

Penzance Harbour Management Plan 2023



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“ There have been many missed opportunities for Penzance Harbour which would have had a huge impact on the harbour and the local economy. ”

Preamble

Department for Transport guidance recommends that Port Masterplans are prepared for Major Ports in the UK, defined by tonnage. Whilst Penzance is not classified as a Major Port, there are many benefits for preparing forward plans for smaller ports and harbours. This plan sets out a Management Plan for the harbour covering the period from 2023 onwards. The study area of the Management Plan covers the area of the harbour limits.

The purpose of this Management Plan is to update the end user on the changes to The harbour since the last report carried out in 2016. Since then, the Isles of Scilly cargo vessel the Mali Rose has been removed from the Isles of ScillySC (Isles of Scilly Steamship Company) fleet and been replaced by the Gry Maritha. The harbour has survived the pandemic with a huge downturn in trade and is now rebounding back. The harbour's real estate is under pressure as the harbour gets busier and infrastructure is put under more pressure. The Harbour Team maintain a fine balance of bringing in new and existing trade and ensuring that the harbour does not become overcrowded and uninviting.

The Management Plan remains a dynamic document and the subject matter will constantly change as will the scope of the Management Plan.

The purpose of the report is to give some guidance and direction to the current Harbour Plans – with the investment from the Government through Town Deal interest has been reignited into the development of the harbour.

The harbour has also seen a growth in commercial activity, particularly in relation to fish landings and associated marine engineering. The harbours looks to promote growth in these sectors along with the very popular leisure market. Penzance is ideally situated as a 'last stop off' for yachts en-route to The Isles of Scilly or their return trip.

The Management Plan looks to offer options available both past and present to Penzance Harbour and aims to give the reader an understanding of the way the harbour operates, its strengths and weaknesses and its options going forward. There have been many missed opportunities for Penzance Harbour which would have had a huge impact on the harbour and the local economy.

Introduction to Penzance Harbour

Penzance Harbour in one guise or another has been operating since around the 1500's growing steadily in size throughout the 1800's when it was a port with a busy trade. Cargoes such as timber, iron, salt, fruit, alcohol and linen were often unloaded and in return fish, potatoes, tin and copper were loaded, more recently coal was often unloaded by coasters on North Arm.

In 1814 a small dry dock was opened in Penzance, not in its current position and so the tradition of boat fabrication and repairs has continued in Penzance throughout until the more recent dry dock facility located inside Abbey Basin.

Nowadays, Penzance has a much more broad purpose. It serves the local community as a recreational harbour offering over 150 tidal moorings as well as offering a wet dock (non-tidal) for fishing vessels, visiting yachts and also serving as the gateway to the Isles of Scilly. Since 1858 a service has run from Penzance to the Isles of Scilly carrying freight and passengers.

The service to the Isles of Scilly now operates two vessels, the Scillonian III operating between March and October each year and the Gry Maritha which operates all year round purely for freight.

The last major structural works to the harbour was carried out in 1884 to create the wet dock area within much of the harbour operates from now. This dock is controlled by a dock gate which opens around 2 hours before through until 1 hour after high water.



Figure 1. Original dock gates after recent completion, looking into Wet Dock. Image Courtesy of Penlee House Gallery and Museum, Penzance.

Right top: Figure 2. Building of the dry dock. Image courtesy of Penlee House Gallery and Museum, Penzance

Right middle: Figure 3. Sailing vessel passing through Ross Bridge into Abbey Basin. Image Courtesy of Penlee Gallery and Museum, Penzance.

Right bottom: Figure 4. Wet dock looking across to original freight shed on West Quay. Image Courtesy of Penlee House Gallery and Museum, Penzance.



Objectives and approach

The Penzance Neighbourhood Plan is a community led initiative to shape the future potential of the Penzance Parish area, including Penzance, Newlyn, Mousehole, Paul, Heamoor and Gulval.

The Neighbourhood Plan focuses on economic regeneration under the strap line “Reconnect with the Sea”. The harbour is one of 16 regeneration sites/projects included in the first-round consultation which engaged circa 3,500 people living in the parish and received over 90% support. The Penzance Harbour project emanates from the Neighbourhood Plan and is included in the Penzance Economic Plan which was being submitted for Coastal Communities funding. The Penzance Economic Plan has been submitted to DCLG as part of Penzance’s status as a pilot Coastal Communities town. It sets out the overarching strategic aims for the town, brings together all known current and potential regeneration initiatives in Penzance, and establishes how those initiatives will enable delivery of the strategic aims. The Penzance Economic Plan has been adopted by the Penzance Town Centre Regeneration Board which comprises Cornwall and Penzance Town Councillors, representatives from the Neighbourhood Plan, BID and Chamber of Commerce.

Going forward and further future plans would be to construct either a set of sea defences further out in Mount’s Bay or closer in a full-size breakwater facility and its feasibility is part of the activities and remit of the Harbour Steering Group (a breakwater working party). An economic impact study was undertaken by the professional advisors to that group to establish a cost benefit analysis. Either way, the current proposals would have long term benefits in creating opportunities for economic growth and regeneration

In Summary Penzance Harbour is host to a number of different activities and users which create its unique character and vitality. One of its functions is to provide freight and passenger services to the Isles of Scilly. The harbour also supports a range of maritime activities, both commercial and leisure. There is a perception that the harbour could play a significantly greater role in boosting the economy of Penzance through better use of its assets and in supporting related businesses. New proposals need to acknowledge and accommodate these wider issues of the harbour’s economic future and they must demonstrate widespread community acceptance. Therefore, a clear shared vision is required to ensure a viable Management Plan for Penzance Harbour.

The Harbour Management Plan was last compiled in August 2016 – at that time there were several major changes to the way the wet dock was operating. The cargo vessel the Mali Rose was bought into service which was significantly larger than the vessel it replaced the Gry Maritha. With this came several complications in way of size. Since then the Mali Rose has left Penzance and the Gry Maritha is back in operation. The Isles of Scilly Steamship Company are presently sourcing funding (public or private) to source two new vessels to replace their current.

Understanding the Port

Responsibilities, Statutory Duties and Management

Cornwall Council are the Statutory Harbour Authority (SHA) for Penzance Harbour. As an SHA the Council must act in accordance with the statutory provisions governing it and the purposes for which its statutory powers were granted. An SHA is usually considered a quasi-public body therefore subject to normal public law principles.

The key statutes governing the Council as the SHA are:

- Land Clauses Consolidation Act 1845: National Legislation
- Harbours, Docks and Piers Clauses Act 1847 – National Legislation, The HDPC Act 1847
- Land Clauses Consolidation Acts Amendments Act 1860 – National Legislation
- Land Clauses Consolidation Act 1869: National Legislation
- Penzance Harbour Revision Order 1883: Local Act – The 1883 Order
- Harbours Act 1964: National Legislation – The 1964 Act
- Docks and Harbours Act 1966: National Legislation
- Penzance and Newlyn (Pilotage) Harbour Revision Order 1988: Local Act The 1988 Order
- Penzance Albert Pier Extension Act 1990 – Local Act – The 1990 Albert Pier Act
- Penzance South Pier Extension Act 1990 – Local Act – The 1990 South Pier Act
- Penzance Harbour Revision Order 2009 – Local Act – The 2009 Order

There are various other National and Local Acts that apply in whole or in part, such as Merchant Shipping Act 1995, The Pilotage Act 1987, Marine and Coastal Access Act 2009 and the Marine Navigation Act 2013.

The duties of the Harbour Authority as set down in Local Acts are below, however it should be borne in mind that there are other statutory and common law duties that apply to harbour authorities.

- Duty to keep the harbour open for shipping and unshipping of goods and embarking and landing of passengers.
- Lighting and buoying responsibilities under part VII of Merchant Shipping Act 1995 (General Lighthouse Authority can direct the harbour authority to lay down buoys, alter lighthouses, buys and beacons in the area).
- A general duty to exercise its functions with regard to nature conservation and other environmental considerations (including facilities for visiting archaeological, architectural and historic features).
- A common law duty to conserve the harbour so that it is reasonably fit for use as a port, and a duty of responsible care to see that the harbour is in fit condition for a vessel to utilise it safely, including surveying navigable channels, placing navigation marks and keeping proper hydrographic and hydrological records.

The Port today

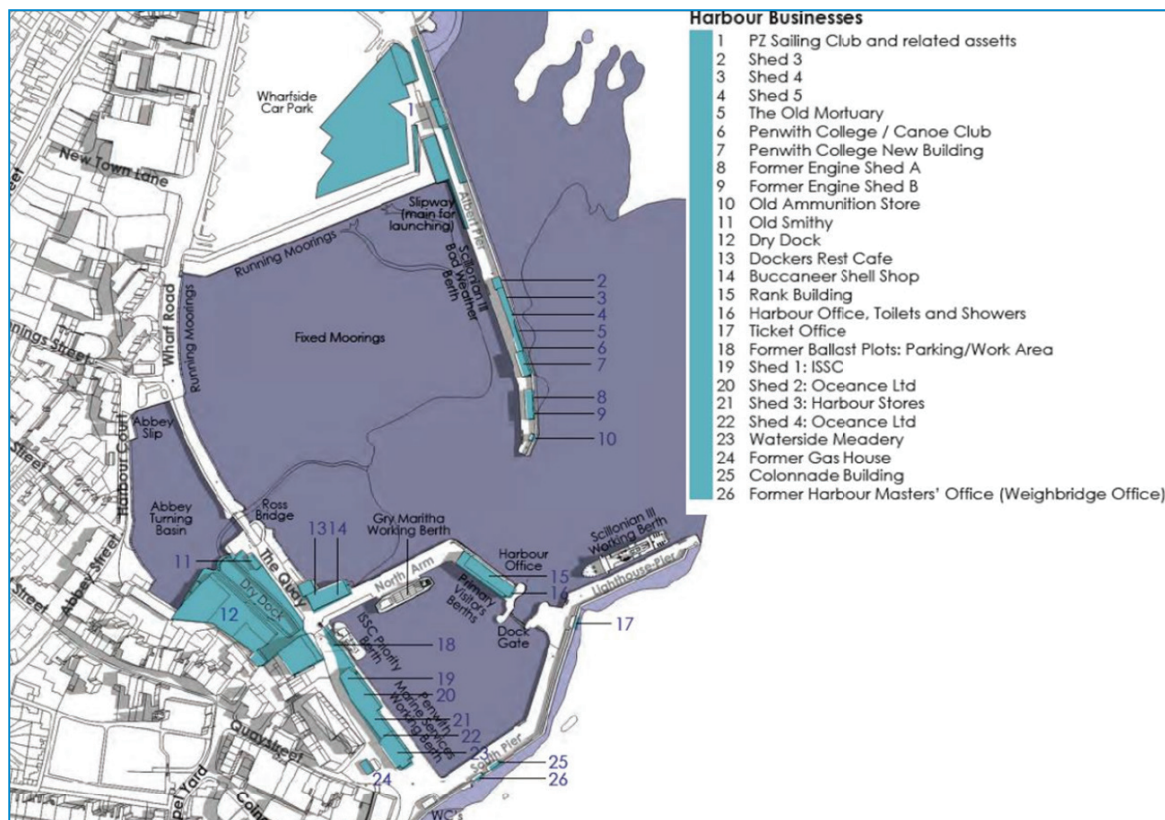


Figure 5. Key buildings within Penzance Harbour Area

Wet Dock

The Wet Dock impoundment is controlled by a lock gate – the opening of the dock gate is determined by the tide differential between inside the wet dock and actual sea level height. This operation is undertaken at each tide by two members of the harbour staff on a rota basis. Water levels are maintained within the Wet Dock by a tilting gate operated by a single hydraulic ram and the structure is approximately 40 years old. Recent modifications on the dock gate system have served to increase the lifespan of the gate however during the recent works the dock gate itself has no investment made on it.

Whilst the primary functions of the wet dock relate to commercial and essential transport activities, the harbour as a whole also provides a range of leisure activities which are important for local residents and for attracting visitors.

Physical improvements such as relocation of engineering services elsewhere within the Wet Dock and removing the abandoned and unserviceable boats would release space to provide an improved leisure offer, which would

contribute to the viability and well-being of the wider Harbour. The experience for visiting leisure craft could be improved to complement the generally good quality of services, facilities and attractions on offer to visitors to the town and Mounts Bay. The lack of customer focus and poor facilities, such as toilets and showers, are potentially impacting an important revenue stream for the Harbour and the town. Limited water depths prevent cruise liners coming alongside harbour. The smaller cruise liners (Explorer type of around 80 -120 passengers) could use the Lighthouse Pier when the Scillonian is not using its berth.

Outer Harbour

The outer harbour is host to a range of leisure activities, which either use the slipway for day launches or at drying moorings provided by the Harbour Authority. Boats are lifted out for the winter months by crane for storage on land. Many of these boats are stored in the Harbour Authority compound which is set up every winter in a securely fenced off area of the car park adjacent to the Albert Pier.

Boat storage

During the months of October through until April the car park by the slipway ceases to exist as a car park and becomes a secure boat storage area for predominantly local boats however we do have an occasional visitor from Falmouth and Mousehole. The compound has recently undergone some additional works to improve its security in way of permanent fencing and additional CCTCV equipment.



Figure 6 Aerial view of Penzance Harbour taken from the South

Albert Pier

Albert Pier is home to several businesses who operate both from the buildings on the pier as well as operating their vessels from there – these include, but are not limited too, marine electronics businesses, wildlife cruises and fishing trip.

Albert Pier is also home to Penzance Sailing Club – a very popular and well attended sailing club who have their own dedicated facilities including boat storage and clubhouse. They will often hold national sailing events at the club. Penzance Harbour and Penzance Sailing Club have a strong connection and work hard to assist each other.

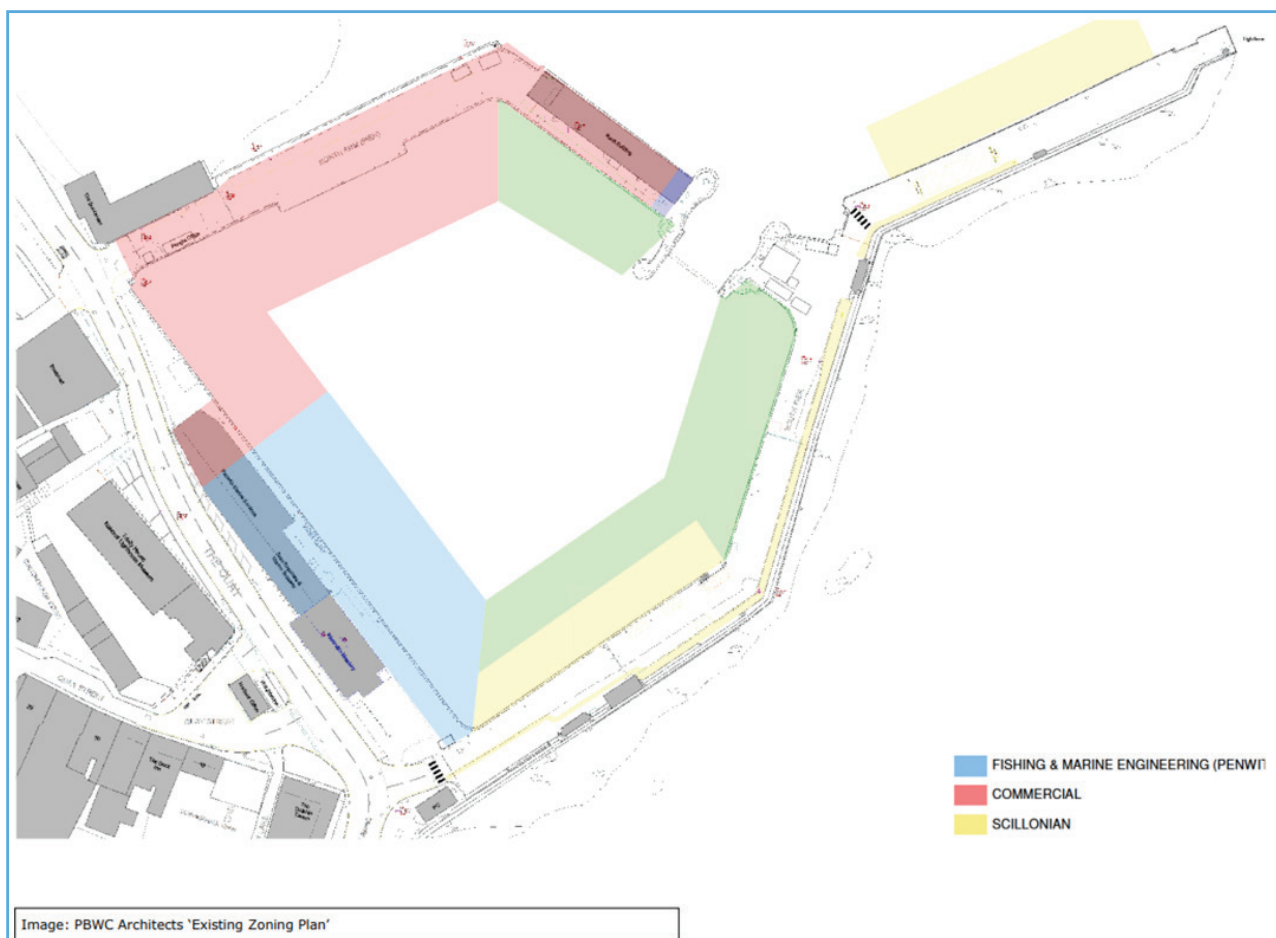


Figure 7. Image of Present Zoning Plan within the harbour

Commercial activities

Wet Dock

As mentioned above the wet dock is host to commercial businesses and essential transport links. The two main customers are Penwith Marine Services and Isles of Scilly Steamship Company (Isles of ScillySC)

Penwith Marine are heavily involved in the fishing sector – both owning several boats and working with other boat owners to carry out engineering works on their vessels they also often will work on the leisure craft in the harbour and visitors alike.

Along with this we have several other fishing vessels that will come in and land fish in the wet dock.

The freight vessel, the Gry Maritha, uses the inner side of North Arm for freight operations, invariably with departure dates on a Monday, Wednesday and Friday weather permitting. They have a lease on The Rank Building which they use as a covered freight storage facility.

KMS Terramare and Valonia will often operate from the wet dock doing runs across to The Isles of Scilly or South Coast.

Outer Harbour

The passenger vessel The Scillonian will utilise Lighthouse Pier during the months between March and October and will occasionally utilise Albert Pier when the weather is deemed unsuitable for berthing at Lighthouse Pier.

The KMS Terramare, a landing craft style vessel will utilise the slipway in order to load heavy plant and machinery that cannot be loaded whilst alongside.

Also operating out from Penzance are a number of day tripper boats, day fishing boats which will either operate from Lighthouse Pier steps or Ross Bridge Slipway – these provide a valuable tourist attraction for the harbour and a good income for the harbour in way of their dues.



Figure 8. Aerial Image taken from the East

Dry Dock

The facility was established in 1834 and offers a dry dock for vessels up to a length of 75m and beam 12m. It has recently worked on both Steamship Company vessels, CBP vessels, barges, and work boats. Along with operating from their dry dock space they also utilise space both in and out of the wet dock to carry out maintenance on vessels. They are presently running an apprenticeship scheme for young locals.

Cruise Sector

In 2022 the cruise ships returned to Penzance after a few years break. Although Lighthouse Pier would be able to accommodate the smaller of the cruise ships, explorer / boutique style due to depth of water available and Scillonian III utilising that berth the better option for the ships is to anchor in Mount's Bay and tender passengers ashore. Passenger's land via the steps on Lighthouse Pier. Going forward we anticipate more cruise calls in the years to come.



Figure 9. Scillonian III operating from Lighthouse Pier



Figure 10. Cruise Vessel anchored in Mount's Bay

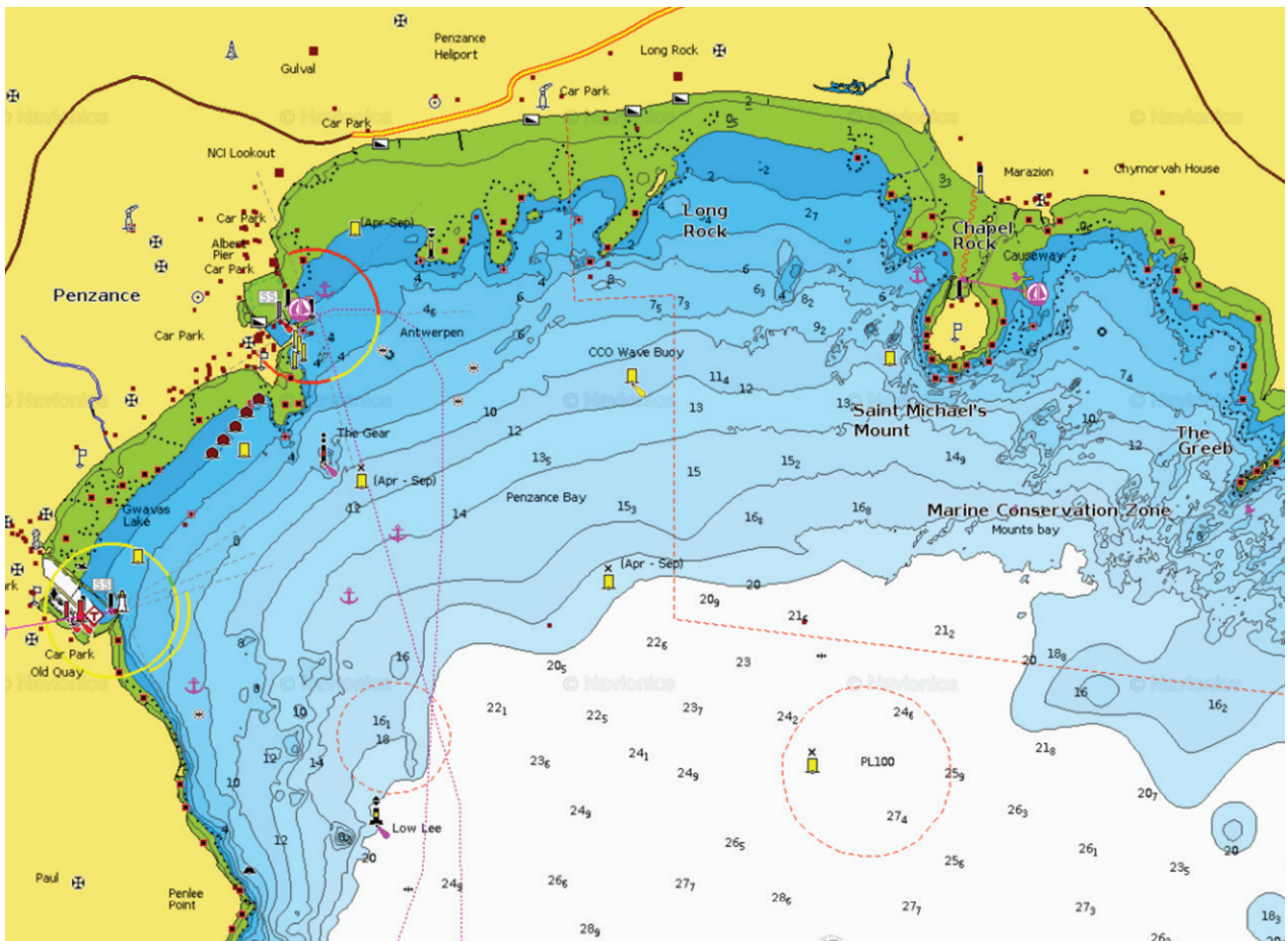


Figure 11. Cruise vessel anchored in Mount's Bay

Vessel access

The access to Penzance Harbour is restricted by the depth of water available. On approach to Penzance, from 0.25nm off the lighthouse a vessel will pass over the 5 meter contour line and thence continue to shallow on approach. Once inside Lighthouse Pier the depths of water are below 1.5m above Chart Datum. The Sill leading into the wet dock is 0.747m below chart datum and then the outer harbour will dry to a maximum height of 2.3m above chart datum.

The approaches to the Harbour can clearly be seen on the charts with caution to be taken around Gear Pole and coming close in towards Long Rock and the South Cardinal Buoy.



Top (R): Figure 12. Navigation chart of Penzance Harbour

Above: Figure 13. Image of Navigation Chart of the Wider Bay area around Penzance

Transport

Transport links into and out of Penzance are dominated by the road and rail systems.

Pedestrian

Approaching from the North, there is some existing pedestrian infrastructure at the boundary of the site, defined by bollards and road markings, at road level only (highway). This continues onto the North Arm. This is sometimes obstructed. To the west, dropped kerbstones and varying surfaces delineate shared pedestrian/informal waiting zones for vehicles. The Quay highway has one crossing point demarcated with dimpled pavers only. From the South, there is one crossing point from Battery Road approach onto the site demarcated by dimpled pavers only. There is currently no other safe crossing infrastructure in place for pedestrian priority.

Car

Wharf Road running alongside the site is a two-directional C-class highway. Vehicles approach the site from the North and South. Access roads from the highway lead onto the North Arm and South Quay. These are for authorised vehicles only. A barrier is in place on the North Arm. There is limited parking. Privately owned parking for permit holders is found to the south of site adjacent to the Meadery and to the North adjacent to the Penwith Marine Services building. Public car parks are found offsite (10 min. walk).

Public Transport

There are no bus stops on the highway bordering the site. A mainline rail station is 10 mins walk to the north. A bus terminal is found at the same location. A ferry terminal [1] is found on the South Pier adjacent to the site which provides foot passenger access to the seasonal ferry to the Isles of Scilly (Scillonian III)

Wider transport proposals for Penzance

Removing waiting Heavy Goods Vehicles from The Quay is a primary concern for the people of Penzance. To achieve this, vehicles must either turn around on the quay, or, arrive and leave from opposite ends of the site. The Healthy Streets programme includes works to direct more traffic to the town centre car parks and encourage through traffic to use the A30 rather than driving through the town. It acknowledges the importance of the flow of HGVs onto and off of the site and concludes that in order to achieve the primary

objective of removing them from the road, the movement of HGVs from North through to South must be maintained.

Air links to The Isles of Scilly operate from the heliport located approximately 1 mile to the East of Penzance centre and the airfield at Land's End also operates flights to the Isles of Scilly.

Newquay Airport, approximately 42 miles away from Penzance offers flights to both domestic and foreign destinations.

Environment

The Harbour and the wider ranging Cornwall Council Harbours have all taken on board and are operating towards ISO 14001:2015 Environmental management Systems for our current scope and the protection and conservation of the environment.

The Ports shall seek to maintain and continually improve, wherever possible, high environmental quality through the strict adherence to environmental legislation and internationally agreed convention, directives and resolutions and other compliance obligations intended to prevent pollution and protect the environment. The Harbour Authorities recognise the need to conserve the natural environment of the waters under their control through sound environmental management. Environmental policies for the Ports will ensure, wherever possible, that duties carried out by harbour staff and recreational and commercial activities within the areas of jurisdiction will take place without any adverse effects on the quality of the environment. The Harbour Authorities Environmental Policy and Objectives, Targets and Opportunities will be made available on-line and at the Harbour Offices to all staff, interested parties and harbour stakeholders. The Objectives, Targets and Opportunities are set and reviewed annually which helps us to monitor progress and ensure we are continually improving. The waters within the control of the Harbour Authorities are of National and European importance and include many areas that have an environmental designation i.e. Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty, Heritage Coast, Special Area of Conservation, Special Protection Area and Marine Conservation Zones. It is the Harbour Authorities intention to work closely with environmental agencies to ensure that the quality of the environment is improved upon, thereby enhancing the natural resources for future generations. The



Figure 14. Lantic Bay dredger working in Penzance Harbour

Harbour Authorities will work collaboratively with the Local Authority and environmental agencies in the mitigation and adaptation to climate change. They shall also seek to influence and encourage users of the harbours and suppliers of services to adopt practices compatible with the aims of the environmental management system. It is believed that educating and training employees and raising awareness with stakeholders, interested parties and the public, on the importance of conserving and enhancing the environment will contribute to achieving environmental goals. The Environmental Policy Statement and objectives and targets will be reviewed on an annual basis to ensure they remain current and are documented, implemented and maintained to that effect.

Dredging

Dredging of Penzance Harbour has been carried out on various scales, most recently in October 2022 when 1,000m³ was dredged from the harbour. We have been issued with a dredging license to dredge within a set limit in the harbour up to 3,000m³ per year. Dredging can only be carried out by a grab dredger and dumped at the spoil site by a hopper barge. This severely restricts the number / style of dredgers able to work in Penzance. The previous dredge scheme in 2022 involved the bringing down of the Lantic Bay dredger from Fowey and cost us in the region of £16,800 equating to £16.80 per tonne.

The Harbour are currently in discussions with The MMO (Marine Management Organisation) in order to try and change the options for dredging to a different type of dredger.

Current Financials

Expenditure	2023/24 Budget
	£
Employee Costs Total	232,000
Premises Costs Total	150,000
Transport Costs Total	7,000
Supplies & Services Costs Total	57,000
Third Party Payments Total	110,000
Recharge Total	60,000
Total Revenue Expenditure	616,000
Income	23/24
Recoveries	(18,000)
Sale of Materials or Products	(32,000)
Rents Received	(135,000)
Maritime income	(40,000)
Dues on Ships	(175,000)
Dues on goods	(50,000)
Dues on passengers	(35,000)
Mooring Fees	(50,000)
Quay Dues	(40,000)
Visiting moorings	(10,000)
Hire of maritime craft/service	(6,000)
Car park	(12,000)
Total revenue income	(603,000)
Net expenditure / income	13,000
Contribution from Harbour Reserve	(13,000)
Movement In Reserves	(13,000)

Note: figures in brackets are surplus

“ The Harbour Authorities recognise the need to conserve the natural environment of the waters under their control through sound environmental management. ”

Present Day SWOT Analysis of the Harbour

Strengths	Weaknesses
<ul style="list-style-type: none"> ● Geographical position ● Varied customer base – shown through Covid. – offering a stable income stream. ● Strong governance with Harbours Board with back up support from wider Council services ● Sheltered anchorage bay from predominant wind and swell directions ● Established engineering support facilities ● Proximity to town and local services ● Proximity to onward transport facilities / links 	<ul style="list-style-type: none"> ● Limited current quay and real estate space ● Lack of investment ● Aging harbour infrastructure requiring high maintenance costs ● Costly manning regime – labour intensive tidal shifts ● Restrictive size of berths and depth of water on berths and approach to Harbour
Opportunities	Threats
<ul style="list-style-type: none"> ● Investment through Town Deals funding ● Opportunities to link in with Coastal Defence projects ● Development of the cruise sector ● Opportunity to increase the leisure boat sector and services available to them. ● Support to local marine business growth. ● Broaden access to wet dock ● Addition of HRO 	<ul style="list-style-type: none"> ● Alternative harbours vying for trade ● Removal of freight Vehicles off the road – restrictions applied by Highways. ● Aged debt owed to Harbour ● Change of vessels using the Harbour on Scilly links ● Conflicting needs of Harbour Users ● Abandoned boats in Harbour costly to dispose ● Impacts of Climate change – frequency of severe storms and rising sea levels ● Increased damage ● Public not supportive proposals ● Local businesses not supporting proposals

Opportunities and challenges

Future trends and demand forecast

The Cornwall Council Maritime Strategy contains a number of aims which are particularly relevant to Penzance Harbour, these include:

Objective	Aim
To promote low carbon maritime enterprise throughout Cornwall as a key component of economic revitalisation and international excellence	<ul style="list-style-type: none"> • Work towards securing a sound economic future for Cornwall through working with industry to provide a wide range of jobs and skills in maritime employment • Aim for excellence in a sustainable maritime economy, including ports and shipping, recreational and commercial fishing, ship repair, leisure, superyacht and boat construction, marine renewables, waste processing and emerging knowledge-based industries
To ensure Cornwall has healthy, safe and vibrant coastal communities that have a strong relationship with the sea and coastal environment	<ul style="list-style-type: none"> • Support and promote sustainable levels of water based and coastal recreational activities including sailing, rowing, surfing, swimming, angling and diving for residents and visitors. Improve the understanding and management of these activities at the coast to reduce conflict and increase safety and enjoyment. • Support neighbourhood planning and regeneration initiatives, including the creation of employment opportunities that maintain and enhance the viability and vibrancy of coastal towns and villages.
To recognise, protect and further develop the working harbour role of Cornwall's estuaries, ports and harbours.	<ul style="list-style-type: none"> • Future proof maritime areas for maritime related business and community uses through protecting waterfront land in urban environments and ensuring that port infrastructure and waterfront locations are at the heart of regeneration schemes. • Protect and develop port infrastructure where is it sustainable and economically viable to do so, so that they continue to be an important part of modern and future maritime Cornwall. • Work towards more co-ordinated management of and advocacy for the ports and harbours, to encourage further economic development whilst balancing the operational, leisure and environmental uses • Where appropriate promote port development that facilitates the expansion of other economic activities including renewable energy, leisure, fishing, freight handling, ship repair, yacht and boat construction. • Ensure that ports and the coast accommodate the promotion of leisure / recreational activities and coastal access without adverse effects on economic activity and environmental quality. • Maximise the opportunities for supporting and promoting sustainable local fisheries and aquaculture including the provision of shore side facilities for handling and processing landings.

Continued over

Objective	Aim
The better connect Cornwall's coastal communities and destinations and support sustainable, low carbon transport.	<ul style="list-style-type: none"> ● Seek solutions to better connect people with waterfront land, beaches, the sea and estuaries and their associated activities (including walkways, cycle routes, affordable public slipways and boating facilities and the removal of physical barriers? Seek to ensure that coastal communities are better connected to each other, particularly by walking, cycling and public transport routes. ● Ensure efficient use of waterfront infrastructure and improve functional connectivity between land and sea, for example through investigating the shared use of facilities, re-use of historic assets and multifunctional role of ports and harbours.
Ensure Cornwall's natural and historic maritime environment and culture is renowned worldwide and is a source of pride and inspiration to residents and visitors	<ul style="list-style-type: none"> ● Understand, maintain and enhance the distinctive character and setting of local coastal towns and villages, ports and harbours. Promote high quality seaside architecture, access, signage and innovative design that is inspired by and sensitive to local seascapes, landscapes and townscape.

Leisure

The leisure market in Penzance Harbour took a downturn during the recent pandemic but has recently been picking up again – we have seen visitors from all over the UK as well as Europe. The harbour is ideally suited for those wishing to head across to the Isles of Scilly as a final stop to replenish and refuel.

The slipway located at the head of Albert Pier is presently used for the launching and retrieving of leisure vessels and the occasional use by the landing craft KMS Terramare. Going forward the slipway could be utilised to assist in the hauling and launching of vessels of a variety of sizes. The addition of a slipway hoist in one guise or another could be invaluable to the locals and visitors alike, operating as a cleaning of the hull service to assisting in underwater repairs or allowing the flexibility to not be tied to certain dates / tides for bringing a yacht into storage. With this would be the addition of a water treatment plant to treat the water utilised in cleaning the hull of a boat ensuring that no wastewater run off enters the eco system as well as complying with the Harbours Environmental Management System.

Commercial

The Wet Dock is the key operational area within the harbour and is the central focus of the Harbour Master's activities. However, the Wet Dock is cluttered and does not capitalise upon the relatively small amount of available space, the mixture of fishing, commercial, liveaboards and leisure require much juggling in order to maintain a relatively efficient but always safe dock. Whilst the harbour staff undertake their best endeavours to accommodate these wide-ranging activities, this places great demands on harbour operations to avoid potential conflicts and to maintain safety. One of the key roles of operational management of the Wet Dock within the Management Plan must be to improve operational management, with the aim of de-cluttering the Wet Dock. The zoning of the wet dock in an attempt to keep sectors segregated would increase safety and overall user experience.

Penzance is ideally suited to operate as a gateway to the Isles of Scilly for the operator – as a sheltered Harbour it can accommodate both passenger and freight vessels on a scheduled run to the Isles of Scilly. Penzance, as a harbour predominantly built in the 1800's has had many opportunities to grow which have been pushed back and still operates with the real estate from that era. The increasing population of, and increase in visitors to, The Isles of Scilly adds to the demands on both the passenger and freight facility and Penzance Harbour has to move with this and accept and embrace these additional requirements.

Cruise operators are returning to Penzance after a number of years away. Penzance, presently, does not have a dedicated cruise ship berth or cruise facility however the option lies to increase cruise calls by offering additional facilities such as a dedicated cruise tender berth. At present when a cruise vessel anchors in Mount's Bay, Lighthouse Pier is closed off and becomes a Temporarily Restricted Area (TRA). There are several options available to Penzance in order to increase cruise calls. Penzance works closely with the local Port Agencies in order to push for additional cruise calls.

Flood defence

In 2017 Royal Haskoning DHV compiled a report on breakwater options concepts. They came up with three breakwater layouts and were asked to assess the effectiveness of providing a calm wave climate within the harbour as well as identifying initial high-level costs. Following this study it was determined that further investigation for Breakwater Option 3, known as the Great Harbour Breakwater, should be undertaken.

The costings for this design have been valued at (2017 figures) between £148 million to £80 million depending upon the layout of the breakwaters, their design and build, the availability of berthing space alongside the breakwaters.

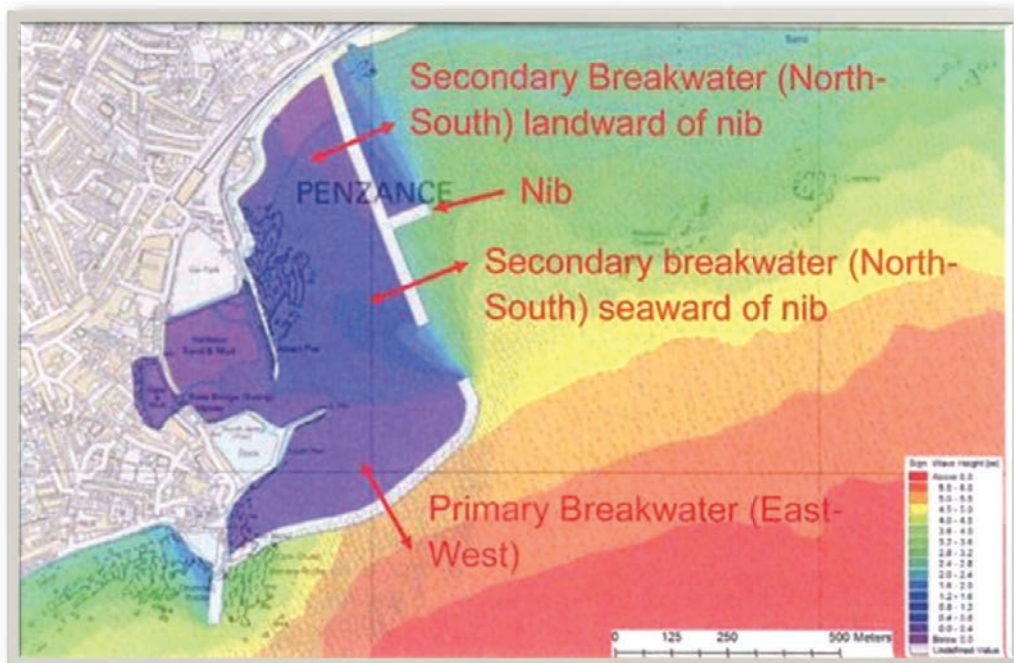


Figure 15. Image of potential breakwaters off Penzance Harbour

Plans for change

To deliver the Management Plan Vision, the harbour's operation and management team will require a broad set of skills and experience and flexibility to be able to manage seasonal changes.

In addition to the statutory maritime and health and safety requirements, this also includes business management and accounting, marketing, personnel management and project management skills relevant to the delivery of the projects set out within the Management Plan.

It is also important that the team buys in to the vision and has enthusiasm for the potential of Penzance Harbour. In light of the above:

- Penzance Harbour management and operations should continue to prioritise health and safety of harbour users and the public.
- Greater emphasis should be placed upon provision of services and identifying scope for new areas of business or improvement.
- Where the current structure does include an adequate level of business management to the operation of the harbour, additional external or internal support may be required to deliver the Management Plan.
- The existing working arrangements with short-term support from staff from other Council ports should be continued and developed to provide greater flexibility.
- Technology which can reduce dependency on full-time manned operations should be further explored where appropriate and safe to do so. For example, remotely operated CCTV coverage which is now in place. Previous HMP's have discussed the options for automated dock gate opening however that is thought by the present Harbour Team as perhaps a step too far.
- The requirement to have free access to the port all times should also be further reviewed, e.g., charge for night-time openings when required with 24 hours advance notice;
- In line with standard accounting practice, it is recommended that financial reporting is improved within the harbour to allow more accurate cost and revenue allocation; and
- In tandem with improvements to facilities, marketing of the harbour as a leisure destination should be improved, to include support of business development initiatives within Penzance / Mounts Bay which relate to the harbour.

In practical terms the Harbour Team will be responsible for:

- Effectiveness of operations in ensuring that the harbour is run efficiently and in a business-like manner;
- Efficient utilisation of valuable harbour and quay space to reduce conflicts and maximise revenues.
- Management and policing of security and safety issues from industrial activity within the harbour;
- Sound commercial management and detailed financial reporting.
- Maintaining general appearance and tidiness around the car park and harbour.
- Engaging regularly with local businesses, wider stakeholders and the public; and
- Being able to support the delivery of the projects identified within this plan in addition to delivering routine operations and maintenance. With regards to the planned projects, the Management Plan has to be capable of not only satisfying the current and future operational needs of harbour users, but also producing final schemes that integrates well with the town and commands public support.

The conclusions and recommendations of this review are integral to the Management Plan and are summarised below.

Previous Project Proposals

Since before 2009 there have been many studies in regards ways to change the layout of The Harbour and look to increase available real estate and increase efficiency of The Harbour. The ones of note and that all went to general public release are:

- Penzance Harbour Feasibility Study Phase 1, March 2003 - Penwith District Council, Beckett Rankine Partnership
- Cornwall Council – Isles of Scilly Link Harbour Improvement Works – PZ Harbour – Halcrow Group Limited in 2009
- Penzance Harbour Improvements – Option Short Listing – Workshop Final Report – Hyder 2011
- Penzance Harbour Proposal Advice – Royal Haskoning DHV - 2012
- Penzance Breakwater – Outline Option Development – Royal Haskoning DHV – 2017
- Penzance Breakwater – EW Breakwater Alignment, Haskoning DHV UK Ltd. 2019
- BEPS Framework – Penzance Harbour Options and Early Feasibility Stage Report – Cornwall Council – WWA January 2021

Penzance Harbour Feasibility Study 2003:

This study discusses the options available to The Harbour to improve efficiency mainly in terms of operating a dedicated freight and a dedicated passenger vessel for The Isles of Scilly. It discussed that the decision some years ago to have two separate vessels was bought on due to Health and safety issues which were caused by inadequate port infrastructure at either end of the route. It goes on to discuss the new vessels being ‘much quicker’ than the present vessels. Thus the new vessel could make more trips in one day and therefore would, on the face of it, not necessarily need to accommodate the same number of passengers as the present ferry, the same could be said for the freight vessel.

Of note all options in this study show a pontoon to the rear of The Rank building for arriving visiting yacht, cruise tenders and fuel / dirty bilge pump out.

The options presented in the report were three.

The Do-Minimum Option

Shows a holding area for Isles of Scilly containers at the Southern end and possibly creeping into the real estate of the Meadery. This also assumes that the vessels operating with this option are based on the same dimensions as those currently operating.

The Intermediate Option

Constrained to improvements within the existing harbour area. It suggests that cargo consolidation must be undertaken away from the harbour but provides an increased area for a passenger terminal and cargo holding area.

It involves an amount of land reclamation to be utilised for cargo holding for the Ro/Ro , passenger service to the South of the harbour and the addition of a roundabout outside The Dolphin pub. There are two options for this. Option A, involving 2,400m² of land reclamation or Option B, involving 10,000m² of land reclamation.

The diagram below depicts this and it can be seen that the ro-ro / cargo ramp within the wet dock and cargo holding area extend to beyond the building line of The Meadery. Involves the dredging of both Albert Pier and Lighthouse Pier.

Full Development Option

Option A – To develop Lighthouse Pier to permit almost unlimited access for cargo by means of a variable linkspan bridge and dredging at the entrance channel to CD 3.3m. This scheme includes the full reclamation option as per the Intermediate Option B. The amount of rock dredging is likely to be high and the option is expected to be very expensive.

Option B – Develop a completely new berth in deep water adjacent to Cairn Olven where the seabed is about CD 4m thereby minimising the need for dredging. This option considers purely Ro-Ro cargo ferries and uses the same reclamation area as for Option A above

Option C – takes the Intermediate Option A and adds some rock armour to the Southern Face of Lighthouse Pier and dredges the approach channel to CD 3.3m. The option therefore considers a new vessel serviced by a fixed Ro-Ro ramp as well as Lift on – Lift off cargo by means of a crane on the vessel.



Figure 16. Penzance Harbour Feasibility Option 1 - Do nothing

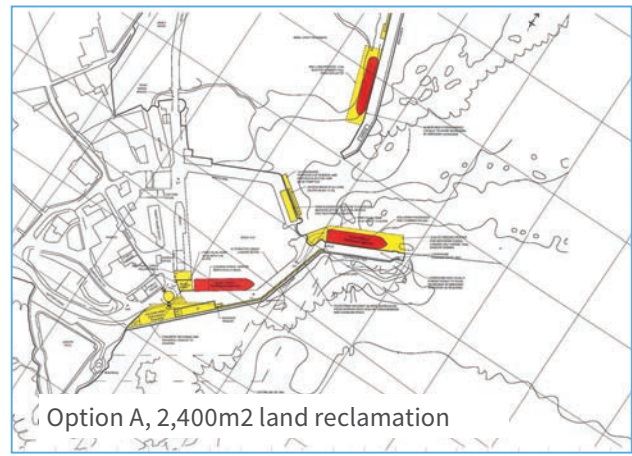


Figure 17. Penzance Harbour Feasibility Study - Smaller reclamation

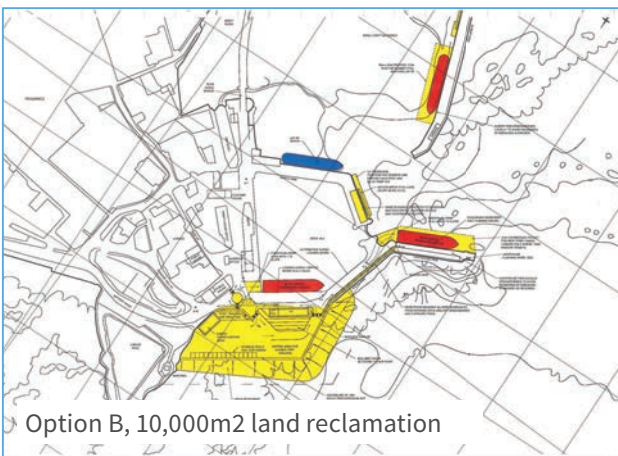


Figure 18. Penzance Harbour Feasibility Study - Larger reclamation

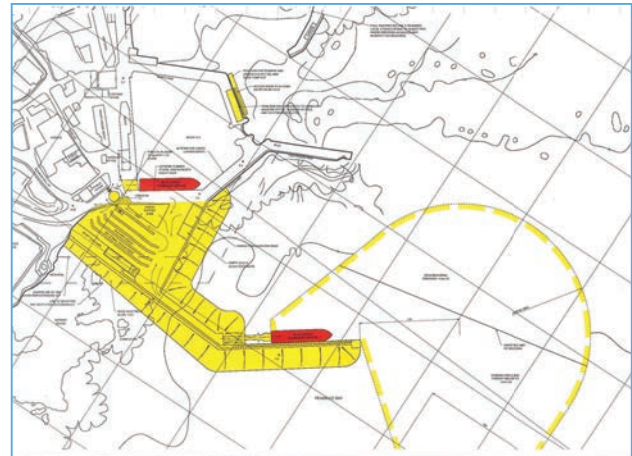


Figure 19. Penzance Harbour Feasibility Study - Land reclamation with new berthing

Cornwall Council – Isles of Scilly Link Harbour Improvement Works – Penzance Harbour – Halcrow Group Limited in 2009

The Halcrow Report of June 2009 looked to focus on ways to improve Penzance Harbour in order to continue to facilitate the operation of both freight and passenger services to The Isles of Scilly. They came up with three proposals:

- Option A – Route Partnership Proposal including the reclamation of land adjacent to South Pier to provide passenger and freight handling facilities
- Option B – Use of Trinity House complex for freight handling facility and use of Waterside Meadery building and adjacent workshops to provide passenger facilities and a drop off area.
- Option C – Out of Town freight facility located at The Long Rock Industrial Estate. Use of Waterside Meadery and adjacent workshops to provide passenger facilities and drop off area.

Each of these options above share the same concept of concentrating freight and passenger operations into one area and proposed a freight handling area where freight could be sorted and stored in a manner which would provide significant improvements over existing arrangements.

Following an exhibition in 2004 all the above options were taken forward into 'route analysis' which considered the Isles of Scilly Link as a whole including the proposed works to Penzance as well as the proposed vessels. Different schemes options were therefore compared using a Benefit Cost Ratio (BCR) in line with the requirements for funding applications from the Department for Transport which will generally only fund the scheme option with the highest BCR.

The preferred option for Penzance Harbour was to locate the ferry terminal facilities on land to the South of the dock area. The results of the route analysis were fed back to the public at the Penzance exhibition in January 2005 and these

proposed harbour layouts were promoted in the Harbour Revision Order lodged in 2005. The project was given conditional funding approval in 2007.

Following conditional approval of funding, Cornwall County Council, on behalf of the route partnership, procured a contractor to develop detailed designs for the preferred option, Option A, and obtain all necessary consents for the works including planning consent. As part of this process further public consultation was undertaken to gain feedback from the public on the details of the scheme that did not form part of earlier consultation such as the buildings and arrangements for access to the facilities. Due to public opinion other options had to be looked at and the options that were given due consideration are options B and C from above.

This report looked at the three options and focused on 4 main themes,

- Functionality of the option
- Freight logistics study
- Environmental Study
- Options Costs

As a conclusion drawn by this study it was seen that all 3 options prove to be functional, workable solutions to the current problems however Option A was seen to have the greatest functionality in terms of freight and passenger handling. Options B and C not addressing the issues associated with accessed from the existing highway onto the quays. Option A also showed the lowest running costs and with respect to the environment there was no clear preferred option.

Options B and C both require the closure or relocation of local businesses to provide space for the passenger facilities with the loss of jobs which could have a socio-economic impact on the local community.

During the consultation phase there was strong local opposition to the options B and C due to the commercial economic activity of the harbour with losses of jobs and revenue.

Overall although both options proposed by Friends of Penzance Harbour (Options B and C) are workable solutions to the requirement to upgrade the harbour facility at Penzance the findings of this report showed that the continued adoption of Option A is supported over other options due to lower ongoing operational costs and the greater functionality of the single site option

Penzance Harbour Improvements – Option Short Listing – Workshop Final Report – Hyder 2011

In 2011 Hyder on behalf of Penzance Town Council produced a shortlisting of options available for Penzance Harbour Improvements. This consisted of 15 options, listed below:

- 1 North Arm Widening for Freight and South Arm continuing for passengers
- 2 Albert Pier Extension for Freight and Passengers
- 3 North Arm limited widening for freight and South Arm for passengers
- 4 North Arm Splay widening
- 5 Wharfside car park and Albert Pier for freight and passengers
- 6 Wharfside car park and land reclamation with Albert Pier for freight and passengers
- 7 Out of Town freight and North Arm for freight with Albert Pier for Passengers
- 8 North Arm Splay widening for freight with Albert Pier for Passengers
- 9 Quay Road for freight and South Arm for passengers
- 10 North Arm for passengers with South Arm in wet dock for freight
- 11 North Arm splay widening for freight with Albert Pier for passengers
- 12 Wharfside car park and Albert Pier for freight with South Arm for passengers
- 13 North Arm limited widening for freight with Trinity House conversion and South Arm for passengers
- 14 Wharfside car park for freight and passengers
- 15 Albert Pier and land reclamation for freight and North Arm / Lighthouse Pier for passengers

The recommendations given in this report is clearly defined as below:

- Advice is required on whether any or all of the options require a Harbour Revision Order. This may require specialist independent legal advice
- Option 3, North Arm limited widening for freight, utilising Inner Harbour over wet dock and South Arm for passengers, should be taken forward to public consultation

- If commercial advantage can be accrued for Penzance from land reclamation to the South of Chyandour Pumping Station, then Option 6A, Wharfside car park and land reclamation with Albert Pier for freight and passengers, should be taken forward to public consultation so that the public's desire to investigate this option is satisfied
- If increased significance is given to cost and programme then the preferred options should become Option 4A, North Arm splay widening for freight in the wet dock and South Arm for passengers
- Option 9, West Quay for freight in the wet dock with South Arm for passengers should be a reserve option should any of the above options fail to be taken forward to public consultation.

It is worth noting that in 2016 Coastal Communities funding was sought for this option and not received and thus this option was not viable / affordable.

The costings for this were in the region of £8 million however this was for a suspended quay-side and it is unsure as to if English Heritage / planning would allow this as it would detract from the current granite faced wall. Also suspended piers bring their own maintenance and cost implications.

SWOT Analysis for Option 3, North Arm limited widening for freight, utilising Inner Harbour over wet dock and South Arm for passengers, including demolition of Meadery

Strengths	Weaknesses
<ul style="list-style-type: none"> ● Removes freight vehicles off the road ● Removes the need to stop traffic to allow freight vehicles to reverse down onto North Arm ● Improves berthing facilities for other vessels, frees up wet dock North Arm for other vessels. ● Improves access for coach, taxi, and car delivery / pick up for passengers ● Improved passenger check in facilities ● Improved baggage handling facilities 	<ul style="list-style-type: none"> ● Costly to increase width of North Arm to allow HGV Manoeuvring ● No improvements to overtopping of South Arm / Lighthouse pier which can cause baggage and passenger handling ● Any improvements to passenger handling facilities would have to pass through English Heritage due to listing status of South Arm ● Loading of cargo vessel would only be able to take place in calm conditions with no surge, swell ● Freight vessel would have to be designed to take the bottom ● Loss of at least one waterfront business
Opportunities	Threats
<ul style="list-style-type: none"> ● The wet dock could be completely reconfigured to maximise harbour revenue ● Potential to take back some of the Rank building for use as Visiting yacht facilities and HM office. 	<ul style="list-style-type: none"> ● Business relocation would possibly require financial compensation and loss of revenue to the harbour from that field.

SWOT Analysis for Option 6A, Wharfside car park and land reclamation with Albert Pier for freight and passengers

Strengths	Weaknesses
<ul style="list-style-type: none"> ● Improved passenger check in facilities ● Improved baggage handling facilities ● Improves access for coach, taxi, and car delivery / pick up for passengers ● Removes freight vehicles off the road at West Quay / Wharf Road ● Removes the need to stop traffic to allow freight vehicles to reverse down onto North Arm ● Improves HGV manoeuvring within the freight depot ● Improves freight storage facilities ● Improves berthing facilities for other vessels within the wet dock 	<ul style="list-style-type: none"> ● Huge costs involved in land reclamation ● No improvements to overtopping of Albert Pier which can cause baggage and passenger handling ● The pier is narrow and passenger improvements and HGV access would adversely affect a Grade 2* listed structure ● The surface of Albert Pier would have to be improved ● Any improvements to passenger handling facilities would have to pass through English Heritage due to listing status of South Arm ● This is a restriction on the passenger vessel which currently has access to deeper waters ● Construction of freight facilities would have to wait until land reclamation was complete ● Loading of the cargo vessel would be restricted to non surge conditions ● Current leisure users on Albert Pier adversely affected ● Freight vessel would have to be designed to take the bottom
Opportunities	Threats
<ul style="list-style-type: none"> ● The wet dock and Wharf Road could be completely reconfigured to maximise the wet dock usage and local business revenue ● Land reclamation to the South of the Chyandour pumping station could provide additional land for development 	<ul style="list-style-type: none"> ● Rock dredging and land reclamation will require agreement with South West Water ● Negotiations will be necessary with The Duchy who probably owns the fundus where land reclamation is proposed ● Any contamination contained within the dredged material will need to be locked into the reclamation in order to receive approval ● The cost will exceed the budget ● Harbour Revision order will require to be sought

SWOT Analysis for Option 4A, North Arm splay widening for freight in the wet dock and South Arm for passengers

Strengths	Weaknesses
<ul style="list-style-type: none"> Improves HGV manoeuvring within the freight depot / North Arm 	<ul style="list-style-type: none"> No improvements to overtopping of South Arm / Lighthouse pier which can cause baggage and passenger handling No improvements for passenger drop off / pick up facilities No facility to remove vehicles off the road Splayed decks reduce the berthing lengths on quays Loss of local business
Opportunities	Threats
<ul style="list-style-type: none"> Option to create free space in way of area of green sheds when not used by freight for use as a public events area 	<ul style="list-style-type: none"> Business relocation would possibly require financial compensation and loss of revenue to the harbour from that field

SWOT Analysis for Option 9, West Quay for freight in the wet dock with South Arm for passengers

Strengths	Weaknesses
<ul style="list-style-type: none"> Improves access for coach, taxi, and car delivery / pick up for passengers Removes freight vehicles off the road Removes the need to stop traffic to allow freight vehicles to reverse down onto North Arm Improves berthing facilities for vessels 	<ul style="list-style-type: none"> No improvements to overtopping of South Arm / Lighthouse pier which can cause baggage and passenger handling Any improvements to passenger handling facilities would have to pass through English Heritage due to listing status of South Arm Other uses of West Quay wet dock are compromised by the addition of the freight facility building Loss of operating space for current freight operator presently running from North Arm – this would involve an improvement of efficiency from them in way of operations. Loss of local business / restaurant facility with the financial implications to Harbour revenue.
Opportunities	Threats
<ul style="list-style-type: none"> The Rank building would be repurposed as a new engineering services facility serving the local fishing sector as well as the local and visiting leisure facility Option to create free space in way of area of green sheds when not used by vehicles for use as a public events area 	<ul style="list-style-type: none"> Business relocation would receive local opposition, current petition up to over 10,000 signatories. Potential that Town Deal finances will not cover all aspects of this option in which case some items might have to go to the private sector, the harbour might have to take a loan or some items might not be delivered.

Penzance Breakwater – Outline Option Development – Royal Haskoning DHV – 2017

The most recent proposal to add a new breakwater scheme to The Harbour from both the North and the West would be incredibly beneficial and although the costings for this vary between £80 million and £148 million (at 2017 prices) depending upon extent of breakwater and expected worst case scenario in regards flood defence / expected maximum wave height. This is a huge infrastructure cost and has been included in the 10 plus year plans as this would require a large amount of funding from potentially private

sources. There are plans afoot to build large wind farms to the North in The Celtic Sea and Penzance could find itself ideally suited to operate vessels out of here for both the install and maintenance.

(see flood defence section for breakwater diagram)

Penzance Breakwater – EW Breakwater Alignment, Haskoning DHV UK Ltd. 2019

This study looked at the options to add a breakwater to the South of the present Lighthouse Pier, the extent of the breakwater is dependant upon which option is selected. The costs vary (2019 figures) from £52.5 million to £76.5 million.

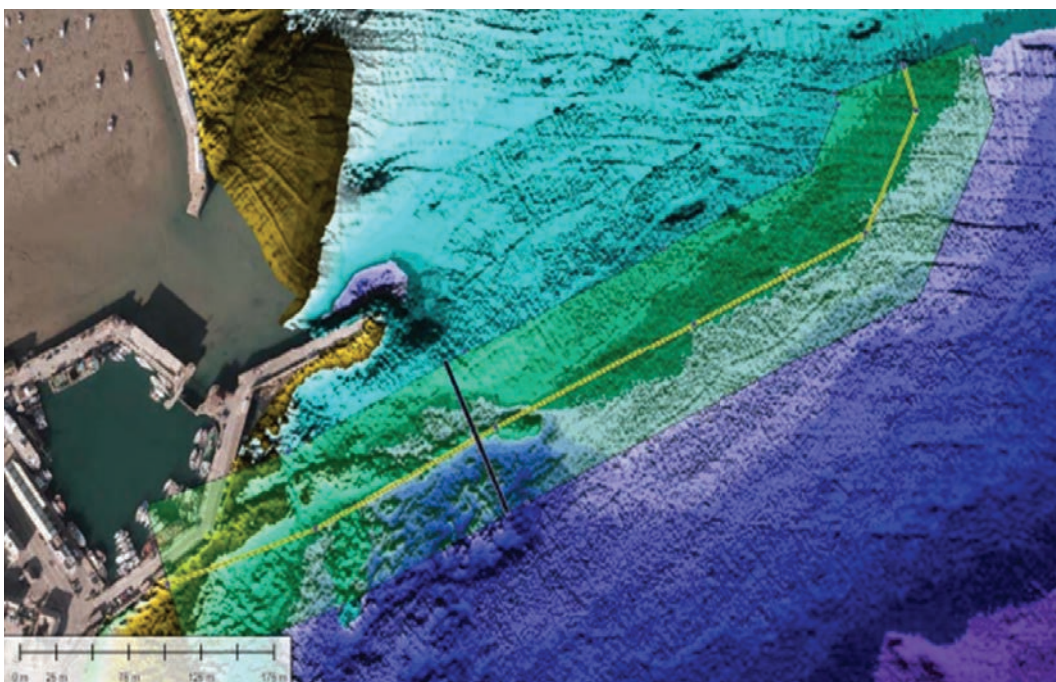


Figure 21. Option 3 of 2019 Haskoning Report

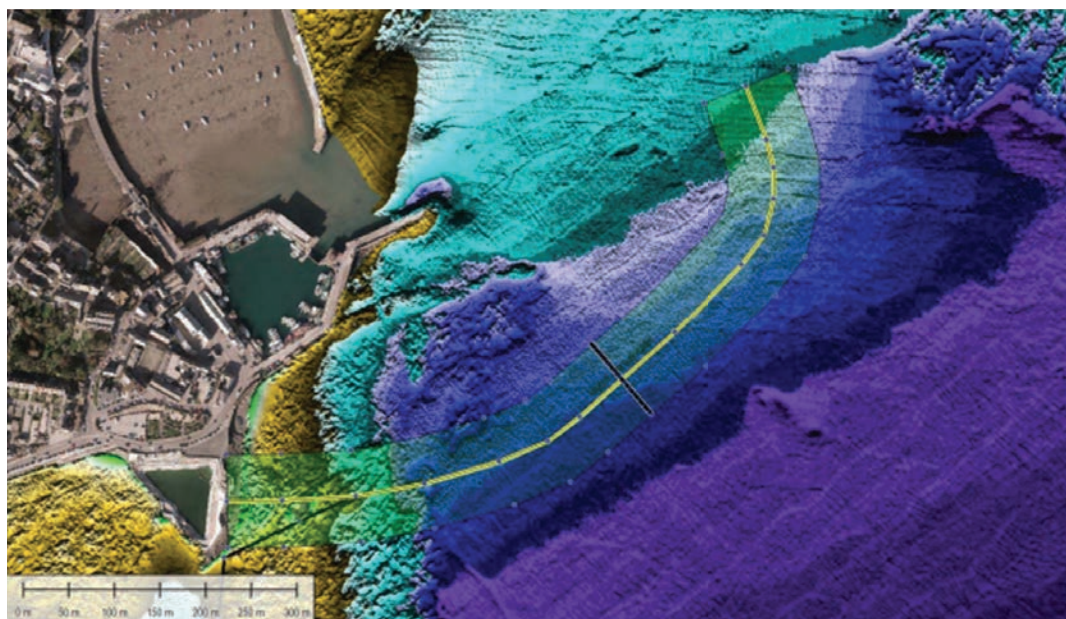


Figure 22. Option 4A of Haskoning Report

Current Project Proposals

The conclusions drawn up from the Hyder Report in 2011 state that “Option 9, West Quay for freight in the wet dock with South Arm for passengers should be a reserve option should any of the above options fail to be taken forward to public consultation”.

The 2016 Penzance Harbour Masterplan had a conclusion that the widening of the North Arm for freight and allowing vehicles off the road was the best option. Due to rising construction costs as well as the impact that this would have on other harbour users and harbour operations the widening of the North Arm has been rejected as an option.

The preferred option is valid only if the current operator maintains the same operating model in regards their freight operations, a change to their freight model would mean that potentially the proposed option would not be the best solution.

The Harbour project is basically a reconfiguration of the existing wet dock to improve its functionality for existing users and to create opportunities for the development of marine leisure and visitor economy facilities. It is envisaged that this will drive increased footfall and spend in the town and create additional work and training opportunities through increased activity in marine leisure and associated services as well as visitor economy. It should be noted that the harbour area is a key node on the proposed Mounts Bay Cycle route.

The preferred option looks to open up the harbour to the public in way of footfall and views – allowing easier access to the harbour waterfront area and reconnecting Penzance to the water.

In summary the work would involve:

- The refurbishment and modernisation of the Penzance Harbour with the aim to boost the local marine and engineering sectors and support the long-term economic sustainability of the area by providing new and affordable space for businesses.
- Penzance Harbour, being the key gateway to the popular Isles of Scillies, the project also seeks to capitalise on this asset and bring further economic benefits for the town. The regeneration will include enhancing the marine facilities for visiting vessels and creating a more attractive site for all to enjoy through alleviating the congestion caused by freight vehicles queuing on the roads.

- Addition of a new custom-built pontoon to the East of The Rank Building which would serve primarily as a cruise ship tender dock facility but would also double up as visitors and locals berth facility alike.
- The addition of a boat lift and wash down facility at the slipway for use by moorings holders and visitors alike, this will aim to increase the flexibility to all for lifting and launching their boats and allowing for repairs to be made utilising the services of local marine engineering services.

One ambition of the above is that these works significantly improve the efficiency and customer experience for both freight and passenger customers and eliminate the impact of freight traffic along Wharf Road and across the Ross Bridge as well as negating the need for “on road” stacking of freight traffic. Furthermore, it would release the wet dock for development of marine leisure facilities and the expansion of the related services/engineering businesses.

The regeneration of West Quay in Penzance to accommodate a freight facility and to facilitate the removal of vehicles off the road onto a dedicated off-road layby enabling vehicles to be loaded and unloaded in an efficient manner without disturbing the traffic flow around Wharf Road.

The removal of the current ‘green sheds’ that incorporate Penwith Marine Services as well as The Waterside Meadery to be replaced by a freight facility whose footprint will match that of the original building which had stood on West Quay operating as a freight facility up until the 1900’s. The location and layout of West Quay makes this an ideal area to develop as a freight handling facility, its proximity to the road allowing vehicles to pull in off the road and in the general direction of traffic as well as being the widest part of the quay area makes for the best possible location for freight handling facility.

Penwith Marine would look to relocate to The Rank Building following some modification work and this will allow them to expand their workforce with the potential for taking on some apprentices.

The Southern end of the Rank Building would look to be developed to incorporate an improved visitor experience with dedicated shower and toilet facilities, laundrette, Harbour Masters office and reception area with a meeting room.

This option allows definitive zoning of The Harbour, leisure on South Quay, freight and dry dock facilities on West Quay and fish landing and engineering facilities on North Arm and under The Rank building.

Also within the proposed option would be a dedicated pontoon berth for cruise ship tenders which, when not in use, would be ideally situated for both visiting yachts and local boats alike.

Within the newly developed boat storage area a dedicated lift facility would be installed incorporating a mobile travel hoist up to a weight limit of 16 tonnes as well as a boat wash facility with incorporated water recycling system for environmentally friendly boat cleaning.

SWOT Analysis for Proposed Option

Strengths	Weaknesses
<ul style="list-style-type: none"> ● Improves access for coach, taxi, and car delivery / pick up for passengers ● Removes freight vehicles off the road ● Removes the need to stop traffic to allow freight vehicles to reverse down onto North Arm ● Improves berthing facilities for vessels 	<ul style="list-style-type: none"> ● No improvements to overtopping of South Arm / Lighthouse pier which can cause baggage and passenger handling ● Any improvements to passenger handling facilities would have to pass through English Heritage due to listing status of South Arm ● Other uses of West Quay wet dock are compromised by the addition of the freight facility building ● Loss of operating space for current freight operator presently running from North Arm – this would involve an improvement of efficiency from them in way of operations. ● Loss of local business / restaurant facility with the financial implications to Harbour revenue.
Opportunities	Threats
<ul style="list-style-type: none"> ● The Rank building would be repurposed as a new engineering services facility serving the local fishing sector as well as the local and visiting leisure facility ● Option to create free space in way of area of green sheds when not used by vehicles for use as a public events area 	<ul style="list-style-type: none"> ● Business relocation would receive local opposition, current petition up to over 10,000 signatories. ● Potential that Town Deal finances will not cover all aspects of this option in which case some items might have to go to the private sector, the harbour might have to take a loan or some items might not be delivered.

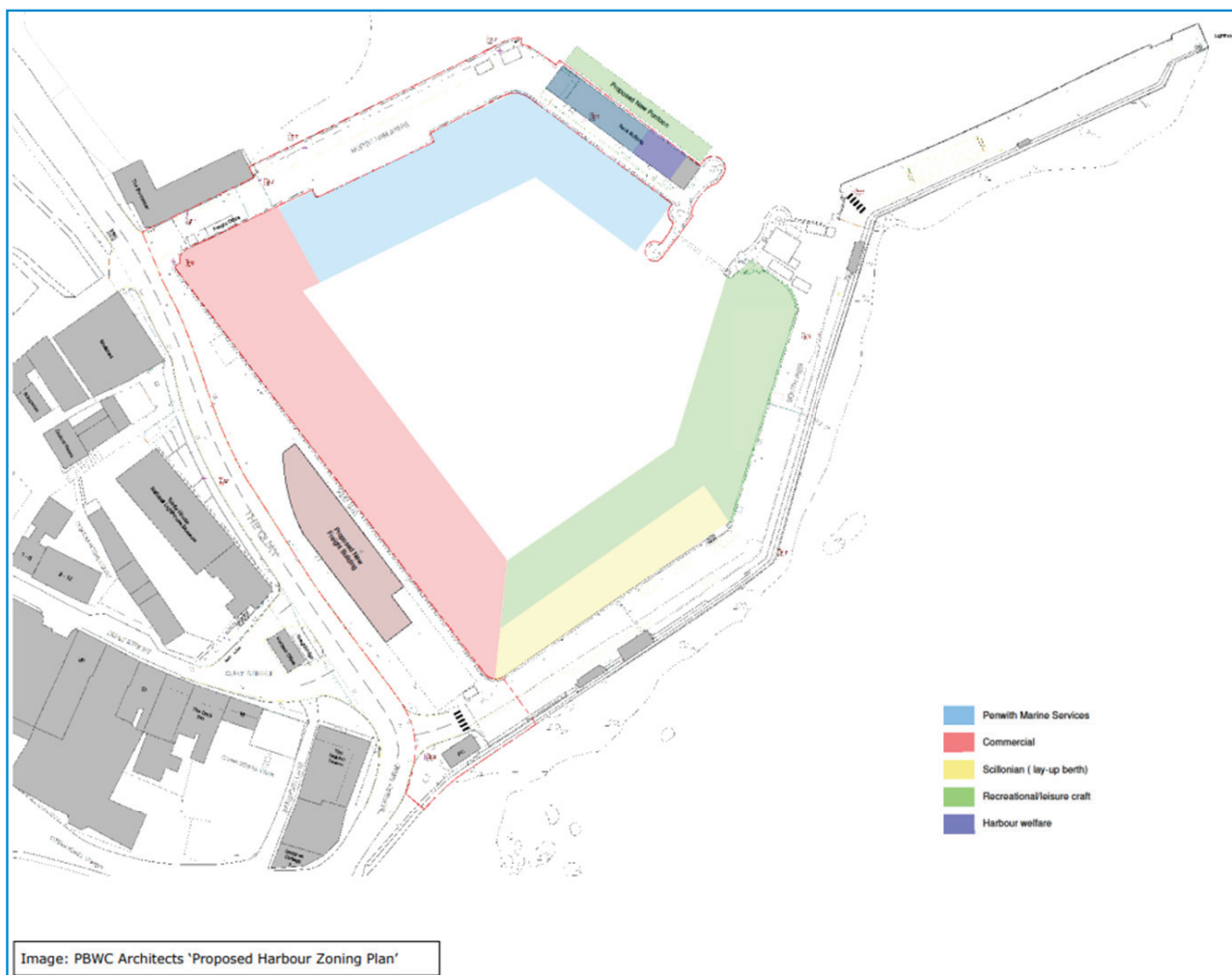


Figure 23. Zoning diagram

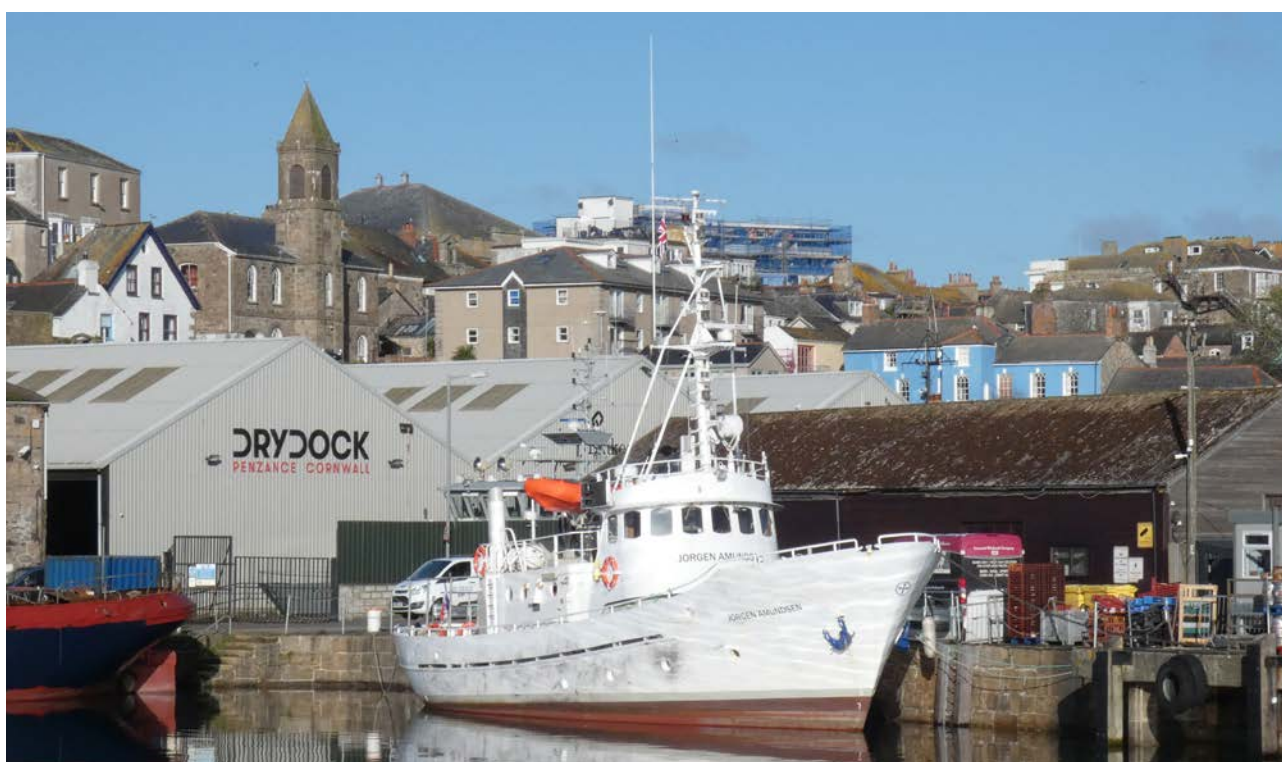


Figure 24. Jorgen Amundsen in lay up berth on North Arm



Figure 25. Present situation on West Quay showing 'green sheds' and Meadery



Figure 26. Freight Building on West Quay with HGV unloading



Figure 27. Freight Building showing Public Space on non freight day.

Should the funding for Town Deal not cover the full scope of works, including boat lift, wash down facilities, cruise tender pontoon, refurbishment of Rank building, demolition of the Meadery and construction of new freight facility, then the works have to be prioritised with an option for the present operators of the freight vessel to the Isles of Scilly to design and erect a freight facility subject to approval by Harbours Board and all appropriate planning regulations, with the freight operator to lease the land from the Harbour.

At present there has been Town Deal funding secured to the value of £2.95 million for the harbour project with a further £1 million match funding from Cornwall Council, a total value available through TD funding of £3.95 million.

Project Benefits and Risks

It should be borne in mind that although the below is a guide timeframe is funding becomes available at an earlier date then the harbour would look to complete some of the projects earlier.

<p>Phase 1 Up to 12 months</p> <ul style="list-style-type: none"> ● Removal of abandoned boats in wet dock offering increased berth space / fish landings / visitors ● Continue to improve lighting ● Continued improving of Harbour towards management of vehicles on Harbour Estate ● Disposal of abandoned boats in storage compound and increased car parking, ● Developing use of technology to increase efficiency – such as Harbour Assist for planned maintenance and inspections ● Commence a cycle of pointing harbour walls ● Repairs to Revetment 	<p>Phase 3 From 5 – 10 years</p> <ul style="list-style-type: none"> ● Continued upgrading of infrastructure such as improved access on Albert Pier ● Remodel entrance to South Pier including the toilet block on South Pier ● Improved passenger experience within harbour ● Pontoon proposal in the wet dock ● Compliant pedestrian bridge to go across the wet dock gate allowing better flow of members of the public and opening up the harbour further to members of the public and harbour users alike
<p>Phase 2 From 1 – 5 years – will require moderate investment</p> <ul style="list-style-type: none"> ● Boat lift and wash down facilities ● Cruise reception pontoon ● Improved Harbour Users facility and Harbour Office ● Support and develop engineering and current fishing sector with the development of the Rank building ● Development of West Quay including off-highway waiting area and load / unload area ● Toilet facilities Albert Pier 	<p>Phase 4 Beyond 10 years</p> <ul style="list-style-type: none"> ● Breakwater proposals – possible work with Celtic Sea Wind farms such as the Breakwater Proposal either off Battery Rocks or located out in Mounts Bay.

Item	Benefits	Constraints
Phase 1 Up to 12 Months		
Removal of abandoned boats in wet dock	Additional quay space, removes threats of sinking and pollution	Costly to harbour
Continue to improve lighting	Comply with HSE and improves security and passenger experience	Costly and issues with passing through English Heritage due to nature of quay
Continued improving of Harbour towards management of vehicles on Harbour Estate	Reduced congestion and cleaner quay space	Threat of unsettling Harbour Users
Disposal of abandoned boats within storage area and increased car parking	Additional space for revenue generating, reduces chances of accidents / incidents / pollution	Threat that in several years owner might suddenly become responsive to emails / chasing
Developing use of technology to increase efficiency	Efficiency saving	Not everyone used to technology
Commence cycle of pointing walls	Increase survivability of quay walls	Costly and timely
Repairs to Revetment	Improved safety for boat access, proving to Harbour Users of continued investment within the harbour estate	Costly
Phase 2 From 1 – 5 Years		
Boat lift and wash down facilities	Flexibility for yachts to lift out and have work done at a time to suit.	Costs, increased space required for manoeuvring and loss of some storage spaces on the hard during Winter months when space is at a premium.
Cruise reception pontoon	Offers cruise passengers dedicated ISPS pontoon space and easy access, possibly DDA compliant	Costly to implement.
Improved Harbour Users facility and Harbour Office	Good facilities for visitors and residents alike. Improved and more professional offices and meeting room with the option for potential training room	Based on the Isles of Scilly Steamship Company relocating to West Quay freight facility.
Support and develop engineering and current fishing sector with the development of The Rank Building	Improved facilities for all Harbour Users if PMS expand their leisure market and promotes more fishing vessels in.	Expansion of Engineering facilities would require an increase in their footprint of building meaning other areas / businesses could suffer.
Development of West Quay including off-highway waiting area	Removes vehicles off the road to improve traffic flow through Wharf Road and improves safety of pedestrians and cyclists.	Potentially costly and repercussions are that some Harbour business' might have to relocate.

Item	Benefits	Constraints
Toilet facilities Albert Pier	Improved facilities for Harbour Users	Due to remote location of facilities away from Office would require monitoring.
Phase 3 From 5 – 10 Years		
Continued upgrading of infrastructure such as improved access to Albert Pier	Enabling better and safer access for Harbour Users onto their boats.	Grade 2* listed pier.
Remodel of South Pier including toilet block on South Pier	Improved passenger experience	Costly for minimal return and Grade 2* listed pier.
Improved passenger experience within harbour	As above – with laybys and passenger handling facilities could increase traffic flow.	Real Estate at a premium
Pontoon proposal within wet dock	Increased accessibility for yachts.	Reduces capacity of wet dock in way of visiting yachts, semi-permanent structure would reduce flexibility within the wet dock
Compliant pedestrian bridge to go across the wet dock gate allowing better flow of members of the public and opening up the harbour further to members of the public and harbour users alike	Increases flow of pedestrian traffic around harbour and ensure compliance for pedestrians across the wet dock gates	Costly and if not managed correctly could impede the passage of vessels through the wet dock gates.
Phase 4 – Beyond 10 Years		
Breakwater / land reclamation proposals	Flood defence benefits, added anchorage / mooring options, increases longevity of historic piers, protects harbour and surroundings	Costly. Environmental concerns.

Risks for delivery

Description	Impact	Mitigation
Funding unavailable for projects	Projects cannot proceed	Funding sources (private, public and grant) to be explored
Funding timeline lapses, funds no longer available.	Projects cannot proceed	Attempt to progress with options quicker
Community Support	Lack of support could delay or prevent projects proceeding	Continued engagement with the community groups and other stakeholders to identify and respond to any concerns.
Planning / HRO / MMO approvals	Some of the more significant projects may require regulatory approvals to allow them to proceed	Projects to be reviewed against regulatory requirements and ability to deliver within Harbour Authority powers
Existing harbour businesses relocate or cease to trade	Potential short term impact on revenue Proposed zoning plan may no longer be relevant	Monitor business and market trends to pre-empt changes Continue to engage with key tenants in relation to long term planning and commitment
Capacity of Harbour Authority to deliver the projects	Delays or commercial impacts when in contract	Projects to be delivered by Cornwall Council

Actions and Implementations

A range of detailed conclusions and recommendations are provided within the individual sections of this Management Plan. In summary, the key conclusions and actions recommended for adoption and implementation by Cornwall Council are as follows:

- In order to bring about a sustainable future and the potential for longer term regeneration and growth within Penzance Harbour, a change in the current operation, management and focus of the harbour is required. The Vision set out within the Management Plan should be used as a basis for informing future decision making and direction for the harbour.
- The harbour is a key asset for Cornwall Council and provides a significant opportunity for economic growth and regeneration within Penzance. Projects proposed within the Management Plan are designed to improve harbour operation, appearance and perception and to increase revenue returns to Cornwall Council. In order to bring about their implementation, it is important that Cornwall Council implements the recommendations made within the Management Plan, which will involve further engagement with key businesses around the harbour.
- The Management Plan assumes that freight services to the Isles of Scilly will continue to operate from Penzance. It also assumes that fishing vessels will continue to use Penzance, both for landing catch and for maintenance. These activities provide an important financial contribution to Penzance harbour, and are also significant in terms of supporting the working nature of the Wet Dock.

Taking into account the key findings and conclusions within the Management Plan, it is recommended that:

- Cornwall Council Harbours Board adopt, implement and deliver the Penzance Harbour Management Plan in order to bring about short term improvement and stimulate long term sustainable economic and physical growth for Penzance.
- The revised strategy adopted for Penzance Harbour should bring about a move away from the disparate mix of uses currently operated within the Wet Dock to a more focused range of uses. The Projects recommended within the Management Plan are designed to achieve this.
- A Management Plan programme is prepared, and resources identified to take the individual project forward through the various stages, e.g., feasibility, scoping, planning, procurement and construction.

The adoption of the Management Plan should not be the close of the Engagement Process. The key element of a successful and vibrant harbour will be the people who use the harbour as well as those who may be attracted to become new users and visitors. Cornwall Council will need to continue engagement and dialogue with the various stakeholders throughout the course of the Management Plan life and when taking into account longer term proposals for the harbour. Maintenance of Stakeholder liaison will be an important role for any individual chosen to implement the projects proposed within the Management Plan

Appendix 1 – Financial Plan based upon Current Proposal

Expenditure	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
Administration										
Employee Expenses	232,000	232,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000
Premises Expenses	150,000	160,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000	170,000
Transport Expenses	7,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
Supplies and Services	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000	57,000
Third Party Payments	110,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Recharges	60,000	60,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Total Revenue Expenditure	616,000	548,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000	576,000
Income	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	31/32
Recoveries	(18,000)	(18,000)	(18,000)	(18,000)	(18,000)	(18,000)	(18,000)	(18,000)	(18,000)	(18,000)
Sale of Materials or Products	(32,000)	(32,000)	(45,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Rents received	(135,000)	(120,000)	(120,000)	(120,000)	(120,000)	(120,000)	(120,000)	(120,000)	(120,000)	(120,000)
Maritime income	(40,000)	(40,000)	(60,000)	(70,000)	(70,000)	(70,000)	(70,000)	(70,000)	(70,000)	(70,000)
Dues on Ships	(175,000)	(175,000)	(175,000)	(175,000)	(195,000)	(195,000)	(195,000)	(195,000)	(195,000)	(195,000)
Dues on Goods	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Dues on Passengers	(35,000)	(40,000)	(50,000)	(60,000)	(60,000)	(60,000)	(60,000)	(60,000)	(60,000)	(60,000)
Mooring Fees	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Quay Dues	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)
Visiting Moorings	(10,000)	(10,000)	(15,000)	(15,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Hire of Maritime Craft/Service	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)	(6,000)
Car Park	(12,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Total Revenue Income	(603,000)	(601,000)	(649,000)	(674,000)	(699,000)	(699,000)	(699,000)	(699,000)	(699,000)	(699,000)
Net Expenditure / (Income)	13,000	(53,000)	(73,000)	(98,000)	(123,000)	(123,000)	(123,000)	(123,000)	(123,000)	(123,000)

Note: Figures in brackets show surplus

Appendix 2 - Penzance Harbour - Sub Project Totals

	Rank Building, including Extra Over for Concrete Repairs and Basic Fit Out	New Pontoon	New Travel Hoist	Demolition Old Freight / Meadery, New Freight, Resurfacing	SUB TOTAL	HISTORICAL NEW FREIGHT BUILDING UPLIFT COST	TOTAL
A Base Construction	£ 874,538.65	£ 770,000.00	£ 345,000.00	£ 1,510,561.14	£ 3,500,099.79	£ 750,000.00	£ 4,250,099.79
B Services Share	£ 53,450.00			£ 53,450.00	£ 106,900.00		£ 106,900.00
C Prelims & OHP	£ 280,252.57	£ 232,540.00	£ 104,190.00	£ 472,331.36	£ 1,089,313.94	£ 226,500.00	£ 1,315,813.94
D Inflation	£ 103,908.75	£ 86,218.44	£ 38,630.34	£ 175,125.46	£ 403,882.98	£ 83,979.00	£ 487,861.98
E Construction Total (Rounded)	£ 1,312,000.00	£ 1,089,000.00	£ 488,000.00	£ 2,211,000.00	£ 5,100,000.00	£ 1,060,000.00	£ 6,161,000.00
F Professional Fees	14% £ 183,680.00	£ 152,460.00	£ 68,320.00	£ 309,540.00	£ 714,000.00	£ 148,400.00	£ 862,540.00
G Risk	20% £ 299,136.00	£ 248,292.00	£ 111,264.00	£ 504,108.00	£ 1,162,800.00	£ 241,680.00	£ 1,404,708.00
H Project Total (Rounded)	£ 1,795,000.00	£ 1,490,000.00	£ 668,000.00	£ 3,025,000.00	£ 6,977,000.00	£ 1,450,000.00	£ 8,428,000.00

Assumptions

- a* This OCE is based on the scope information as listed in Appendix A. Specific OCE basis is as follows:
- b* A notional allowance included for demolition of the existing freight facility and Meadery (no details on existing build other than GIFA).
- c* New Freight Facility - based on a typical small steel framed industrial unit (<1,000m²) shell only with office, adjusted for: piled foundations; suspended ground floor slabs; circa 50kg/m² steel for the frame to cater for future new storey (assumptions provided by WSP) - plus uplift for main access double shutters and heavy duty cladding
- d* Banks Building - Concrete repairs as per SWCR quote. Assumed basic WC's and power and PBWC's layout, and 'box within a box' included. Assumes existing floor levels are not compromised by any future flood risk assessment.
- e* External works - based on take up of existing hard landscaped areas as indicated on PBWC scope information and replacement with new concrete surface finish. Main area of replacement is informed as being similar to the Western Pier re-surfacing works recently undertaken. Costs based on information received from Cormac 19/1/22. E/O cost for area identified as taking HGVs - based on cot data from Cormac rec'd 19/1/22
- f* Car Park - order of cost, includes information requested to be included by Cornwall Council based on a recent Cormac estimate. Please note the Cormac estimate includes a number of specific assumptions and exclusions of its own which are not addressed specifically within this Order of Cost. Also, this Order of Cost assumes all project scope carried out by a single Main Contractor (inclusive of the Car Park works).
- g* Main services and Utilities - notional allowance included for connecting the Banks building fit out and new Freight Facility to the existing mains in the street.
- h* Pontoon and hoist - based on email from James Broughton 6 March 2023.
- i* Figures used within this Order of Cost are based on £/m² gross internal floor area - GIFA for the buildings and external area for external works (areas as indicated by PBWC).
- j* The contract will be let using a single stage competitively tendered traditional procurement route, procured on RIBA Stage 4 design.
- k* Rates, used are current at 1st Quarter 2023. The £/m² are based on reference data available mid point 2020 and have been uplifted to 1Q2023 to provide a current comparator using the BCIS All-in TPI index as at 16/3/23 (6.5%).
- l* Also included is an inflationary allowance assuming a start on site of Q3 2023 and a construction midpoint of Q4 2023 (based on programme assumptions in the TPI); based on the current BCIS All-in TPI this equates to an inflationary allowance of 5.7%.
- m* The project will be carried out in normal working hours, Monday to Friday, with no phasing or sectional completion.
- n* The following main contractor allowances have been included -
- Preliminaries** - included at 20% on construction cost sub-total - see pt 1.5 in Executive Summary, based on current market trends.
- Main Contractors Overhead & Profit, Risk and Professional Fees post novation** - included at 8.5% on construction cost sub-total and MC preliminaries, Assumed 5% OH&P, 2% post novation professional fees and 1.5% risk margin.
- o* Professional fees & Surveys included at 14% of construction cost including MC oncosts and inflation.
- p* Client risk included at 20% on construction cost including MC oncosts and inflation, and professional fees. This is based on the immaturity of the design.
- Exclusions**
- a* VAT
- b* Site acquisition costs.
- c* Client set up costs.
- d* Facilities management and ongoing maintenance costs (decant costs and running costs of the building).
- e* Legal fees.
- f* Local Authority fees and charges relating to section agreements and the like (Section 106 etc).
- g* Out of hours working/ part occupancy.
- h* Financing costs.
- i* Alternative procurement routes.
- j* IT equipment and other office equipment - to be provided by Operator.
- k* Loose FF&E including any reception desks etc.
- l* There are no direct additional allowances in terms of risk/cost or programme currently for the COVID19 pandemic.
- m* Works to existing quays other than re-surfacing to areas indicated on PBWC scope, and installation of support tracks to pontoon.
- n* Refrigeration equipment in new freight building and shelving / racking - assumed to be provided by operator.
- o* Asbestos removal associated with demolition of the existing freight and Meadery buildings plus any associated with the Banks building.
- p* Disposal of any contaminated material (non asbestos) arising from the demolition and re-surfacing works.
- q* Ground contamination/remedial works, archaeological excavations.
- r* Co-ordination for interfaces with any adjacent Project.
- s* Impact of any revised flood risk assessment.

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