accompanying dredging.
7.2 Ensure development for immediate/short-term gain does not compromise future needs for port-related industries or the marine renewables sector.	0	3	4	2	Option C has no non port related development. Option B could incorporate mixed uses in the Western Gateway area so there is an element of risk if not tied explicitly to port improvements. Option D has an extensive area of port land given over to residential and other uses, which would prevent future port related or marine renewables activities developing there.
7.3 Maximise opportunities to transport goods and people by sea rather than by road	1	2	4	3	Dredging provides access for larger cargo ships, tankers and cruise ships, so Options C and D are significantly better than Option B. Option D, however, has less potential to handle cargo and cruise traffic than Option C because it has significantly less wharf space.
7.4 Provide for rail freight transport to and from the Docks, utilising the existing disused rail spur.	0	4	4	4	All development options allow for the freight rail spur.
7.5 Provide safe and convenient access to the Docks for all modes and ensure that internal circulation for traffic and pedestrians is safe, efficient and does not compromise the security or operational requirements of operations within the Docks.	1	2	3	4	In Options B & C, road access for HGVs to the Middle Point business park site would have to be through the port and would be problematic past the bunkering operation. Option C provides for a secondary car access for employees accessing the new car park from Castle Drive. Option D does not need to provide access to the Middle Point residential site through the port.
7.6 Rationalise and improve existing employee parking provision within the Docks and encourage travel by alternative modes so that growth in employment numbers does not create parking problems in nearby residential streets.	0	3	3	4	All development options provide for rationalised parking in a new multi storey facility and surface parking. Option C uses the Castle Drive site for employee parking, which may be difficult to deliver as it is in third party ownership. Option D uses the eastern former tip site for surface parking which does not have the same problems.
Sub-total 7	**3**	**17**	**22**	**21**	

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 8: Support the development and use of renewable resources and associated technology.					
8.1 Provide for the needs of the emerging marine renewables industry (see sub-objective 3.3 above).	0	2	4	3	See comments under 3.3 above.
8.2 Provide for the development of a CHP plant to meet the energy and heating needs of port businesses and adjacent areas where feasible.	0	2	4	3	Only Option C both provides for a CHP plant. However one could be incorporated in Option D as the level of demand with growth post-dredging would justify it. It could be incorporated in Option B also, but without dredging the level of growth and demand would not be as great.
Sub-total 8	**0**	**4**	**8**	**6**	

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 9: Ensure development contributes to Falmouth's distinctiveness and sense of place and respects its environmental and heritage assets.					
9.1 Preserve or enhance the visual, historic and cultural character and significance of the working docks as a distinctive urban quarter which contrasts with and complements the finer grained townscape and landscape of the town centre and rest of Falmouth's waterfront.	1	3	3	2	Options B & C preserve the inherent character of the Docks, with the marina introducing a new uncharacteristic feature. Option D significantly changes the character of the western part of the Docks with the larger marina and the new residential and mixed use quarter replacing traditional dock features at Duchy and County Wharves.
9.2 Minimise adverse impact on the Fal/Helford Special Area for Conservation that may be caused by disturbance of sea-bed habitat such as dead Maerl deposits or by pollution or contamination.	4	4	3	3	The absence of dredging avoids risks the SAC seabed, hence Options A & B score 4. The dredging in Options C & D would be accompanied by appropriate mitigation measures to minimise adverse environmental impacts.
9.3 Minimise adverse impacts that may be caused by disturbance of the sea-bed on any heritage assets and palaeo-archaeological deposits.	3	3	3	3	The absence of dredging in Options A & B avoids risks to heritage assets on the seabed, but the opportunity of finding and recording new assets will be missed. The dredging in Options C & D would be accompanied by appropriate mitigation measures to minimise adverse environmental impacts and record finds in accordance with an agreed scheme of archaeological investigation.
9.4 Preserve or enhance the Grade II listed Bridon Ropes building and its setting.	4	4	4	4	No development is proposed in any option that would harmfully impact on the Bridon Ropes building or its setting.
9.5 Preserve or enhance the site of the eastern hornworks of the Pendennis fortifications and the setting of the Pendennis Castle Scheduled Ancient Monument.	4	2	2	3	Doing nothing would preserve the site of the hornworks without any disturbance. A business park on the Middle Point site in Options B & C would require a new, highly engineered access road capable of taking HGVs and serving the residential house, which is likely to cause significant harm to the hornworks site and its setting. The residential development in Option D may require a more modest access road across the hornworks site, but there could still be a high degree of adverse impact.
9.6 Preserve or enhance the character and appearance of the adjoining Falmouth Conservation Area and its setting.	3	2	2	2	Doing nothing has least impact on the setting of the conservation area, although when dock businesses eventually fade the disused character will detract. In Options B, C and D it is the residential development of the Castle Drive site and the visual intrusion of any new access road from Castle Drive to the Middle Point tank farm site and the accompanying loss of trees that would adversely affect the setting of the conservation area and Pendennis Castle.
Sub-total 9	**19**	**18**	**17**	**17**	

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Objective 10: Ensure that the vision is deliverable.					
10.1 Minimise abnormal development costs that may make development unviable.	N/A	3	2	2	The cost of dredging is an abnormal but is considered essential for the long term future of the port. Option B avoids this but has to contend with costs of remediating the Castle Drive and Middle Point tank farm sites. Options C & D have both sets of abnormal costs.
10.2 Minimise difficulty of land acquisition and avoid reliance on land in third party control for project implementation.	N/A	2	1	3	All development options show development on the obsolete tank farm sites that are in third party ownership. Achieving lower value port related uses on these as in Option C will be very difficult. Residential uses in Options B and D will be easier but will not benefit the port.
10.3 Maximise opportunities for European Community/ public sector gap funding support for potentially eligible projects.	N/A	1	3	2	See Economic Appraisal. European/public funding support for port infrastructure may be more difficult to obtain in Option D as a result of the loss of wharves and port land contrary to policy.
10.4 Ensure that appropriate planning and legal mechanisms can be put in place to ensure that any funding cross-subsidy for port-related development provided by non port-related development actually materialises.	N/A	3	4	2	Option C does not have any non port uses. The smaller amount of enabling development in Option C will be easier to deal with than the extensive residential and mixed use development in Option D.
10.5 Minimise the risks of refusal of planning permission and/or legal challenge.	N/A	3	4	1	It will be difficult to obtain planning permission for the extent of non port development proposed in Option D, or avoid legal challenge if permission is granted prior to a formally adopted change in planning policy. There will be some difficulty with Option B if non port uses are proposed in the Western Gateway area. There should be no substantive land use policy issues with Option B.
10.6 Minimise the risks of failure to obtain the necessary licenses/permits for environmentally sensitive works associated with eg dredging, marine and port infrastructure and contamination remediation.	N/A	4	3	3	Option B has least risk as there is no dredging. Options C & D rely on the granting of consents that have already been applied for.
Sub-total 10	N/A	**16**	**17**	**13**	

Objectives / Sub-objectives	Spatial Development Options				Comments
	A: Do Nothing	B: Do More	C: PoFDI Plus	D: Max Mixed Use	
Total All Objectives	42	**105**	**152**	**140**	

Consultation Workshop with Key Stakeholders

3.3.31 A consultation workshop was held on 17 May 2010 with key stakeholders to discuss the four options.

Assessment of Issues Discussed

3.3.32 This assessment of the issues discussed draws on both the recorded responses and the discussion during the workshop feedback session.

3.3.33 Option A – Do Nothing: There was broad agreement that Option A is not an option that should be considered as it fails to protect the future of the Port.

3.3.34 Option B – Do More: The absence of dredging in Option B was recognised as a potentially realistic scenario and – as such – the option was considered as being deliverable. The maintenance of existing uses, with the opportunity for future expansion into marine renewables, was welcomed. However, the absence of dredging raised a number of concerns:

- Insufficient depth of water would threaten existing sectors (shiprepair) and future sectors (renewables).
- Why invest in upgrading the wharves if they larger ships cannot access them – would there be a return on the investment in upgrading?

3.3.35 In addition:

- The loss of No. 4 dry dock to Superyachts was viewed as a threat to the future of the shiprepair business.
- At the same time, the fragmentation of the Superyacht facilities was seen as negative.
- There were concerns about compatibility between the marina and shiprepair activities, particularly because of dirt and noise associated with shiprepair.
- There was a question mark over the amount of space provided to cargo handling, in that it appears to be too much.
- There was a concern that new residential development on Castle Drive could eventually lead to constraints on the Dock's working practices, such as restricting times when noisy activities can take place.

3.3.36 Option C – PoFDI Priorities Plus: The introduction of dredging was seen as securing the future of the Port, particularly shiprepair contracts for larger vessels and 'future proofing' the marine renewables sector by providing deep water access.

3.3.37 A common theme that emerged from the feedback was that this option's maintenance of and support for traditional docks activities was welcome. At the same time, the option was seen to allow for future diversification.

3.3.38 A number of concerns were raised and the key ones in additional to the environmental risks associated with dredging were:

- Access/connections to the marina and cruise terminal are limited and there could be conflicts between the public and port industrial activities.
- Whilst there is good compatibility between activities such as the marina and cruise ships, there was concern that there could be conflicts between some uses – for example, cargo handling and leisure boating.
- Parking on the Castle Drive site does not seem to be a realistic option.
- The reduced size of the eastern jetty may be a problem for Falmouth Petroleum Ltd..

3.3.39 Option D – Maximise mixed-use opportunities: The mixed-use development in the Western Gateway area was seen as improving the commercial viability of the option, as it provides a source of funding that would potentially make the scheme less reliant on public sector support. In addition, the following aspects of the Masterplan were viewed as positive:

- Enhanced facilities for the Superyacht business independent of the shiprepair dry docks; and
- A good environment (i.e. less industrial) for cruise and leisure boating activities, with a clear separation of 'public' and 'operational' areas.

3.3.40 However, there were also a number of concerns:

- The key concern was that the scale of the mixed-use development and the marina would lead to a loss of traditional port capacity in land area and quay space.
- In relation to this, stakeholders highlighted the risk of securing planning permission for non-port related uses.
- Would the mixed-use development impact on Falmouth Town Centre?
- RNLI access is constrained by the extended marina.

Conclusions

3.3.41 The key issues raised by the consultation workshop that need to be considered in developing the preferred Masterplan are:

- 'Do Nothing' is not an option.
- Maintain traditional port activities by:
  - keeping dry dock space for shiprepair;
  - maintaining an appropriate amount of wharfside for Port businesses; and
  - if feasible, undertaking dredging.
- Provide opportunities for Superyachts to expand.
- Allow for diversification of businesses in the future, particularly through dredging to allow larger vessels to access shiprepair facilities, access for vessels associated with marine renewables and access for cruise ships.
- Ensure that the scale of any mixed-use development does not threaten port operations.

Figure 3.11: Images of the consultation workshop with key stakeholders (17 May 2010)

Overview of Key Findings by Option

3.3.42 This section sets out the common threads from the four principal means of appraisal and stakeholder consultation described in earlier chapters, that is:

- the economic appraisal;
- the outline sustainability appraisal;
- the planning and urban design appraisal; and
- the consultation workshop.

Option A

3.3.43 The key economic issues are as follows:

- There will be a gradual decline in Falmouth Docks as one of the major shiprepair facilities in the south-west of the UK.
- A significant number of jobs will be lost by 2030 (49% of the current FTE jobs at the Docks).

3.3.44 The key sustainability issues are:

- Economic: The economic future of the Port is unsustainable with business activities at the Docks decreasing significantly by 2030 and cargo shipping not being possible beyond approximately 2020.
- Environmental: No dredging is proposed, so there would be no impacts on the SAC / marine environment. This option has the least impact on the existing road network. Whilst there will not be an increase in energy requirements, there is also no opportunity to improve the energy efficiency of existing buildings and facilities.
- Social: The decline of the Port, particularly in relation to ship building, will have a detrimental impact.

3.3.45 The key planning and urban design issues are:

- Option A fails to retain Falmouth's strategic significance as a deepwater port.
- In the shorter term, doing nothing has the least impact on the setting of the adjoining Falmouth Conservation Area.
- The option avoids risks of impacting on the SAC and the Scheduled Ancient Monument. However, the gradual decline of the Docks would adversely affect the visual, historic and cultural character of the area.

3.3.46 The key issue arising from the consultation workshop was that Option A should not be considered as an option as it fails to protect the future of the Port.

Option B

3.3.47 The key economic issues are:

- There will be moderate growth up to 2030, resulting in 2187 FTE jobs at the Docks, an increase of 786. Overall, including induced FTE jobs and jobs in the wider economy, the total jobs created through this option by 2030 is forecast to be 1,207.
- The investment in port infrastructure would enable the existing businesses to continue more or less at the same pace as in the past.
- The capital cost of investing in infrastructure improvements is high, and requires justification in terms of future business returns. Growth would slow down considerably in the future because business opportunities associated with deep water access would be lost. Would the private sector invest in infrastructure improvements without dredging?
- Option B carries less risk because the impact of not achieving the forecast business volumes will be somewhat less than in the case of Options C and D.

3.3.48 The key sustainability issues are:

- Economic: This Option appears less sustainable in the long-term as trends in increasing vessel sizes would prevent it from deriving all opportunities presented by the upgraded wharf infrastructure. The development will support the emerging marine renewables sector, however to a lesser extent than Options C and D because the approach channel's depth may be an obstacle for some of the vessels and devices within this sector.
- Environmental: No dredging is proposed, so there would be no impacts on the SAC / marine environment.
- Social: The cultural and heritage impact of declining shiprepair, cargo shipping and fuel bunkering will be off-set by the expansion of new and existing industries. However they are unlikely to provide a direct replacement with respect to direct cultural value.

3.3.49 The key planning and urban design issues are:

- It fails to retain Falmouth's strategic significance as a deepwater port.
- It preserves the inherent character of the Docks, although the marina introduces a new uncharacteristic feature.
- The new employment uses at Middle Point would require a highly engineered access road that would have a significantly adverse impact on the Scheduled Ancient Monument.
- There are no planning and environmental risks associated with dredging.
- There may be some planning risk if non port-related uses are proposed in the Western Gateway area, as these would be contrary to policy.

3.3.50 The key issues arising from the consultation workshop were:

- Insufficient depth of water would threaten existing sectors (shiprepair) and future sectors (renewables).
- Why invest in upgrading the wharves if larger ships cannot access them – would there be a return on the investment in upgrading?
- The loss of No. 4 dry dock to Superyachts was viewed as a threat to the future of the shiprepair business. At the same time, the fragmentation of the Superyacht facilities was seen as negative.

Option C

3.3.51 The key economic issues are:

- By 2030 the number of FTE jobs at the Docks is forecast to be 3,445, an increase of 2,044. The total net direct, indirect and induced FTE jobs will increase substantially to 4,655.
- Option C is second to Option D in terms of economic benefits.
- The increased shiprepair capacity is more attractive than a more constrained approach within Option D.
- The port infrastructure improvements can be funded privately, however dredging is reliant on support from the public sector.
- The marina will prevent cargo transhipment activities on the Queen's Wharf , which will require an alternative solution or will cease operations.
- If the dry docks for the Superyachts in Option D were transferred to Option C, then the number of jobs created would exceed Option D at more than 5,000.

3.3.52 The key sustainability issues are:

- Economic: This option creates additional capacity at the Port and also provides a deeper approach channel enabling businesses to utilise this capacity to the full in the future. As such, this option has the potential to diversify the local economy whilst providing support to the existing maritime industries, maintaining their position within Falmouth as major employers in the long term.
- Environmental: It requires dredging which has a risk of impacting adversely on the local marine environment / SAC. However, in reality this should be minimal assuming all measures such as those proposed in the EIA are adopted. This option has the potential, through the combination of dredging and wharf improvements, to increase sea-borne transport of goods.
- Social: The site will retain the majority of current major functions while diversification of uses will

help improve the longevity of port and potentially increase local employment opportunities. The current port/industrial character will be retained.

3.3.53 The key planning and urban design issues are:

- It retains Falmouth's strategic significance as a deepwater port.
- Option C is best at maintaining and developing port operations and related businesses.
- The new employment uses at Middle Point would require a highly engineered access road that would have a significantly adverse impact on the Scheduled Ancient Monument.
- As no non port-related uses are proposed, planning risks are avoided in relation to land use.
- Dredging is key to securing a sustainable future for the Port. However, dredging has risks in relation to planning and environmental issues and appropriate mitigation measures would be required to minimise adverse impacts.

3.3.54 The key issues arising from the consultation workshop were:

- The introduction of dredging was seen as securing the future of the Port, particularly shiprepair contracts for larger vessels and 'future proofing' the marine renewables sector by providing deep water access.
- There was concern about the environmental risks associated with dredging.
- There was concern about potential conflicts between 'public' uses (i.e. the marina) and port industries.

Option D

3.3.55 The key economic issues are:

- By 2030 the number of FTE jobs at the Docks is forecast to increase to 3,716, and increase of 2,315. The total net direct, indirect and induced FTE jobs will increase substantially to 5,046.
- This option produces the highest economic benefits, primarily due to the two new dry docks associated with Superyachts.
- Cargo handling and transhipment would have a reduced capacity.
- The larger marina is more beneficial than the 290 berth one for the yacht building sector and marine related events in Falmouth.
- The port infrastructure improvements can be funded privately, but dredging is reliant on support from the public sector.

3.3.56 The key sustainability issues are:

- Economic: As for Option C, this option has the potential to diversify the local economy whilst providing support to the existing maritime industries, maintaining their position within Falmouth as major employers in the long term. The mixed-use development on the Western side of the Docks may help the deliverability but carries higher planning risk and reduces the port's ability to expand in the long-term.
- Environmental: requires dredging which has a risk of impacting the local marine environment / SAC, however in reality this should be minimal assuming all measures such as those proposed in the EIA are adopted. This option is likely to have the greatest impact on the road network.
- Social: The marina and mixed use development outside the secure site entry will provide leisure amenity and could enhance pedestrian and cycle connectivity to Falmouth. There is a potential loss of the industrial/port character with the new land uses.

3.3.57 The key planning and urban design issues are:

- It retains Falmouth's strategic significance as a deepwater port.
- Option D is less effective than Option C in maintaining and developing port operations and related businesses – largely as a result of the loss of port land to mixed-use development.
- The access to the proposed residential development at Middle Point is more modest than Options B and C. However, it is likely to have an adverse impact on the Scheduled Ancient Monument.
- The non port-related mixed-use development is a significant planning risk as it is contrary to policy.
- Dredging is key to securing a sustainable future for the Port. However, dredging has risks in relation to planning and environmental issues and appropriate mitigation measures would be required to minimise adverse impacts.

3.3.58 The key issues arising from the consultation workshop were:

- The mixed-use development in the Western Gateway area was seen as improving the commercial viability of the option, as it provides a source of funding that would potentially make the scheme less reliant on public sector support. In addition, the following aspects of the Masterplan were viewed as positive:
  - enhanced facilities for the Superyacht business independent of the shiprepair dry docks; and
  - a good environment (i.e. less industrial) for cruise and leisure boating activities, with a clear separation of 'public' and 'operational' areas.
- The key concern was that the scale of the mixed-use development and the marina would lead to a loss of traditional port capacity in land area and quay space.

Recommendations Coming out of Option Appraisal

3.3.59 The options appraisal process identifies a range of strengths and weaknesses for each option. To help provide a clear basis for the final Masterplan, this section draws conclusions about which project components, individually or in combination, are the most promising for inclusion in the Masterplan. The recommendations for inclusion / investigation in the final Masterplan are:

1. Dredging

- Deep water access for larger ships is essential for the long term future of the Port.
- Funding is a critical issue.
- Focus on mitigation and/or compensation needed to obtain consents.

2. Wharves and Associated Dockside Areas

- Upgrade Northern and Queen's Wharves.
- The cruise quay, terminal, and port control tower (Queen's & Northern) and cranes for transhipment of bulk cargo are recommended.
- Western Wharf: maximum build out is recommended, possibly along with a cargo / renewables devices storage facility.
- Avoid losing Duchy and County Wharves for as long as possible, preferably not at all.
- Avoid losing cargo handling area between Duchy and County Wharves – safeguard for future renewables uses and other port-related uses.
- Investigate how existing small port-related uses could be re-accommodated more efficiently in affordable premises.
- Use a floating dry dock alongside Duchy Wharf instead of renewing Duchy Wharf, as this could be used for cargo handling as well as a dry dock facility.

3. Shiprepair Operations

- Retain the capacity of all three dry docks for shiprepair.
- Add a floating dry dock to increase capacity.
- Upgrade and cover No 4 dry dock to provide for multi-use flexibility and minimise air-borne pollution / noise transmission to nearby marina and to arriving cruise passengers.
- Consolidate traditional shiprepair fabrication in new facilities between No 2 and 3 dry docks.
- Redevelop underused fabrication / storage facilities to the west of No 4 dry dock with a modern fabrication facility to be used in conjunction with No 4 dry dock for higher specification fabrication, vessel re-fit and the fabrication and storage of renewables devices in the future.
- Facilitate clean alongside shiprepairs – provide a small fabrication /repairs support building alongside Queen's Wharf .

4. Superyacht Building and Refit

- Provide a pair of dry docks east of the existing Pendennis shipyard.
- Provide for an additional fabrication shed to the east (on western end of former tip).
- Provide for additional office space so that more of the Bridon Ropes building can be used for an expanded marine skills training centre.

5. Bunkering Operations

- Redevelop the tank farm behind a new bund.
- Redevelop slops facilities to cater for low flash fuels.
- Refurbish the oil jetty.
- Contribute to CHP plant development and facilitate possible import of biomass fuels by sea for CHP use and inland distribution.

6. Marina Development

- Allow for an expanded visitor yacht haven in the inner harbour (80+ berths).
- Investigate the potential to increase in size of the permitted 290 berth marina without cutting off Duchy and County Wharves.
- Maximise the length of floating breakwaters/ pontoons to support Superyacht berthing, marine renewables devices flotation, and events (e.g. Tall Ships berths).
- Provide ancillary marina facilities, surface parking, and safe pedestrian routes.

7. Fishing and Fish Processing

- Retain current fishing activity unless and until a shallower depth landing wharf and alongside facilities can be found elsewhere in Falmouth, Penryn or Truro Ports.
- Do not provide land for a processing plant that would rely on road haulage to bring seafood in and processed products out.

8. Use of Former Tip Area to the east of the Docks

- Use the western end for Superyacht business expansion and the remainder for a marine industries/renewables business park, developed in phases.
- Develop a new CHP plant.
- Use any undeveloped balance for parking overspill.

9. Mixed-Use Development of Western Part of the Docks

- Retain the bulk of the area for port-related development
- Investigate the feasibility/desirability of locating a new FE facility with access to water and a slipway (e.g. Falmouth Marine School) in the southwest gateway area.
- Investigate feasibility/desirability of incorporating some alternative forms of commercial development as well as port related uses in the southwest gateway area, to facilitate finding of port infrastructure improvements.

10. Port-related Parking

- Provide a 400 space multi-storey for Port employees with access from Castle Drive as well as from the Docks.
- Ensure that any new business park or mixed use development can meet its anticipated parking requirements on-site.
- Provide for excursion coach parking and shuttle bus service for cruise ships on wharfside areas that can be used for cargo handling when not required for cruise traffic.

11. Access Infrastructure

- Retain principal road access from Bar Road.
- Omit a second road access to the Docks from Castle Drive.
- Provide safe pedestrian access to/from the marina, and to/from cruise berths.
- Safeguard the potential use of the rail spur for freight transport.
- Provide for water-bourne access from the marina to the Town Centre waterfront.

12. Obsolete Castle Drive Oil Tank farm Site

- Unless remediated and used for additional Port parking in association with a port multi-storey car park, this site is of no functional benefit to the port.
- The future use of the site can be left open as long as current levels of contamination do not present a risk.
- Avoid uses that would fetter port and shiprepair operations.
- Avoid uses that might adversely affect the setting of Pendennis Castle, the SAM and the Falmouth Conservation Area.

13. Obsolete Middle Point Oil Tank farm Site

- Access problems prevent productive redevelopment for port-related uses or a marine industries business park (for which there is insufficient demand anyway).
- Residential uses would be problematic, as vehicular access is difficult and location next to sewerage plant is poor.
- Once the current usage ceases it is not perceived to be of any potential functional benefit to the Port. It could possibly be of use to SW Water.

3.4 Final development stage of the Masterplan

Introduction

3.4.1 This section describes the final development stage of the Masterplan that followed on from the options appraisal, and the recommendations that came out of this appraisal. This stage involved:

- the development and testing of a new option ('Option E') based on the recommendations coming out of the options appraisal;
- the evolution of the draft final Masterplan from Option E to a draft Final Masterplan, which was informed by detailed discussions with key stakeholders; and
- how consultation on the draft Final Masterplan has informed this final Masterplan document.

Development of 'Option E'

3.4.2 Option E is shown in Figure 3.13 and includes:

- dredging;
- upgraded tanks and jetty for the bunkering sector (as in Options C and D);
- two new drydocks for the Superyachts sector, with workshop areas expanded eastward onto the former landfill site (as in Option D);
- a 'mixed use' area at the entrance of the Port, with Port-related businesses, offices and shared facilities behind (similar to Options B and C);
- upgraded workshops associated with shiprepair and potential future renewables (similar to Option C, with slightly less emphasis on renewables);
- a slightly enlarged marina, allowing for more marina berths without impacting on the berthing capacity of the working Port;
- a buildout of Western Wharf, extensions to Queen's and Northern Wharves (including a new berthing dolphin), and other upgrades (Port control office and tower, small workshop for alongside shiprepairs) for cargo and cruise operations (as in Option C);
- a multi-storey carpark adjacent to Castle Drive (as in Options C and D);
- a new crane;
- a floating dry dock;
- the covering of dock No. 4;
- a CHP plant and 'Port related business and renewables' area on the remainder of the landfill site (as in Option C, however slightly smaller to allow for the eastward expansion of Superyachts)
- retained fishing facilities;
- a label 'future use not decided' for the Castle Drive and Middle Point sites, reflecting the uncertainty of bringing these sites (which are in separate ownership) into the masterplanning process; and
- low flash slops.

Testing of Option E

3.4.3 Option E is an interim step between the options and the final Masterplan that was developed on the basis of recommendations that came directly from the options appraisal. It has not therefore been subject to the same level of detailed appraisal as either the options or the final Masterplan. However, in order to check that the Masterplan was evolving in the right direction, we undertook an economic appraisal of Option E to allow direct comparison with Options A to D. This section provides a summary of that analysis.

3.4.4 Table 3.3 opposite shows the gross direct jobs at the Docks by sector.

3.4.5 The total net additional impacts of Option E over and above the reference case are summarised in Table 3.4. The figures are displayed in terms of the estimated net annual impact in 2015 and 2030.

3.4.6 As set out previously, the analysis of Option A to D showed Option D demonstrating the highest levels of benefit. However, Option E outperforms Option D by:

- providing a total of 1,622 additional FTE jobs by 2015, an increase of 439 over Option D;
- generating a total GVA of £78.20m by 2015, and increase of £19.22m over Option D;
- providing a total of 4,763 additional FTE jobs by 2030, an increase of 702 over Option D; and
- generating a total GVA of £233.28m by 2030, and increase of £34.03m over Option D.

Table 3.3: Net additional FTE jobs and GVA in 2015 and 2030 (2030 achieved benefits minus 'Do Nothing')

	FTE jobs			GVA		
	Docks' businesses	Wider economic benefits	Total	Docks' businesses	Wider economic benefits	Total
2015						
Option E	1,577	45	1,622	£76.76m	£1.43m	£78.20m
2030						
Option E	4,438	325	4,763	£214.74m	£18.54m	£233.28m

3.4.7 The net present value analysis of Option E is set out below:

Table 3.4: Net Present Value of Option E

Masterplan Options	NPV of net additional GVA	BCR – based on NPV	Cost per £1 GVA	Cost per 1 FTE job
Option E	£1,503m	8.8	£0.11	£35,831

3.4.8 Compared with the analysis of options A to D, Option E is more cost efficient.

3.4.9 The economic analysis of Option E helped to establish that this recommended way forward was based not only on sound planning, design, and operational considerations but that it also maximised the economic potential of the Port.

Figure 3.12:Gross direct jobs at the Docks Option E

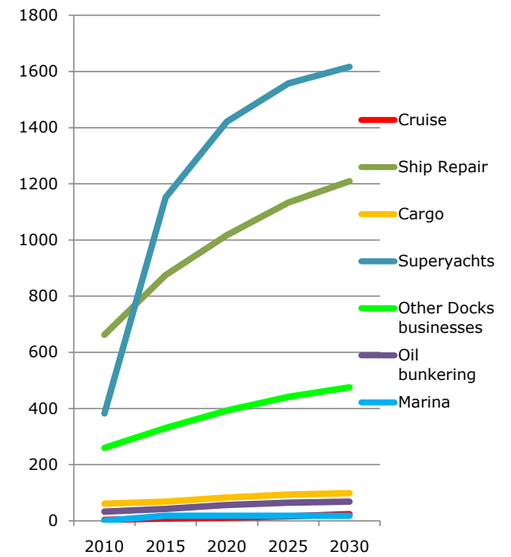
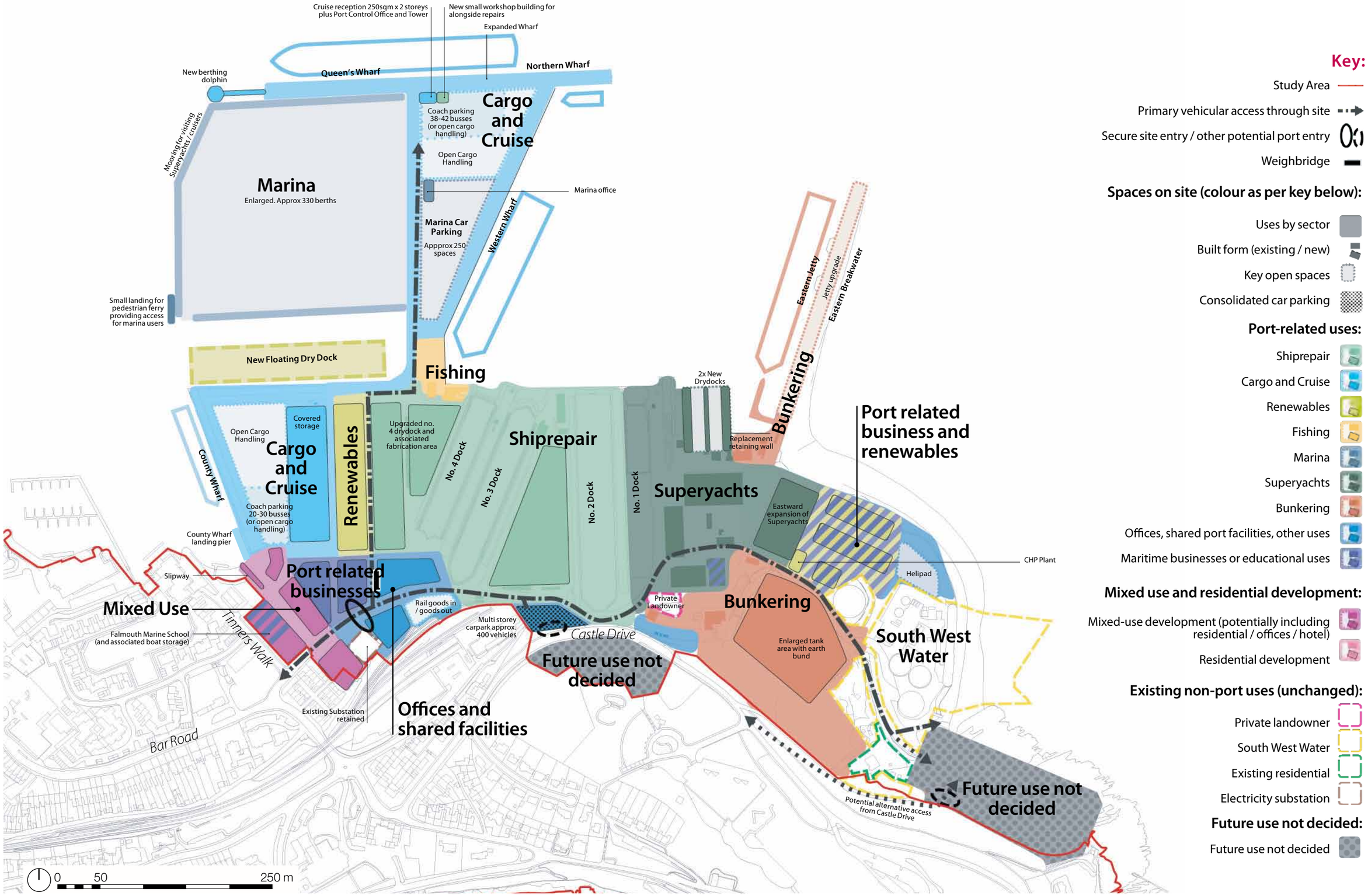


Figure 3.13: 'Option E'



Key:

Study Area

Primary vehicular access through site

Secure site entry / other potential port entry

Weighbridge

Spaces on site (colour as per key below):

Uses by sector

Built form (existing / new)

Key open spaces

Consolidated car parking

Port-related uses:

Shiprepair

Cargo and Cruise

Renewables

Fishing

Marina

Superyachts

Bunkering

Offices, shared port facilities, other uses

Maritime businesses or educational uses

Mixed use and residential development:

Mixed-use development (potentially including residential / offices / hotel)

Residential development

Existing non-port uses (unchanged):

Private landowner

South West Water

Existing residential

Electricity substation

Future use not decided:

Future use not decided

Evolution of the draft final Masterplan

3.4.10 Following the development and testing of 'Option E', the Masterplanning team worked with key stakeholders and the Docks' businesses to develop their aspirations for the final Masterplan. This work culminated in the development of a 'draft final Masterplan' for public consultation that incorporated a range of projects for each of the main business sectors.

3.4.11 Working with the Docks' businesses and public sector stakeholders, we organised these projects into two timescales:

- 'Phase 1' projects, which would take place by 2015 - that is, a group of projects for the short term; and
- longer term projects (defined 'Potential Future Projects') beyond 2015.

3.4.12 Key changes between Option E and the 'draft final Masterplan' for public consultation are identified below:

- the future of the County/Duchy Wharf area is identified as 'marine / port related uses' for the future, however no specific project has been proposed for this area;
- the floating dry dock is omitted and replaced by enhancements to dry dock No. 1;
- an enlarged area for Superyacht expansion is provided to the east of the current site, on the former landfill site replacing the previously identified 'port related business and renewables' units;
- the configuration for the waterside Superyacht development is changed, showing a new basin rather than two new dry docks;
- the potential for a significantly enlarged marina within the Docks is retained in the 'potential future projects';
- dredging for the Eastern Jetty / Breakwater for bunkering operations is included; and
- fishing facilities are relocated locally.

How Public Consultation has informed the Masterplan

3.4.13 A public consultation event was held between the 18th of March 2011 and the 14th of April 2011. This included an exhibition of the draft final Masterplan at the Watersports Centre (with the same material available to download from the Council's website), and the opportunity for stakeholders to feed back comments.

3.4.14 A 'Statement of Community Involvement' (SCI) has been produced which sets out all of the consultation that has taken place to inform the Masterplan. In relation to public consultation on the draft final Masterplan the SCI notes that:

- 262 people attended the exhibition on 18th and 19th March;
- 250 responses were received during the consultation period, of which 237 were provided online via a 'survey monkey' multiple choice questionnaire and 13 provided by letter or e-mail;
- 127 respondents provided specific written comments on feedback forms or by direct correspondence.

3.4.15 Generally, comments received were overwhelmingly supportive of the Masterplan. In summary:

Comments that identify support for aspects of the masterplan:

- Identifying support for the overall masterplan: 30 comments
- Support for the dredging - in addition to above:10 comments
- Securing employment: 5 comments
- Bringing benefits to local business: 5 comments

Comments that identify key concerns or issues with the masterplan:

- Identified objections to the masterplan: 6 comments
- Potential conflicts between leisure and marine industry: 11 comments
- Conflicts of the marina expansion : 6 comments in addition to those above
- The environmental impact of dredging on marine habitats: 9 comments
- Conflict with potential residential uses: 4 comments
- Visual impact of development: 4 comments
- Ammonium Nitrate storage: 2 comments

NB. 5 respondents felt the feedback form multiple choice questions were unnecessarily leading or unhelpful in their format and completed a detailed written response instead.

Respondents have made a number of additional suggestions for consideration, e.g. :

- Public access to the water in docks area [slipways disabled users access, leisure etc: 5 comments
- Public access to the docks area: 4 comments
- Alternative Lifeboat access: 4 comments
- Waterfront link to the harbour: 4 comments
- Include proposals for the wider study area: 6 comments

3.4.16 Very few of the comments were critical of the spatial layout of the Masterplan. In evolving the final Masterplan from the final draft shown at the consultation event, we have not changed its physical layout. Thus the final Masterplan shown in Chapter 4 is the same as the draft final Masterplan shown at the consultation.

3.4.17 However, there were a number of key points arising from the consultation that have influenced this Masterplan document, and we have responded as follows:

- the Masterplan document includes a more information on dredging in Chapter 2, along with more information on environmental impacts and mitigation from the previous Environmental Statement (related to the 'cruise terminal' dredging) in Chapter 6;
- the economic analysis provides more information on the wider economic benefits outside the Docks, and benefits to the local community that the Masterplan will bring;
- Chapter 8 provides guidance on the appropriate uses and heights within the 'mixed use' area at the entrance to the Docks;
- the Masterplan document includes more information regarding public accessibility and the security of the final Masterplan, including the limits of public access due to port security regulations;
- the Masterplan document includes reference to the potential conflicts between the proposed marina for other businesses within the Port, and how they might be managed;
- recommendations for further transport work (including the proposed Sustainable Transport Package) are set out Chapter 6. In addition, more detailed work on car parking and transport movements has been commissioned by CDC;
- we have included reference to the Royal National Lifeboat Institution (RNLI) operation adjacent to the Docks;
- we have included more information regarding the continued availability of wharfage/berthing capacity at the Docks;
- we have included information on the proposed scale and nature of the cruise reception, which will be incorporated within the new port operations building;
- the Masterplan is based on the assumption that the Ammonium Nitrate business is appropriately managed in a way that allows development to take place; and
- more information is provided on heritage, providing the starting point for more detailed heritage assessments as the projects progress.

4

The Masterplan Proposal

4.1 Introduction

4.2 Masterplan - Phase 1

Introduction

4.1.1 This section therefore sets out the Masterplan for the Port of Falmouth. The Masterplan has been divided into two groups of projects. These are:

- Phase 1, which sets out projects intended to be completed by 2015; and
- Potential Future Projects, which set out a range of possibilities for the future following the implementation of Phase 1.

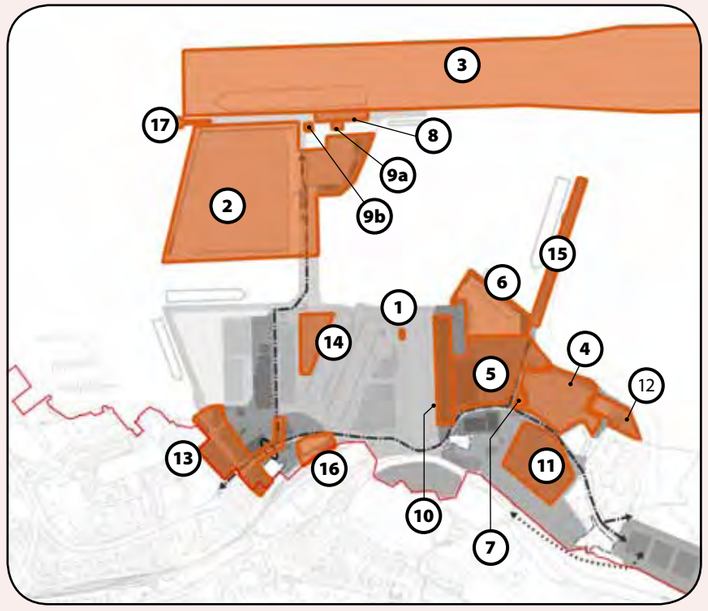
4.1.2 The plans shown in Section 4.2 and 4.4 are set out by economic sector, and are comparable to the existing scenario set out in Figure 2.7 on page 14 of this document.

4.1.3 This chapter does not set out all of the key issues and concerns relating to each of the projects, as these are addressed in the following chapters:

- Chapter 5: "Economic Impact Assessment of the Masterplan"
- Chapter 6: "Sustainability Assessment of Phase 1 Masterplan"
- Chapter 7: "Urban Design and Planning Appraisal of the Masterplan"

4.1.4 The final chapter of this document (Chapter 8: "Conclusions and Next Steps") sets out further recommendations and guidance for the detailed design and implementation of specific of the projects.

Figure 4.1: Summary of Projects Phase 1



1. New crane adjacent to No. 2 Dock
2. Marina - 290 Berths including car park
3. Dredging of the main channel and deep water berth
4. Remediation, capping and car park over former landfill site
5. Superyacht workshops and bunkering offices
6. Superyacht dock basin and new pier
7. Combined Heat and Power (CHP) plant and docks heat main
8. Queen's / Northern Wharf infill / extension
9a. Port control offices
9b. Small workshop on Queen's Wharf
10. Enlarged workshop facilities at No. 1 Dock
11. Upgrade of fuel tanks
12. New low flash slops facility (including relocation of helipad if required)
13. Gateway Development (Stage 1) including relocation of Port weighbridge and Port health building / facility
14. New shiprepair workshops (Stage 1)
15. Refurbish Eastern Jetty and Breakwater
16. Sustainable transport package, rail and road upgrades - including pedestrian access from rail station, main access road upgrade and other improvements not shown on plan
17. Installation of berthing dolphin - Queen's Wharf

Key:

Boundary of study area

Spaces on site (colour as per key below):

Uses by sector

Built form (existing / new)

Key open spaces

Major areas of car parking

Port-related uses:

Shiprepair

Port Operations (including alongside shiprepair)

Superyachts

Bunkering

Offices, shared port facilities, other uses

Maritime businesses

Marina

Renewables

Gateway development (mixed use)

Existing non-port uses (unchanged):

Private landowner

South West Water

Existing residential

Electricity substation

Other port features:

Primary vehicular access

Secure site entry

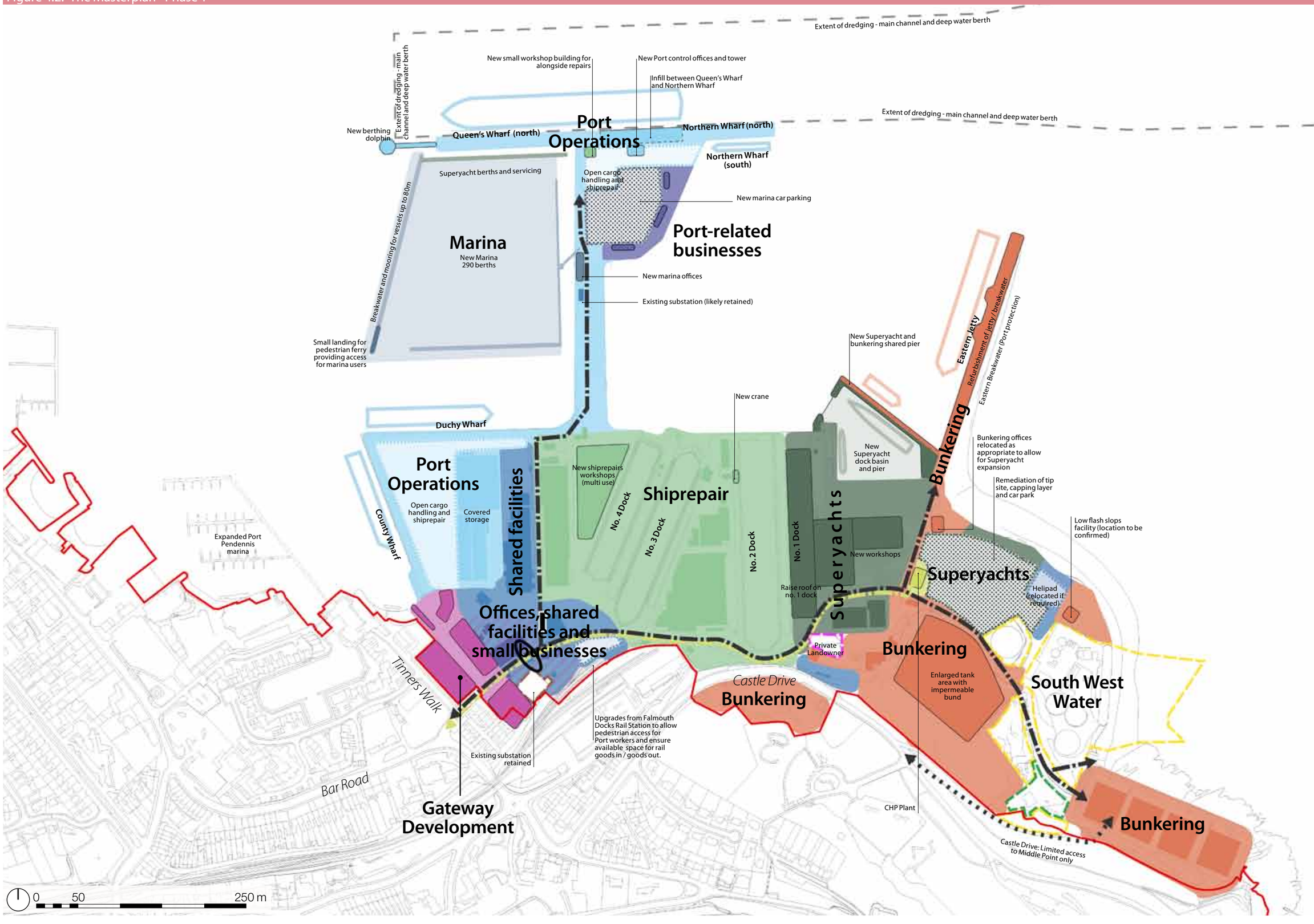
Weighbridge

CHP heat main to docks and town

Summary of Car Parking Provision

Phase 1 includes a consolidated Superyachts car park (project 4) and a 240 space car park for marina users (project 2).

Figure 4.2: The Masterplan Phase 1



4.3 Phase 1 Projects

Introduction

4.3.1 This section sets out the key projects (arranged by sector), likely costs and a summary of their anticipated economic outputs (taken from Chapter 5: "Economic Impact Assessment of the Masterplan") for the Phase 1 projects.

4.3.2 It should be appreciated that projects within Phase 1 will be subject to:

- appropriate exchange of land between owners;
- environmental and planning approvals; and
- assembly of financial packages.

4.3.3 The Phase 1 Masterplan changes the location of the secure site entry to the Docks as part of project 13, the 'Gateway Development' (see mixed use section, right). The Docks area will remain bounded by a secure boundary, with a single point of entry. However, this will exclude the 'Gateway Development' which will become a publicly accessible area (outside the new secure site boundary).

Port Operations

Key projects

Dredging

(3) Dredging main channel and deep water berth - This will allow for larger ships to access the Docks for both cargo and cruise.

Queen's / Northern Wharf Improvements

(8) Queen's / Northern Wharf infill / extension - This project will combine and extend the existing wharfage, allowing more, and larger ships to access the Docks.

(9a) Port control offices on Queen's Wharf - A new Port control office will allow for increased traffic control throughout the Port. This building is likely to be of a modest scale (c.200sqm internal floor space over 3 or 4 storeys).

(17) Installation of berthing dolphin - Queen's Wharf - This effectively extends the length of wharfage along Queen's Wharf (north and south).

Breakwater Improvements

(15) Refurbish Eastern Jetty and Breakwater. Refurbishing the Eastern Breakwater will allow it to continue to protect the Docks as a whole.

Likely costs

- Dredging: approximately £23 million (cost is common to shiprepair and bunkering sectors).
- Queen's / Northern Wharf improvements: £10.25 million. (cost includes small workshop on Queen's wharf for shiprepair sector).
- Breakwater Improvements: £3.33 million. (cost includes refurbishment of Eastern Jetty that is part of the bunkering sector only)

Anticipated Economic Outputs

Port operations includes two main areas: cruise ships and cargo handling. The projects have the potential to secure growth in both sectors by 2015.

The growth in the cruise sector will lead to growth in passenger numbers, with passenger spend in Falmouth and Cornwall expected to grow to approximately £2.4 million by 2015 (an increase of £1.1 million). Cruise–related jobs at the Docks will increase from 3 to a total of 8. In addition cruise-related jobs in the wider economy could increase from an estimated 14 to 25.

Shiprepair

Key projects

New Shiprepair Facilities

(1) New crane adjacent to No. 2 Dock , improving facilities for shiprepair. This is also a key prerequisite for project 10, which involves raising the roof on no. 1 dock.

Dredging

(3) Dredging main channel and deep water berth - This will allow larger ships to access the Docks for alongside shiprepair and to enter the drydocks.

Shiprepair Improvements

(9b) Small workshop on Queen's Wharf - The small workshop will benefit alongside shiprepair for ships on Queen's Wharf and Northern Wharf (cost included under Port Operations).

(14) New shiprepair workshops (Stage 1) - These workshops will act to consolidate and modernise the existing shiprepair workshop facilities.

Likely costs

- New crane £1.25 million
- Dredging: approximately £23 million (cost is common to Port Operations and Bunkering sectors)
- Workshops: £4 million (excluding cost of small workshop on Queen's Wharf).

Anticipated Economic Outputs

At present, the shiprepair sector provides 662 jobs within the Docks. The key projects will allow for 34% growth to 889 jobs at the Docks by 2015.

Superyachts

Key projects

Superyachts - New Facilities

(4) Remediation, capping and car park over former landfill site - This will allow for increased use of this area, including a consolidation of car parking associated with the neighbouring Superyacht business.

(5) Superyacht workshops and bunkering offices - This will allow more and larger ships to be worked on in the Superyachts business.

(6) Superyacht dock basin and new pier - The significant investment in a new basin and pier will allow for significantly increased activity in the Superyachts.

Superyachts - Upgraded Facilities

(10) Enlarged workshop facilities at No. 1 Dock - This will allow larger yachts to be worked on in this area. This requires the positioning of a new crane for number two dock (Project 1) before work can begin.

Likely costs

£17 million for all projects, including offices shared with the Bunkering business.

Anticipated Economic Outputs

At present, the Superyachts sector provides 383 jobs within the Docks.

The key projects have the potential to secure a 100% growth in employment to a total of 764 jobs by 2015.

The outputs and new jobs in relation to the land to the east of the current Pendennis Superyachts site are contingent on commercial agreements with current landowners.

Bunkering

Key projects

Dredging

(3) Dredging main channel and deep water berth - This will facilitate larger ships to approach the Eastern Jetty in order to receive bunkering services.

Bunkering - Relocated offices

(5) Superyacht workshops and bunkering offices - The Superyacht expansion to utilise land currently occupied by bunkering offices provides an opportunity to provide new, improved offices (cost included under Superyachts).

Bunkering - Refurbished and Upgraded Facilities

(11) Upgrade fuel tanks - A significant upgrade of the fuel tanks within the Port will allow for the bunkering business to continue and grow. This will include bunding.

(15) Refurbish Eastern Jetty and Breakwater - This will allow for the continued use of the Eastern Jetty into the future and protect the Port (cost included under Port Operations).

Bunkering - New Facilities

(12) New low flash slops facility (including relocation of helipad if required) - This will allow the bunkering operation to offer improved low flash slops services (i.e. the removal of waste oil and water from ships). An exclusion zone is required around this facility.

Likely costs

- Dredging: approximately £23 million (cost is common to Port Operations and shiprepair sectors).
- Refurbished and upgraded facilities: £15.33 million (cost includes refurbishment of the Eastern Breakwater that is common to the port operations sector).
- New low flash slops facility: £1.5 million.

Anticipated Economic Outputs

At present, the bunkering sector provides 33 jobs within the Docks.

The key projects have the potential to secure 31% growth of employment in bunkering to a total of 43 jobs by 2015, and significantly more thereafter when more, larger ships use the Docks following dredging and shipyard improvements.

Renewables

Key project

(7) Combined Heat and Power (CHP) plant and docks heat main - This will create low-carbon heat and electricity for the Port and has the potential to be connected to the wider town.

Likely cost

£3 million (excluding docks heat main as scope is unknown at present).

Anticipated Economic Outputs

As well as providing new jobs, the Combined Heat and Power plant will have a major impact on reducing carbon emissions and the heat and energy costs of port businesses and other users, allowing them to be more competitive.

Sustainable Transport Package

Key project

(16) Sustainable transport package, rail and road upgrades. These projects will allow improved access to the Port, encouraging sustainable modes of transport. This will include the provision of direct pedestrian access from the railway station.

Likely cost

£2 million.

Anticipated Economic Outputs

It is not possible to be precise about the number of jobs that the sustainable transport package will support. However, the successful growth of the businesses is dependent on good transport links by a range of different modes, including walking, cycling and public transport. The sustainable transport package is therefore a vital part of ensuring the successful economic development of the Docks.

Mixed-use

Key projects

(13) Gateway Development (Stage 1) including relocation of Port weighbridge (location to be confirmed) and Port health building / facility. Note: Further information on the mix of uses appropriate within this area is available in Chapter 8 of this document.

Likely cost

£14 million.

Anticipated Economic Outputs

The project has the potential to secure 161 new jobs by 2015.

Marina

Key project

(2) Marina - 290 berths including car park - The marina located to the south of Queen's Wharf will provide 290 berths and has already been given planning permission.

Likely cost

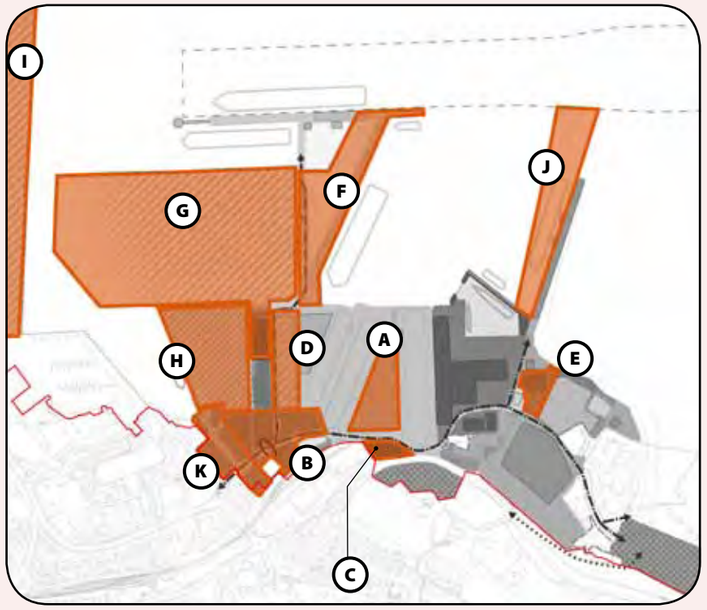
£10 million

Anticipated Economic Outputs

The project has the potential to secure 16 new jobs at the Docks by 2015. In addition, the marina will bring increased visitor spending to Falmouth and would help to attract and support marine-related events within the Port (such as Falmouth Week and Pendennis Cup).

4.4 Masterplan - Potential Future Projects

Figure 4.3: Summary of Projects Potential Future Projects



- (A) New shiprepair workshops (Stage 2)
- (B) Port related business and operations units
- (C) Cliff-face multi-storey car park
- (D) Multi-use shiprepair and renewables workshops
- (E) New superyacht workshops
- (F) Western Wharf load-out (potentially phased)
- (G) Enlarged and relocated marina (sizing subject to detailed design work) and consolidated marina car parking
- (H) County / Duchy wharf area. Future Port use undecided. Access will be affected by any enlargements to the marina
- (I) Potential expansion of Falmouth Harbour Commissioners Marina
- (J) Dredging of Eastern Jetty pocket for bunkering
- (K) Gateway Development (Stage 2)

Berthing Phasing

The Masterplan aims to ensure that the overall berthing ability of the Docks is improved where possible (in depth, waterside and landside access as well as length) and never substantially diminished from the existing situation.

Table 8.1: Berthage Lengths Final Masterplan

	Present	Phase 1	Potential Future
County	170	170	170
Duchy	230	230	-
Queen's S	160	-	230
Queen's N	190	450	450
Northern N	110		
Northern S	75	75	75
Western	-	-	360
Total	935	925	1285

Summary of Car Parking Provision

The potential future projects include an approx 400 space multi-storey car park for wider site users (project C) and an approx 450 space multi-storey car park for marina users (project G). Further multi-storey car parking could also be provided as another future project. These projects are subject to an integrated Travel Plan.

Key:

Boundary of study area

Spaces on site (colour as per key below):

Uses by sector

Built form (existing / new)

Key open spaces

Major areas of car parking

Port-related uses:

Shiprepair

Port Operations (including alongside shiprepair)

Superyachts

Bunkering

Offices, shared port facilities, other uses

Maritime businesses

Marina

Renewables

Gateway development (mixed use)

Existing non-port uses (unchanged):

Private landowner

South West Water

Existing residential

Electricity substation

Future use not decided:

Future use not decided

Other port features:

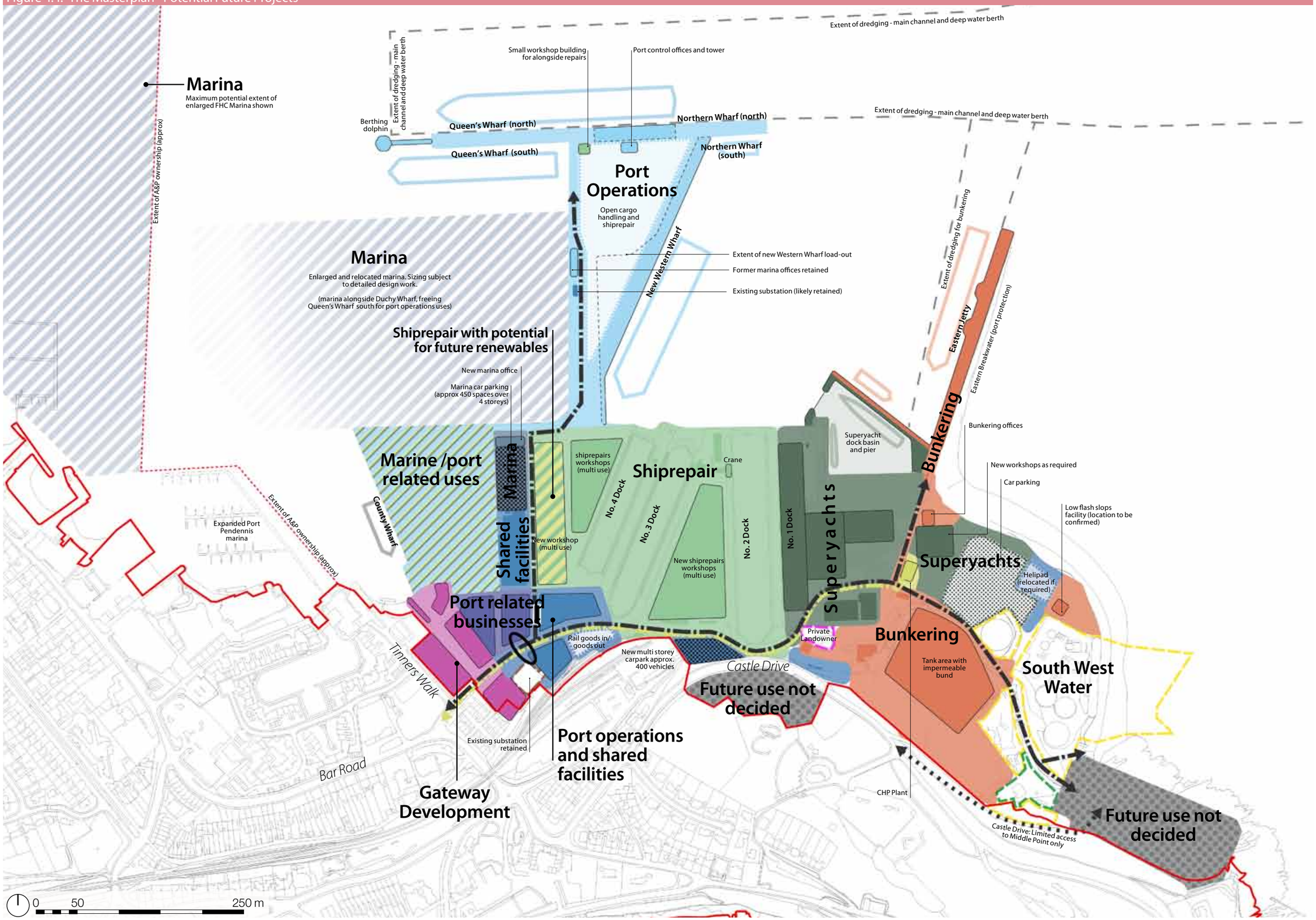
Primary vehicular access

Secure site entry

Weighbridge

CHP heat main to docks and town

Figure 4.4: The Masterplan Potential Future Projects



4.5 Potential future projects

Introduction

4.5.1 This section sets out the 'potential future projects' within the Masterplan, following the completion of the Phase 1 projects. A description of each project, including costs and anticipated economic outputs where appropriate, is set out below:

(A) New shiprepair workshops (Stage 2)

4.5.2 This project completes the upgrading of the shiprepair facilities with a new workshop between No. 2 and No. 3 dock.

4.5.3 The cost of the project is likely to be around £6 million.

(B) Port related business and operations units

4.5.4 The existing businesses occupy a range of different buildings within the Docks area. This project brings them together into more efficient, better planned new accommodation.

4.5.5 The cost of this project is likely to be around £12.3 million.

(C) Cliff-face multi-storey car park

4.5.6 Large areas of the Docks are taken up by surface car parking. These could be better used by providing accommodation for the various businesses. Whilst the Sustainable Transport Package will encourage a variety of different travel modes, many employees will still need to drive to work at the Docks and so there will continue to be a demand for car parking. A multi-storey car park against the cliff will free up space within the Docks whilst providing convenient parking.

4.5.7 The cost of this project is likely to be around £3.2 million.

(D) Multi use shiprepair and renewables workshops

4.5.8 There is potential in the future for the Port to provide for the construction, maintenance and deployment of marine renewable technologies such as wave energy devices (e.g. Wave Hub) and offshore wind. However, the exact demand for space is not yet known. This project is therefore flexible, providing workshop space that could be used by either the shiprepair or future renewables sector.

4.5.9 The cost of this project is likely to be around £3.5 million.

(E) New Superyacht workshops

4.5.10 The further expansion of the Superyacht facilities with new workshops builds on Phase 1 by providing high quality space for storage, joinery manufacture and other activities that do not need to be carried out on board the yachts.

4.5.11 The cost of this project is likely to be around £3 million.

(F) Western Wharf load-out

4.5.12 Western Wharf is currently unusable. The load-out project would:

- Provide 360m of Wharf, which could be used for cargo handling, alongside shiprepair and cruise ships.
- Provide a large area next to the Wharf for facilities to support these activities – e.g. coach parking for cruise vessels, open cargo handling.

4.5.13 The cost of this project is likely to be around £15 million.

(G) Enlarged and relocated marina and consolidated marina car parking

4.5.14 There is high demand for marina berthing in the Falmouth area. This project would enlarge Phase 1's marina from 290 berths to up to around 650 berths. The marina would move southwards, so freeing up the southern side of Queen's Wharf for Port Operations such as cargo handling whilst – at the same time – incorporating Duchy Wharf into the marina. Any marina expansion would need to be designed to work with the expansion of the nearby FHC's marina and Port Pendennis marina.

4.5.15 The cost of the enlarged marina is likely to be around £13 million. The cost of a consolidated multi-storey carpark for the marina is likely to be £3.6 million.

(H) County / Duchy wharf area

4.5.16 County and Duchy Wharves need significant investment if they are to continue to be used for cargo handling and other 'heavy' port-related uses. The exact nature of the use of this area in the future has not been decided at this stage. The Masterplan therefore aims to keep options open with a flexible designation of this area as 'marine / port related uses'.

4.5.17 The costs have not therefore been identified.

(I) Potential expansion of Falmouth Harbour Commissioners Marina

4.5.18 Given the high demand for marina berthing, FHC is considering expanding its marina. This project has not yet been explored in detail. Any marina expansion would need to be designed to work with the expansion of the nearby Docks marina and Port Pendennis marina.

4.5.19 The costs have not been identified at this stage.

(J) Dredging of Eastern Jetty pocket for bunkering

4.5.20 The dredging of a pocket next to the improved Eastern Jetty would be independent of any dredging of the main channel. It would provide berthing for bunkering vessels at all states of the tide.

4.5.21 The cost of this project is likely to be around £0.57 million.

(K) Gateway Development (Stage 2)

4.5.22 This project acts as the continuation of Project 13 within Phase 1, completing the Gateway Development.

4.5.23 The cost of this project is likely to be around £10 million, bringing the total cost of the Gateway Development (Stages 1 and 2 combined) to around £24 million.

5

Economic Impact Assessment of the Masterplan

5.1 Introduction

5.1.1 The aim of this chapter is to provide an economic appraisal of the Masterplan that is consistent with the ERDF requirements for the development of a project business case. Its structure therefore follows the relevant headings required for a business case. It includes project costs, Net Present Value (NPV) and Value for Money and risks. Separate sections of this document cover sustainability (Chapter 6), delivery and funding (Chapter 8) and options testing (Chapter 3).

5.1.2 The appraisal period for the Masterplan options is set to 2009-2030. It is possible to forecast the impacts beyond 2030. However, the uncertainty of long-term forecasts is usually very high and increases with each additional year, reducing their value and validity[1].

5.1.3 In calculating the impact of the Masterplan and its projects, it is important to take account of what would have happened in the absence of a project (or intervention). In the absence of intervention, the economy of Falmouth will not stand still but will continue on its existing trajectory. The position without a project / intervention is known as the reference case. The assessment estimates additional employment and Gross Value Added (GVA) impacts of a project over and above what would have happened in its absence.

5.1.4 The key components of additionality are explained below:

- Gross direct effects – An estimate of the total effect of a project i.e. considering wider consequential or induced effects as well as the immediate effects. These effects include not only impacts on the Docks' businesses but also impacts from visitor spending associated with the cruise sector, new marina, and marine related events in Falmouth.
- Leakage effects - The level of activity lost to the target area – i.e. the proportion of jobs or GVA that accrue for those outside the target area of Cornwall.
- Displacement effects –The extent to which a project will take market share, labour, land or capital from other local firms i.e. the proportion of the outputs / outcomes accounted for by reduced outputs / outcomes elsewhere in the target area.
- Substitution - Where a firm substitutes one activity for another (e.g. recruits a jobless person while another employee loses a job) to take advantage of public sector assistance. There are not expected to be any substitution effects associated with the Masterplan options.
- Multiplier Effects - Effects associated with additional local income and local supplier purchases. There are two types of multiplier:
  - A supply linkage (or indirect) multiplier due to purchases made as a result of the project and further purchases associated with linked firms along the supply chain.
  - An income (or consumption / induced multiplier) associated with local expenditure by those who derive incomes from the direct and supply linkage impacts of the project.
- Deadweight (reference case) – The extent to which activity generated would have happened anyway i.e. the target outputs/outcomes that would occur at the end of the project period if the project was not implemented. In the case of the Masterplan options, the 'Do Nothing' Option can be used as the 'reference case' and the outputs associated with that Option represent what would be achieved if the Masterplan was not delivered.

5.1.5 To calculate direct impact in terms of jobs, turnover, and GVA, specific leakage and deadweight rates, and specific indirect and induced multipliers, a survey was carried out of businesses based at Falmouth Docks that would be affected by the proposals. The survey was undertaken by telephone and direct meetings, which ensured a high response rate. A good level of co-operation was achieved from all of the businesses who provided detailed responses to the survey questions.

1 In addition many structural economic changes may occur in the long-term, which can reduce negative economic impacts arising from development proposals (if there are any) and therefore may render them meaningless. For example, if a number of jobs is lost due to changes from industrial to residential uses, the economy may be able to replace them in the long-term. However for the purposes of a project appraisal such argument would make comparison of the options and scenarios impossible.

5.2 Economic Impact Assessment

5.2.1 Table 5.1 presents the forecasts of direct FTE jobs at the Port of Falmouth by sector. For the Masterplan sector, growth rates have been reviewed and are also presented in Table 5.1. The Masterplan will result in somewhat lower growth in the yacht building sector compared to Options C and D. This is due to much more spatially compact expansion of the yacht building sector at the Docks than was envisaged during the options development and assessment stage of the study.

5.2.2 The assumptions for all other sectors are similar to those for Option E, which rationalises the shiprepair sector without reducing the area available to it. This ensures that the sector has flexibility to expand to cater for new business opportunities, in particular work related to marine renewable energy.

5.2.3 The Port of Falmouth has a unique opportunity to position itself within the wave energy sector that is emerging in the South West. With the Wave Hub becoming operational earlier this year (2011) Cornwall, and therefore Falmouth Docks, are closer to realising wave energy potential than ever before. At the same time, the beginning of 2011 saw A&P Group winning a major contract to build special racks for offshore wind turbine blades on seajack vessels marking the start of A&P's entrance into the offshore wind sector despite most of the Crown Estate's offshore wind zones being located elsewhere.

5.2.4 The optimistic assumptions for growth attributable to the renewable energy sector at the start of the Masterplan study have therefore been justified. A&P's business in this area, combined with that of the wave energy sector device developers and other related businesses, will ensure growing demand for associated manufacturing workshops and offices at the Docks.

Table 5.1: Masterplan annual employment and growth rates (averages) by sector

	2009	2010-2015	2015-2020	2020-2025	2025-2030
Shiprepair*		**6.50%**	**2.86%**	**2.23%**	**1.37%**
FTE jobs	662	889	1,021	1,137	1,212
Cargo		**3.90%**	**5.35%**	**2.03%**	**0.39%**
FTE jobs	61	68	84	100	103
Superyacht building		**11.32%**	**-0.46%**	**0.37%**	**1.88%**
FTE jobs	382.5	653	922	951	934
Oil bunkering		**6.00%**	**6.00%**	**3.00%**	**1.00%**
FTE jobs	32.5	43	56	65	68
Other Docks businesses		**4.66%**	**3.06%**	**1.63%**	**1.27%**
FTE jobs	260	328	389	435	468

* Cruise sector employment is included within the shiprepair sector employment in this Table (as both are generated by one business).

Masterplan employment impacts

5.2.5 The Masterplan employment impacts are detailed below in Table 5.2. It shows impacts until 2015 as required by the ERDF funding application timeframe and beyond 2015. Phase I projects will lead to additional investment into Potential Future Projects that would not have happened without Phase I investment. The long-term impacts of Phase I therefore include those of subsequent projects that are kicked off by Phase 1*.

5.2.6 The impacts of the Masterplan in their entirety are shown in the tables below. Net additional FTE jobs estimates show how the development of the Port will make a difference to the current situation and the future over and above of what would have happened without any development

5.2.7 Table 5.3 presents employment impacts and details net additional FTE jobs by type of employment impacts. The latter represents the gross employment impact of the Masterplan minus the employment impact that would have been generated by the 'Do Nothing' scenario (a reference case).

5.2.8 This approach allows illustrates, for example, that the actual impact of the Port development on growth of the Cruise sector is reflected in the number of net additional jobs rather than the increase in the total jobs.

Table 5.2: Employment impacts of the Masterplan Phase 1 projects **

	Phase 1 Projects			Phase 1 and Potential Future Projects	
	2010	2015	Change 2010-2015, %	2030	Change 2010-2030, %
Direct jobs at all Docks businesses by sector:					
Cargo	61	68	12%	103	70%
Cruise	3	8	167%	29	867%
Shiprepair	662	889	34%	1,212	83%
Superyacht building	383	653	71%	934	144%
Marina	0	16		16	
Oil bunkering	33	43	31%	68	109%
Other Docks businesses	260	328	26%	468	80%
Total direct jobs at all Docks businesses	1401	2,115	43%	2,830	102%
Direct jobs from additional new workspace	0	161	-	505	-
Total direct jobs	**1,401**	**2,165**	**55%**	**3,335**	**138%**
Total net jobs(adjusted for leakage, displacement and including indirect and induced effects)	**1,689**	**2,610**	**55%**	**4,020**	**138%**
Net construction jobs(annualised FTE jobs lasting during 10 years)	0	78	-	0	-
WIDER ECONOMY JOBS based on visitor expenditure					
Cruise sector	14	25	81%	94	573%
Marina	0	11	-	11	-
TOTAL WIDER ECONOMY JOBS	14	36	159%	105	650%
TOTAL ANNUAL FTE JOBS(Total net jobs + net construction jobs + wider economy jobs)	**1,703**	**2,713**	**59%**	**4,125**	**142%**
TOTAL NET ADDITIONAL FTE JOBS	**0**	**852**	**-**	**3,273**	**-**

* It is assumed that the marina size will stay the same at 290 berths due to high uncertainty associated with increasing the size of the marina in the future. This is related to navigation and planning issues and competition from other marinas in the area.

** Including impacts of the subsequent investment in Potential Future Projects that cannot happen without Phase I projects.

Table 5.3: Detailed Masterplan Employment Impacts Phase 1 projects*

	Phase 1 Projects		Phase 1 and Potential Future Projects		
	2009 (baseline)	**2015**	**2020**	**2025**	**2030**
Gross direct FTE jobs					
Do Nothing	1,401	1,552	1,154	693	687
Masterplan	1,401	2,165	2,957	3,218	3,335
Total net FTE jobs = Gross direct FTE jobs – Leakage – Displacement + Indirect FTE jobs + Induced FTE jobs					
Do Nothing	1,689	1,843	1,371	823	816
Masterplan	1,689	2,610	3,565	3,876	4,020
Masterplan: Net additional FTE jobs directly at the Docks	0	767	2,194	3,053	3,204
Construction total net FTE jobs					
Do Nothing		0	0	0	0
Masterplan		78.2	78.2	78.2	0.0
Wider Economic Impacts					
Cruise sector benefits: total net FTE jobs**					
Do Nothing	14.0	18.3	23.7	29.3	36.2
Masterplan	14.0	25.3	55.8	73.4	94.2
Masterplan: Net additional FTE jobs in Cruise sector	0.0	7.0	32.1	44.1	58.0
Marina benefits: total net FTE jobs**					
Do Nothing		0	0	0	0
Masterplan		10.9	10.9	10.9	10.9
Masterplan: Net additional FTE jobs for the Marina		10.9	10.9	10.9	10.9
TOTAL CUMULATIVE NET FTE JOBS					
Do Nothing	1,703	1,862	1,394	852	852
Masterplan	1,703	2,713	3,699	4,028	4,125
TOTAL NET ADDITIONAL FTE JOBS					
Masterplan	**0**	**852**	**2,304**	**3,175**	**3,273**

* Including impacts of the subsequent investment in Potential future Projects that cannot happen without Phase I projects.

** Includes direct, indirect, and induced impacts

GVA impacts

5.2.9 Gross Value Added (GVA) was estimated using average GVA per job at the Falmouth Docks. For GVA generated by indirect employment GVA per job of £44,350 in 'Manufacturing', 'Construction', 'Electricity, gas, and water supply', and 'Transport, storage, and communication' sectors in South West region in 2007[2] is applied. Induced impacts are estimated using GVA per job of £25,175 in 'Wholesale and retail trade' and 'Hotels and restaurants' in the South West region in 2007.

5.2.10 The figures for both the Masterplan and 'Do Nothing' reference case are set out in Table 5.4. The gross direct annual GVA generated by the Docks businesses is forecast to grow to £116 million by 2015 and £178.7 million by 2030 – more than doubling the current output of the Port.

5.2.11 The net additional annual GVA generated by the Masterplan development is forecast to reach £41 million by 2015 and £156.6 million by 2030.

Table 5.4: GVA impacts of the Masterplan development

	2009 (baseline)	2015	2020	2025	2030
Gross direct annual GVA					
Do Nothing	£75.00m	£83.14m	£61.83m	£37.12m	£36.80m
Masterplan	£75.00m	£116m	£158.44m	£172.27m	£178.68m
Total net GVA = Gross direct annual GVA – Leakage – Displacement + Indirect GVA + Induced GVA					
Do Nothing	£81.76m	£89.73m	£66.73m	£40.06m	£39.72m
Masterplan	£81.76m	£126.36m	£172.59m	£187.67m	£194.65m
Masterplan: Net additional GVA directly at the Docks	£0.00m	£36.63m	£105.86	£147.61m	£154.93m
Construction total net GVA					
Do Nothing		£0	£0	£0	£0
Masterplan		£4.78m	£4.78m	£4.78m	£0.00m
WIDER ECONOMIC IMPACTS					
Cruise sector benefits: total net GVA*					
Do Nothing	£0.35m	£0.46m	£0.60m	£0.74m	£0.91m
Masterplan	£0.35m	£0.64m	£1.41m	£1.85m	£2.37m
Masterplan: Net additional GVA in Cruise sector	£0.00m	£0.18m	£0.81m	£1.11m	£1.46m
Marina benefits: total net GVA**					
Do Nothing		£0	£0	£0	£0
Masterplan	£0	£0.27m	£0.27m	£0.27m	£0.27m
Masterplan: Net additional GVA for the Marina	£0	£0.27m	£0.27m	£0.27m	£0.27m
TOTAL CUMULATIVE NET GVA					
Do Nothing	£82.11m	£90.19m	£67.33m	£40.80m	£40.63m
Masterplan	£82.11m	£131.38m	£178.38m	£193.90m	£197.66m
TOTAL NET ADDITIONAL GVA					
Masterplan	£0.00m	£41.19m	£111.05m	£153.10m	£156.66m

* Include direct, indirect, and induced impacts

** Ibid

Masterplan impacts by sector

5.2.12 Figure 5.1 shows the growth of gross direct FTE jobs at Falmouth Docks by sector until 2030. Both yacht building and shiprepair sectors are expected to grow significantly as a result of capital investment at the Docks. Other Docks businesses will also see continuous growth until 2030 and beyond due to increased business opportunities arising from the flourishing shipping and shiprepair and yacht building sectors. Both the oil bunkering and cargo sectors are expected to expand as well.

5.2.13 For the purposes of applications for public funding, more detailed employment and GVA impacts by sector are shown in Table 5.5 and Table 5.6. .

2 Latest data on GVA by broad sectors that was available in 2010.

Figure 5.1: Masterplan direct gross FTE jobs

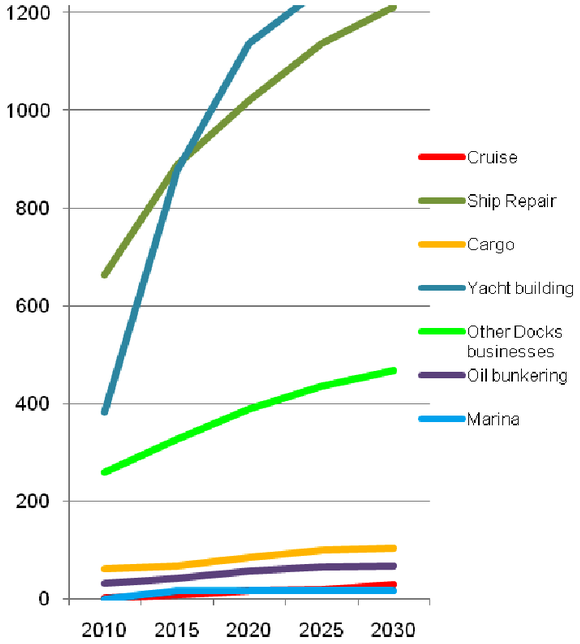


Table 5.5: Employment impacts of the Port development under the Masterplan scenario by sector

	2009	2010-2015	2015-2020	2020-2025	2025-2030
SHIPREPAIR					
Direct	662	889	1021	1137	1212
Indirect and induced	179	240	276	307	328
Leakage and displacement	-43	-58	-66	-74	-79
Total net FTE jobs	798	1,071	1,230	1,371	1,460
Net additional FTEs*	0	312	752	1,357	1,448
SUPERYACHT BUILDING					
Direct	383	653	922	937	934
Indirect and induced	103	177	249	253	253
Leakage and displacement	-25	-42	-60	-61	-61
Total net FTE jobs	461	787	1,111	1,129	1,126
Net additional FTEs	0	189	495	513	510
OIL BUNKERING					
Direct	33	43	56	65	68
Indirect and induced	9	12	15	18	18
Leakage and displacement	-2	-3	-4	-4	-4
Total net FTE jobs	39	51	68	78	82
Net additional FTEs	0	2	14	22	23
CARGO					
Direct	61	68	84	100	103
Indirect and induced	16	18	23	27	28
Leakage and displacement	-4	-4	-5	-7	-7
Total net FTE jobs	74	82	102	121	125
Net additional FTEs	0	8	53	81	85
OTHER DOCKS BUSINESSES					
Direct	260	328	389	435	468
Indirect and induced	70	89	105	118	126
Leakage and displacement	-17	-21	-25	-28	-30
Total net FTE jobs	313	395	469	525	564
Net additional FTEs	0	10	280	420	468
CRUISE					
Direct	3	8	16	20	29
Indirect and induced	1	2	4	5	8
Leakage and displacement	0	-1	-1	-1	-2
Total net FTE jobs	4	10	19	24	35
Wider economy	14	25	56	73	94
Net additional FTEs**	0	12	47	63	88
MARINA					
Direct	0	16	16	16	16
Indirect and induced	0	4	4	4	4
Leakage and displacement	0	-1	-1	-1	-1
Total net FTE jobs	0	19	19	19	19
Wider economy		10.9	10.9	10.9	10.9
Net additional FTEs	0	30	30	30	30
ADDITIONAL EMPLOYMENT SPACE					
Direct	0	161	453	505	505
Indirect and induced	0	44	123	137	137
Leakage and displacement	0	-10	-29	-33	-33
Total net FTE jobs	0	194	546	609	609
Net additional FTEs	0	194	546	609	609
CONSTRUCTION		78.2	78.2	78.2	0
TOTAL NET FTE JOBS	1,703	2,713	3,699	4,028	4,125
TOTAL NET ADDITIONAL FTE JOBS	0	852	2,304	3,175	3,273

* All 'Net additional FTEs' in this Table equal to 'Total net FTE jobs' of the Masterplan minus 'Total net FTE jobs' of the 'Do Nothing' scenario.

** Direct, indirect, induced, and wider economy effects

Masterplan GVA impacts by sector

5.2.14 The sectoral increases in GVA arising from the Masterplan broadly reflect the scale of increases in employment. GVA arising from the shiprepair and Superyachts sectors is expected to grow very substantially until 2030. All other sectors are also expected to generate steady growth in GVA.

Table 5.6: Annual GVA impacts of the Masterplan by sector

	2009	2010-2015	2015-2020	2020-2025	2025-2030
SHIPREPAIR					
Direct	£35.47m	£47.60m	£54.69m	£60.92m	£64.91m
Indirect and induced	£5.48m	£7.35m	£8.45m	£9.41m	£10.02m
Leakage and displacement	-£2.31m	-£3.10m	-£3.56m	-£3.96m	-£4.22m
Total net GVA	£38.64m	£51.85m	£59.58m	£66.36m	£70.71m
Net additional GVA*	£0.00m	£15.12m	£36.42m	£65.70m	£70.11m
SUPERYACHTS					
Direct	£20.49m	£34.98m	£49.39m	£50.20m	£50.05m
Indirect and induced	£3.16m	5.40m	£7.63m	£7.75m	£7.73m
Leakage and displacement	-£1.33m	-£2.28m	-£3.21m	-£3.27m	-£3.26m
Total net GVA	£22.32m	£38.21m	£53.81m	£54.68m	£54.52m
Net additional GVA	£0.00m	£9.15m	£23.97m	£24.84m	£24.68m
OIL BUNKERING					
Direct	£1.74m	£2.28m	£3.01m	£3.47m	£3.64m
Indirect and induced	£0.27m	£0.35m	£0.47m	£0.54m	£0.56m
Leakage and displacement	-£0.11m	-£0.15m	-£0.20m	-£0.23m	-£0.24m
Total net GVA	£1.90m	£2.49m	£3.28m	£3.78m	£3.97m
Net additional GVA	£0.00m	£0.11m	£0.67m	£1.04m	£1.09m
CARGO					
Direct	£3.27m	£3.65m	£4.52m	£5.37m	£5.54m
Indirect and induced	£0.50m	£0.56m	£0.70m	£0.83m	£0.86m
Leakage and displacement	-£0.21m	-£0.24m	-£0.29m	-£0.35m	-£0.36m
Total net GVA	£3.56m	£3.98m	£4.93m	£5.85m	£6.04m
Net additional GVA	£0.00m	£0.39m	£2.57m	£3.94m	£4.13m
OTHER DOCKS BUSINESSES					
Direct	£13.92m	£17.57m	£20.83m	£23.33m	£25.06m
Indirect and induced	£2.15m	£2.71m	£3.22m	£3.60m	£3.87m
Leakage and displacement	-£0.91m	-£1.14m	-£1.36m	-£1.52m	-£1.63m
Total net GVA	£15.16m	£19.14m	£22.69m	£25.41m	£27.30m
Net additional GVA	£0.00m	£0.47m	£13.53m	£20.35m	£22.67m
CRUISE					
Direct	£0.16m	£0.43m	£0.86m	£1.07m	£1.55m
Indirect and induced	£0.02m	£0.07m	£0.13m	£0.17m	£0.24m
Leakage and displacement	-£0.01m	-£0.03m	-£0.06m	-£0.07m	-£0.10m
Total net GVA	£0.18m	£0.47m	£0.93m	£1.17m	£1.69m
Wider economy	£0.35m	£0.64m	£1.41m	£1.85m	£2.37m
Net additional GVA**	£0.00m	£0.41m	£1.51m	£2.04m	£2.92m
MARINA					
Direct	£0.00m	£0.86m	£0.86m	£0.86m	£0.86m
Indirect and induced	£0.00m	£0.13m	£0.13m	£0.13m	£0.13m
Leakage and displacement	£0.00m	-£0.06m	-£0.06m	-£0.06m	-£0.06m
Total net GVA	£0.00m	£0.93m	£0.93m	£0.93m	£0.93m
Wider economy	£0.00m	£0.27m	£0.27m	£0.27m	£0.27m
Net additional GVA	£0.00m	£1.20m	£1.20m	£1.20m	£1.20m
ADDITIONAL EMPLOYMENT SPACE					
Direct	£0.00m	£8.62m	£24.27m	£27.07m	£27.07m
Indirect and induced	£0.00m	£1.33m	£3.75m	£4.18m	£4.18m
Leakage and displacement	£0.00m	-£0.56m	-£1.58m	-£1.76m	-£1.76m
Total net GVA	£0.00m	£9.39m	£26.44m	£29.49m	£29.49m
Net additional GVA	£0.00m	£9.39m	£26.44m	£29.49m	£29.49m
CONSTRUCTION	£0.00m	£4.78m	£4.78m	£4.78m	£0.00m
TOTAL NET GVA	£82.11m	£131.38m	£178.38m	£193.90m	£197.29m
TOTAL NET ADDITIONAL GVA	£0.00m	£41.19m	£111.05m	£153.10m	£156.66m

* All 'Net additional GVA values in this Table are equal to 'Total net GVA' of the Masterplan minus 'Total net GVA' of the 'Do Nothing' scenario.

** Direct, indirect, induced, and wider economy effects

5.2.15 Generally information provided by the Docks businesses has not been in a form that can be attributed to the development of any particular project. However, the Superyacht building business has provided direct job numbers that are expected to be created by three of the projects required to grow the yacht building sector at the Docks:

- New workshop
- New dock basin and pier
- Raised roof of the Dock No. 1

5.2.16 The additionality of these jobs is presented in the Table 5.7.

Table 5.7: Employment impacts of yacht building sector's Masterplan projects

Projects	FTE jobs in 2015
FTE GENERATED BY WORKSHOP	
Direct	0
Indirect and induced	0
Leakage and displacement	-0
Total net FTE jobs	0
FTE BY NEW BASIN	
Direct	124
Indirect and induced	34
Leakage and displacement	-8
Total net FTE jobs	149
FTE BY RAISED DOCK COVERING	
Direct	127
Indirect and induced	35
Leakage and displacement	-8
Total net FTE jobs	153
CUMULATIVE IMPACT OF ALL THREE PROJECTS:	
Total direct jobs	251
Total indirect and induced jobs	68
Total net additional jobs	303s

Sensitivity of projections

5.2.17 Sensitivity analysis is required due to the uncertainty inherent in the forecasts and the approximate nature of any assumptions underlying an economic impact assessment. Sensitivity tests are carried out by replacing various assumptions with a range of alternative assumptions, which are considered probable.

5.2.18 Most of the economic benefits are generated by the Docks' businesses and the multipliers, leakage, and displacement estimates applied to the estimates of jobs generated by them are unique to the Port of Falmouth having been based on the results of the RTP survey of businesses. The confidence in these impact estimates is therefore higher than it would be if generic multipliers and additionality rates were applied. The sensitivity testing in this case would produce more uncertain results or ranges of impacts compared to those shown in this report.

5.2.19 The cruise visitor spending estimates are based on the report produced by Arup, which suggests £38 per cruise call visitor to Falmouth. In comparison, an RTP study in Dover utilised proprietary surveys of cruise passengers and local cruise industry with the resulting estimated expenditure at the level of £25.42 per a cruise call passenger per day, including expenditure on tourism attractions and other leisure. The sensitivity of the results to a lower value of expenditure is insignificant.

5.2.20 The marine events sector impact estimates have been based on discussions with VisitCornwall and not on any robust primary or secondary data. They may therefore underestimate or overestimate the real impact, the extent of which is uncertain.

5.3 Capital costs of the Masterplan development

5.3.1 Capital costs of the Masterplan projects are shown in Table 5.8 and 5.9 below. The total investment during Phase 1 amounts to £101 million over the next five years.

Table 5.8: Schedule of costs: Masterplan Phase 1 (2011 2016) development projects

Schedule item	**Capital Cost, £**
New crane adjacent to No. 2 Dock	£1,250,000
Marina - 290 berths including car park	£10,000,000
Dredging of the main channel and deep water berth	£23,000,000
Remediation, capping and car park over former landfill site	£3,000,000
Superyacht workshops and bunkering offices [6300sqm GEA]	£2,500,000
Superyacht dock basin and new pier	£10,000,000
Combined Heat and Power (CHP) plant [note: excludes cost of docks heat main]	£3,000,000
Queen's/ Northern Wharf infill / extension	£8,000,000
Port control offices and small workshop on Queen's Wharf	£2,000,000
Enlarged workshop facilities at No. 1 dock	£1,500,000
Upgrade of fuel tanks	£12,000,000
New low flash slops facility (including relocation of helipad if required)	£1,500,000
Gateway development (Stage 1) including relocation of Port weighbridge and Port health building	£14,000,000
New shiprepair workshops (Stage 1) [4,750 sqm GEA 1,900 sqm mezzanine levels]	£4,000,000
Refurbish Eastern Jetty / Breakwater	£3,330,000
Sustainable transport package, rail and road upgrades	£2,000,000
Installation of berthing dolphin - Queen's Wharf	£250,000
Total	£101,330,000

5.3.2 The cost of the Docks heat main for the Combined Heat and Power Plant in Phase 1 has not been identified at this stage.

5.3.3 Potential Future Projects that could be implemented after Phase 1 is completed have also been identified in Table 5.9 and their costs estimated. At this stage, however, these projects are less certain and will depend on what will be achieved during Phase 1. The value of investment will need to be reviewed at a later stage. The schedule of costs shown below would require an additional £60 to £70 million at current prices.

Table 5.9: Schedule of costs: Masterplan Potential Future Projects (2016 2026)

Schedule item	Capital Cost, £
New shiprepair workshops (Stage 2) [10,000 sqm GEA + 4,000 sqm mezzanine levels]	£6,000,000
Port related business space and operations units [11,340 sq.m. GIFA]	£12,300,000
Cliff face multi-storey car park [400 vehicles]	£3,200,000
Multi use shiprepair and renewables workshops [5,000 sqm GEA + 2,000 sqm mezzanine levels]	£3,500,000
New superyacht workshops [1,700 sqm GEA]	£3,000,000
Western Wharf load-out	£15,000,000
Enlarged and relocated marina [650 berths assumed]	£13,000,000
Consolidated marina car parking [450 vehicles in multi-storey car park]	£3,600,000
Dredging of Eastern Jetty pocket for bunkering	£570,000
Gateway development (Stage 2)	£10,000,000
Total	£70,170,000

5.3.4 The cost of two potential future projects have not been identified at this stage. These are:

- County/Duchy wharf area. Future port use undecided
- Potential expansion of Falmouth Harbour Commissioners marina

5.4 Rationale / market failure analysis

Value for Money: NPV / Benefit to Cost Ratio / Unit costs

5.3.5 The Net Present Value of the Masterplan is estimated using the costs up to 2030 and forecast values of generated net additional GVA. The discount rate of 3.5% was applied as per the HM Treasury Guidance.

Table 5.10: Net Present Value of the Masterplan

	NPV of net additional GVA
Masterplan development	£1,029,400,000

5.3.6 The Masterplan produces significant additional positive benefits over the course of 2010-2030.

5.3.7 Benefit to Cost Ratios for the Masterplan have been estimated based on the cumulative net present value of additional benefits derived above and on the annual additional GVA benefits as follows:

Table 5.11: Benefit to Cost Ratios

	Masterplan indicator
BCR – based on NPV	10.2
BCR – based on annual additional GVA in 2030	1.5

5.3.8 The cumulative measure of additional GVA benefits to 2030 represented by the NPV exceeds total costs by 10.2 times. The annual measure of GVA benefits achieved in 2030 exceeds total costs by 1.5 times. The Masterplan Benefit to Cost Ratios are better than those for the post-dredging Options C, D and E (see Chapter 3 of this document).

5.3.9 Another useful measure of the value for money is the cost per unit of outputs or outcomes. Table 5.12 shows how much it will cost to generate £1 of net additional GVA (cumulative net present value) until 2030 and 1 net additional FTE job achieved by 2030.

Table 5.12: Costs per one additional FTE job and £1 of additional GVA generated

Cost per £1 GVA	£0.10
Cost per 1 FTE job	£30,957
Cost per 1 net additional FTE job generated by direct, indirect, and induced impacts	£31,622

5.3.10 The Masterplan performs well in terms of cost per £1 of net additional GVA generated by 2030. The cost of £0.10 per £1 of net additional GVA is less expensive to deliver than Options C, D and E.

5.3.11 It also performs well in terms of cost per each additional FTE job. At a cost of £31,622 per FTE job created by 2030 it performs better than all other options tested.

5.3.12 For comparison purposes, the reported cost per net additional job achieved by English RDAs on physical regeneration programmes between 2002/03-2006/07 was on average £63,271 for all projects and £42,101 for projects that were bringing land back into use[3]. Achieved cost per net additional jobs for 'Science, R&D, and innovation infrastructure' projects', which helped develop science parks was £37,938. The Masterplan therefore will result in better value-for-money compared to these benchmarks.

3 BERR, 2009. 'Impact of RDA spending – National report – Volume 1 – Main Report'.

5.4.1 Market failure provides the rationale for public investment which should only be directed to projects which the private sector is unable to fund itself.

5.4.2 Preliminary discussions with the Docks businesses show that most of the capital investment would come from the businesses themselves. However, some of the more expensive port infrastructure elements may not be possible to fund privately in their entirety.
For Phase 1 these are:

- Dredging of the main approach channel estimated at £23 million
- Enlargement and merging of the Queen's and Northern Wharves – c.a. £8 million
- Dock basin and pier for the Superyacht building sector – c.a. £10 million
- New workshops for the two shiprepair and yacht building businesses - £6.5 million
- Raising of the Dock No. 1 roof - £1.5 million
- Remediation and capping of the eastern former landfill site - £3 million
- Port control and cruise reception building and a small workshop - £2 million
- New crane adjacent to Dock No. 2 - £1.25 million
- CHP plant - £3 million

5.4.3 Excluding the dredging of the channel these projects total £35 million. In addition, a number of proposed employment space developments will cost £14 million during Phase 1 and potentially a further £15.8 million subsequently (port related business space and operational units and fabrication workshops for marine renewable).

Rationale for public funding of the dredging project

5.4.4 Despite the increasingly obvious business opportunities that dredging can offer to Falmouth, the high cost of dredging and the general availability of the approach channel to all users create a market failure whereby businesses are unable and unwilling to finance this project. It makes the approach channel a public good similar to road infrastructure. Furthermore, the European Commission itself confirmed that it views dredging as a public good in its Communication "Reinforcing Quality Service in Sea Ports: A Key for European Transport"[4].

5.4.5 During the RTP survey and interviews with key businesses it became clear that without dredging there would be a more limited amount of private investment at the Docks, comprising an expansion of the superyachts business and the upgrading of the tank farm by the oil bunkering business. The 'Do Nothing' scenario therefore has been developed to reflect what will happen to the Port of Falmouth without large scale investment into upgrading and rationalisation of the infrastructure and facilities within the Docks. The dredging project is therefore a main driver of the investment in a majority of projects with the principal exception of the superyachts sector.

4 Cf. Commission Communication COM (2001) 35 final of 1.2.2001, p. 11 reads as follows:"Public (general) infrastructure is open to all users on a non-discriminatory basis. It includes maritime access and maintenance (e.g. dikes, breakwaters, locks and other high water protection measures; navigable channels, including dredging and icebreaking navigation aids, lights, buoys, beacons, floating pontoon ramps in tidal areas); public land transport facilities within the port area, short connecting links to the national transport network or TENs; and infrastructure for utilities up to the terminal site. Investments in such infrastructure are normally considered by the Commission as general measures, being expenditures incurred by the State in the framework of its responsibilities for planning and developing a maritime transport system in the interest of the general public provided the infrastructure is de jure and de facto open to all users, actual or potential in accordance with Community legislation".

Rationale for public funding of the rest of port infrastructure and facilities

A&P workshops, new crane, and Queen's and Northern Wharves

5.4.6 The marine renewables sector is currently heavily supported by the government due to its infancy and the high cost of starting up business activities. The latter is due to high costs of infrastructure, e.g. connections to the grid, high capital and borrowing costs, and therefore an uncertain or insufficient return on investment. These identified market failures (mainly the public good nature of some of the goods and services, imperfect competition, and environmental externalities of traditional energy generation) are being targeted by government regulation and funding. For example, the Government announced in October 2010 that it would invest £60 million in port infrastructure to help establish offshore wind manufacturing sector in assisted areas of the UK.

5.4.7 Assessments of supply chain gaps in the offshore wind sector[5] clearly identify the lack of vessels for offshore wind as one of the key constraints. The modernisation of Falmouth Docks and its ship building and repair facilities is required both to respond to business opportunities arising from wave energy and offshore wind sectors and to enable these emerging sectors to fully develop in the UK.

Port control and cruise passenger reception building

5.4.8 The cruise sector at Falmouth is dependent on dredging of the approach channel and access to the enlarged Queen's and Northern Wharves to sustain long-term growth. A new port control building on the enlarged quay will include cruise reception facilities. The new cruise passenger reception would also contribute to retaining and attracting cruise calls. The cruise sector benefits the businesses at the Docks and businesses in Falmouth and more widely in Cornwall, with cruise passenger and crew spending being much higher than Docks revenues.

5.4.9 Estimated annual visitor expenditure from the cruise sector is £1.3 million. This is expected to grow to £2.4 million by 2015, and £8.8 million to 2030 if the Masterplan is implemented (together with the dredging of the approach channel). The European and UK cruise sector has seen significant growth in recent years with no signs of it stopping. There is therefore specific interest from the Falmouth and Cornwall business community in increasing the attractiveness of Falmouth as a cruise port.

5.4.10 The port control facility itself would benefit all of the Port of Falmouth users.

Dock basin and pier, raising of Dock No.1 roof, and workshops for the Superyacht building sector, and remediation of the Eastern former landfill site

5.4.11 The Superyacht building sector presents the highest growth opportunities at the Falmouth Docks. It urgently needs to expand its capacity due to the recent acquisition of a Superyacht brand and successful current business. It has become clear that failure to increase capacity in Falmouth will lead to the loss of opportunity for the local economy as additional capacity will be sought either elsewhere in the UK or in continental Europe with uncertain implications for operations in Falmouth.

5.4.12 Currently the Superyacht building sector provides 27% of the employment in the Docks in highly skilled jobs and is effective in training and skills development through its training centre and apprenticeships programme.

5.4.13 In addition, the sector contributes to the image of Falmouth as a town with marine heritage and tourism. It brings in high net worth customers, increasing their awareness of the town, and their Superyacht crews for temporary stay during yacht refits and repairs. The sector therefore has a high value in terms of its potential to positively affect the local economy both in terms of directly generated visitor expenditure and future tourism growth as a result of impact on the town's image and brand.

5.4.14 The Superyacht building sector will not itself capture these visitor and tourism related benefits. Hence the danger of the sector expanding to locations outside of Falmouth that was indicated during early stages of work on the Masterplan options and on Option A 'Do Nothing' in particular. Local communities therefore need to secure the presence of the Superyacht building sector in Falmouth in order to safeguard and gain the additional wider benefits it generates. Such wider benefits are a positive externality of the Superyacht building sector and the private business itself will not be willing or able to support it without public assistance.

CHP plant

5.4.15 The Combined Heat and Power (CHP) station may reduce CO2 emissions related to the energy used by the Docks' businesses. It could therefore address one of the key environmental policy issues of the government. The project may address the negative environmental externality of the current energy consumption at the Docks.

5.5.1 The levels of risks involved in the development of the Masterplan are shown in Table 5.13 overleaf. Risks are scored by assigning a likelihood (probability) of each risk and their impact on the delivery of the Masterplan and Masterplan objectives. The scales are from 1 to 5 where 1 is low and 5 is high. The risks, if materialised, can have time, cost, and environmental implications. The extent of these is not identified at the present level of analysis, however the 'totals' provide information on how many of these implications have been accumulated.

5.5.2 The Masterplan performs better in terms of exposure to risk than the other development options involving dredging the new approach channel. This is largely as a result of it combining the most effective and deliverable features of the options and avoiding areas of potential conflict between the main Dock's businesses. The highest risk ratings remain associated with the required dredging, and particularly the delays and difficulties in obtaining the necessary licences and the availability of private sector funding for its implementation.

5.5.3 Some areas of risk have diminished, however, over the course of preparing the Masterplan and since the options were devised and assessed. The PoFDI partnership has worked collaboratively to overcome setbacks and resolve issues, and the risk of the partnership failing to work together towards implementation has been reduced. Also the risks associated with potential failure to secure public sector funding support for key projects, including dredging, have been reduced as appropriate projects have been identified and their wider public benefits demonstrated through the appraisals undertaken. Overall, the greatest risk to the future well-being of Falmouth and Cornwall is that of inaction and/or the failure to secure the dredging of the approach channel that is needed to assure the long term future of the Docks justifying the scale of investment needed in the projects identified.

5 BVG Associates, 2010. ' Towards Round 3: Building the Offshore Wind Supply Chain'

5.6 Conclusions

Table 5.13: Risk assessment of the Masterplan

Risk	**Risk Effect:**					
	Likelihood	Impact	Risk Rating	Time	Cost	Environmental
Failing to continue successful PoFDI partnership cooperation	1	5	5	X	X	
Failing to establish a delivery task force	2	4	8	X	X	X
Securing landowners co-operation and commitment	3	3	9			
Failing to reach the projected turnover after the implementation:						
Shiprepair	3	5	15	X	X	
Cruise sector	2	3	6	X		
Cargo	2	2	4	X		
Superyacht sector	2	5	10	X	X	
Other supporting businesses; marine engineering	1	4	4	X	X	
Marine renewable: wave energy	3	4	12	X	X	X
Leisure boating	1	3	3	X	X	
Marine related events	2	3	6	X	X	
Commercial property lettings/sales	3	4	12	X	X	
Residential property lettings /sales	-	-				
Damage to the environment	3	4	12	X	X	X
Pollution incident	2	4	8	X	X	X
Planning risk	2	5	10	X	X	
Delayed approval of landside environmental consents / licences	2	3	6	X	X	X
Delayed approval of dredging & disposal licences	5	4	20	X	X	X
Availability of private funding for new business spaces	2	4	8	X	X	
Availability of private funding for new port infrastructure	3	5	15	X	X	
Availability of private funding for dredging	5	5	25	X	X	
Availability of public funding for new business spaces	2	4	8	X	X	
Availability of public funding for new port infrastructure	3	5	15	X	X	
Availability of public funding for dredging	3	5	15	X	X	
TOTAL			236	22	20	6

5.6.1 The Economic Impact Assessment of the Masterplan demonstrates the magnitude and nature of the economic benefits that the proposed development will bring to Falmouth and to Cornwall. The Docks businesses are already of major importance as employers, training and skills providers, and wealth generators in the local and wider economy. Securing the long-term future of the Port through dredging the new approach channel and investing in the Dock's infrastructure through the projects identified will result in the creation of many new direct and indirect jobs at the Docks and elsewhere in the locality and County.

5.6.2 Total direct FTE jobs at the Docks should increase by 54% between 2010 and 2015 (from 1,401 to 2,165), and by 138% by 2030 (increasing to 3,335). Over 100 indirect FTE jobs would be created in the wider economy in construction and as a result of new visitor spending. Increased business turnover should result in total net additional Gross Value Added (GVA) of £41.19 million per year by 2015 and £156.66 million per year by 2030. The necessary investment represents good value for money, with the value of benefits (annual additional GVA) exceeding costs (based on Net Present Value) by a factor of 10.2 by 2030. The cost per job created by 2030 of some £31,000, is significantly lower than that achieved for other public-sector supported regeneration programmes.

5.6.3 The economic appraisal is consistent with the requirements for developing the business case for ERDF funding support for the key qualifying projects that have been identified. It meets the requirements to consider and appraise options, as described in Chapter 3. It appraises the Masterplan in terms of its sustainability, as set out in Chapter 6. It summarises the rationale for public sector funding support in Section 5.4. Chapter 8 sets out recommendations for funding and delivery, and identifies the specific projects for which there may be potential public funding sources available. Overall the economic assessment provides a very strong analytic evidence-base for continuing and concerted action to secure the dredging and Docks development project investment that is essential to assure the long term future and success of the Port of Falmouth as a key element in the local and regional economy.

6

Sustainability Assessment of Phase 1 Masterplan

6.1 Introduction

Introduction

6.1.1 This chapter sets out a general Sustainability Assessment of the Masterplan. It builds on the assessment of the options described in Chapter 3 to describe how effectively the Masterplan and its constituent projects meet specific criteria for sustainable development. The appraisal takes into account the baseline information set out in Chapter 2 and the anticipated changes and impacts likely to arise from the Masterplan proposals, insofar as they can be ascertained at this strategic Masterplanning level prior to further detailed studies and design development. The results of the two rounds of consultation that have taken place at the options appraisal stage and the draft Masterplan stage are also taken into account in this appraisal.

6.1.2 As set out in Planning Policy Statement 1- Planning for Sustainable Development, sustainable development is the core principle underpinning planning. At the heart of sustainable development is the simple idea of ensuring a better quality of life for everyone, now and for future generations. A widely used definition, drawn up by the World Commission on Environment and Development in 1987 is: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

6.1.3 Sustainable development requires the simultaneous achievement of social, economic and environmental objectives. The appropriate choice of objectives depends on the site's opportunities and constraints, the developers' aspirations, economic costs and the requirements of applicable legislation, policy or standards. These are often called the 'drivers' for sustainability and they are unique for each project.

6.1.4 The objectives for the Port of Falmouth are derived from the PoFDI agreed strategic objectives for the Masterplan (in Section 1.2), the economic policy and the Falmouth and Penryn Strategic Investment Framework (SIF) (Section 2.4), and other policies and regulations (Section 2.4). The objectives used to appraise the Masterplan are set out in three categories; Environmental, Economic and Social. For comparability with the Options Appraisal summarised in Section 3.3 the appraisal criteria are based on the headings provided in the South-West Sustainability Checklist.

6.2 Assessment against environmental objectives

Climate Change / Energy/CO2 Emissions

6.2.1 Human activities associated with increasing levels of C02 in the environment are widely recognised to be having an effect on the climate. Climate change is a threat to human habitats, with coastal regions facing potentially higher risks due to rising sea levels and flood risk. New developments will need to be adaptable and resilient to changing weather patterns. The sustainable development objectives are:

- to reduce our contribution to climate change through a reduction in energy consumption and greenhouse gas emissions;
- to increase resilience to climate change, and reduce vulnerability; and
- to encourage the use of renewable energy technologies.

6.2.2 The Masterplan should make a major positive contribution to meeting these objectives in a number of ways. The provision of the combined heat and power plant in Phase 1 will:

- reduce reliance by the docks businesses on heat and power generated by coal or gas power stations and reduce on-site CO2 emissions by an estimated 30%;
- potentially be able to contribute to providing heat and power to neighbouring uses and areas, thereby reducing their conventional energy demands and CO2 emissions; and
- utilise bio-fuels that can be imported by sea to the Eastern jetty, utilising less transport-related energy consumption than lorry-borne imports of bio-fuel would require.

6.2.3 The dredging of the approach channel will enable more and larger vessels to access the docks and is therefore a key element in ensuring the long term sustainability of the Docks and associated sea borne access to Cornwall. In terms of the local impacts, the small but not significant effect that this may have on local air quality is likely to be more than off-set by the beneficial impact of:

- larger cruise ships will be able to moor alongside the Queen's / Northern Wharves while in port, thereby saving on the energy and fuel expended in ferrying passengers between ship and shore by tender, and on the fuel required for the ships' engines to keep such large ships on-station when anchored in the bay in windy conditions.
- imports and exports of goods by a smaller number of more modern, larger vessels able to access deepwater berths is likely to be more fuel efficient and reduce their overall carbon emissions; and
- future requirements for lower sulphur emissions from shipping entering the English Channel and North Sea Sulphur Emission Control Area will improve air quality, and the ability of Falmouth to accommodate larger vessels importing low-sulphur, high distillate fuels will facilitate efficient and effective bunkering services provided from the Port.

6.2.4 The Masterplan identifies the potential for the Port to provide access for offshore renewable installations. This could make a significant contribution to increasing the renewable energy capacity for power supply locally and regionally. The possible expansion of the proposed marina as a Potential Future Project could limit the long-term effectiveness of the Port to serve the offshore renewables sector as it would remove access to Duchy Wharf and place the adjacent port-related area under pressure from competing marina-related landside operations.

6.2.5 Vulnerability of the Port of Falmouth to rising sea- levels associated with climate change has been assessed with reference to the Environment Agency's flood risk maps. Most of the site is well above current extreme water levels. Predictions of sea level rise and wave overtopping suggest that, by 2111, design water levels could rise to 5m Above Ordnance Datum. Nevertheless, the quay elevation in the Docks remains above those that would be considered vulnerable, and no inappropriate development is proposed in any areas that may be vulnerable to future flooding.

6.2.6 Overall the Masterplan retains and improves on the energy efficiency and CO2 reduction capabilities of Options C, D and E. Sustainable development standards and requirements incorporated in the detailed design and approvals processes for the proposed projects will provide more specific measures. It is recommended that a Docks energy strategy, linked to the CHP provision, should be developed as the detail design of projects is progressed so that greenhouse gas emissions from buildings and processes can be mitigated in a coordinated manner.

Water

6.2.7 Sustainable management of freshwater resources is important for maintaining water supplies and preventing flooding, but the sea also poses a flooding risk. Poor water quality can impact upon health and biodiversity, and requires greater levels of treatment. The water-related objectives are:

- to reduce the risk of flooding and vulnerability to flooding, sea level rise and coastal erosion; and
- to maintain and enhance water quality and reduce consumption and increase efficiency of water use.

6.2.8 The Masterplan contributes to meeting the first objective as follows:

- All of the activities proposed are water-compatible and appropriate for the location.
- Improvements to the Eastern Breakwater will ensure that the Docks continue to benefit from weather protection from easterly and south-easterly winds in the long term.
- The remediation and capping of the eastern former landfill site will also involve the strengthening of the sea wall, improving protection from flooding and coastal erosion.

6.2.9 With regard to the second objective, the Masterplan proposals have the potential to improve the quality of surface water running off into the sea through the rationalisation of uses and activities in the Docks, and the incorporation of proper surface water drainage infrastructure including the provision of interceptors. It is recommended that a Docks-wide drainage strategy is developed which considers: the existing systems; methods for reducing water consumption; leaks and pollution particularly for water-intensive activities; management and improvement of surface water run-off; and the needs of future buildings on the site.

Materials

6.2.10 The choice of materials for construction can have a significant effect on carbon emissions and energy consumption, as some materials involve the less sustainable use of non-renewable resources, and require considerable energy consumption in their production and their transportation. The materials-related objectives are:

- to utilise construction and operational materials that, where practical, have a low embodied energy to reduce the associated environmental impact; and
- to source such materials responsibly and, where possible, locally.

6.2.11 At the strategic level of this Masterplan it is not possible to identify specific projects that particularly contribute to the meeting of these objectives. Future design, procurement and construction practices and protocols will be particularly important. However, the potential for transporting construction materials to the Docks by sea rather than by road has major sustainability advantages that will be enhanced by the proposed improvements to access to deep-water berths and associated Docks infrastructure. The proposed modernisation of shiprepair and fabrication facilities will also enable more construction elements and components to be produced in-situ, rather than having to be imported.

Waste

6.2.12 Waste poses a hazard to the environment and human health. It puts pressure on infrastructure, and has financial costs associated with it. Sustainable waste management follows a 'waste hierarchy' that favours reduction of waste generation, reuse of waste and recycling over energy recovery and landfilling. The waste-related objectives are:

- to minimise the generation of waste; and
- to encourage greater re-use and recycling of materials in accordance with the waste hierarchy.

6.2.13 The Masterplan proposes the rationalisation of land uses and activities in the Docks area and the reclamation of a former landfill site that contains waste contaminants. The investment in the Docks infrastructure proposed will result in substantially increased productivity and a significantly increased propensity to generate waste. The overall development framework and the specific projects within it have the potential to anticipate this and contribute to meeting the waste-related objectives as follows:

- Individual projects can positively address waste minimisation and re-use and re-cycling issues.
- Retaining and improving facilities for cargo handling at the Docks can support the potential expansion of the export of glass cullets and other recyclable materials that cannot be re-used locally.
- The proposed improvement of slops handling facilities as part of the Port's bunkering services will improve the efficient disposal and, where practicable, re-cycling of waste from visiting cargo and cruise ships.

6.2.14 It is recommended that a Docks-wide waste strategy is developed that: identifies current and future waste sources, streams and quantities generated; identifies opportunities for waste minimisation, waste segregation and re-use of waste products within individual projects; identifies the potential for collaboration between the Docks businesses in re-using each other's waste products; and identifies the potential for the location, development and management of a site-wide waste-management facility within the Docks area.

The Natural Environment

6.2.15 Conservation of the natural environment has been a major imperative throughout the Masterplanning process. Of particular significance is the potential impact on the Fal and Helford Special Area of Conservation within which lie all the marine parts of the Port of Falmouth. The land-side part of the Study Area, the Docks area, is also of direct relevance as it contains within it areas of contamination that could pose a threat to marine and terrestrial habitats and species, and areas that are naturally vegetated and contribute to the biodiversity of the wider area. It is here also that future port-related activities could lead to undesirable environmental consequences such as ground contamination and increased air pollution.

6.2.16 The specific objectives for minimising impact on the natural environment are:

- to minimise any harm to the marine habitats and species within the SAC;
- to minimise any harm to the terrestrial habitats and species within the Docks area and retain or enhance biodiversity; and
- to minimise any potential ground or water contamination or air pollution that might arise as a result of the activities within the Docks.

6.2.17 The main perceived threat to the SAC that has been identified during the Masterplanning process and in public consultation is associated with the proposed dredging of the approach channel. Capital dredging of the proposed new channel will result in an impact on around 2% of the existing maerl habitat (some 4 hectares). With mitigation (maerl translocation), however, a net increase of 2 hectares would be possible providing for re-colonisation of the habitat during and after dredging operations. The loss of maerl for the new channel has been assessed as being less than the loss if an equivalent solution involving the existing channel is utilised. Dredged material will be treated prior to offshore disposal, but its removal could cause re-suspension of some contaminated sediments, if appropriate care is not taken. The Environmental Assessment that accompanied the application for the licence to dredge concluded that the proposed dredging would not have an adverse long-term effect on the integrity of the SAC. The MMO has cited Natural England's current concerns over the lack of guaranteed success of mitigation as a significant reason that the dredging proposals have not received permission. The overall effect on the SAC is currently still under discussion, but for the purposes of this Study, the mitigation measures proposed offset any potential harm to the maerl habitats or arising from contamination during dredging.

6.2.18 The Masterplan is unlikely to have a significant adverse impact on fish and shellfish or on birds. There could be impacts on marine mammals arising from underwater construction noise (e.g. piling), TBT, and boat collision risk. Adequate mitigation measures for the protection of marine mammals during construction can be devised and put in place at the detailed design and construction stage of those projects involving the improvement and construction of wharves, jetties, piers and dockyard basins, post construction in appropriate port operational practices.

6.2.19 The Masterplan proposals avoid disturbance to the area of vegetation and woodland that lie alongside the south-east edge of the Docks area and form part of the lower slopes of the Pendennis Peninsula. As these are the only areas within the Docks of potential ecological value the objective to minimise harm to terrestrial habitats and preserve biodiversity is met.

6.2.20 The Masterplan proposals involve the decontamination/remediation of the eastern former landfill site and the reinforcement of the sea wall along its northern edge. This is a positive improvement that contributes to the third objective for the conservation of the natural environment. Other projects will have specific measures for preventing ground and water contamination and air pollution embedded within them at the detailed design and implementation stage. Examples include proposals for new bunds adjacent to the renewed fuel tank farm, and environmentally controlled new fabrication facilities for both the shiprepair and Superyacht construction sectors.

6.2.21 The Masterplan performs as well, if not better, in meeting the sustainability objectives for the natural environment than all the other options involving dredging the new approach channel (Options C, D and E). Clearly the options examined that involved no dredging (Options A and B) would have no impact on the maerl beds. This does not mean that these options are better in meeting long term sustainability objectives, however, because the proposed dredging mitigation could result in an overall eventual net increase in habitat. Also the other measures that improve ground conditions, and lessen the potential for pollution, might not come about if the investment by the Docks businesses in the new projects fails to materialise as a result of the potential long term decline of shipping using the Port, as average ship sizes increase and the un-dredged channel continues to silt up.

Transport and Movement

6.2.22 Reducing the overall proportion of travel by car and heavy goods vehicle to reduce congestion and vehicle emissions requires good transport infrastructure and integrated sustainable transport measures. Cornwall's geographic constraints and seasonal tourism can put pressure on transport infrastructure, but the long coastline provides many opportunities for marine transport. Falmouth in particular has the unique advantage of its strategically well-located Port with a rail line terminating near the Docks and road access from the A39.

6.2.23 Commercial shipping and related operations at the Port of Falmouth mean the local transfer of cargo and cruise tourists between sea and road transport and travel to the site for those working at or using the site by all modes. The existing deep-water channel has been subject to silting-up, which limits the size of vessels that can access the Port. Specific problems identified within and around the study area include congestion on the A39, the single point of access to the harbour, a height restriction leading to the A39, uncoordinated and ad-hoc car parking, and limited opportunity for alternative access for pedestrians and cyclists due to steep gradients.

6.2.24 The specific objectives for sustainable transport are:

- to maintain and enhance Falmouth's strategic significance as a deepwater port, and maximise the opportunities for sea borne rather than road borne transportation;
- to reduce the dependence on road travel and transport both locally and regionally by reducing the need to travel and by providing safe sustainable travel choices; and
- to reduce traffic congestion and minimise transport related greenhouse gas emissions.

6.2.25 The Masterplan performs very well against the first objective. Dredging of the approach channel will allow large ships and cruise liners to access berths at the Docks. This will increase the potential for cargo to be imported to Cornwall by sea for local distribution rather than by long distance road trips. It also opens up further opportunities for the transhipment of cargo at Falmouth from large ships to coasters for onward sea transport to other Cornish and British ports. It will also increase visitor numbers to Cornwall travelling as cruise ship passengers requiring subsequent short excursion journeys by coach rather than longer distance car or coach travel to get to Cornwall in the first place.

6.2.26 The Masterplan provides for a substantial increase in economic activity and employment at the Docks, whilst this will result in significant additional journeys to work at the Docks as well as freight vehicle trips. It is likely that many of these trips will be locally generated. The provision of local jobs will assist in promoting a good local balance of jobs and working residents, thereby contributing to a more 'self contained' and sustainable community. To ensure that an appropriate balance on trips to the Docks is achieved between vehicle restraint to encourage other modes of travel and the need to accommodate some on-site parking so that parking and congestion problems do not spill over into surrounding streets, the Masterplan proposes:

- retaining the potential for a future rail link to the Docks utilising the existing disused spur;
- improving pedestrian access to the Docks from the Falmouth Docks station by a dedicated pedestrian link to facilitate and encourage travel to work by train;
- improving walking and cycle ways within the Docks area itself;
- the phased development of on-site parking facilities, with the parking requirements generated by the mixed use Gateway Development being met as part of the development as it is built out, parking for employees at the Docks being rationalised in two dedicated parking facilities, and parking for the marina project being met on the Western Wharf in Phase 1 and in a multi-storey structure adjacent to Duchy Wharf if the marina expands subsequently;
- provision for adequate coach and shuttle bus parking for cruise passengers on the multi-purpose port operations areas adjacent to Queen's Wharf; and
- the development of a sustainable transport package to promote initiatives and projects to encourage travel by non-vehicular modes and address any issues of congestion and parking management.

6.2.27 The above will ensure that the future development of the Docks can be managed in a sustainable manner. Phase 1 of the Masterplan performs as well, if not better, in transport movement terms as Options C and E involving dredging and a smaller marina. The enlargement of the marina after Phase 1 will pose additional transport demands and the need for multi-storey car park construction within the operational port area. As it will also limit the potential wharf space available for seaborne commercial shipping by enclosing Duchy Wharf within the marina, the post-Phase 1 Masterplan can be regarded as less sustainable in movement terms than Option E.

6.3 Assessment against economic objectives

Economic development and employment growth

6.3.1 At the heart of the long term, sustainable retention and development of the Port of Falmouth as a major strategic component of the local and regional economy, is the imperative to retain and nurture economic activity at the Port and the direct and indirect employment that it supports. Falmouth and Penryn qualify for ERDF funding which seeks to invest in local projects to unlock the local economic potential. The SIF acknowledges the importance of the Port and the potential benefits it could bring with respect to expansion of local industry. At a more local level, both the Penryn and Falmouth Community Plan and the FHC 5 year strategy acknowledge the importance of the Docks in providing local employment. The PoFDI recognises the economic importance of the Port and its role as a major employer within Falmouth and the wider community.

6.3.2 The sustainable economic and employment growth objectives are:

- to support existing Port activities and businesses and maximise the employment opportunities they provide;
- to support the local and Cornish economy in general and the agricultural and tourism sectors in particular; and
- to utilise the potential for ERDF funding support for appropriate projects that require public sector funding support to improve the Port's essential infrastructure and sustain employment growth.

6.3.3 The Masterplan promotes a diverse range of employment activities, both within the Masterplan's focus of the Docks and in the wider Falmouth / Cornwall economy. The economic impact assessment shows that the majority of new jobs are created in the high quality sectors of shiprepair and Superyachts. In total, the Phase 1 Masterplan is estimated to provide 900 net additional FTE jobs at the Docks by 2015. Of these 312 would be in the shiprepair sector and 323 would be in the Superyacht sector. These sectors do not have the problem of seasonality associated with tourism-related employment.

6.3.4 The Masterplan will secure the retention and improvement of wharves, jetties and associated facilities for cargo handling, cruise operations, bunkering and other businesses at the Docks that support the Port's primary activities. Direct employment at the Docks will increase steadily in these sectors, and there will be major benefits to the wider Cornish economy through supporting agriculture by the cost-effective import of animal foodstuffs and fertilisers, and tourism by increasing visitor numbers arriving on cruise ships.

6.3.5 The Masterplan meets the third of the above objectives, by including and identifying specific development projects that the PoFDI partners will embrace and work up, and which would qualify for ERDF funding support.

6.3.6 The very substantial employment growth and wider economic benefits that the Masterplan projects would generate are greater than any other option would support. These beneficial impacts are contingent, however, on securing and safeguarding the long-term future of the Port as a deep-water facility that can accommodate the largest ships that would use it. The dredging of the approach channel and the retention and improvement of wharves and associated port operations areas are essential to achieve the desired economic and employment growth benefits.

6.3.7 There is a concern that the marina development in general and its substantial enlargement after Phase 1 could have an adverse effect on the sustainable future of the Port. It could limit the activities of the shiprepair sector and the Cargo sector as a result of the proximity of moored yachts to commercial operations that can at times generate dust, dirt and noise emissions. Also any extension of the marina westwards would have to be limited to ensure that navigable access by commercial shipping to the County Wharf deep-water berth was not compromised, and access and egress from the RNLI lifeboat station was not impeded.

Economic diversification and resilience

6.3.8 The resilience of the local economy to national and global economic downturns should be improved by reducing the dependence on any one particular industry. However a balance must be struck as local industries should be provided with equal levels of support to prevent the decline of well-established and strategically important industries, such as shiprepairs. The resilience of ports is supported by the Draft National Policy Statement for Ports, which recommends that sufficient capacity is provided at ports enabling fast response to changing economic, emergency, and security conditions. A port's resilience will make it more sustainable in the long term.

6.3.9 The specific objectives for diversification and resilience are:

- to increase the potential for the Port to support the technological and economic development of the renewable energy sector;
- to provide accommodation for new Port-related activities and support the flexibility and inter-changeability of existing and future Port-related uses and operations;
- to support tourism and leisure activities in Falmouth and Cornwall; and
- to safeguard the potential of the Port of Falmouth as a strategic asset in the event of local or national emergencies.

6.3.10 The Masterplan provides improved deep water berths, dry docks and associated landside areas that can be used by the renewables energy sector for the berthing, storage and assembly of wave and wind energy devices, and off-shore energy supply and maintenance vessels. Proposed improvements to workshops and fabrication facilities for the shiprepair and Superyacht sectors can be utilised for research and development of renewable energy devices and their subsequent manufacture.

6.3.11 There is a range of accommodation and building types proposed in the Masterplan that could be used by a range of Port-related activities. Key Port infrastructure elements such as wharves, dry docks and workshop and storage buildings could be used by either of the main employment sectors (shiprepair and Superyachts), and/or to support the Cargo and Cruise sectors. The Gateway Development provides for new forms of buildings and accommodation for a range of existing and potentially new Port-related activities, including offices and hotels catering for contract workers and yacht crews.

6.3.12 The improved facilities at the Docks will enhance the attractiveness of Falmouth as a cruise destination, and support the local economy and employment in related activities. The proposed marina development will enhance Falmouth's offer as a yachting centre, although its location within the commercial Docks is not ideal. Improvements at the Docks that could better accommodate visiting tall ships would enhance Falmouth's chances of attracting more high profile events, which in turn would lead to increased visitor numbers and indirect employment in the tourism sector.

6.3.13 The proposed dredging providing deep-water access to berths capable of accommodating large ships as well as the retention and improvement of shiprepair facilities, will secure Falmouth's future as a strategic base, not only for the Royal Fleet Auxiliary, but potentially for other Royal Navy and commercial shipping vessels in the event of an emergency or national defence requirement.

6.3.14 Overall the Masterplan performs very well in meeting the objectives for sustainable economic development. As shown in the Economic Impact Assessment in Section 5, it creates more jobs, generates greater Gross Value Added and achieves better value for money than any of the other options considered.

6.4 Assessment against social objectives

Education and skills

6.4.1 Education provides the link between community and economy. The provision of education and development of skills is required to fully utilise the "human capital" of local people and resources to the benefit of current and future society. Both Pendennis Shipyard and the A&P Group operate work experience and apprenticeship schemes with local schools and colleges. The importance of these links is acknowledged both in the SIF and particularly the Falmouth and Penryn Community Plan which provides a specific objective to support and retain young people and graduates. The Marine Skills Centre based in the Bridon Ropes building provides on-site training and skills development for the Superyacht sector. Some of the research and development activities of the PRIMaRE research project associated with the development of the wave energy industry by the Universities of Exeter and Plymouth have taken place at the Docks. The Port of Falmouth has an important role to play in supporting education and skills development.

6.4.2 The specific objectives for education and skills development are:

- to increase the potential for the Port businesses to support local schools and colleges by providing work experience and work-based training and skills development;
- to increase the potential for the Port businesses to enhance the qualifications and skills of young people;
- to increase the potential for the Port businesses to work in partnership with higher and further education establishments to provide or contribute to professional and vocational courses in marine and port-related fields; and
- to support the research and development activities of marine and renewable energy institutes or establishments.

6.4.3 The Masterplan provides the opportunities for the expansion and development of those key sectors that are already involved in the provision of education and training. The substantial expansion of both shiprepair and Superyacht activities in refurbished and new accommodation will provide for the potential expansion of skills development, training and apprenticeship schemes at the Docks.

6.4.4 The Masterplan retains the Bridon Ropes building as a training centre. It allows for marine renewable technologies to be accommodated at the Port in the future, and provides for the modernisation of fabrication facilities. This sector already has close links with the shiprepair sector, and continued involvement in research and development activities by institutes such as PRIMaRE can be supported. There is potential within the Gateway Development to accommodate some form of marine related higher or further education establishment or research facility.

6.4.5 While it is beyond the scope of the Masterplan to produce a detailed education and skills development strategy, the investment in and development of the projects identified will provide very favourable conditions for meeting the education and skills objectives above.

Heritage

6.4.6 The Port of Falmouth in general and Falmouth Docks in particular are an intrinsic part of the history of the town and of Cornwall. The importance of the Port to the town is acknowledged under both Theme 2 and 3 of the Falmouth and Penryn Community Plan. The strong sense of civic pride in the presence and evolution of the Port and its businesses has been evident in the consultation undertaken in the preparation of the Masterplan. The various heritage assets at the Port and their significance have been described in Section 2.7. The preservation of heritage assets for the benefit of existing and future generations is a key component of sustainable development fully acknowledged in national and local planning policies.

6.4.7 The specific objectives for heritage protection are:

- to ensure that development does not cause harm to the heritage significance of designated heritage assets or their settings, notably the Grade II listed Bridon Ropes building, the Pendennis Peninsula Fortifications Scheduled Ancient Monument, and the Falmouth Conservation Area;
- to ensure that development does not cause harm to the heritage significance of elements of the Docks themselves; and
- to protect marine and land-based archaeological remains from unacceptable harm.

6.4.8 The Masterplan meets these heritage protection objectives. It retains the Bridon Ropes building and retains an appropriate dockyard setting for it. It avoids any encroachment upon the remains of the eastern hornworks of the Pendennis Peninsula Fortifications Scheduled Ancient Monument. It preserves the setting of Fort Pendennis itself and of the Falmouth Conservation Area. Where it might have an impact on the setting of the Conservation Area adjacent to the two storey Railway Cottages, it proposes a transition in scale by the Gateway Development interposed between it and the large volume structures in the Docks.

6.4.9 The Masterplan preserves the cultural and heritage significance of the Docks by ensuring that all its key components and areas remain in appropriate Port-related uses, and that the long-term future of the area as a working Port that supports thriving Docks businesses is assured.

6.4.10 The impacts on potential archaeological remains below the seabed arising from dredging and the construction of Port infrastructure on or under the seabed will need to be appropriately assessed when projects are developed in detail. Unacceptable harm would need to be avoided, and appropriate archaeological protocols and schemes of investigation and mitigation will need to be put in place.

Leisure and recreation

6.4.11 Sustainable development should, where relevant and possible, promote health and well-being through the provision of appropriate leisure, recreation and sports facilities. Sailing and water based activities are particularly relevant to the local population of Falmouth, which also bring significant economic benefits. The Port of Falmouth and the Fal estuary provide a regionally and nationally recognised focus for sailing and other watersports. The Docks, however, form a private and secure commercial enclave that hitherto has not provided publicly accessible leisure facilities. Proposals for a 290-berth marina would bring new marina users into the Docks.

6.4.12 The specific objectives for leisure and recreation provision are:

- to support the expansion of sailing and water based recreational activities within the Port; and
- to ensure that such new provision does not compromise commercial Port operations.

6.4.13 The Masterplan supports the first objective by the provision of the previously approved 290-berth marina in Phase 1, and allowing for its future expansion to accommodate some 600 berths. It also allows for the expansion of the FHC marina facilities for visiting yachts.

6.4.14 The expansion of the marina at the Docks may give rise to problems of incompatibility with other port operations, notably in the shiprepair and Cargo sectors and may hinder access to the lifeboat station (see para 6.3.7 above).

Placemaking

6.4.15 Placemaking and good design are essential components of sustainable development that are valued by communities and those who work in and visit places. The Port of Falmouth benefits from the very high quality and distinctiveness of the town in its beautifully landscaped estuarine setting. The Docks form a distinctive townscape character area that is industrial/commercial in nature with large storage and fabrication buildings, tall cranes, busy wharves and quays with ships of various kinds moored alongside. This contrasts with the fine-grained townscape of the town centre and waterfront to the west of the Docks and the wooded slopes of the Pendennis Peninsula forming a backdrop to the Docks. Pedestrian links between the Docks and the nearby town centre are indirect and avoid the waterfront, and could be improved.

6.4.16 The specific objectives for placemaking are:

- to retain and enhance the townscape character of the Port in general, and the commercial "working docks" character of Falmouth Docks in particular;
- to promote and achieve high quality, locally distinctive design of buildings and structures that are appropriate for their use, meet appropriate environmental standards and are appropriate to their townscape and landscape setting; and
- to improve links between the existing Town Centre and the Docks.

6.4.17 The Masterplan fully supports the continuing evolution of the Docks as a distinctive commercial "working docks" character area. New buildings and structures proposed as projects are appropriate for their use, and of a scale that is commensurate with the activity they support in the working docks context. Detailed design requirements and environmental performance specifications will be drawn up for individual projects within the overall framework and general guidance provided in the Masterplan.

6.4.18 The Gateway Development will form a new publicly accessible distinctive sub-quarter at the threshold to the secure, controlled environment within the Docks. It will provide for a mix of building types to meet the varied needs of the Port-related activities within it. The height and scale of buildings within it should mediate between the domestic scale of Railway Cottages to the west and the larger-mass traditional port operation and shipyard structures to the north and east.

6.4.19 As a generally accessible transitional area, the Gateway Development will help to improve the actual and perceived links between the Docks and town centre. The Masterplan per-se cannot further provide for improved links to the town centre as these would lie outside the Falmouth Docks area. Other simple initiatives, such as opening up to wider public access the private waterside walkway around the Port Pendennis development, could be very effective in improving links to the town centre.

6.5 Conclusions

6.5.1 The Masterplan performs well against all the sustainability objectives defined under the Environmental, Economic and Social categories. Overall it is more sustainable than the range of options examined in the Masterplanning process. Where proposals involve inevitable and desirable growth there will be a range of impacts that will have to be managed and where necessary appropriate mitigation measures will need to be put in place.

6.5.2 What is evident is that the option of doing nothing to promote the development of the Port is wholly unsustainable. The need to secure a deep-water approach channel to the Docks lies at the heart of securing the long-term future of the Docks and the full range of economic and social benefits that will accrue locally and to the region as a result. Where there are potentially harmful impacts to environmental assets arising from the proposed dredging, these have already been identified and appropriate mitigation measures proposed, thus rendering the proposed development of the Docks wholly sustainable.

7

Urban Design and Planning Appraisal of the Masterplan

7.1 Introduction

7.1.1 The Port of Falmouth Masterplan will act as a material planning consideration in the determination of future planning and other associated applications at the Docks. It will not authorise permission in itself, but will act as a set of guiding principles in the way applications are assessed.

7.1.2 The Masterplan is not be a 'stand-alone' plan - it is important that it fits with, responds to and informs other plans for Falmouth, in particular:

- the Falmouth and Penryn Strategic Investment Framework;
- key local planning policies;
- the Falmouth & Penryn Community Plan; and
- key local planning policies (including the emerging Core Strategy and Town Framework).

7.1.3 This chapter draws the relevant policies from these documents together under the Masterplan strategic objectives, to create a structured framework for appraising the Masterplan against planning and urban design policy. There is overlap with the economic appraisal and the scoping for sustainability appraisal – as a result, this chapter provides a summary overview appraisal of the Masterplan.

7.2 Policy Overview

SIF Themes and Priorities

7.2.1 The Falmouth and Penryn Strategic Investment Framework (SIF) was produced by the Cornwall Development Company on behalf of the South West England Regional Development Agency (SWRDA). Published in January 2010, its purpose is to guide the use of European Regional Development Funds (ERDF) under what is known as 'Priority 4' of the ERDF Convergence Funding Programme. Priority 4 seeks to develop the capacity of Falmouth and Penryn to accommodate new investment critical to the development of a knowledge based and higher value added economy. Projects eligible for funding include developing sites and premises, supporting related new public spaces, local transport infrastructure and investments linked to other ERDF supported projects. Projects must be environmentally sustainable and socially inclusive.

7.2.2 The SIF notes that some key issues for the marine sector are:

- protecting the range of smaller marine-related businesses along the waterfront;
- enhancing the long term competitiveness of businesses within the main Port area;
- promoting growth in research and specialist marine-related businesses associated with the Port area;
- improving public access to the waterside for marine leisure users; and
- meeting the demand for new marina berths in a sustainable manner.

7.2.3 In addition, the SIF states that the marine renewables sector is an area of potential growth.

7.2.4 The SIF recommends that a Masterplan is produced for the Port, and this study is the result of that recommendation.

7.2.5 Substantive objectives for the SIF include ones to:

- improve GVA productivity by diversifying the economic base into more productive sectors with potential for growth;
- provide for education, training, knowledge transfer, and commercial research and development;
- achieve a vibrant future for Falmouth Docks;
- maximise business opportunities from improving access to the waterfront for all sections of the local and non-resident community;
- provide premises for marine sector businesses and training providers;
- provide communication and transport systems to meet economic development needs;
- encourage sustainable transport initiatives;
- provide for a broader range of high quality sites and premises to meet the needs of a dynamic economy (including prestigious premises for inward investors, managed workspaces for start-up enterprises and live-work units);
- ensure development is provided in an environmentally and socially sustainable manner;
- enable investment in the drivers of a low carbon economy; and
- widen areas of participation opportunities for all sections the community and remove barriers for the disadvantaged.

7.2.6 In addition, specific project or sector-related needs and opportunities were identified in the SIF. These included:

- the need for dredging to sustain existing port functions and businesses and to facilitate new marine related business;
- support for training providers such as the Falmouth Marine School and the Cornwall Colleges / Pendennis Shipyard Marine Skills Centre in the Bridon Ropes building;
- investigation of sustainable on-site/district heat and power opportunities, including a CHP plant at the Docks;
- assisting development of the marine sector;
- developing cargo and coastal transhipment opportunities;
- supporting traditional existing port activities including shiprepairs, bunkering and yacht building; and
- meeting the demand for new marina berths in a sustainable manner and improving public access to the waterside for marine leisure uses.

Key Planning Policies

7.2.7 The various policy documents outlined in Section 2.4 of this Masterplan document (notably the Draft National Policy Statement for Ports, RPG10, Carrick District Wide Local Plan and the Carrick LDF Core Strategy) generally reflect the aspirations of the SIF in terms of supporting port and marine related businesses and sustainable development. They are, however, more explicit on issues of safeguarding specific maritime-related assets and environmental protection.

7.2.8 The National Policy Statement for Ports places emphasis on safeguarding national defences (e.g. supporting the Royal Navy) and giving substantial weight to the positive impact associated with economic development and meeting the national demand for port capacity. It refers to the need to comply with other government policies for sustainable development, including environmental and heritage protection. It points to the need for full environmental impact assessment for certain projects and the need to identify appropriate mitigating measures. While it states that development should aim to avoid significant harm to biodiversity and geological conservation interests (including through mitigation) it also states that where significant harm cannot be avoided, appropriate compensation measures should be sought.

7.2.9 Planning policies are much more protectionist in character. All levels of policy seek to protect and safeguard waterside sites for activities needing such locations, with a priority for maritime industries. There is a strong presumption in "saved" development plan policies and emerging LDF policies for the retention of the Docks for maritime and related industrial uses. The development of such sites for other non-marine uses will not normally be permitted.

7.2.10 There is positive policy support for development that supports all maritime industries, the marine leisure sector, Falmouth's role as an international cruise liner destination and Falmouth's role as a tourist destination. Balanced against these there are strong conservation policies that require the protection and enhancement of the Fal/ Helford Special Area for Conservation and the preservation or enhancement of heritage assets and their settings.

7.2.11 Design policies require development to respect a waterfront location in terms of scale and appearance and to respect the character and appearance of the Falmouth Conservation Area.

Falmouth and Penryn Community Plan

7.2.12 The Falmouth & Penryn Community Plan was launched in December 2009. It was prepared by the communities of the two towns, supported but not influenced by the local authorities and other public bodies. The aims of the Plan are to:

- guide and shape the work of Falmouth and Penryn Town Councils;
- set out and prioritise actions for the next five years;
- inform local and regional authorities and government bodies about the communities' wishes and expectations; and
- inform newly-elected Cornwall Council members of the communities' aspirations.

7.2.13 The key objective relating to the Port within the Community Plan is Objective 4 under Theme 2, which aims to achieve a vibrant future for the Docks as part of a healthy local business infrastructure. It aims to do this by:

- supporting the Falmouth Harbour Commissioners in order to help achieve their development and diversification plans;
- supporting the plan for Falmouth Docks to include a new passenger terminal for cruise liners, and the dredging of the deep-water channel; and
- supporting Falmouth Docks to diversify its operation into the marina sector, as the yachting and leisure market is a significant, and growing, employer.

7.2.14 Another key objective is Objective 1 under Theme 3: Leisure, Recreation and Culture, which aims to maximise the opportunities for leisure and recreation provided by our water-front environment. It aims to do this through a range of initiatives, including:

- increasing berth capacity for leisure vessels in Falmouth and Penryn whilst limiting developments to existing mooring areas;
- Increasing the provision of good quality fully serviced public moorings and marina berths in the Plan area;
- promoting high profile sailing events based in Falmouth;
- promoting improved water quality for areas used for recreation, and enhance and protect areas of environmental value, sites of special scientific interest, and wildlife habitats;
- promoting dry stacking and racking facilities to increase the capacity for vessel storage ashore; and
- safeguarding waterside sites for maritime use.

7.3 Appraisal Criteria and Masterplan Assessment

7.3.1 Drawing on the policies set out in Section 2.4 and above, we have broken the ten strategic objectives for the development of the Port of Falmouth down into a set of more specific sub-objectives that provide a framework for appraising the Masterplan. These sub-objectives are set out in the left hand column, and our appraisal of the Masterplan is set out opposite in the right hand column.

Objectives	Masterplan Appraisal
OBJECTIVE 1: Retain Falmouth's strategic significance as a deepwater port at the western approach to the English Channel.	
1.1: Ensure the approach channel to the Docks and access to berths and dry docks is of sufficient depth to accommodate larger (Panamax sized) cargo ships and new generation cruise ships for 3,500 plus passengers.	■ Phase 1 benefits from the required dredging
1.2: Provide for the wharf-side transhipment of bulk cargoes from large ships to coasters.	■ Opportunities for transhipment reduced in Phase 1 as the southern side of Queen's Wharf is lost to the marina. ■ Potential future project to expand marina moves it southwards, so re-opening southern side of Queen's Wharf for transhipment. However, potential conflicts with the marina (dust, noise) must be carefully managed to protect cargo activities.
1.3: Retain the bunkering operations and ensure that larger tankers can access the oil terminal to supply the oil terminal for bunkering and inland distribution.	■ Phase 1: Bunkering operations benefit from additional shipping in large vessels (customers) as well as unfettered access from deeper draught tankers to the oil jetty as a result of dredging. ■ Phase 1: investment in upgrading tanks, low flash slops facility and improving eastern jetty supports future of the bunkering business. ■ Potential Future Projects: dredging of eastern Jetty berthing pocket further improves access for larger vessels.
1.4: Safeguard and enhance Falmouth strategic defence/ naval role as a repair and maintenance base for the Royal Fleet Auxiliary.	■ Dredging in Phase 1 provides access for the largest RFA vessels. ■ Existing access and berthing arrangements for RFA vessels at Duchy and County wharves would be restricted by the marina development and its potential future expansion although alternative arrangements might be made for berthing at the Queen's Wharf and the extended Western Wharf.
1.5: Ensure safe navigation for all port traffic with no obstruction of shipping lanes, ferry routes, lifeboat routes or access channels to marinas.	■ Phase 1 benefits from the greater flexibility for manoeuvring large vessels that dredging will bring and incorporates new Port control offices. ■ The potential future expansion of the marina may cause some navigation issues with access to / egress from the lifeboat station and Pendennis marina. It may also make access to County Wharf difficult for larger vessels.

Objectives	Masterplan Appraisal
OBJECTIVE 2: Maintain and develop existing port operations and related businesses.	
2.1: Provide adequate cargo handling capacity by retaining/increasing wharfage for deep water berths for larger as well as smaller ships, and alongside cargo handling and storage areas and facilities.	■ Berthing space reduced from current wharfside length of 935 metres to 925 metres in Phase 1. ■ However, the potential future expansion of the Western Wharf will increase wharfside berthing space to 1285 metres. ■ Use of area adjacent to County and Duchy wharves specified as 'Marine/ port related uses' in Potential Future Projects. Exact nature of the proposed use may impact on alongside cargo handling and storage areas and facilities.
2.2: Provide for the needs and expectations of the growing cruise market by provision of a cruise quay for disembarkation of large ships as well as smaller ones, with appropriate quayside facilities and ease of access to excursion coaches and shuttle buses to Falmouth town centre.	■ Phase 1: The infill / extension of the Queen's and Northern wharves provides alongside berthing for larger cruise vessels ■ Phase 1: The new Port control offices includes reception facilities for cruise passengers. ■ Phase 1 has the potential to accommodate additional small cruise ships at County Wharf as well as catering for tender disembarkation there. ■ Potential Future Projects: Larger marina potentially restricts access to County Wharf for smaller cruise vessels.
2.3: Provide for the needs of the traditional shiprepair activities in the Docks, by retaining or increasing existing dry docks capacity (currently 3 operational dry docks), maximising wharf space for the alongside repairs for larger as well as smaller ships, and facilitating the rationalisation and modernisation of fabrication and support facilities.	■ Dry dock capacity is retained in Phase 1 and Potential Future Projects. ■ Alongside shiprepairs – deep water berth capacity marginally reduced in Phase 1 and subsequently increased by the Western Wharf Potential Future Project (as 2.1 above). ■ Phase 1 provides a new crane adjacent to No. 2 Dock along with new shiprepair workshops. ■ Phase 1 provides a new small workshop alongside Queen's Wharf. ■ Potential future projects include a second stage of new shiprepair workshops.
2.4: Provide for the needs of the bunkering operations, facilitating the redevelopment/ improvement of the fuel storage tank farm and slops facilities and the refurbishment of the oil terminal jetty.	■ Phase 1 includes for upgrading of fuel tanks, provision of a new low flash slops facility, the refurbishment of the Eastern Jetty / Breakwater and new bunkering offices in partnership with Superyachts. ■ The dredging of the Eastern Jetty pocket is identified as a potential future project.
2.5: Provide for the needs and expectations of the growing Superyacht building and refit activities by increasing dry dock and alongside berthing capacity and on-shore fabrication and support facilities.	■ Phase 1 provides new Superyacht workshops, offices in partnership with bunkering, and a new Superyacht dock basin and pier. ■ Additional new Superyacht workshops are identified as a potential future project.
2.6: Provide for the accommodation needs of existing port-related businesses within the Docks, and avoid their displacement unless an alternative location outside the Docks is acceptable/preferable or where proximity to deep water berths or core port activities is not necessary.	■ The Masterplan is based on the assumption that the Ammonium Nitrate business is appropriately managed in a way that allows development to take place and would remove the Health and Safety Executive's objection to development not only at the Docks but also in the wider area of Falmouth. ■ The rationalisation of existing accommodation will enable existing businesses that ned to be at the Docks to remain on site where appropriate. ■ As FalFish does not require deepwater access, the Masterplan recommends that this business is ultimately relocated within the Fal Estuary.
2.7: Avoid the loss of port-related land or infrastructure, unless it is no longer needed for existing or future port-related activities.	■ The entire Docks area is retained in port-related uses.

Objectives	Masterplan Appraisal
Objective 3: Introduce and support appropriate new functions and businesses.	
3.1: Provide a new marina within the Docks area with associated facilities and parking, in a manner that maximises berths and alongside moorings for Superyachts and tall ships, but does not impede efficient port operations and shiprepair, or navigation access to/ from the lifeboat station or Pendennis Marina.	■ Phase 1 provides for a new 290 berth marina and associated car parking but there is still a risk of potential conflict with cargo handling and shiprepair operations. ■ The expansion of the marina is identified as a potential future project. However, this may potentially impact on access to/ from the lifeboat station or Pendennis Marina. It also places t risk the long term sustainable future of the County and Duchy wharfside areas for employment generating port related uses. (see also 4.3)
3.2: Provide for the development of new /industrial/ commercial/business accommodation for new port-related businesses and marine industries.	■ Phase 1 creates new port-related commercial and business accommodation in the Gateway development. ■ Further port-related business space and operations units are identified as a potential future project.
3.3 Provide for the needs of the emerging marine renewables industry through the availability of: ■ wharves for launching of devices for sea-borne transport and berthing of supply / maintenance vessels; ■ wharfside areas for the storage and/or assembly of components/devices; ■ dockside fabrication/repair/maintenance facilities; and ■ accommodation for research and development, start-up and business incubation, and the design, production, marketing and distribution of renewable energy devices (managed workspace and general B1, B2 and B8 workspace).	■ Berthing space is increased as set out in 2.1 above. ■ Wharfside capacity is safeguarded and extended by the Western Wharf load-out as a potential future project, and the retention of the County and Duchy wharfside areas for port related uses in the short and long term. ■ The expansion of the shiprepair workshops to include provision for the marine renewables sector is identified as a potential future project. ■ Port-related business space is provided in both Phase 1 and as a potential future project.

Objectives	Masterplan Appraisal
Objective 4: Ensure that growth is sustainable, with sea, land and infrastructure resources being capable of adaptation to meet changing demands.	
4.1: Maximise the potential for shared usage of buildings and outdoor storage areas by complementary activities.	■ The Phase 1 Masterplan provides shared rationalised for the Superyacht and bunkering businesses, and shared facilities adjacent to the Gateway development. ■ The potential future project of the additional shiprepair workshops provides potential shared facilities with the marine renewable sector. ■ The potential future project of the Western Wharf load-out provides surface area for a range of sectors, including cruise, cargo, marina, shiprepair and marine renewables.
4.2: Ensure all available land within the Docks area is efficiently and effectively used for port-related uses and/ or associated infrastructure.	■ The Masterplan uses the available land efficiently for port-related uses.
4.3: Minimise potential conflict between adjacent uses, avoiding development/change that would interfere with or impede adjacent port-related activities.	■ The introduction of the marina in Phase 1 has potential conflicts with cargo handling and shiprepairs, both alongside (at County, Duchy and Queen's/Northern Wharves) and in the nearby dry docks. Issues such as the potential for overspraying paint finishes and unloading of dusty/noisy cargoes will need to be carefully managed in order to minimise conflict. ■ The potential future expansion of the marina limits the use of Duchy Wharf to marina / large yacht mooring activities, although it would re-open the southern side of Queen's Wharf. The potential future expansion also limits access to County Wharf, and would need to be designed to ensure that access to the RNLI lifeboat station and Port Pendennis marina is not restricted.
4.4: Facilitate the remediation and development of redundant port-related land (the Castle Drive and the Middle Point tank farm sites) for appropriate uses that are complementary to port activities or, if that is not feasible, do not fetter existing or future port activities.	■ These sites are likely to be contaminated, and the cost of remediating them is likely to be very high. As their development is not critical to the short to medium term future of the Port, the Masterplan leaves their future use open.

Objectives	Masterplan Appraisal
Objective 5: Maintain and create high quality jobs through strong links with the education sector.	
5.1: Allow for the expansion of the marine skills training centre that is located within the Bridon Ropes building.	■ The expansion of the Superyacht and skills sector will in turn help the training centre to expand.
5.2: Provide for the future development of a waterside marine industries FE/HE establishment such as the Falmouth Marine School.	■ Option D - tested as part of the process of developing the Masterplan - included a new facility for Falmouth Marine School within the Gateway Development. This is no longer a potential project – however, the Masterplan has the flexibility to accommodate an FE educational/training establishment (subject to funding) within it.

Objectives	Masterplan Appraisal
Objective 6: Support the wider economy and community.	
The Economic Appraisal deals with this aspect in detail. For the purposes of this planning appraisal, the following sub-objectives allow key economic and community considerations to be included in the evaluation of options.	
6.1: Allow for development for economic activity in the port that maximise opportunities for permanent direct employment in higher quality skilled jobs at the Docks and indirect employment in associated businesses and services in Falmouth and beyond.	■ Total direct and indirect FTE jobs in the Docks, Falmouth and Cornwall generated by the Docks businesses would increase from 1,863 in 2009 to 3,247 in 2015 and 4,619 by 2030. ■ Direct FTE employment at the Docks would increase from 1,401 in 2009 to 2,276 by 2015 and 3,422 by 2030.
6.2: Maximise opportunities for supporting Falmouth specifically and Cornwall generally as a tourism destination (particularly for cruises, visiting yachts, and events that attract stay and day visitors).	■ The dredging and Queen's / Northern Wharf infill and extension provide for larger cruise ships. ■ The marinas in Phase 1 and Potential Future Projects support visiting yachts and events.
6.3: Ensure that development enables the Docks to supply the imports of fertiliser and animal foodstuffs that are needed by the Cornish agricultural industry.	■ Dredging enables larger vessels to access the Docks. ■ The ultimate increase in berthing space will provide for cargo handling. ■ However, in order to allow some kinds of development to take place, Ammonium Nitrate storage and handling may potentially no longer take place at the Docks.

Objectives	Masterplan Appraisal
Objective 7: Support sustainable development and sustainable transport.	
The Scoping for Sustainability Appraisal deals with this aspect in more detail. For the purposes of this planning appraisal, the following sub-objectives allow some key sustainability considerations to be included in this planning-focused evaluation of the Masterplan.	
7.1: Maximise opportunities for bringing contaminated and under-utilised land and water resources into long-term productive use.	■ The Phase 1 Masterplan remediates and brings forward the former landfill site for a joint Superyacht / bunkering project. ■ The dredging project will remediate contamination of the seabed through appropriate mitigation. ■ The long-term future of the Castle Drive and Middle Point tank farm sites is not decided. However, the Masterplan avoids closing down options for these sites so allowing them to be remediated and developed in the future.
7.2: Ensure development for immediate/short-term gain does not compromise future needs for port-related industries or the marine renewables sector.	■ The Masterplan does not compromise the future of port-related industries or the marine renewables sector in Phase 1, as it provides appropriate facilities that improve port operations, and support employment growth without loss of land for marine or port-related uses. ■ The marina development, without appropriate mitigation, may put some port operations at risk (see also 3.1 and 4.3).
7.3: Maximise opportunities to transport goods and people by sea rather than by road.	■ Dredging provides the opportunity for larger cargo ships, tankers and cruise ships to access the port. ■ However, the Phase 1 Masterplan reduces opportunities for transhipment as the southern side of Queen's Wharf is lost to the marina. ■ The potential future project of the Western Wharf load-out increases available wharf space.
7.4: Provide for rail freight transport to and from the Docks, utilising the existing disused rail spur.	■ The Masterplan allows for use of the rail spur for freight.
7.5: Provide safe and convenient access to the Docks for all modes and ensure that internal circulation for traffic and pedestrians is safe, efficient and does not compromise the security or operational requirements of operations within the Docks.	■ The proposed sustainable transport package will include access improvements to the Docks for non-car modes.
7.6: Rationalise and improve existing employee parking provision within the Docks and encourage travel by alternative modes so that growth in employment numbers does not create parking problems in nearby residential streets.	■ Existing parking is rationalised to take up less of the valuable Dock's area. ■ Whilst the aim is to reduce the % of travel undertaken by private vehicles by employees at the Docks, the proposed growth will result in more cars. A sustainable travel plan will be developed for the Masterplan.

Objectives	Masterplan Appraisal
Objective 8: Support the development and use of renewable resources and associated technology.	
8.1: Provide for the needs of the emerging marine renewables industry (see sub-objective 3.3 above).	■ See 3.3 above
8.2: Provide for the development of a CHP plant to meet the energy and heating needs of port businesses and adjacent areas where feasible.	■ The Phase 1 Masterplan includes a CHP plant to serve the Dock's businesses. It has the potential to also serve adjacent areas of Falmouth.

Objectives	Masterplan Appraisal
Objective 9: Ensure development contributes to Falmouth's distinctiveness and sense of place and respects its environmental and heritage assets.	
9.1: Preserve or enhance the visual, historic and cultural character and significance of the working docks as a distinctive urban quarter which contrasts with and complements the finer grained townscape and landscape of the town centre and rest of Falmouth's waterfront.	■ The Masterplan preserves the inherent character of the Docks, although the Phase 1 marina and proposed future expansion introduce a new, uncharacteristic feature.
9.2: Minimise adverse impact on the Fal/Helford Special Area for Conservation that may be caused by disturbance of sea-bed habitat such as dead Maerl deposits or by pollution or contamination.	■ Various alternatives have been considered for the dredging, including alternative channel alignments and dredging techniques. The proposals represent the least impact a dredging project can have on the SAC. ■ The dredging would be accompanied by appropriate mitigation measures to minimise adverse environmental impacts, including maerl translocation which would result in a net increase in maerl habitat in the SAC. ■ The dredging would involve the removal of contaminated material from the sea bed and its treatment prior to off-shore disposal.
9.3: Minimise adverse impacts that may be caused by disturbance of the sea-bed on any heritage assets and palaeo-archaeological deposits.	■ The dredging would be accompanied by appropriate mitigation measures to minimise adverse environmental impacts and record finds in accordance with an agreed scheme of archaeological investigation.
9.4: Preserve or enhance the Grade II listed Bridon Ropes building and its setting.	■ Bridon Ropes is retained within the Masterplan. No development is proposed that would unacceptably harm its dockyard setting.
9.5: Preserve or enhance the site of the eastern hornworks of the Pendennis fortifications and the setting of the Pendennis Castle Scheduled Ancient Monument.	■ The eastern hornworks are not affected by development. ■ The setting of Pendennis Castle will remain largely unchanged
9.6: Preserve or enhance the character and appearance of the adjoining Falmouth Conservation Area and its setting.	■ The proposed continued use of the port for marine-related activities and businesses will preserve the character of the Conservation Area.

Objectives	Masterplan Appraisal
OBJECTIVE 10: Ensure that the vision is deliverable. The Economic Appraisal deals with this aspect in detail. For the purposes of this planning appraisal, the following sub-objectives allow key planning & implementation considerations to be included in the evaluation of options.	
10.1: Minimise abnormal development costs that may make development unviable.	■ The cost of dredging is an abnormal but is considered essential for the securing the long-term future of the port. ■ The cost of remediating the former landfill site is an abnormal, but brings a key area of land into productive use.
10.2: Minimise difficulty of land acquisition and avoid reliance on land in third party control for project implementation.	■ The remediation of the former landfill site and development of the Superyacht workshops and bunkering offices requires an agreement between the landowner and the Superyacht / bunkering businesses. ■ Leaving the future of the Middle Point and Castle Drive tank farms flexible avoids the need for the Masterplan to rely on the third party owner of these sites.
10.3: Maximise opportunities for European Community/ public sector gap funding support for potentially eligible projects.	■ The Phase 1 projects have been developed to maximise opportunities for EU / public sector gap funding.
10.4: Ensure that appropriate planning and legal mechanisms can be put in place to ensure that any funding cross-subsidy for port-related development provided by non port-related development actually materialises.	■ The Masterplan does not contain any non port-related uses.
10.5: Minimise the risks of refusal of planning permission and/or legal challenge.	■ There are no planning risks so long as the Gateway Project contains only port-related uses.
10.6: Minimise the risks of failure to obtain the necessary licenses/permits for environmentally sensitive works associated with eg dredging, marine and port infrastructure and contamination remediation.	■ Securing consent for dredging continues to be a major risk. However, this Masterplan demonstrates the very significant economic benefits that dredging will bring to the Port of Falmouth and the wider Cornish economy and can therefore act as an evidence base in ongoing negotiations.

7.3.2 The Masterplan is very effective in meeting the agreed Strategic Objectives of the PoFDI. Where there are potential issues or conflicts between objectives arising from a project, these have been identified in the appraisal so they can be properly addressed at the more detailed stage of project design and development, when appropriate forms of assessment and mitigation can be specified.

8

Conclusions and Next Steps

8.1 Conclusions

Conclusions

8.1.1 The Port of Falmouth Masterplan sets out a strong vision for a Port that has significant long-term role in the economic prosperity of not only Falmouth but the wider area of Cornwall. The Masterplan will support existing businesses, nurture the growth of new economic sectors and - as a result - maintain and increase high-quality jobs in Falmouth and the local area.

8.1.2 This vision is based on a sound understanding of current constraints and opportunities, and has been robustly tested through a process of appraising options. This appraisal process has informed the development of the final Masterplan, ensuring that it balances maximising opportunities for economic growth with planning policy considerations, sustainability issues and the views of local people.

8.1.3 The process of developing the Masterplan has been very positively supported by key stakeholders, particularly Docks' businesses and the range of public sector organisations involved in PoFDI. It is important that the momentum that has been gained through this process is maintained into the future, to turn the Masterplan vision into reality. The remainder of this chapter therefore sets out next steps to take the Masterplan forward in relation to:

- key issues;
- design guidance for specific projects; and
- funding and delivery.

8.2 Next Steps: Key issues

Introduction

8.2.1 This section brings together and highlights key issues that are critical in delivering the Masterplan setting out, where appropriate, actions that will be required.

Dredging

8.2.2 The Masterplan has been developed around the assumption that Dredging of a deeper channel for access to the Docks will be delivered in some form. If there is no dredging of an access channel, this would impact upon the viability, and hence deliverability of other projects. Projects that are unlikely to be affected by no dredging taking place are the marina and expansion of Superyachts.

Heritage and Environmental Issues

8.2.3 As individual projects are developed, any proposals that may adversely affect the evidential, historic, aesthetic or communal value of heritage assets will need to be subject to assessment.

8.2.4 Similarly, as projects are developed, the environmental impacts of these projects will be subject to assessment, which may include Environmental Impact Assessment and an Appropriate Assessment in relation to the Special Area for Conservation (SAC).

Accessibility and Security

8.2.5 Due to the requirements for security as defined in the International Ship and Port Facility Security (ISPS), a secure site boundary will remain around the Docks area as a division between public and private areas of the site.

8.2.6 Marina and cruise visitors will have access to the Port through the secure site entry.

8.2.7 As a public facility outside the secure site boundary of the Docks, the 'gateway development' will provide public access to the waterfront and a high-quality public realm.

Ammonium Nitrate Licence

8.2.8 The Masterplan is based on the assumption that the Ammonium Nitrate business is appropriately managed in a way that allows development to take place. If the existing presence of Ammonium Nitrate in the Docks area remains unchanged, it will impact upon the deliverability of some projects.

Sustainable Transport Package

8.2.9 A recommendation of the Masterplan is the development of a Sustainable Transport Package for the wider Docks area including a Travel Plan.

8.2.10 Measures likely to form part of the Sustainable Transport Package include rail upgrades, and an improved pedestrian link to the Docks from Falmouth Docks railway station.

8.2.11 Key recommendations for the Travel Plan are provided below:

Travel Plan

8.2.12 The Travel Plan will set out data relating to existing travel patterns of staff employed at the Docks and make broad assumptions on the travel patterns of future employees. This data informs the choice of appropriate and robust Travel Plan targets, in terms of changes in travel mode share.

8.2.13 With the overarching objectives of PPG13 in mind, the Travel Plan will be expected to include as its stated objectives, the following:

(a) Promotion of awareness of travel opportunities and encourage use of non-car modes;

(b) Increased ease of access to public transport and to walking and cycling; and

(c) A reduction in the proportion of single-occupancy car journeys made by residents/visitors/employees.

8.2.14 The Travel Plan should make provision for development-specific Travel Plan measures that may include the following:

- Operational measures, including staff flexi-time which will spread the traffic load on the network at peak times, i.e. reduce any congestion implications;
- Car sharing and support with after-hours taxi provision;
- Season ticket loans for staff for either rail or bus;
- Public transport information and general promotion of bus and rail services to staff and customers, plus web based real time information in all buildings if available;
- Cycle loan schemes, cycle pooling and allocated staff cycle parking;
- Provision of showers and lockers for staff;
- A program of car park review, assessing patterns of demand and supply, with specific consideration for staff; and
- Making use of a variety of telecommunications methods.

8.2.15 Specific and achievable targets should be identified in the Travel Plan document. As a guide to the targets that will be acceptable, the Travel Plan should set a minimum target of 10% reduction in private car travel by staff and this target should be adopted from the outset.

8.2.16 Once the sustainable transport measures have been fully established, it will be possible to determine the on-site car parking requirements and any off-site transport implications on the road network.

8.2.17 A formal programme of monitoring, review and reporting will form part of the Travel Plan to ensure that the targets are achieved and that up-to-date targets are adopted through the lifetime of the Plan.

8.2.18 The success of any Travel Plan relies on its maintenance and management. The Travel Plan should make provision for the nomination of Travel Plan staff, which nominally includes an appointed site wide travel plan coordinator to be responsible for site wide reporting of surveys to the Highway Authority. The Coordinator will also maintain a site travel network for promotions and events and will be responsible for the general maintenance of the Travel Plan.

8.3 Next Steps: Design guidance for specific projects

Introduction

8.3.1 The public consultation on the draft final Masterplan raised issues in relation to:

- potential conflicts between the proposed marina and other uses in the Docks area; and
- the scale of the proposed 'Gateway' development.

8.3.2 This section provides design guidance for these specific projects, along with outline guidance for County and Duchy wharves, the potential expansion of the FHC marina and the Middle Point and Castle Drive sites.

Phase 1

Marina Development (Project 2)

8.3.3 The 290 berth marina has been a consistent feature of the Masterplan as A&P were granted planning permission for this project in April 2008 (prior to the commencement of this Masterplanning project). An application to extend this permission has recently been submitted.

8.3.4 Nevertheless, the Masterplanning team see some potential difficulties in achieving compatibility of the 290-berth marina with adjacent existing and future uses, including:

- the potential for nearby uses such as shiprepair and bulk cargos to produce airborne dust and noise that may not be appropriate for a marina facility of this kind;
- the use of deepwater berthing space and landside areas for a sector that could be accommodated in a wider range of shallow-berth areas, including those outside the Docks;
- difficulties of access and security caused by marina users being inside the secure area of a working Port; and
- pressure for additional landside uses (including boat storage, parking and other facilities) that take up space within the Docks.

8.3.5 Any marina development should not come at the expense of economically important sectors that are confined to the deepwater Docks area (such as shiprepair and bulk cargo).

Gateway Development (Project 13)

8.3.6 The Gateway Development is intended to provide a transition in scale and bulk from the Port uses (to the east) to adjacent residential areas (to the west). The scale and bulk of this area needs to be considered in the light of:

- its impact on the Falmouth Conservation Area (including its direct relationship to the adjacent railway cottages, as well as broader views);
- its relationship to the setting of the Scheduled Ancient Monument of Pendennis Castle;
- its role as a transitional element between the Port uses and adjacent residential areas; and
- principles of good urban design.

8.3.7 The average height of buildings should be 4 storeys.

8.3.8 As it will be located outside the secure Docks boundary, the 'Gateway Development' (Phase 1 Project 13) should include a publicly accessible waterfront with high quality public realm.

8.3.9 The Gateway Development is intended to be self-sufficient in parking terms and not reliant on parking within the 'secure' areas of the Docks (to the east) or other existing car parking in the wider area.

8.3.10 Uses considered appropriate for the gateway development include:

- B1/B2 employment accommodation;
- FE educational and training facilities;
- a budget hotel that can accommodate visiting contract workers for the Docks;
- an apart-hotel that could cater for the crews of visiting Superyachts (including those being repainted and refitted); and
- associated parking areas.

Potential Future Projects

Enlarged and relocated marina and consolidated marina car parking (Project G)

8.3.11 The enlarged and relocated marina potentially exacerbates many of the same problems as the Marina Development in Phase 1 (Project 2, see left).

8.3.12 We are concerned that the extent of the marina's development to provide 600 berths would jeopardise the sustainable long-term future of the Docks for important, employment generating Port activities. In particular, the enlarged marina as indicated on the Masterplan would or could:

- result in moored yachts being affected or damaged by dust or paint spray emissions from cargo handling and shiprepair operations. This could result in pressure to reduce or restrict the operational activities of cargo handling and shiprepair;
- replace the deepwater ship berth at Duchy Wharf by berths for yachts or Superyachts that do not require the depth currently available;
- make safe, navigable access to the deepwater berth at County Wharf more difficult for cargo ships, small cruise ships and ships requiring mooring for alongside repairs or awaiting access to a drydock for shiprepair;
- make the dockside area alongside Duchy and County Wharves ineffective for cargo and shiprepair operations if the deepwater berths available for commercial shipping are eliminated or reduced;
- place pressure on the Duchy and County Wharf dockside areas to be developed for alternative, more lucrative uses that are compatible with a marina rather than a dockyard environment, but do not generate significant levels of employment; and
- impede easy access to and from the RNLI lifeboat station and slipway.

8.3.13 Any enlarged marina should not come at the expense of economically important sectors that are confined to the deepwater Docks area (such as marine and port related uses).

8.3.14 If implemented, the potential negative impacts of this marina could be partially mitigated by ensuring that:

- the County and Duchy wharf areas can remain productive areas for Port uses;
- access to County Wharf and the Royal National Lifeboat Institution (RNLI) slipway is not significantly restricted or reduced in scope;
- landside marina uses are minimised where they might compete for space with other sectors. This is likely to include the provision of a multi-storey carpark for marina users. The provision of further significant landside facilities for marina use should be avoided where they may require land that might otherwise be utilised by other Docks users; and
- appropriate arrangement for boat storage and maintenance outside the Docks area can be provided.

County / Duchy wharf areas (Project H)

8.3.15 The future of the County and Duchy Wharf areas are acknowledged to be uncertain, due to the poor condition of the existing wharves and the investment expense required to ensure their continued operation for cargo uses. The Masterplanning team sees both the waterside and landside areas of County and Duchy Wharves as strategically important land for the Port. If cargo operations are not to continue in this area as existing, then an alternative marine/port-related use (such as renewables or Superyachts) should continue in this area.

Potential expansion of Falmouth Harbour Commissioners Marina (Project I)

8.3.16 The potential expansion of the Falmouth Harbour Commissioners marina does not cause the same difficulties in conflicting with Docks uses that a marina within the Docks would. (see project 2 and project G, left).

8.4 Next Steps: Funding and Delivery

Future Use Undecided (Middle Point and Castle Drive sites)

8.3.17 The Middle Point and Castle Drive sites are both identified on the 'Potential Future Projects' plan as 'future use undecided'. These are tank sites currently associated with the bunkering operations at the Docks, but now in separate ownership and scheduled to go out of use in the near future.

8.3.18 The Masterplan recommends that, as existing Port land, these sites should be available for Port uses if such uses can be identified. However, due to their peripheral location from the main Docks area, existing built structures and potential contamination, no specific projects for the continued Port use of these areas have been identified as part of the Masterplan.

Introduction

8.4.1 The Masterplan process has established effective working between the key public agencies and businesses at Falmouth Docks, and provides a platform for delivery. The Masterplan itself provides a physical strategy for development which will make the most efficient use of existing assets and investment opportunities which can maximise the economic potential of the total site. With the continuing investment on the scale envisaged by the partners in PoFDI, delivery of the Masterplan proposals can be realistically anticipated if the partners continue to work together to co-ordinate proposals and if they each continue to progress the proposals or actions within their individual remit.

8.4.2 During the process of preparation of the Masterplan each of the main businesses A&P; Pendennis Shipyard; and Falmouth Petroleum Ltd expressed strong commitment to the future operations and investment in the Docks and brought forward proposals for development which are now integrated through the Masterplan. It is important that this integration is maintained, to maximise the potential for each of the businesses alone and for the Docks as a whole. It is also important that all of the partners to PoFDI, particularly the public sector agencies, apply their various powers and resources to assist the businesses in implementing their proposals.

8.4.3 It is therefore important that each of the partners formally adopts the Masterplan proposals in principle and in detail within their business plans, development plans and budgets. This should be requested through PoFDI as soon as possible, with the partners all signed up by the end of summer 2011.

8.4.4 The partners should then move to confirm and deliver a programmed investment strategy for the Docks which provides confidence and mutual support to maximise the economic potential and delivers development as soon as possible.

8.4.5 This process of continued joint working will require some level of support, co-ordination and leadership, so it is proposed that PoFDI should continue in its present structure, but its processes and priorities be refocused on co-ordinated delivery of key investment projects by individual businesses and agencies – thus with an emphasis on communication and programming rather than visioning and planning. The partners should jointly discuss and confirm how this can be achieved.

Delivery Principles

8.4.6 Deliverability of the Masterplan thus depends on the following factors:

- investment of private funds by businesses to deliver various elements of the Masterplan;
- commitment of public funds to support business investment and the delivery process ;
- ability to obtain consents;
- continuous partnership work within PoFDI and with wider stakeholders; and
- resolution of land issues to facilitate delivery.

Business Investment

8.4.7 The main business partners have all expressed their intention to invest in key projects within their own sites. Each of the businesses will need to make their own decisions about scale, priority and timescales for investment, but it is hoped that they will continue to work to the timescales for delivery discussed in 2010/11. The total level of investment proposed within relatively short timescales will imply an intense phase of construction work on the site, and it will be important for the partners to co-ordinate with each other to minimise potential conflicts and maximise value for money in contracts. They may wish to consider using the PoFDI process to assist in this.

8.4.8 It will be important to achieve a level of commitment to each of the projects identified in the Masterplan as soon as possible, in order to build a funding package of support from public agencies.

8.4.9 Dredging is critical to the delivery of these particular elements of the Masterplan, and also seen as fundamental to securing the long-term future of the Docks, increasing the business performance at the Docks and securing a stable future for the area. Without dredging the shiprepair sector is perceived as non-viable in the long-term and therefore private investment will not be released - as reflected in the 'Do Nothing' scenario. A commitment of funds to dredging is therefore a key to securing some of the business investment required, and it is therefore essential that there is a continuing focus in the work of PoFDI on securing the overall funding package, which can help to release this programme of investment.

Public Funding

8.4.10 There are several potential sources of public funding available to support investment in the Docks; these potential sources of funding are as follows:

- ERDF Priority 4 funds.
- Funding by Cornwall Council: the Council can fund economic development projects and infrastructure projects through its own budgets and through prudential borrowing.
- Grant for Business Investment (GBI) is available for assisted areas. Cornwall is a Tier 1 Assisted Area with the highest rate of public intervention.
- Regional Growth Fund (RGF) is a £1.4 billion government fund for England that will operate until 2014. The deadline for bids is 1st July 2011.
- European Investment Bank provides loans to individual capital projects complementing EU cohesion and convergence activities.

8.4.11 The following projects may need public funding:

Schedule item	Capital Cost, £	Potential funding source
Dredging of the main channel and deep water berth	£23,000,000	Cornwall Council
Port infrastructure package:		
Northern and Queen's Wharves merged and enlarged + berthing dolphin	£8,250,000	ERDF
New shiprepair workshops (Stage 1) - 4,750 sq.m.+ 40% mezzanine levels	£4,000,000	ERDF
Remediation, capping, and car park over the former Eastern landfill site	£3,000,000	ERDF
Superyacht dock basin and new pier	£10,000,000	ERDF
Enlarged workshop facilities at No. 1 Dock	£1,500,000	ERDF
Superyacht workshops and bunkering offices [6,300 sqm GEA]	£2,500,000	ERDF
Port control offices and small workshop at Queen's Wharf	£2,000,000	ERDF
Combined Heat and Power (CHP) plant	£3,000,000	ERDF
Sustainable Transport Package, rail and road upgrades	£2,000,000	ERDF
Total Port infrastructure package:	£36,250,000	

8.4.12 Potentially the Port infrastructure package could be eligible for ERDF convergence funding. At 30% intervention rate this would provide £10.65 million of ERDF financing. As noted above, PoFDI will need to work with the Convergence Programme to define a package of funding for Falmouth Docks to be sought from the Programme; it will also be important to consider the timescales for bidding and delivery of projects, as time is now short in which to implement projects of this scale within Convergence Programme limits.

Consents

8.4.13 A number of different forms of consent are required for these various projects, of which two issues key are noted – the need for dredging consent, and the issue of planning consents for development.

8.4.14 The issue of achieving consent to dredging is critical to a large part of the Masterplan development proposals. The lead partner is the Falmouth Harbour Commissioners and it is important that the PoFDI partners work closely with FHC to progress any processes which are now required to make the case for dredging and to support necessary submissions by FHC.

Delivery

8.4.15 The Masterplan will thus be delivered by individual PoFDI partners and other Docks businesses and with the support of FHC and the PoFDI team at CDC.

8.4.16 The delivery of the Masterplan is phased with Phase I covering immediate requirements for port infrastructure upgrade at the Docks. Potential Future Projects will provide additional employment space, new Western Wharf, and new workshops to satisfy growing demand associated mainly with renewables sector. Phase I is expected to be completed by 2015, and can thus take advantage of Convergence Programme support – if the investment proposals can be kept on track. It is crucial that the dredging of the approach channel is carried out as soon as possible to enable business growth at the Docks and therefore unlock investments into Potential Future Projects.

8.4.17 We envisage the role of PoFDI gradually diminishing as Phase I is completed and the further development projects slot into place. It is important however that priority is maintained to the work of the Initiative, and that all the key stakeholders continue to work together to integrate their actions as far as possible.

Conclusions and Recommendations : Short-term Actions/Quick Wins

8.4.18 In order to achieve the most effective delivery of the Masterplan, a number of actions should be completed as soon as possible (Summer/Autumn 2011):

- Confirmation of the final Masterplan following discussion between PoFDI and consultants.
- Adoption of the Masterplan by Cornwall Council for planning and budgetary purposes; and commitment of funding to implement dredging (this will entail a variety of related actions including confirmation of the consent process with FHC and work to obtain consent; and negotiations with Docks owners to confirm the nature of their relationship re funding for dredging – however the principle of CC funding should be confirmed as soon as possible).
- Resolution of land issues to facilitate delivery.
- Formal adoption of the Masterplan by all PoFDI partners as part of their business planning and budgetary processes and confirmation to POFDI of each partners investment intentions.
- Confirmation of the continued work of PoFDI, based on the agreed Masterplan and preparation of a new work programme for PoFDI focussed on delivery, to include early work on:
  - Confirmation of projects and timescales, to form a delivery programme and defined responsibilities.
  - Identification of an investment programme based on the above investment principles and strategy, with a particular focus on defining a "Port of Falmouth Funding Package" comprising Convergence Programme alongside CC and private sector investment.
  - Confirmation of FHC (and Docks' owners) approach to obtaining dredging consent and work programme/process to achieve this.
  - Further detailing of proposals for various development projects within the Masterplan, including for the gateway area, the yacht building basin and workshop proposals, Falmouth Petroleum Ltd. facilities, etc. (responsibility of individual businesses, to be presented to PoFDI as soon as possible/ progression with CC/etc).

8.4.19 If these actions can be completed through summer/autumn 2011 and thus a confirmed approach to delivering all early projects is achieved by the end of the year, there is a possibility of achieving all of Phase 1 by the end of 2015. It will require focussed and co-ordinated effort by all of the partners and the support of Cornwall Council in the various ways identified.

8.4.20 It should also be noted that the proposals have achieved a good level of support from the wider community of residents and businesses in Falmouth. The proposals will yield substantial benefits for the area in a variety of ways and it will be important to maintain that level of support by continuing to communicate the benefits being achieved and engaging with residents and businesses in the area.